



McHenry County
Zoning Board of Appeals - Zoning Hearing
AGENDA

April 22, 2026, 1:30 PM
County Board Conference Room
Administration Building, 667 Ware Rd., Woodstock, IL 60098

Pages

1. CALL TO ORDER
2. ROLL CALL
3. NEW BUSINESS / PUBLIC HEARING
 - 3.1 Z26-0010 McHenry Solar Farm LLC, A1-A1C, Nunda Twp 2
4. OLD BUSINESS
5. PUBLIC COMMENT
Topics unrelated to public hearing - 3-minute time limit per speaker
6. ANNOUNCEMENTS
7. ADJOURNMENT

Staff Report for the McHenry County Zoning Board of Appeals

Application: #Z26-0010

Hearing: April 22, 2026

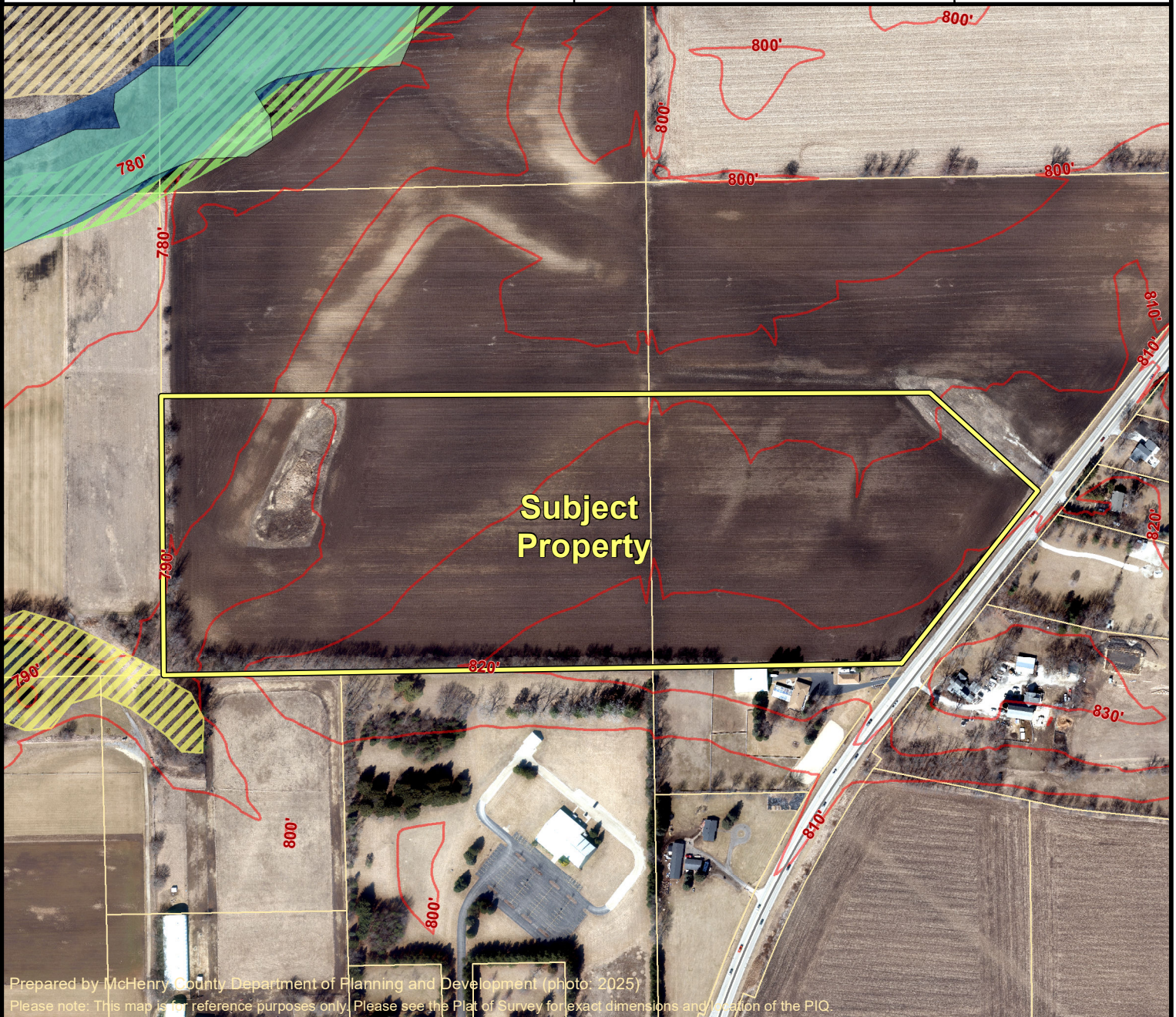
PINs: Parts of 14-09-100-001 and 14-08-200-002

Applicant: McHenry Solar Farm LLC

Location: The property consists of roughly 37 acres and is located on the west side of S Crystal Lake Road, approximately 1,500 feet north of the intersection of Mason Hill and S Crystal Lake Roads, in Nunda Twp, IL.

Request: Conditional Use Permit to allow for a Commercial Solar Energy Facility

Aerial Map



Subject Property

Prepared by McHenry County Department of Planning and Development (photo: 2025)

Please note: This map is for reference purposes only. Please see the Plat of Survey for exact dimensions and location of the PIQ.

Elevation

(feet above sea level)

Contours



ADID Wetland Map 2005

- High Functional Value Wetland (hfvw)
- High Quality Wetland (hqw)
- Wetland (w)
- Farmed Wetland (fw)

FEMA Flood Hazard Areas

- 0.2 % Annual Chance of Flood
- 1% Annual Chance of Flood
- Floodway

Historic Flood Zone



Feet
200 100 0 200 400
1 inch equals 400 feet



Staff Report for the McHenry County Zoning Board of Appeals

STAFF COMMENTS

The following comments and conclusions are based upon staff analysis and review prior to this hearing and are to be considered viable unless evidence is established to the contrary. Staff may have additional comments based upon the testimony presented during the public hearing.

BACKGROUND & REQUEST SUMMARY

The applicant is requesting a Conditional Use Permit to allow for a Commercial Solar Energy Facility. The subject property consists of approximately thirty-seven (37) acres and is zoned A-1 Agriculture District. According to aerial photography, the property is currently in crop cultivation.

According to the narrative, the applicant is proposing a 6.5-megawatt commercial solar energy facility, enclosed by an eight (8)-foot tall security fence, per the regulations of the National Electric Code. The nearest adjacent residence on a nonparticipating parcel is over one-hundred fifty (150) feet from the proposed location of the solar array.

Note: On January 27, 2023, the State of Illinois passed Public Act 102-1123 (further modified under trailer bill P.A. 103-0580 on December 8, 2023), which modifies regulations for proposed commercial solar energy facilities. The County of McHenry has amended the Unified Development Ordinance, as of April 18, 2023, in order to comply with the State's regulations.

MCHENRY COUNTY UNIFIED DEVELOPMENT ORDINANCE

- The applicant must meet the Principal Use Standards for a Solar Farm, listed in County Code Section 16.56.030.PP of the UDO (with the exception of any changes provided by Public Act 102-1123, as outlined above).

STAFF ANALYSIS

Current Land Use & Zoning

The property is adjacent to Agricultural uses to the north, south, and west, Government/Institutional to the south, and Single-Family Residential and Vacant to the east. The surrounding zoning consists of A-1 Agriculture to the north and east, E-3C and E-3V Estate to the south, and the Village of Bull Valley to the west and south.

2030 Comprehensive Plan Future Land Use Map

The proposed conditional use permit is not consistent with the County's future land use designation of Estate.

2030 Comprehensive Plan & 2030 and Beyond Analysis

The 2030 Comprehensive Plan and 2030 and Beyond Update support the construction of commercial solar energy facilities within existing agricultural areas. (See analysis below)

McHenry County 2030 and Beyond, Adopted October 18, 2016

Big Idea #1 Let's make our communities healthy, active, and green

"We can make it happen by preserving our groundwater aquifers, lakes, rivers, streams, and their natural functions." (p.11)

- The McHenry County Water Resources Division has determined that the panels will not be calculated as an impervious surface for the development permit. This is because the panels are proposed to be elevated above the ground several feet and supported by driven piles. The petitioner will be required to obtain a Stormwater Management Permit which will include calculations for all impervious areas, including but not limited to the piles, access drives, and equipment pads.

Big Idea #2 Let's build on our strengths

"We can make it happen by recognizing the economic and social importance of our agricultural industry." (p. 15)

- The McHenry County Soil and Water Conservation District's Natural Resources Inventory report (#26-001-4784) indicates that the LE score is 84.84 out of a possible 100 regarding soils for crop production. This is due, in part, to approximately 96.5% of the property being comprised of prime farmland soils. The concerns that the development of solar facilities in the county will result in the loss of farmland, particularly prime farmland can be remediated because, unlike other forms of development, the land is preserved for future farming. Also, the proposed native vegetation may slow the velocity of runoff, capturing sediments or other pollutants and allowing water to infiltrate into the soil, thereby reducing potential for erosion and sedimentation and improving soil conditions.

Big Idea #3 Let's grow smarter

"The county should also be open to commercial enterprises in the unincorporated areas that are major generators of jobs or tax revenues for which no suitable municipal sites exist elsewhere in the county, or that are dependent upon a direct proximity to agriculture or open space and designed in harmony with these areas." (p. 17 & 21)

- Due to the size and scale of the project, undeveloped acreage is important to the siting and development of a commercial solar energy facility. The applicant should be prepared to address how the proposed use relates to the statement above regarding generation of jobs, tax revenues, and siting of the facility.

Big Idea #4 Let's expand our economy

"We can make it happen by improving infrastructure, including freight and commuter rail, access to major regional and interstate roadways, and access to high-speed internet services." (p.22)

- The proposed commercial solar energy facility will provide a renewable energy source to the electrical grid as an alternative to energy created from sources with a larger carbon footprint.

McHenry County 2030 Comprehensive Plan, Adopted April 20, 2010

Community Character & Housing

No applicable text.

Agricultural Resources

"Encourage owners of parcels with the greatest potential for productive agricultural use, such as parcels with an LE score of 80 or above that are in agricultural use and contiguous with other such parcels, to preserve their parcels for agricultural uses." (p. 38, #7)

- Commercial solar energy facilities typically have a life of approximately thirty (30) to forty (40) years and after that time the property may return to agriculture.

"Continue joint participation with the USDA Natural Resources Conservation Service and McHenry County Soil and Water Conservation District in educational programs regarding best soil conservation practices and improving rural water quality." (p. 38, #20)

- The McHenry-Lake County Soil and Water Conservation District recommends that areas between panels be planted to a native prairie mix to help increase water infiltration and reduce runoff from the site. It is recommended that a planting and maintenance plan be developed with the landowner to ensure that noxious weeds are controlled, and native plantings are properly installed and managed. The petitioner is encouraged to add pollinator species to this planting plan. The Soil and Water Conservation District also recommends, upon decommissioning, that if any underground lines are to remain, they should have at least five (5) feet of cover to adequately allow farming operations to commence after the facility's removal.

Greenways, Open Space & Natural Resources

"Protect environmentally sensitive areas from negative impacts of adjacent land uses." (p.57, #9)

- The IDNR found record of potential protected resources in the vicinity of the project location – Blanding's Turtle - but concluded that adverse effects were unlikely, as long as the applicants adopted their recommendations as outlined in their January 21, 2026, letter. The endangered species consultation was closed.

"Encourage the design of developments to achieve the broader sustainability of human and natural communities, including the social and economic dimensions of sustainability." (p. 57, #15)

- The proposed commercial solar energy facility will contribute to a broader sustainability objective in that it will produce clean energy as a replacement for energy produced by unsustainable means.

Water Resources

"Preserve and enhance the chemical, physical, biological, hydrologic integrity of streams, lakes and wetlands." (p.63)

"...land use and development should be carefully examined and regulated within sensitive groundwater recharge areas to ensure that the water quality, quantity, and natural recharge functions of the area are safely maintained." (p.67)

- The applicant will be required to obtain a Stormwater Management Permit prior to construction.

Economic Development

"Decrease the degree to which the residential sector in the County must pay for services." (p.87)

- The state legislature has approved standards that would regulate how commercial solar energy facilities are assessed for tax purposes. The standards would result in an increase from the current assessed value of agricultural land.

Infrastructure

"It is estimated that every 120 MW of solar power would eliminate 1.7 million tons of carbon dioxide emissions which is the equivalent of removing 310,000 vehicles from the nation's roadways annually. A 1,000 MW coal plant produces approximately 6 million tons of carbon dioxide per year." (p.116)

"Encourage all governmental units in the County to adopt and support ordinances that will enhance all segments of the areas electric grid." (p. 120, #5)

The proposed commercial solar energy facility is consistent with the *Comprehensive Plan* support of more sustainable energy sources.

STAFF ASSESSMENT

The 2030 Comprehensive Plan and the 2030 and Beyond Update both support the development of commercial solar energy facilities. Once the facility is constructed, there is very little to no traffic generated by the use. There is very minimal risk of noise, lighting, or other nuisances generated by this use. The proposed use is compatible with adjacent uses. As noted within Public Act 102-1123, a request for a Conditional Use Permit for a commercial solar energy facility shall be approved if the request is in compliance with the standards and conditions imposed within the Act, the zoning ordinance adopted consistent with this Code, and the conditions imposed under State and Federal statutes and regulations. A County may not adopt zoning regulations that disallow commercial solar energy facilities from being developed or operated in any district zoned to allow agricultural or industrial uses. All construction will be required to meet applicable codes and ordinances for: fire protection, commercial building and electrical construction, and stormwater management.

Staff offers the following conditions for consideration:

1. The Conditional Use shall have no time limit, unless the use is abandoned as specified in 16.56.030.PP.4 of the McHenry County Unified Development Ordinance.
2. Site development shall be in substantial conformance with the site plan provided as part of the zoning application, dated March 19, 2026.
3. The *Decommissioning Plan* shall be applicable in part as well as in whole. If any portion of the commercial solar energy facility ceases to perform its intended function for more than twelve (12) consecutive months, that portion of the facility shall be decommissioned in compliance with all the terms of the *Decommissioning Plan*.
4. A McHenry County Stormwater Management Permit shall be secured prior to construction. Any damaged drainage tiles shall be repaired at the expense of the Petitioner and in a manner satisfactory to the Water Resources Division Manager.
5. A detailed Landscape Plan illustrating compliance with required landscape screening standards and Illinois Department of Natural Resources Pollinator Scorecard Standards and land management practices shall be approved by the Zoning Enforcement Officer prior to issuance of construction/building permit.
6. Recommendations made by the Illinois Department of Natural Resources in their January 21 2026, letter to the applicants shall be followed.
7. Fencing shall be provided in compliance with the National Electrical Code (NEC), as applicable, and shall be of a woven wire agricultural style, containing a 6-inch gap along the bottom to prevent the restriction of wildlife movement. Fence bonding and grounding shall be in compliance with NEC 250.194 and NEC 691.11. The use of barbed wire is prohibited. Setting fence posts in concrete is prohibited except for gate posts and where otherwise required for stability.
8. All requirements of McHenry County Unified Development Ordinance §16.56.030.PP (as amended, subject to State of Illinois Public Act 102-1123 and Public Act 103-0580) shall be met or exceeded unless specifically amended by this Conditional Use Permit.
9. All other federal, state, and local laws shall be met.

16.56.030 Principal Use Standards

PP. **COMMERCIAL SOLAR ENERGY FACILITY.** Conditional use permits for a COMMERCIAL SOLAR ENERGY FACILITY shall have no time limit, unless the use is abandoned as specified in subsection PP.4. below (COMMERCIAL SOLAR

ENERGY FACILITY: Abandonment), or the permit is revoked in accordance with § 16.20.040I. (Revocation of Conditional Use Permits).

1. Application.

- a. A threatened and endangered species consultation (EcoCAT) from the Illinois Department of Natural Resources is required at the time of conditional use permit application for any site that is five (5) acres or greater in size and currently in agricultural use or undeveloped.
- b. A site plan shall be provided showing all improvements, including structures, fencing, power lines (above and below ground), lighting, and landscaping, at a detail sufficient to understand the location, height, appearance, and area.
- c. All other application submittal requirements outlined in the *Planning and Development Department Zoning Application Packet* as published on the McHenry County Website.

2. Site design.

- a. Solar panels, structures, and electrical equipment, excluding fences and power lines for interconnection, shall be erected no less than fifty (50) feet from any lot line and no less than one hundred fifty (150) feet from any residence, other than a residence on the same ownership parcel.
- b. No structures, excluding power lines for interconnection, may exceed twenty (20) feet in height. Power lines shall be placed underground to the maximum extent possible.
- c. Lighting must comply with § 16.60.020 (Exterior Lighting).
- d. Solar panels shall have a surface that minimizes glare and shall comply with § 16.60.040D. (Lighting and Glare).
- e. The facility shall be situated as to minimize impacts to woodlands, savannas, wetlands, drainage tiles, and encroachment into flood plains. All site development shall comply with the Stormwater Management Ordinance. Any damaged drainage tiles shall be repaired.
- f. In order prevent erosion, manage run-off, and provide ecological benefit, the facility shall be planted with “low-profile” native prairie species, using a mix appropriate for the region and soil conditions per Illinois Department of Natural Resources (IDNR) standards, as amended from time to time.
- g. Fencing shall be provided in compliance with the National Electrical Code, as applicable. The use of barbed wire must comply with § 16.56.050H.1.c. of this Ordinance.
- h. Any part of the facility that is within five hundred (500) feet of a NONPARTICIPATING RESIDENCE, or road right-of-way, shall be landscaped with an arrangement of native shrubs, subject to approval by the County Board, unless the facility is screened from view by existing vegetation.
- i. Prior to building permit issuance, the operator shall prepare a landscape monitoring and maintenance plan to ensure the establishment and continued maintenance of the native prairie species, all installed landscape screening, and all existing vegetation that provides required landscape screening.
- j. Prior to scheduled public hearing, the operator shall enter into an Agricultural Impact Mitigation Agreement with the Illinois Department of Agriculture (IDOA), as required by that department.
- k. Prior to building permit issuance, the operator shall provide an executed road use agreement between the Applicant and the appropriate governing road and highway jurisdictions or the Illinois Department of Transportation (IDOT), showing approved entrances.

3. Safety.

- a. Prior to construction, the operator shall prepare an emergency management plan acceptable to the County and the local fire district and shall be responsible for training of emergency personnel, as needed.
- b. A sign shall be posted providing the name of the operator and a phone number to be used in case of an on-site emergency.
- c. Access shall be granted, provided appropriate advance notice, for periodic inspection of the site by the County or the local fire district.
- d. Damaged solar panels shall be removed, repaired, or replaced within sixty (60) days of the damage. The ground shall remain free of debris from damaged solar panels at all times.

4. Abandonment.

- a. The COMMERCIAL SOLAR ENERGY FACILITY shall be considered abandoned if the operator fails to pay rent as specified in the Agricultural Impact Mitigation Agreement, or it ceases to generate electricity for a period of twelve (12) consecutive months. Reports of electrical power production shall be provided to the County upon request. An abandoned COMMERCIAL SOLAR ENERGY FACILITY must be decommissioned and removed within twelve (12) months from the time it is deemed abandoned. The operator may appeal in writing to the Zoning Enforcement Officer for an extension of time in order to remove the facility or to bring the solar farm back into operation.

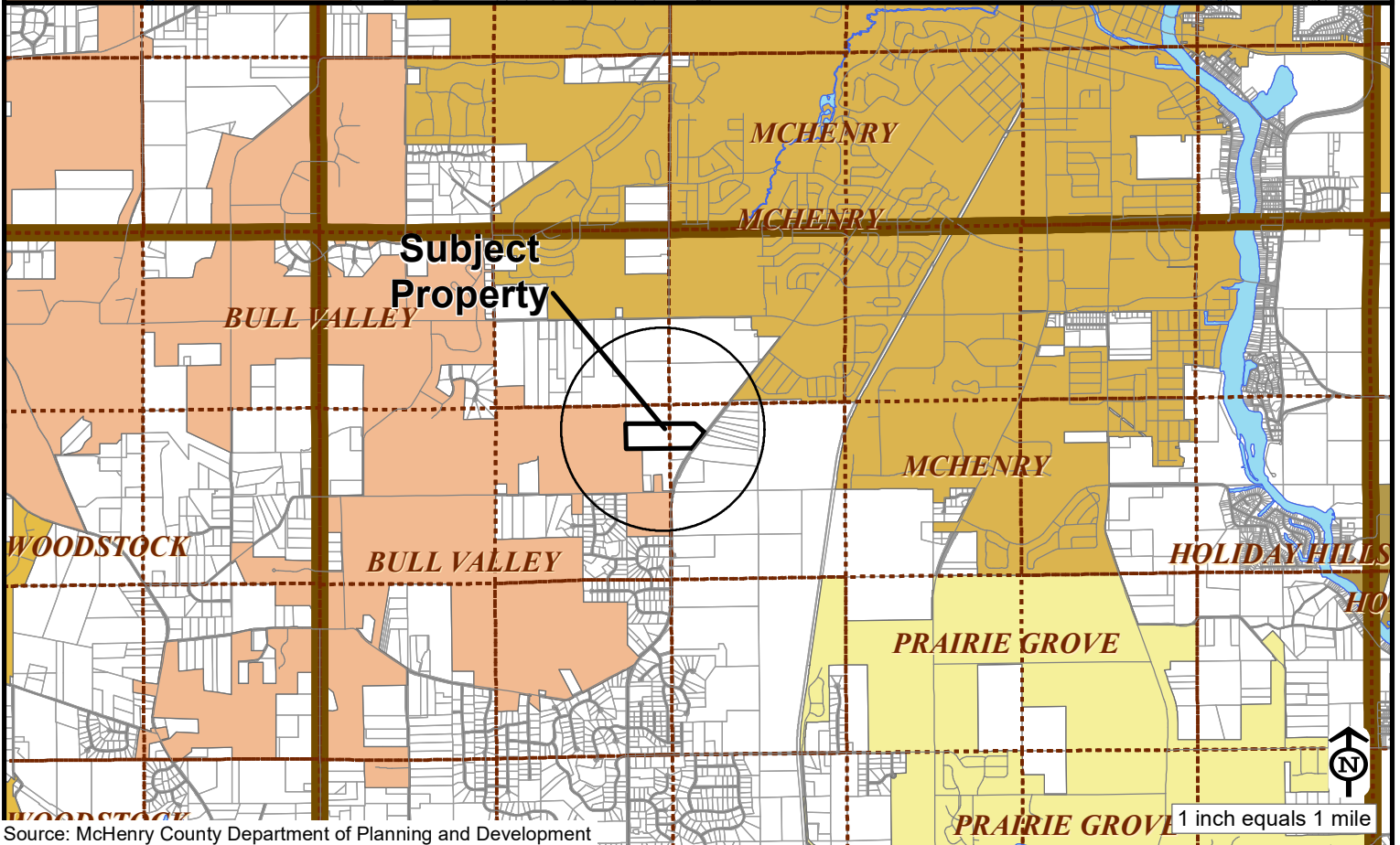
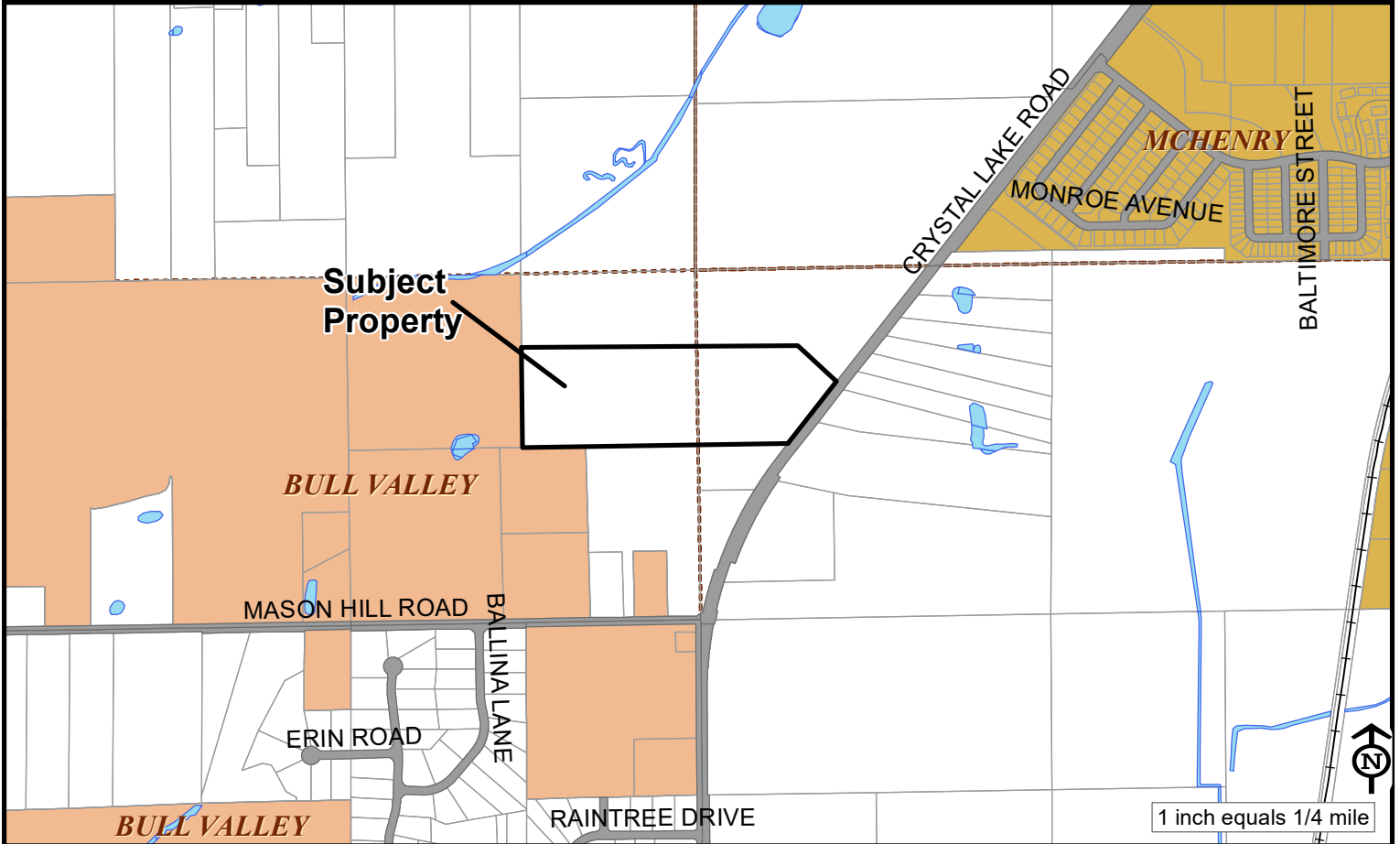
5. Decommissioning. Decommissioning and removal of the COMMERCIAL SOLAR ENERGY FACILITY shall be the responsibility of the operator upon abandonment or revocation of the conditional use permit. All operators shall comply with the following:

- a. Prior to building permit issuance, the operator shall prepare a decommissioning plan which shows the final site conditions after the COMMERCIAL SOLAR ENERGY FACILITY has been removed from the property. Decommissioning

plans shall require removal of all solar panels, electrical equipment, poles, piles, foundations, and conduits (above and below ground). Access roads, fencing, groundcover, and landscaping may remain only by agreement of property owner.

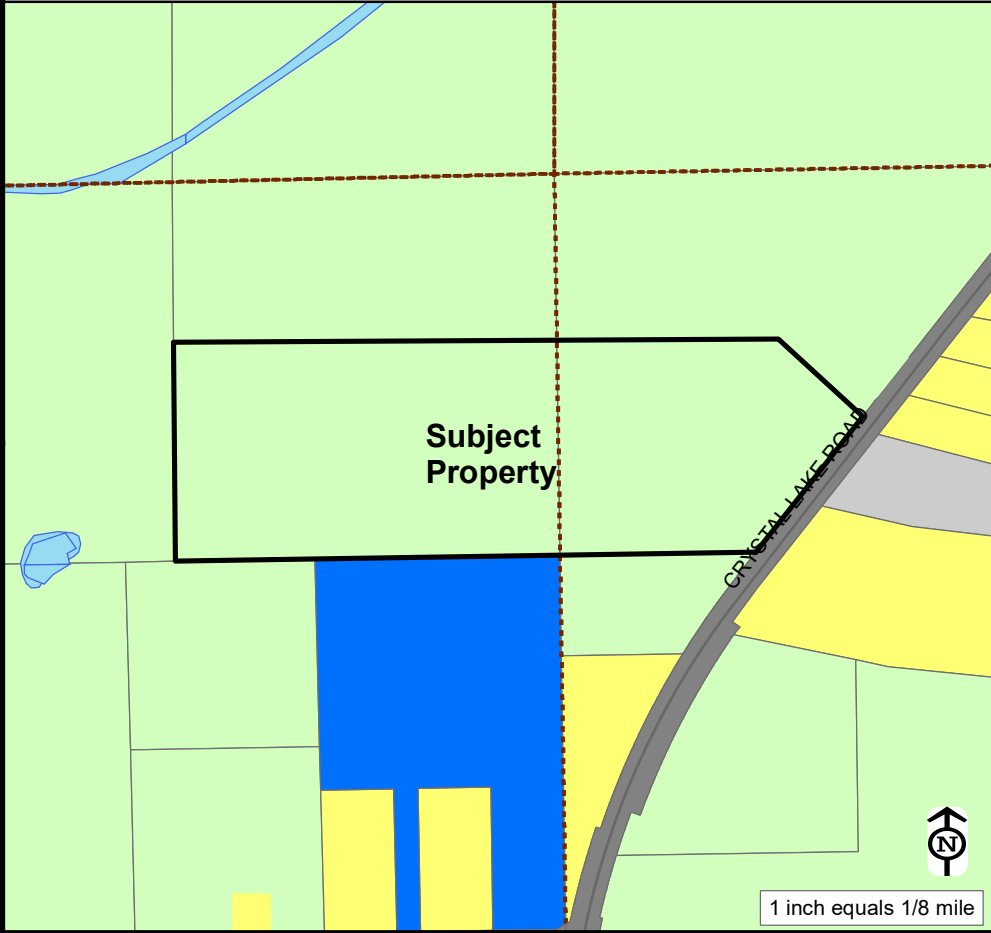
b. Prior to building permit issuance, the operator shall submit an engineer's estimate of cost for decommissioning the facility and restoring the site in accordance with the approved decommissioning plan. Upon review and approval by the Zoning Enforcement Officer of the estimate, the operator shall obtain a bond, letter of credit, or other form of surety acceptable to the County to be held by the Department of Planning and Development in the amount of one hundred percent (100%) of the estimate. Provision of this financial assurance shall be phased in over the first eleven (11) years of the project's operation or as otherwise provided in accordance with the executed Agricultural Impact Mitigation Agreement.

c. During the operation of the facility, a new engineer's estimate of cost for decommissioning shall be submitted every ten (10) years to the Department of Planning and Development. Upon approval of the estimated costs by the Zoning Enforcement Officer, a revised surety shall be provided to the Department of Planning and Development in the amount of one hundred percent (100%) of the new estimate.



Source: McHenry County Department of Planning and Development

Current Land Use Map



Current Land Use

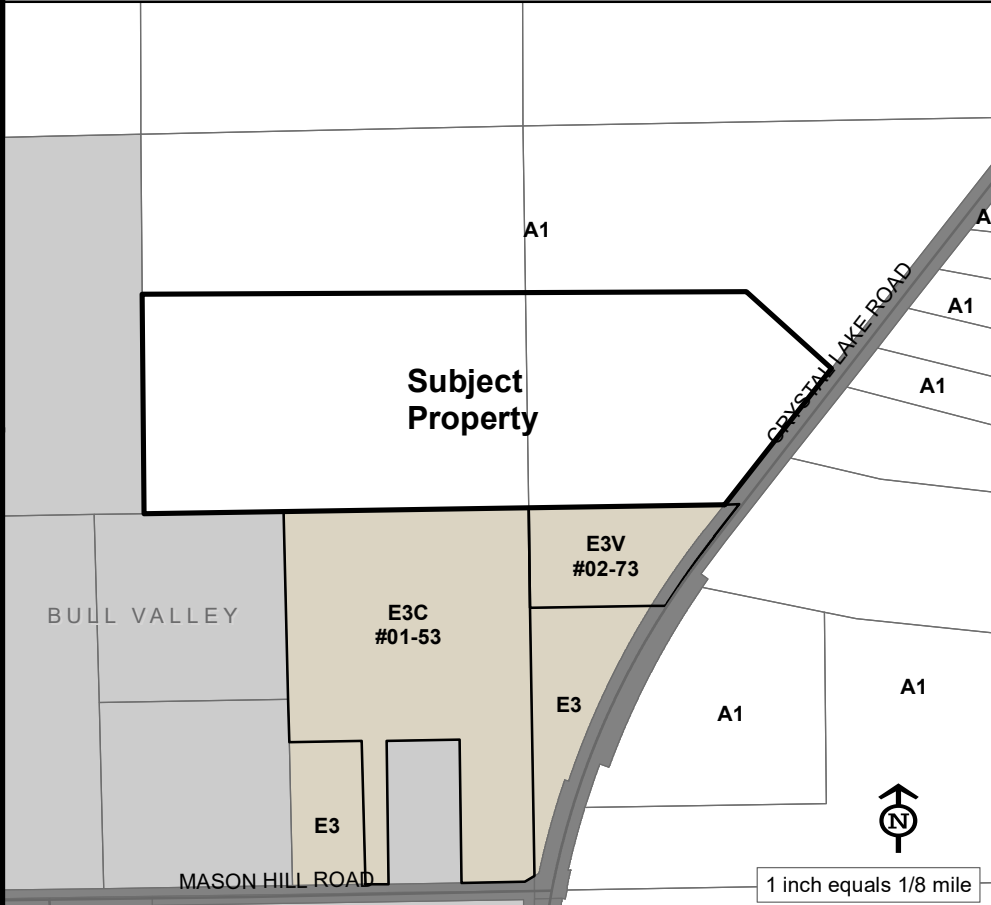
Agriculture

Adjacent Land Use(s)

North: *Agriculture*
 South: *Agriculture/ Government/Institutional*
 East: *Single-Family Residential/Vacant*
 West: *Agriculture*

- Agriculture
- MCCD Agriculture
- Single-Family Residential
- Multi-Family Residential
- Open Space
- Golf Course
- Commercial
- Office
- Industrial
- Mixed Use
- Earth Extraction
- Vacant
- Government / Institutional
- Transportation, Communication, Utilities
- Under Review

Zoning Map



Current Zoning

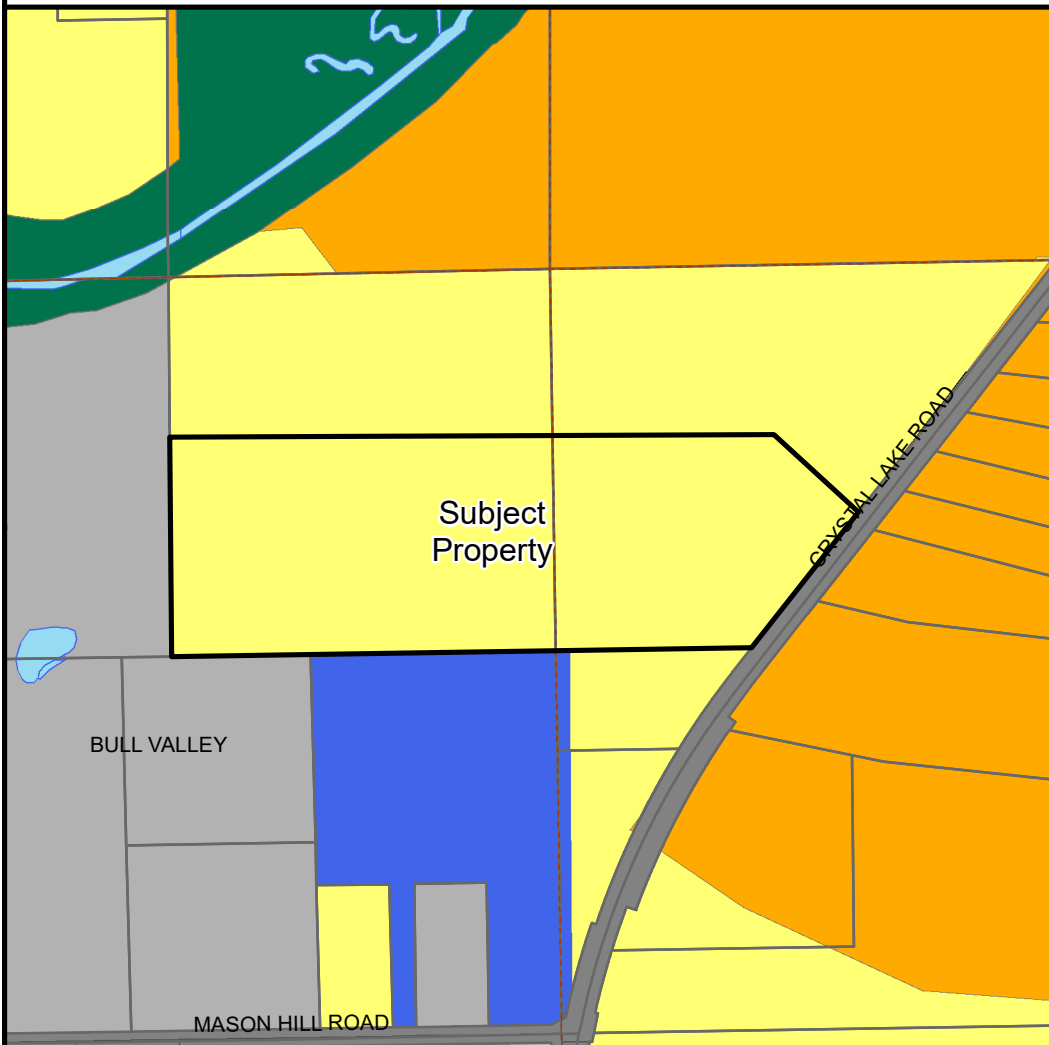
A-1 Agriculture

Adjacent Zoning

North: *A-1 Agriculture*
 South: *E-3C/E3V Estate and Village of Bull Valley*
 East: *A-1 Agriculture*
 West: *Village of Bull Valley*

- A-1 Agriculture
- A-2 Agriculture
- E-5 Estate
- E-3 Estate
- E-2 Estate
- E-1 Estate
- R-1 Single-Family Residential
- R-2 Two-Family Residential
- R-3 Multiple-Family Residential
- B-1 Neighborhood Business
- B-2 Neighborhood Business
- B-3 General Business
- O Office / Research
- I-1 Light Industrial
- I-2 Heavy Industrial
- PD Planned Development
- C Conditional Use
- V Variation
- Incorporated

McHenry County 2030 Comprehensive Plan Future Land Use Map



Future Land Use Map Designation

Estate

- Agricultural
 - Open Space
 - Environmentally Sensitive Area
 - Estate
 - Isolated Estate
 - Residential
 - Isolated Residential
 - Retail
 - Mixed Use
 - Office, Research, Industrial
 - Gov't, Institutional, Utilities
 - TOD Existing Rail Station
 - TOD Future Rail Station
 - Active Earth Extraction Site
 - Municipality
- Scale: 1 inch = 1/8 mile

Municipal / Township Plan Designations

Nunda Township: Residential Conservation Development

Prairie Grove: No Designation Bull Valley: 3 to 4.99 acres

McHenry: Conservation Residential Development

McHenry County 2030 Comprehensive Plan — Text Analysis

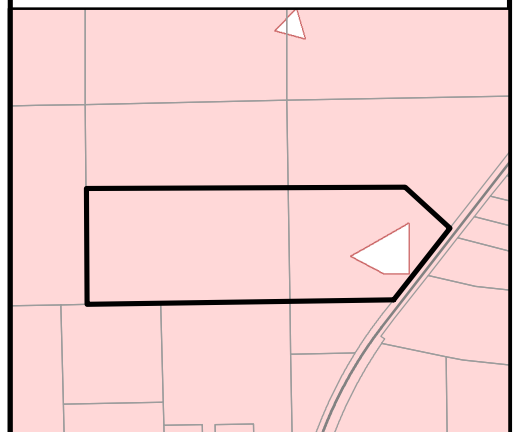
Land Use

Estate includes existing and proposed areas for single-family residential uses at gross densities of one to five acres per dwelling unit. Estate land use is generally designated in areas that are not projected to have access to public sewer and water. Where appropriate, conservation design is encouraged in order to cluster lots and maintain open space within estate developments. Increased estate densities are encouraged where appropriate; however, estate development in close proximity to a municipality should take into consideration that municipality's densities (p. 134).

Sensitive Aquifer Recharge Areas

The site is partially located in a zone with elevated contamination potential.

Sensitive Aquifer Recharge Areas (SARA)



- Sensitive Recharge Area

SHEET NOTE
 UTILITY POLES ARE SHOWN FOR INDICATING LOCATION ONLY. SPACING BARRIERS FOR SWITCHBOARDS, ETC. WILL BE ADDED IN THE DRAWINGS PREPARED FOR THE CONSTRUCTION DOCUMENTS.
 FENCE LINE WILL BE THE NEW PROPERTY LINE ONCE PARCELS ARE SPLIT FROM THE GREATER PARCELS.
 INTERCONNECTION TYPE: PRIMARY
 247 UNSCORDED KEYSLESS ACCESS EQUIPMENT INCLUDING THE METERS AND AC DISCONNECT.
 PROJECT ADDRESS:
 LAT: 42.310879
 LONG: -88.313901

SYSTEM SUMMARY

SYSTEM SIZE DC	: 9760.6KWP
SYSTEM SIZE AC	: 6500 KW
DC/AC RATIO	: 1.50
MODULE MAKE & MODEL	: CCELL Q. IRON XL-G2 G25
MODULE RATING	: 625 WP
MODULE COUNT	: 13617
INVERTER MAKE & MODEL	: CPS SCH25KCTL-00/US-600
INVERTER RATING	: 125 KW
INVERTER COUNT	: 52
RACKING TYPE	: SINGLE AXIS TRACKER
AZIMUTH	: 180°
TILT	: +7.52°
GROUND COVERAGE RATIO	: 44.67%
INTER ROW SPACING	: 10 FT
MODULES PER STRING	: 23
INTERCONNECTION VOLTAGE	: COMED
INTERCONNECTION UTILITY	: 12.5 KV

DESIGN CRITERIA

DESIGN TEMPERATURE	: -24°C / 36°C
WIND SPEED (ASCE 7-10)	: 100 MPH
GROUND SNOW LOAD	: -40 PSF

- GENERAL NOTES**
- INSTALLATION MUST COMPLY WITH INSTALLATION NOTES AND MANUFACTURER'S INSTRUCTIONS FOR EQUIPMENT AND CONDUCTOR SPECIFICATIONS.
 - CONTRACTOR SHALL NOTIFY DESIGNER OF ANY CHANGES TO THE PLAN SET THAT MAY INCREASE VOLTAGE DROP IN CONDUIT LENGTH THAT MAY INCREASE LOCATIONS.
 - CONTRACTOR SHALL VERIFY EXISTING OVERHEAD UNDERGROUND FACILITIES, AND EQUIPMENT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC IN NATURE AND FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE ACCURACY OF THE EXISTING SITE, UTILITIES, AND SHALL REPORT ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL EQUIPMENT AND SITE CONDITIONS TO THE OWNER AND ENGINEER.
 - CIRCUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY. THE INSTALLATION CONTRACTOR SHALL COORDINATE ALL WORKING CONDITIONS, BUT SHALL EXCEED ALL MAXIMUM CONDITIONS AS SPECIFIED IN THE PLAN SET. CHANGES FROM THE SPECIFIED MINIMUM LENGTH MAY REQUIRE INCREASED CONDUCTOR SIZES AND MUST BE APPROVED BY THE OWNER AND ENGINEER.

NO. OF SHEETS	11	OF TOTAL SHEETS	11
DATE	08/20/2024	PROJECT NO.	24-000000000000
DRAWN BY	W. J. HARRIS	CHECKED BY	W. J. HARRIS
SCALE	AS SHOWN	DATE PLOTTED	08/20/2024

PROPERTY LINE

LEGEND

- PROPERTY LINE
- NEW FENCED FARM NOT FENCE
- NEW VEGETATION SCREENING OR MAINTENANCE OF EXISTING VEGETATION TRIMMING MAY BE REQUIRED
- EXISTING UTILITY OVERHEAD LINE
- EXISTING UTILITY OVERHEAD LINE (COMED 12.5KV)
- NEW POWER POLE STRUCTURE
- PROPOSED DC CABLE TRENCH
- PROPOSED MV AC CABLE TRENCH
- PROPOSED OVERHEAD AC
- SETBACK
- WETLAND
- ACCESS ROAD (20')
- FUTURE POTENTIAL DETENTION BASIN

CLIENT
 MCHENRY SOLAR FARM LLC
 10000 STATE ST. SUITE 100
 MCHENRY, IL 60050
 WWW.MCHENRY.COM

DESIGNER
 MCHENRY SOLAR FARM LLC
 10000 STATE ST. SUITE 100
 MCHENRY, IL 60050
 WWW.MCHENRY.COM

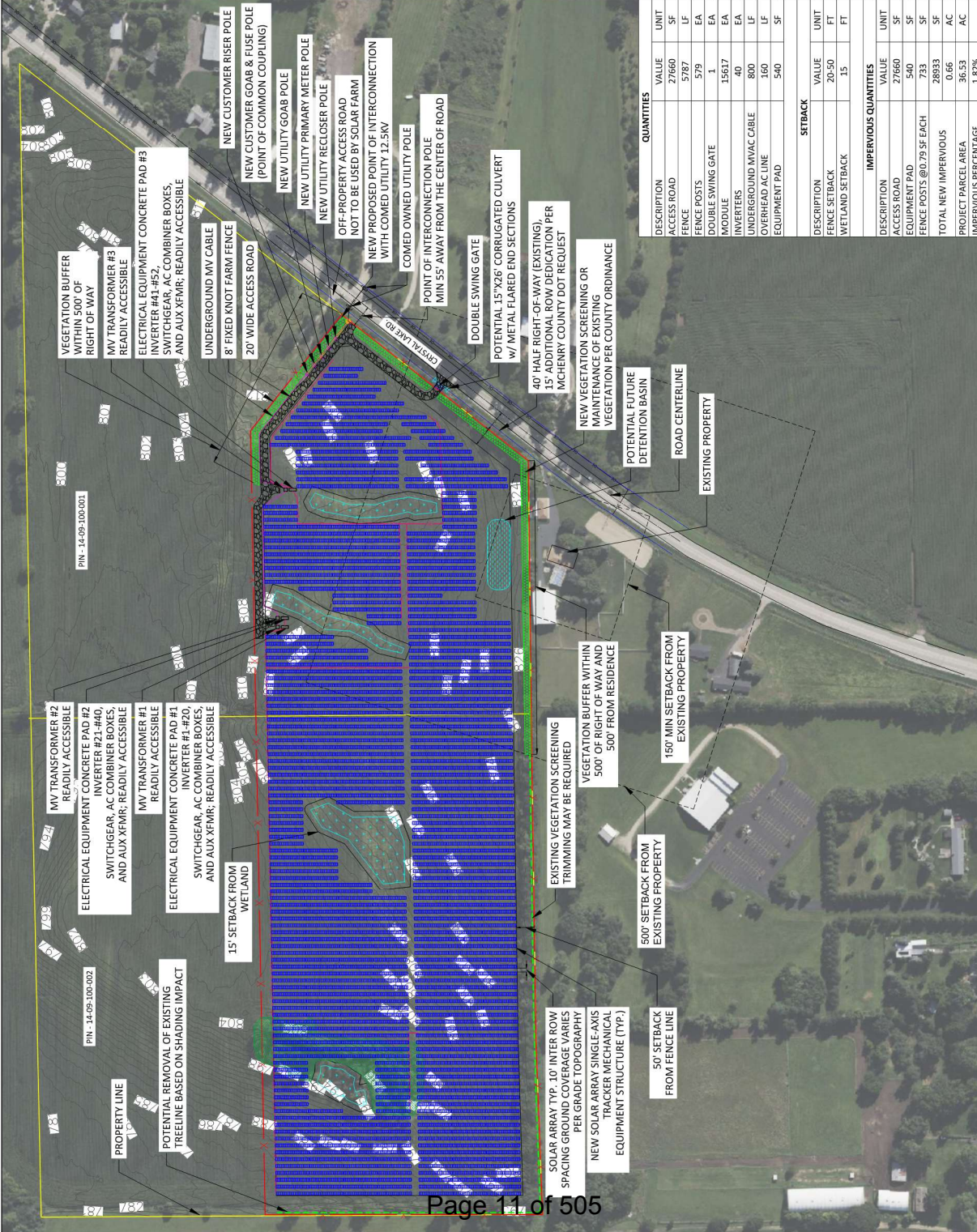
DATE
 08/20/2024

PROJECT NO.
 24-000000000000

SCALE
 35" x 24"

PROJECT NO.
 E-DEV/04-SP

DATE
 08/20/2024



QUANTITIES

DESCRIPTION	VALUE	UNIT
ACCESS ROAD	2760	SF
FENCE	5787	LF
FENCE POSTS	579	EA
DOUBLE SWING GATE	1	EA
MODULE	15617	EA
INVERTERS	40	EA
UNDERGROUND MV/AC CABLE	800	LF
OVERHEAD AC LINE	160	LF
EQUIPMENT PAD	540	SF

SETBACK

DESCRIPTION	VALUE	UNIT
FENCE SETBACK	20-50	FT
WETLAND SETBACK	15	FT

IMPERVIOUS QUANTITIES

DESCRIPTION	VALUE	UNIT
ACCESS ROAD	2760	SF
EQUIPMENT PAD	540	SF
FENCE POSTS @ 0.75 SF EACH	733	SF
TOTAL NEW IMPERVIOUS	28933	SF
PROJECT PARCEL AREA	0.66	AC
IMPERVIOUS PERCENTAGE	36.53	AC
	1.82%	



SCALE: 1" = 125'

1 NEW POWER FACILITY SITE PLAN

McHENRY~LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

NATURAL RESOURCES INFORMATION REPORT

26-001-4784

January 9, 2026



This report has been prepared for:
McHenry Solar Farm LLC

Contact Person:
Robert McNeill

PREPARED BY:
MCHENRY-LAKE COUNTY SOIL & WATER CONSERVATION
DISTRICT

1648 S. EASTWOOD DR.

WOODSTOCK, IL 60098

PHONE: (815) 338-0444

www.mchenryswcd.org

The McHenry-Lake County Soil & Water Conservation District
is an equal opportunity provider and employer.

EXECUTIVE SUMMARY OF NRI REPORT #26-001-4784

It is the opinion of the McHenry-Lake County Soil and Water Conservation District Board of Directors that this report as summarized on these pages are pertinent to the requested zoning change.



Site Picture 1: Looking west from Crystal Lake Road.



Aquifer Sensitivity Map (*This is the area beneath the soil profile down to bedrock)
 The Geologic features map indicates the parcel is comprised of 10.67 acres of A3, 2.38 acres of A6, and 23.53 acres of B3 geologic limitations. A3 and A6 have a high contamination potential and B3 has a moderately high contamination potential.



Sensitive Aquifer Recharge Areas (Includes the soil profile and underlying geology).
 The Sensitive Aquifer Recharge Map indicates the parcel is not within an area designated as Sensitive Aquifer Recharge.



Soil Leachability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet).
 The Soil Leachability Index indicates 32.9 acres or 89.8% of the parcel has high leachable soils, for fertilizers (identified in red).

Soil Permeability (This is only the soil profile within the parcel from the surface down to approx. 5 feet. Soil permeability is a reflection of the speed in which water (with or without pollutants) can move through the soil profile.)
 The USDA-NRCS Soil Survey Map of the area indicates 2.5 acres or 6.9% of highly permeable soils on the parcel.

Soil Limitations (This evaluates the parcel from the surface down to approximately 5 feet.):

Erosion Ratings

The NRCS Soils Survey indicates 7.3 acres or 20.0% of the parcel contains highly erodible soils.



Prime Farmland Soils

The Natural Resources Conservation Service (NRCS) Soil Survey indicates 35.4 acres or 96.5% of the parcel is comprised of prime farmland soils (identified in green).



Ground-Based Solar Arrays

The Natural Resources Conservation Service (NRCS) Soil Survey indicates 8.3 acres or 20.8% of the parcel has very limited soils for ground-based solar arrays (identified in red).

Hydric Soils

The NRCS Soil Survey indicates there are no hydric soils on the parcel.

Floodplain Information:

The Flood Insurance Rate Map

Indicates the parcel is outside of the 100-year floodplain.

Flood of Record Map (Hydrologic Atlas)

The Flood of Record Map for this area indicates the parcel has not previously flooded.

Wetland Information:

USDA-NRCS Wetland Inventory

The NRCS Wetlands Inventory indicates there are no wetlands on the parcel.

ADID Wetland Inventory

The ADID Wetland Study indicates there are no wetlands on the parcel.

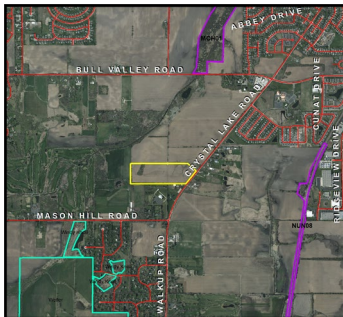
Flooding Frequency

The NRCS Soil Survey indicates that flooding is not probable on the parcel. The chance of flooding is nearly 0% in any year. Flooding occurs less than once in 500 years.

Ponding Frequency

The NRCS Soil Survey indicates that frequent ponding is not probable. The chance of ponding is nearly 0 percent in any year.

Cultural Resources: Office maps indicate there is not a high probability for cultural/historical features within the parcel in question.



Preserved or Recognized Ecological Sites: McHenry County Natural Areas Inventory Site - (MCH01) Boone Creek Lowlands is north of the parcel and (NUN08) Crystal Lake - McHenry RR Prairie is east of the parcel.

Boone Creek Lowlands contains a low order low gradient stream and sedge meadow, which is threatened by an upstream impoundment, water table alteration, cattail expansion, Reed Canary Grass, and development.

Crystal Lake-McHenry RR Prairie contains a mesic silt loam prairie and wet silt loam prairie, which is threatened by water table alteration, brush encroachment, Reed Canary Grass, chemical drift and run-off, development, and railroad bed maintenance.

Additionally, the Land Conservancy of McHenry County holds conservation easements south of the parcel identified as Weiler and Windy Knoll.

Woodlands: None Identified

Agricultural Areas: Office Maps indicate there are no State designated agricultural areas on the parcel in question.

Land Evaluation Site Assessment (LESA)

The Land Evaluation Score for the parcel is 84.84 and the Site Assessment Score is 80, for a total LESA Score of 164.84 indicating the land use change has a high impact to existing land use and resources.

Vegetation: Information provided by the applicant indicate the site will be revegetated with native plantings and a management and monitoring plan will be developed in accordance with guidance from the Illinois Department of Natural Resources and McHenry County Department of Planning & Development.

Agricultural Impact Mitigation Agreement: We have received notice from the Illinois Department of Agriculture that an Agricultural Impact Mitigation Agreement has been filed.



NATURAL RESOURCE INFORMATION REPORT (NRI)

NRI Report Number	26-001-4784	
Applicant's Name	McHenry Solar Farm LLC	
Size of Parcel	37 acres	
Zoning Change	Conditional Use - Solar Facility	
Parcel Index Number(s)	14-08-200-002, 14-09-100-001	
Common Location	Undefined	
Contact Person	Robert McNeill	
<i>Copies of this report or notification of the proposed land-use change were provided to:</i>	<i>yes</i>	<i>no</i>
The Applicant	x	
The Applicant's Legal Representation/Consultant		x
The Village/City/County Planning and Zoning Department or Appropriate Agency	x	

Report Prepared By: *Spring M. Duffey*

Position: *Executive Director*



January 21, 2026

Tej Patel
141 W Jackson BLVD STE 1692
Chicago, IL 60605

**RE: McHenry Solar Farm
Consultation Program
EcoCAT Review #2609076
McHenry County**

Dear Applicant:

The Department has received your submission for this project for the purposes of consultation pursuant to the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action consists of a 5mWAC maximum community solar farm in McHenry County.

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

State Threatened or Endangered Species
Blanding's Turtle (*Emydoidea blandingii*)

Due to the project scope and proximity to protected resources the Department recommends the following actions be taken to avoid adversely impacting listed species and or protected natural areas in the vicinity of the project:

Blanding's Turtle

EcoCAT has indicated records for the state-listed Blanding's Turtle in vicinity of the project area. The Department recommends:

- Work on the project occurs during the turtle's inactive season from approximately November 1st to March 1st. If work must occur during the active season:
- Educate personnel working on site about the Blanding's Turtle. Post photos of juvenile and adult Blanding's Turtles at a central location. State-listed species may not be handled without the appropriate permits pursuant to the *Illinois Endangered Species Protection Act*.

- Install exclusionary silt fence by the end of March and maintain it through October (if needed) to prevent turtles from entering the construction area. Conduct daily inspections during construction to ensure that exclusionary fencing is properly installed (dug into the ground) and to check if turtles are present.
- Cover trenches at the end of each workday. Before starting each workday, trenches and excavations should be routinely inspected to ensure no turtles (or other amphibians and reptiles) have become trapped within them.
- If Blanding's turtles are encountered, crews should stop work immediately, allow the turtle to move out of the way and contact IDNR at (217) 785-5500.

Given the above recommendations are adopted the Department has determined that impacts to these protected resources are unlikely. The Department has determined impacts to other protected resources in the vicinity of the project location are also unlikely.

In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding these recommendations.

Consultation on the part of the Department is closed, unless the applicant desires additional information or advice related to this proposal. Consultation for Part 1075 is valid for two years unless new information becomes available which was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the action has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal and should not be regarded as a final statement on the project being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are unexpectedly encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations.

This letter does not serve as permission to take any listed or endangered species. As a reminder, no take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the *Illinois Endangered Species Act*, the *Fish and Aquatic Life Act*, the *Wildlife Code* and other applicable authority.

The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area:

- The Department strongly recommends that the project proponent establish pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:
<https://dnr.illinois.gov/conservation/pollinatorscorecard.html>
- The site should be de-compacted before planting.

- Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.
- If tree clearing is necessary, the Department recommends removing trees between November 1st and March 31st to avoid impacts to the state-listed bats and birds.

If temporary or permanent lighting is required, the Department recommends the following lighting recommendation to minimize adverse effects to wildlife:

- All lighting should be fully shielded fixtures that emit no light upward.
- Only “warm-white” or filtered LEDs (CCT < 3,000 K; S/P ratio < 1.2) should be used to minimize blue emission.
- Only light the exact space with the amount (lumens) needed to meet facility safety requirement.
- If LEDs are to be used, avoid the temptation to over-light based on the higher luminous efficiency of LEDs.

If erosion control blanket is to be used, the Department also recommends that wildlife-friendly plastic-free blanket be used around wetlands and adjacent to natural areas, if not feasible to implement project wide, to prevent the entanglement of native wildlife.

Please contact Isabella Allyn (Isabella.Allyn@illinois.gov) with any questions about this review.

Sincerely,



Bradley Hayes
Manager, Impact Assessment Section
Division of Real Estate Services and Consultation
Office of Realty & Capital Planning
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
Bradley.Hayes@Illinois.gov
Phone: (217) 782-0031



McHenry Solar Farm LLC

Application for Conditional Use Permit

Project Narrative

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
County of McHenry, Illinois
January 2026
Revised February 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

**Surya Powered LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**



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Table of Exhibits

All Exhibits to be Attached to the CUP Application / Project Narrative

Exhibit A	Project Site Plan and Details
Exhibit B	Boundary Survey
Exhibit C	Legal Description (MS Word)
Exhibit D	Phase I – Environmental Site Assessment
Exhibit E	Wetland Delineation Report
Exhibit F	NRI Report – McHenry Lake Soil and Water Conservation District
Exhibit G	FAA Notice Criteria Filing
Exhibit H	AIMA – Agricultural Impact Mitigation Agreement (IDOA)
Exhibit I	SHPO Documentation – State Historic Preservation Office (IDNR)
Exhibit J	EcoCAT – Environmental Analysis (IDNR)
Exhibit K	US Army Corps of Engineers Documentation (USACE)
Exhibit L	US Fish & Wildlife Service Documentation (USFWS)
Exhibit M	Drain Tile Mitigation Plan (DTMP)
Exhibit N	Stormwater Management Plan with BMPs (SWMP)
Exhibit O	Landscape Monitoring and Maintenance Plan (LMMP)
Exhibit P	Construction Trip Generation Estimate (CTGE)
Exhibit Q	Operations and Maintenance Plan (OMP)
Exhibit R	Emergency Response Plan (ERP)
Exhibit S	Local Jurisdictional Outreach
Exhibit T	Interconnection Application
Exhibit U	Equipment Specifications
Exhibit V	Decommissioning Plan Estimate (DECOM)
Exhibit W	Unanticipated Discovery Plan (UDP)



McHenry Solar Farm LLC Development Team

Developer: Surya Powered LLC

Surya Powered LLC (Surya) is a local Illinois-based community solar developer. Surya's initiative assists the State of Illinois' renewable energy transition - calling for 100% clean energy by 2050. Surya's mission focuses on delivering clean and affordable energy to residents and businesses throughout Illinois. With extensive knowledge of renewable energy and its unique development requirements, Surya successfully partners with multiple developers across the United States to deliver the highest quality community solar projects.

Applicant: McHenry Solar Farm LLC

McHenry Solar Farm LLC (MSF) is a limited liability company owned and operated by Surya Powered LLC, created for the purpose of developing this project. McHenry Solar Farm LLC (the Applicant) has prepared this application, seeking a **Conditional Use Permit (CUP)** to develop and operate a 5.0 MWac community-scale solar facility in unincorporated McHenry County, Illinois

Professional Consultants

Environmental: Baxter & Woodman, Inc.

Baxter & Woodman, Inc. (B&W) has been retained to review, advise, and create environmental plans for McHenry Solar Farm LLC. B&W is primarily focused on environmental engineering, surveying, and providing environmental consulting expertise to clients across the Midwest. With deep roots in Illinois, B&W's experience and knowledge in all types of project development brings extensive professional expertise to the process.

Civil Engineering: Bowman Consulting Group

Bowman Consulting Group has been contracted by the applicant to review, advise, and design civil plans for McHenry Solar Farm LLC. Bowman has a staff of experienced Illinois certified engineers with a wide background and experience in Illinois development.

Legal Counsel: Franks, Gerkin, Ponitz and Greeley, P.C.

Franks, Gerkin, Ponitz & Greeley, P.C. has been retained to provide legal services and represent the project as needed. Franks, Gerkin, Ponitz & Greeley, P.C. are experienced attorneys with extensive knowledge in land use, zoning controls, and development across multiple industries.

Wetland Delineation: Heartland Ecological Group, Inc.

Heartland Ecological Group, Inc. (HEG) has been retained to advise MSF on the impact onsite wetlands would have on the design of the proposed solar facility, serving as regulatory advisors and providing mitigation support. Heartland's expertise in assessing and delineating wetlands contributes to the project's environmental design, supports the development of a stormwater management plan in full compliance with McHenry County code, and the overall preservation of the onsite ecosystem.



Phase I ESA: Stateline Environmental Consulting Services, Inc.

MSF has retained **Stateline Environmental Consulting Services, Inc.** to conduct detailed research into the current and historical uses of the property; attempting to assess whether adverse impacts associated with previous uses have impacted either soil or groundwater and affected the environment and/or human health. Research includes, but is not limited to, reviews of numerous federal, state, local, and tribal regulatory databases, historical records and maps, and state and local agency records.

ALTA Survey: Vanderstappen Land Surveying, Inc.

Vanderstappen Land Surveying, Inc. (VLSI) has been retained by MSF to review title documentation and through fieldwork, prepare the requisite survey documentation to support development and construction activity as well as the preparation of required legal descriptions.



Section I - Project Narrative

McHenry Solar Farm LLC (MSF, the Applicant) is seeking approval of a community solar project through McHenry County's Conditional Use Permit (CUP) process, as required by the provisions of the County's Zoning Ordinance. Project details and site plan are provided below.

Applicant:	McHenry Solar Farm LLC		
Project Name:	McHenry Solar Farm (MSF)		
Location:	1207 S Crystal Lake Road, McHenry IL 60050-6418		
Property Owner:	Michael J Wolff Living Trust, 321 Neville St, Grays Lake IL 60030		
Abbreviated Legal Description:	14-09-100-001 DOC 2021R0049210 ... N1/2 NW1/4 LYING WLY CEN HWY MEMO: STRIP OF CRYSTAL LAKE ROAD DEDICATED PER DOC 148825 14-08-200-002 ... DOC 2021R0049210, NE1/4 NE1/4		
APN/PINs:	APN/PIN	Acres	Used
	14-09-100-001	39	± 16
	14-08-200-002	40	± 20
Acreage:	39+40=79 per McHenry County GIS		± 36.53
Current Zoning:	A1 Agricultural District ... Community Solar Energy Facilities require a Conditional Use Permit ... Property Class 0021 / Farmland		

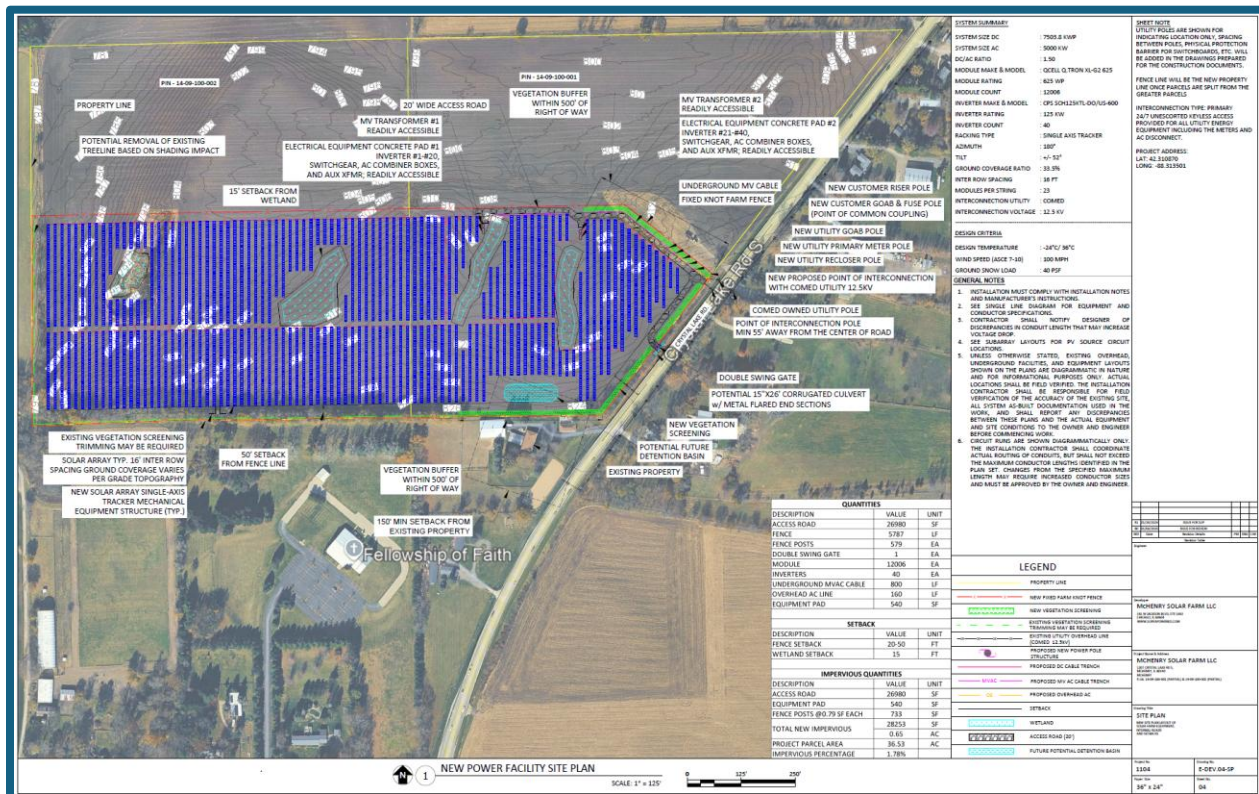


Figure 1 McHenry Solar Farm LLC - Site Plan



The McHenry Solar Farm LLC CUP application will address the following aspects of the project in preliminary detail. The narrative will be supplemented with additional documentation from various governmental entities, professional consultants, and MSF staff project-specific plans.

- ❖ **Project Narrative & Existing Conditions**
- ❖ **Preliminary Plans**
 - Drain Tile Mitigation Plan (DTMP)
 - Stormwater Management & BMPs (SWMP)
 - Construction Trip Generation Estimate (CTGE)
 - McHenry DOT Preliminary Review Comments
 - Landscape Monitoring and Maintenance Plan (LMMP)
- ❖ **Fencing, Lighting and Signage**
- ❖ **Solar Components**
 - Equipment Specifications
 - Noise Analysis
 - FAA Notice Criteria
- ❖ **Environmental Due Diligence, including, but not limited to...**
 - Wetlands Delineation and Flood Zone determination
 - Natural Resource Inventory Report (NRI)
 - EcoCAT Report, prepared by the Illinois Department of Natural Resources (IDNR)
 - United States Fish and Wildlife Services (USFWS) Determination
 - Illinois State Historic Preservation Office (SHPO) Review
 - Agricultural Impact Mitigation Agreement (AIMA)
 - Vegetation Plan; including Maintenance, Screening, Ground Cover and Pollinators
- ❖ **Operations & Maintenance Plan / Guidelines (OMP)**
 - Corrective Maintenance
 - Routine Preventive Maintenance
 - Equipment Monitoring and Evaluation
 - Vegetation and Landscaping Maintenance
- ❖ **Emergency Response Plan (ERP)**
 - McHenry Township Fire Protection District Comments (Preliminary)
- ❖ **Decommissioning Plan Estimate (DECOM)**
- ❖ **Unanticipated Discovery Plan (UDP)**
- ❖ **Interconnection Application to Commonwealth Edison (ComEd)**
- ❖ **Insurance, Project Bonding**
- ❖ **Concluding Remarks**



Section I - Project Description

McHenry Solar Farm LLC (MSF or the Applicant) is requesting administrative approval for a **Conditional Use Permit (CUP)** to allow for the development of a **Community Solar Energy Facility (CSES)**, a **5.0 MWac** ground-mounted distributed generation photovoltaic solar facility in accordance with McHenry County development protocol and in full compliance with the State of Illinois guidelines established in **P.A. 102-1123**, effective January 27, 2023, for renewable energy development. The project also complies with requirements related to **pollinator-friendly species/vegetation** being used onsite (525 ILCS 55/) and **noxious weed control** (505 ILCS 100/).

The project is proposed for parcels of land located adjacent to **South Crystal Lake Road** in unincorporated McHenry County, Illinois. County records indicate multiple parcel identification numbers (PINs), and the current zoning of the parcels is **Agricultural A1 District**. Current uses of adjoining properties are documented in the following table:

Land Use of Adjoining Properties		
Adjacency	Zoning Districts	Description
North	A-1 Agricultural	Unimproved Agricultural
South	E3-Estate(V) A-1 Agricultural	Institutional, Farmsteads and SF-Residential Fellowship of Faith, 6120 Mason Hill Road 1315 and 1409 Crystal Lake Road 6212 and 6220 Mason Hill Road
East	A-1 Agricultural	Crystal Lake Road (MDOT) Farmsteads and SF-Residential 1214 and 1308 Crystal Lake Road
West	Ag Agricultural	Village of Bull Valley / Unimproved Agricultural

The Applicant has determined that the subject property is highly feasible for development as a solar facility based on a variety of factors including:

- ❖ A **zoning designation** which allows for solar development as a conditional use.
- ❖ **Proximity to local utility infrastructure** with available hosting capacity.
- ❖ Limited presence of **wetlands/flood zones** impacting project design.
- ❖ Suitable **topography**; minimizing the need for grading onsite.
- ❖ **Road access** for construction, maintenance vehicles and equipment deliveries.

Parcel Historical Use & Existing Conditions

Historically, portions of the subject parcel have been utilized for agriculture. The Applicant retained **Stateline Environmental Consulting Services, Inc** to conduct a **Phase I Environmental Site Assessment (ESA)** of the parcels proposed for development. The ESA follows standards required for an **All-Appropriate Inquiry (AAI)** of the MSF site. The results of this study, documented in the following tables, conclude that no **Recognized Environmental Conditions (RECs)** are present in conjunction with the subject property or immediately adjacent properties:



General Property & Building Characteristics	
Property Size:	+/- 35 Acres within a 79 Acre Plot of Land Across Two (2) Parcels
Building Size:	Not Applicable
Stories:	Not Applicable
Construction:	Not Applicable
Year Built:	Not Applicable
Use:	Unimproved Agricultural Land / Vacant Land
Occupant:	Not Applicable
Climate Control:	Not Applicable
Remaining Areas:	Agricultural Land, Low-Lying Rock & Dirt Deposit Area Near the West Property Boundary and a Tree Line Along the South Property Boundary
Staining:	None

Topic	De Minimis	REC	CREC	HREC	Other
Visual Observations:	No	No	No	No	No
Historical Observations:	No	No	No	No	No
Database Review:	No	No	No	No	No
Adjacent Properties:	No	No	No	No	No
Significant Data Gaps:	No	No	No	No	No
Recommendations:	No	No	No	No	No

Existing site conditions feature flat, open land primarily used as cropland with vegetation primarily limited to the perimeter. The project site will need to be prepped for development, including minimal grading and excavation for underground wiring and electrical infrastructure in accordance with construction plans approved during the building permit process.

Power Output

The power generated by the McHenry Solar Farm LLC project is expected to exceed 11,500,000 kWh - sufficient to power approximately 1,300 homes annually. Power production may vary due to the final system size, operational exceptions, and weather conditions.

Solar Energy Basics

Community solar energy facilities generate electricity to be sent to metered accounts through a participating electric utility; in this case, **Commonwealth Edison (ComEd)**. For those utility customers that cannot meet their own energy needs by installing a personal solar energy system onsite, a **community solar subscription program** will be available, providing these customers with the ability to participate in a renewable, sustainable energy economy, while potentially hedging on future energy escalation; an especially valuable feature for subscribers with low to moderate incomes.

All solar components used in the development of MSF will be reviewed by local fire jurisdictions to assure compliance with the most recently adopted version of the **National Electric Code (NEC)**, **Underwriters Laboratories (UL)**, and/or **International Electrotechnical Commission (IEC)** product standards.



In compliance with these requirements, MSF will utilize **bifacial solar modules** manufactured by Tier 1 suppliers certified by Underwriters Laboratories (UL). These modules are mounted on single axis tracking systems; a racking system that follows the sun. The modules face east in the morning, transition to horizontal during midday, and then conclude their rotation facing west in the evening. Modules will have an anti-reflective coating to reduce glare. The process of community solar energy production can be briefly summarized in four steps:

- 1) Sunlight strikes solar photovoltaic (PV) cells/modules, which converts photons of light into electrons, producing low-voltage, direct current (DC) electricity.
- 2) Direct current (DC) electricity is transmitted to an inverter; this converts low voltage direct current (DC) to alternating current (AC).
- 3) Transformers step up alternating current (AC) electricity to the appropriate voltage to feed into the utility grid's electrical transmission system.
- 4) Electrical transmission systems are connected to the local substation where electricity is delivered directly to the utility grid's ratepayers.

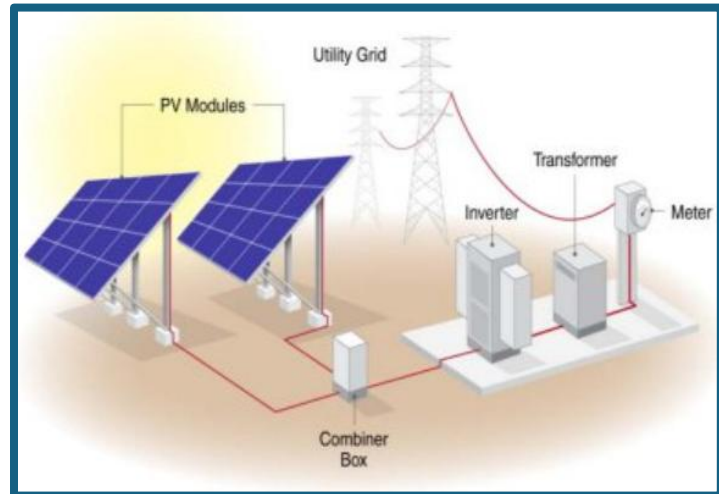


Figure 2 - Community Solar Energy Production

This process creates energy for the local utility in a safe and efficient manner while mitigating any form of hazardous materials or substances affecting the local hosting environment. The production of energy from this process and this facility is considered safe and poses no negative impacts. The components of the proposed facility include PV modules, transformers, inverters, combiner boxes, underground cabling, single-axis tracker racking systems, equipment pads, a gravel access road, and fencing.

Regulatory Compliance

The Applicant has compiled preliminary development plans designed to fully comply with **the State of Illinois Siting Standards (P.A. 102-1123)**, the **McHenry County Unified Development Ordinance**, and those specific provisions applicable to community solar energy projects structured as conditions of approval. These plans have been circulated to multiple jurisdictions to obtain comments and when possible, incorporate any requested revisions into our submittal.

MSF construction plans will be fully compliant with all applicable building codes and the County's **Stormwater Management Ordinance**; a preliminary outline of **best management practices (BMPs)** is provided in MSF's **Preliminary Stormwater Management Plan**. In addition, the Applicant will collaborate with local authorities having specific jurisdiction over aspects of the subject parcel's development to assure public safety is achieved.



In reviewing the MSF CUP application, the Applicant asks McHenry County staff to consider the following characteristics incorporated in our development plan:

- ❖ Location of proposed structures complies with identified setback requirements. The use of remote monitoring (24/7/365) not only ensures proper operation, but aside from normal construction activity, limits traffic on nearby roads due to a lack of employees onsite. A preliminary construction trip generation estimate is provided, based on similar project developments.
- ❖ The facility's perimeter will be fully enclosed using a gated, eight-foot agricultural fence with six-inch clearance at grade, providing access for construction equipment and routine maintenance activity. Onsite security lighting may be installed near our equipment pads, using 12' poles with shielded, focused LED fixtures.
- ❖ All solar components and electrical equipment will be UL-certified and where possible, be provided by American vendors. Specifications are provided.
- ❖ Solar panels (modules) are mounted on a tracking system affixed to a racking structure. Each panel is treated with anti-reflective coating to minimize glare.
- ❖ The racking structure is connected to steel beams. While a geotechnical analysis remains to be completed during the permit process, the structure and foundations will be designed to reflect soil conditions and topography.
- ❖ A gated access and necessary turnarounds will be installed to ease access to equipment and for emergency responders. The inverters, transformers, and associated equipment will be located on concrete equipment pads. To facilitate natural drainage, impervious surfaces are limited to the extent possible.
- ❖ Electrical cables will be installed underground throughout the project except for poles used to connect with the ComEd utility grid at the point of interconnection illustrated on the site plan.
- ❖ A landscape buffer utilizing drought-resistant greenery will be provided in accordance with County requirements. Perennial ground cover vegetation will be used throughout the project; using a seed mix agreed upon prior to construction.

The **MSF site plan** (see **Figure 1**) will clarify the location of the access road, transformer pads and turnarounds for emergency vehicles near the transformer pads, the location and number of inverters, wetlands and flood zones identified as areas of natural interest, fencing type and height, panel setbacks, interrow spacings, vegetation buffer and landscaping, the point of interconnection, and provide details of our impervious calculations and quantities.



Section II - The Construction Plan

Construction of the McHenry Solar Farm will be conducted in three major phases detailed below: site preparation, installation, and final testing.

❖ Phase I – Site Preparation

Site preparation begins with **land clearance** – the removal of trees, vegetation, and current crops from the project area. Clearance enables **preliminary grading and fill activity**, and the implementation of measures outlined in a **Stormwater Pollution Prevention Plan (SWPPP)** for erosion control. A temporary access road is laid out and an area set aside for the storage of construction materials and onsite parking for workers. Debris will be properly disposed of offsite.

❖ Phase II – Site Installation

Site installation will start the **excavation** needed for the installation of underground wiring, trenching for foundation poles, and setting up perimeter fencing. **Project components** will be installed - racking systems and modules – followed by connecting the balance of system (BoS) equipment including wiring, combiner boxes, transformers, and inverters.

❖ Phase III – Final Testing

Site testing is the final phase, verifying the **operational status** of the project’s utility interconnection, BoS equipment, and monitoring systems. Completion of this phase finalizes the facility prior to the facility’s energization - its **commercial operations date (COD)**.

The Applicant estimates the **construction of the MSF facility will require a minimum of 4-6 months**; assuming no technical, product supply, or logistical setbacks, and suitable weather conditions prevail. ComEd will upgrade the capacity of nearby infrastructure systems to enable the facility to supply energy directly to the utility grid; a process which may require 8-12 months for overall completion.

To obtain comments and input regarding the project, beginning with initial e-mails on **November 11, 2025**, MSF began an **ongoing outreach campaign** to the following jurisdictions via e-mail, initially providing a preliminary site plan, and subsequently, a revised plan, reflecting their critique in the submittal. While this remains an ongoing process, evidence of communications and/or MSF responses is provided (**EXHIBIT S**). MSF may also request a pre-application meeting with McHenry County staff as well, to identify issues resulting from this submittal.

- ❖ City of McHenry
- ❖ Village of Bull Valley
- ❖ Village of Prairie Grove
- ❖ Nunda Township
- ❖ Nunda Township Highway Department
- ❖ McHenry Township Fire Protection District
- ❖ No drainage district was identified.



Traffic Management

The Applicant plans to minimize traffic congestion and assure public safety through careful scheduling of **phased construction** – reducing vehicular and foot traffic related to development. Localized traffic will be mitigated by the strategic use of **onsite storage** for both equipment and materials, and the newly constructed access road will virtually eliminate traffic queues. Based on similar solar project construction, the Applicant has prepared a **Construction Trip Generation Estimate**, quantifying local traffic generation as follows:

❖ **Equipment Deliveries**

Deliveries will begin in the later stages of **Site Preparation** (Phase I) and throughout **Site Installation** (Phase II), continuing for 5-6 weeks using primarily box/delivery trucks and/or commercial tractor-trailers. The Applicant projects equipment deliveries of transformers, inverters, electrical equipment, and racking system materials. Heavy construction equipment will not traverse local roads. During construction, a **staging area** will be allocated for construction personnel parking; no vehicles will be parked on adjacent roads.

❖ **Construction Personnel**

Between **20-40 workers** are expected to work onsite for the duration of construction (4-6 months). Construction workers and managers usually drive construction vehicles. Workers' parking will be restricted to an area onsite; no parking will be allowed on adjacent roadways. Once built, **maintenance traffic** will be minimal, consisting of 1-2 vehicles on a quarterly basis, or as needed.

Construction Routes and Parking

Construction and maintenance routes will originate from the interstate highway system and utilize local state or county highways to directly access the project site. While routes will be finalized based on the suppliers' locations, the Applicant is confident the following segments will be the logical choices as described below.

❖ **From the North**

- Illinois Route 120 to Crystal Lake Road

❖ **From the East/West**

- Bull Valley Road to Crystal Lake Road

❖ **From the South**

- Illinois Route 176 to Walkup Road to Crystal Lake Road

Road Use Approvals & Pre-Construction Conditions

Through preliminary contact with **McHenry County Department of Transportation (MCDOT)**, the Applicant has determined the County retains jurisdiction over South Crystal Lake Road, and will work with state, county, and township authorities to ensure construction traffic will not cause damage to local roadways. A **road use agreement** will not be required; however, **right-of-way dedication** will be required to meet County requirements. Jurisdictions typically impose permit requirements, bonds, or applicable evaluations to ensure local roads are not negatively impacted by construction activity. In those cases, MSF will be responsible for road maintenance and dust-control measures related to construction and installation.



Section III - Operations and Maintenance (O&M)

In this section, the Applicant provides the outline of a preliminary **Operations and Maintenance Plan (OMP)** for the MSF project; subject to change, pending final review by all authorities having jurisdiction over the subject. More details are provided in a separate planning document provided as part of this application.

The OMP is structured to not only enforce public safety requirements but also to assure regulatory compliance while prioritizing system performance, mitigating potential impacts to energy production during operation. MSF staff will ensure equipment monitoring and transmission protocols are routinely evaluated; contractors will perform preventive and corrective maintenance as needed, based on identified needs. All staff charged with operations and maintenance will be experienced contractors who specialize in solar facility operations. The OMP plan focuses on four (4) main elements summarized below:

- ❖ **Ongoing Preventive Maintenance**
- ❖ **Corrective Maintenance**
- ❖ **Equipment Monitoring & Evaluation**
- ❖ **Vegetation & Landscaping**

Ongoing Preventive Maintenance

Preventive maintenance for solar assets is a **proactive strategy**, reducing the chance of failure resulting in unplanned downtime. Once constructed, the Applicant anticipates 6-8 visits per year by maintenance and/or landscape teams. Our preventive strategy will include scheduled cleaning, component replacements, system repairs, routine inspection, and testing electrical connections. Structural integrity checks for rust/corrosion will be required to routinely identify structural hazards.

Corrective Maintenance

Remote monitoring systems will flag anomalies and system abnormalities **24/7/365**. Once identified, the Applicant will dispatch an experienced technician to evaluate onsite conditions. If the equipment is malfunctioning, the MSF team will initiate replacement and if appropriate, will promptly submit a warranty claim to the manufacturer. Our technicians will work closely with the manufacturer to identify the cause of the problem and prevent future issues of a similar nature.

Equipment Monitoring and Evaluation

Daily monitoring of solar production systems – energy production, system temperatures, etc. - is critical to the ability to diagnose problems in real-time. Standard monitoring protocol involves **measuring system performance against normal output in real-time** - identifying irregularities **24/7/365**. Alarms quickly trigger reactions by monitoring personnel, identifying a need to halt production, and providing specific insight into the nature of the problem.

Vegetative and Landscaping Maintenance

Solar farms typically improve soil and water quality. The key to a successful, comprehensive vegetation plan lies in the **selection of the proper seed mixture** to cover the exposed soil between the rows of panels, as well as a **routinely implemented maintenance plan** to manage needed mowing and prevent invasive, noxious weeds from dominating the landscape.



In the Midwest climate, solar panels are routinely cleaned by random rainfall; specific cleaning activity is only anticipated in periods of drought. However, the vegetation selections reflect **drought-resistant, pollinator-friendly plantings**, lessening the chances of significant need for replanting/replacement. Once established, these plants typically require less water and fertilizer due to their inherent root strength – especially when compared to agricultural crops such as corn or soybeans.

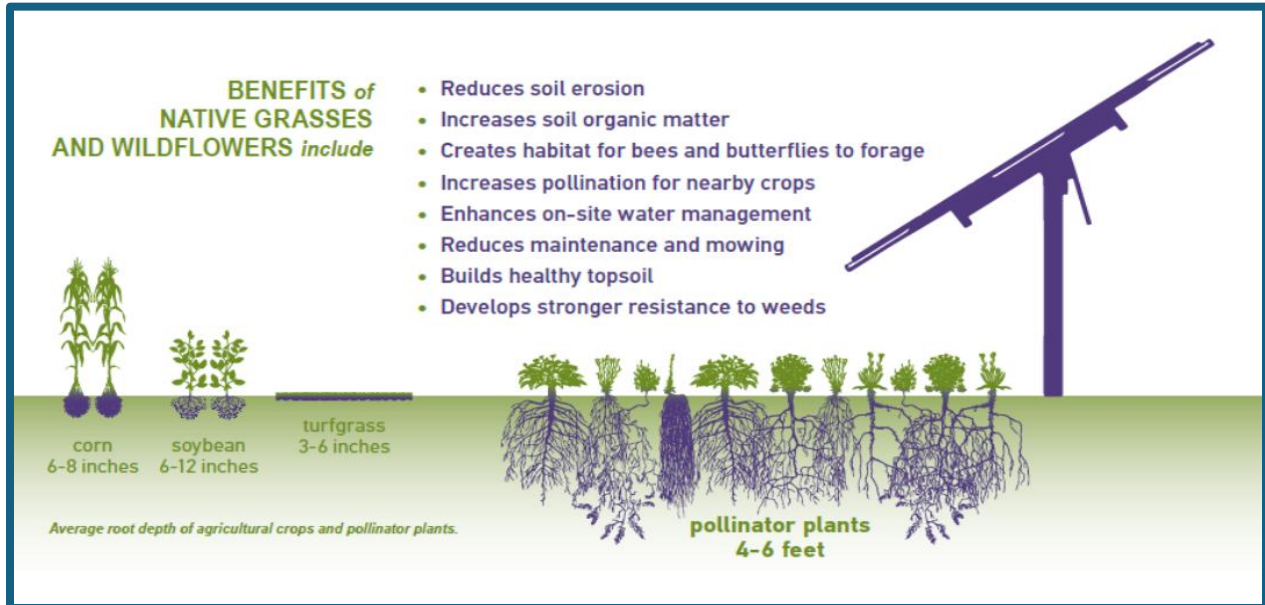


Figure 3 - Pollinator Root Systems vs Typical Crops

Graphic by SWCA Environmental Consultants

Care is also directed towards the perimeter landscaping – trees and shrubbery – used to provide a visual aesthetic to the equipment. The Applicant has provided a **Landscape Monitoring and Maintenance Plan (LMMP)** as part of our submittal, outlining both short-term and long-term landscaping activities.

Stormwater controls are another key to vegetation management. MSF has prepared a **Preliminary Stormwater Management Plan (SWMP)** documenting some of **the best management practices (BMPs)** proposed for implementation as part of the construction permitting process. MSF will utilize BMPs to prevent runoff and/or flooding, using native plants and grasses to absorb rainwater to a degree greater than a typical row crop. Over time, the land will benefit from the lack of annual planting and upon decommissioning, soils are typically in better condition than at the start of the project, allowing for a productive return to agricultural use.



Section IV - Public Safety

From initial design through emergency response, public safety is a major aspect of our project development. Responsible solar farm developers incorporate emergency responders' requirements into their site plan design. In the unlikely event of an incident, MSF will produce an **Emergency Response Plan (ERP)** in place to provide public safety personnel with easy access and complete knowledge of the facility and its components.

The ERP will outline the **procedures and protocols** for responding to emergencies that may occur during the operation of the facility. Overall, the ERP provides a preliminary approach to responding to emergencies that may occur during the operation of the McHenry Solar Farm. By following procedures and protocols, damage can be minimized and the safety of all personnel involved in responding to an emergency is assured.

Once construction is completed, an **electrical schematic** for the installation will be attached to the ERP, outlining the electrical distribution system, the main electrical components, and associated protection devices. The ERP also features a **Solar System Disconnect Switch** - a GAND operated air break 15kv, lockable in the off position.

To guarantee public safety and provide security onsite, access to the MSF is limited to trained staff and maintenance personnel only. Solar panel arrays and the electrical equipment will be surrounded by a farm fixed-knot fence or **agricultural fence** per the requirements of the **National Electrical Code (NEC)**. The project site will be secured and locked and only operator personnel will have access to the project (Knox Box or daisy chain type locks may be installed at the gated access).

Fire Protection

As the main agency responsible for fire protection, the **McHenry Township Fire Protection District (MTFPD)** will have the primary responsibility of reviewing MSF construction plans for compliance with all applicable fire and life safety codes during the permitting phase. Preliminary site plans were shared with emergency responders early in the CUP process and MSF staff have responded to MTFPD's initial comments, and a copy of that response is being provided as part of the application; further changes produced through the permitting process will be incorporated into the final design.

MSF has been designed to maximize distance from neighboring parcels for the most critical components; the following are the most hazardous equipment/locations within the project:

- ❖ **Transformers**
- ❖ **Inverters and disconnects.**
- ❖ **System wiring and electrical boxes.**

Solar projects do not create extensive electromagnetic fields that could be measured outside a project. Inverters used in solar facilities generate fields similar to household appliances and are many times weaker than those created by normal power lines. Typically, the electromagnetic fields emitted from solar equipment are only detectable within 150 feet of the MSF inverters.



Facility Signage

The McHenry Solar Farm project design ensures that MTFPD could contain any fire within the property's perimeter.

Signage with an emergency phone number will be clearly posted near the gated access point, and as needed at other locations on the fenced perimeter, allowing MTFPD personnel to contact our remote monitoring staff and have them deenergize the system in the event of an emergency, 24/7/365.

Component Material and Fire Hazards

Solar farms are safe and do not use heat to generate electricity. Steel is the primary material used for the foundation and racking components of solar facilities, lessening the likelihood of fire as extremely elevated temperatures are needed to ignite steel foundations.

While evaluated for heat resistance, the possibility of modules catching fire remains extremely low. The tempered glass offers protection from heat and minimizes the minute potential for panel ignition. The OMP further minimizes fire by ensuring all conduits, wiring, and facility components are constantly monitored 24/7/365 and evaluated or routinely inspected.

Product Specifications/Cut Sheets

Panels are primarily made of glass, aluminum, copper, and other common materials. Solar farms also utilize steel racks to position panels, electrical cables and a small number of inverters and electric transformers to deliver power to the grid. All this equipment is safe and contains the same materials found in household appliances. The trace amounts of chemicals in solar panels enable the production of electricity. These compounds are completely sealed within the glass and coatings of the panels.

The Applicant's preference is to use solar panels from **Qcells**, a public company with significant expertise and experience in manufacturing solar panels; specifically, the **Q.TRON XL-G2 625 series**. Qcells is recognized in the industry as a Tier 1 solar manufacturer, whose premium products give developers the ability to successfully finance projects like MSF. The glass of the photovoltaic module is anti-reflective (AR) coated heat strengthened glass. The module uses anti-reflective coating to minimize the potential for glare or afterimage effects during its use.

The Applicant's preference is to utilize inverters from **Chint Power Systems**; specifically, for MSF, the **CPS SCH125KTL-DO/US-600** product line, a heavy-duty product typically used for larger, utility-scale scale projects. This product allows our operations and monitoring team to ensure production is fluid and no anomalies exist within the facility.



Figure 4 - Examples of Emergency Signage



While an equipment preference exists, inverters are subject to change based on availability at the time of construction and every effort will be made by the Applicant to utilize American-made products. Equipment availability and/or improvements in technology by the time of construction will dictate purchases. The **equipment specifications** and available **Material Safety Data Sheet (MSDS)** containing information on photovoltaic (PV) module composition can be found included as part of our site plan and in **EXHIBIT U**.

Emergency Response Plan

Working with applicable jurisdictions, the Applicant will create an **Emergency Response Plan (ERP)** prior to MSF's commercial operations date (COD), allowing them to review the facility's design and equipment, such as the locations of the Knox Box, emergency shutoff switches and voltage signage.

The MSF system will be electronically monitored on a 24/7/365 basis, remotely, supplemented by onsite maintenance of equipment and landscaping an estimated 6-8 times per year, or on an as-needed basis when system monitoring indicates a need for equipment replacement.

All equipment will have labels as per NFPA guidelines including the project placard. In case of fire event, the remote site operator will detect equipment failures and will notify all emergency contacts configured for the site, i.e., emergency dispatch team.

MSF will coordinate with the local first responders regarding inverter locking and shutdown procedure and details will be outlined in the final ERP. All solar AC main circuit breakers will be lockable in the off position. Preliminary comments have been incorporated into our design and a detailed response provided to the MTFPD; a copy of our response is included with this submittal.

❖ **Site Operation**

Contact details for the site operator will be shared during the construction permitting process and finalized before operations commence. In the event of an emergency requiring shutdown, the ground-mount PV solar system can be deenergized remotely by the site operator.

❖ **Site Shutoff Procedure and Locations**

Each inverter switch should be turned to OFF position to shut off both the AC and DC switches. This will initiate rapid shutdown of PV modules and will deenergize PV (DC source). The solar system main circuit breakers (labeled as per NFPA) should be manually disconnected and locked into OFF position to disconnect AC side. Do not operate the inverter until at least 5 minutes after disconnecting all sources from DC and AC sides.

Copies of specifications for solar panels and inverters to be used for the MSF project will be provided as part of the CUP submittal. Further documentation on all components will be provided in the construction permit set.



Section V - Component Analysis

Questions often arise concerning the impacts solar facility equipment may generate on nearby, non-participating properties. MSF has evaluated impacts specifically related to glare and noise.

Federal Aviation Administration Review

As stated above, **GlareGauge** – is a globally utilized solar glare hazard analysis tool (SGHAT), compliant with **Federal Aviation Administration (FAA)** standards (78 FR 63276). However, should proximity to a local airport dictate, the Applicant submits the proposed site plan for evaluation using the **FAA Notice Criteria Tool**, identifying any impacts the proposed solar development may have on navigable airspace.

As a matter of practice, the Applicant submits four (4) points of measure - each corner of the solar facility – and each location is evaluated. The results are provided as **EXHIBIT G**; the conclusion being, MSF does not exceed the FAA criteria.

Noise Analysis

Noise is commonly defined as an unwanted characteristic emitted from natural and/or man-made source. Noise – or more accurately – the sound pressure levels are measured in decibels (dB), a number which accounts for the intensity of varying frequencies found in a localized environment as experienced by the human ear. The sensitivity of noise for an individual is directly impacted by their environment.

Sound analysis typically factors in the presence of nearby structures, groundcover/soil typology and topography in dB calculations. Surrounding or nearby roadways also contribute to the ambient environment throughout the day.

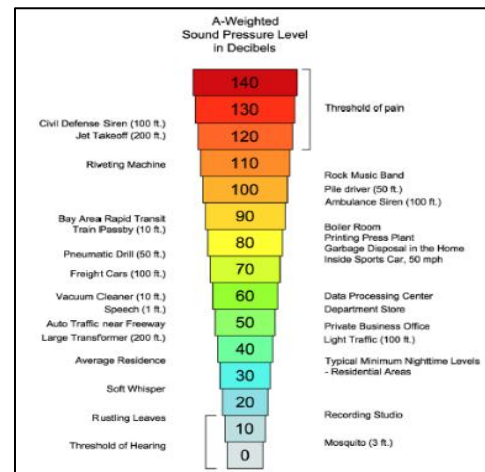


Figure 5 - Sound Pressure Levels

Noise levels associated with community solar farms are regulated by local ordinances, using the standards compiled by the **Illinois Pollution Control Board (IPCB)**. The IPCB regulations mandate allowable sound pressure levels during daylight hours comply with the performance measures outlined in the table (**Class C** or Agricultural Shaded), with data provided for MSF selected components.



Maximum dB Sound Emissions: During Daytime Hours				Typical Equipment Emissions	
Octave Band Center Frequency (Hertz)	Allowable Sound Pressure Levels (dB) Emitted to Receiving Class A Land from...			Inverters 65 dB @ 1 Meter	Transformers 64 dB @ 1 Meter
	Class A Residential	Class B Commercial	Class C Agricultural	Chint Power Systems	Transformers (3,500 kVA)
31	72	72	75	58	21
63	71	71	74	57	41
125	65	65	69	59	53
250	57	57	64	59	55
500	51	51	58	66	61
1000	45	45	52	57	58
2000	39	39	47	56	54
4000	34	34	43	56	49
8000	32	32	40	51	39

Sound generated by solar components is not anticipated to significantly contribute to existing ambient noise levels, with noise levels further mitigated by providing offsets between the equipment and surrounding land uses. The solar panels themselves serve as a shield, dispersing a portion of the sound generated by the inverters and transformers. The resulting noise levels will dissipate as distance increases; approximating that of household appliances when measured at the property lines.



Section VI - Environmental Due Diligence

The Applicant has commissioned a variety of environmental reports and conducted consultations with various agencies to assess existing conditions and identify protected lands; assuring the development of MSF does not negatively impact the site or the surrounding environment.

Phase I Environmental Site Assessment

The Applicant retained **Stateline Environmental Consulting Services, Inc. (Stateline)**, to inspect the site, research the properties' current and historic uses, and provide an initial assessment of environmental risks and impacts on soil and/or groundwater related to previous land use. Stateline did not identify a record of adverse impacts related to the properties.

IDOA – Illinois Department of Agriculture

State law regarding solar energy facilities requires McHenry Solar Farm LLC to initiate an **Agricultural Impact Mitigation Agreement (AIMA)** with the **Illinois Department of Agriculture (IDOA)** to ensure specific development standards are implemented regarding the construction, decommissioning, and operation of the facility. The Applicant executed an AIMA with the IDOA on **September 23, 2025**, countersigned by the IDOA director on **October 2, 2025**. The fully executed AIMA is attached as **EXHIBIT H**.

IDNR - Illinois Department of Natural Resources

With a varied portfolio, the **Illinois Department of Natural Resources (IDNR)** is responsible for several review protocols/consultations relating to the development of community solar.

❖ **EcoCAT**

The Applicant has conducted a review/consultation with the **Illinois Department of Natural Resources (IDNR)** via its **ecological compliance assessment tool (EcoCAT)**. The tool was developed to identify potential impacts on State-listed threatened and endangered species within the vicinity of project development sites. The **EcoCAT Natural Resource Review Results** show the consultation as terminated. The review was submitted on **December 30, 2025**, and identified no record of identified species, concluding adverse effects are unlikely. A subsequent consultation indicates the potential for an endangered species – Blanding's Turtles – within the project's vicinity. The full report can be found in **EXHIBIT J** along with its recommendations.

❖ **SHPO – Illinois State Historic Preservation Commission**

In accordance with the **Illinois State Agency Historic Resources Protection Act**, the responsibility for assessing potential impacts of the project on archaeological and/or architectural (cultural) resources lies with the **Illinois State Historic Preservation Office (SHPO)**, a division within the **Illinois Department of Natural Resources (IDNR)**. Agencies such as IDNR, the Illinois Environmental Protection Agency (IEPA) and the U.S. Army Corps of Engineers (USACE) are mandated to undergo SHPO evaluation concurrently with their respective reviews.

MSF has engaged in consultation with SHPO concerning the project site, applying on **September 8, 2025**. The Applicant's preliminary review of the SHPO **HARGIS**



database indicates no surveys, archaeological sites, or historic buildings are listed on or within 0.5 miles of the site.

Based on the documentation submitted and the findings of the AGS Phase I ESA study, the Applicant received SHPO approval, via a **SHPO Exempt Letter, September 29, 2025**, with an official finding as follows:

“Our files do not identify any known historic properties within the high probability area for archeological resources as defined in the stated Act. Accordingly, this project is EXEMPT pursuant to the Illinois State Agency Historic Resources Preservation Act (20 ILCS 3420/6).”

MLSWCD – McHenry-Lake Soil and Water Conservation District

In compliance with McHenry County requirements, the Applicant applied to the **McHenry-Lake Soil and Water Conservation District (MLSWCD)** on **January 2, 2026**, to obtain a **Natural Resource Information Report (NRI)** for the subject property. This report calculates a **Land Evaluation Site Assessment (LESA) score** to evaluate the level of protection. The final report, prepared on **January 9, 2026**, was transmitted directly to County staff by the MLSWCD; a copy of the report included with this submittal.

Concerns regarding the impact of solar farm development on farmland, particularly prime farmland, are alleviated due to the **conservation practices** implemented onsite while the solar farm is in operation; preserving the land for future agricultural use once the McHenry Solar Farm reaches the end of its operational lifespan. In addition, once decommissioning begins, the Applicant commits to **complete site restoration** to its original state, in compliance with the project’s fully executed AIMA.

Wetland Delineation Report

The Applicant contracted **Heartland Ecological Group, Inc. (HEG)** to conduct an onsite assessment and produce a **wetland delineation report**. The design of the McHenry Solar Farm reflects our intent to locate development activity away from wetland areas wherever possible, primarily through the inclusion of required buffers.

The report used standard criteria (vegetation, soil & hydrology) and protocols to determine the presence of wetland signatures under normal conditions. No wetlands were identified through either NWI mapping or NHD data.

Based on a combination of off-site analysis and field review, the wetlands identified in the report – ranging from .016 acres to 0.58 acres - were primarily located in depressions historically excavated and farmed with row crops. At least two areas are located along drainage channels. All were isolated.

The primary wetland hydrology indicators were identified to varying degrees in each defined area, but overall, wetland identification for each area were primarily based on secondary hydrology indicators such as aerial imagery and hydric soil parameters.



The MSF site plan is designed to accommodate the identified wetlands and provides each with a 15' buffer, separating panels and cabling from the wetland areas – respecting the environmental sensitivity of these areas. The full report is attached as **EXHIBIT E**.



Figure 6 - Field Delineated Wetlands

Flood Zone Review

The Applicant conducted a desktop review of the MSF site for flood zones using FEMA's **National Flood Hazard Layer (NFHL)** maps on the NFHL website. All onsite wetlands and flood zones are mapped onto the site plan; no development activity will occur within these areas and required setbacks will be provided. The site is defined as an area of minimal flood hazard.

Drainage System and Stormwater Management

Proper drainage control is critical to the successful operation of a community solar facility. Surface hydrology and subsurface drainage are essential considerations which must be integrated with adjacent stormwater systems such as roadways, drainage facilities, etc.

Based on our discussions with McHenry County staff and our interpretation of the County's stormwater ordinance and permitting requirements, the Applicant has determined the following will need to be completed prior to the receipt of construction permits:

- ❖ Prepare a preliminary **Stormwater Management Plan** to document mitigation efforts and **best management practices (BMPs)** proposed for the construction/maintenance process. Typical BMPs may address passive drainage



(trench slopes), perforated piping in drainage paths, and the use of cable jackets and/or conduits rated for moisture resistance.

- ❖ Compile a preliminary **Drain Tile Mitigation Plan** to outline MSF efforts to protect/preserve drain tiles and supplement the measures outlined in the executed AIMA.
- ❖ Completion of a **drain tile survey** to ascertain the location and condition of onsite drainage patterns, post-approval.

Consultants capable of adequately documenting onsite drain tiles and drainage patterns are typically booked 4-6 months out; completion of such a survey will unnecessarily lengthen the CUP approval process. Upon receiving final CUP approval from the County Board, and prior to, or in conjunction with the start of construction permit plan review, the Applicant will commission a **drain tile survey** to evaluate the presence of existing drain tiles and their condition prior to construction. This survey will enable MSF to assume responsibility to **repair/replace any damage to drain tiles** linked to construction, or later, linked to the decommissioning process, thus ensuring all drain tiles function properly.

To ensure the MSF fully complies with not only the intent, but also with the spirit of McHenry County's drainage requirements, the Applicant has consolidated all drain tile/stormwater recommendations and presented them as separate plans **EXHIBIT M** (Drain Tile) and **EXHIBIT N** (Stormwater).

USACE – United States Army Corps of Engineers

If required, the Applicant has submitted a request to the **US Army Corps of Engineers (USACE)** to analyze the MSF project and issue a **“No Permit Required (NPR)”** determination. Given the project's location, topography and hydrologic circumstances, it is reasonable to expect the issuance of an NPR. All documentation is attached as **EXHIBIT K**.



Section VII - Landscaping and Vegetation Management

To fully support landscaping requirements, the Applicant has prepared a preliminary **Landscape Monitoring and Management Plan (LMMP)** for review by McHenry County staff and the MLSWCD in conjunction with the construction process. The LMMP outlines components and maintenance activities to be finalized later in the development process. MSF will comply with the State of Illinois requirements related to **pollinator-friendly species/vegetation** used onsite (525 ILCS 55/) and **noxious weed control** (505 ILCS 100/).

Vegetation Management

MSF is committed to implementing a comprehensive vegetation management plan for the duration of the project. The project will abide by guidelines established by the **Illinois Department of Natural Resources (IDNR)** utilizing comprehensive methods to protect the health of vegetation onsite.

Species will be chosen to prevent erosion and help manage stormwater runoff. The site will be surrounded by a fixed-knot farm fence to provide security and allow access for small ground-level mammals.



Figure 7 - Typical Agricultural Fence

The Applicant will consult a local ecologist for a preliminary evaluation to identify and subsequently remove all invasive species. Following completion of the finished grade, an approved native seed mix will be planted. To control noxious weeds and erosion in the project area, disturbed areas will be seeded with a native grass mix, including pollinator-friendly wildflowers.

Perimeter Landscaping

The perimeter landscaping proposed for the McHenry Solar Farm LLC has been selected to provide a degree of privacy for non-participating properties and visual appeal from adjacent rights-of-way. The examples below provide an indication of the perimeter landscaping's growth over time; gradually reducing the view of equipment and improving the project's visual aesthetic. The Applicant is providing a rendering of simulated perimeter landscaping growth at 5-year and 15-year maturity.





Figure 7 – Projected Perimeter Landscaping Growth

The selected species will consist of drought-resistant native trees and shrubs such as the Serviceberry, Eastern Redbud, Arbor Vitae, American Hazelnut, and Shrubby St. John’s Wort.

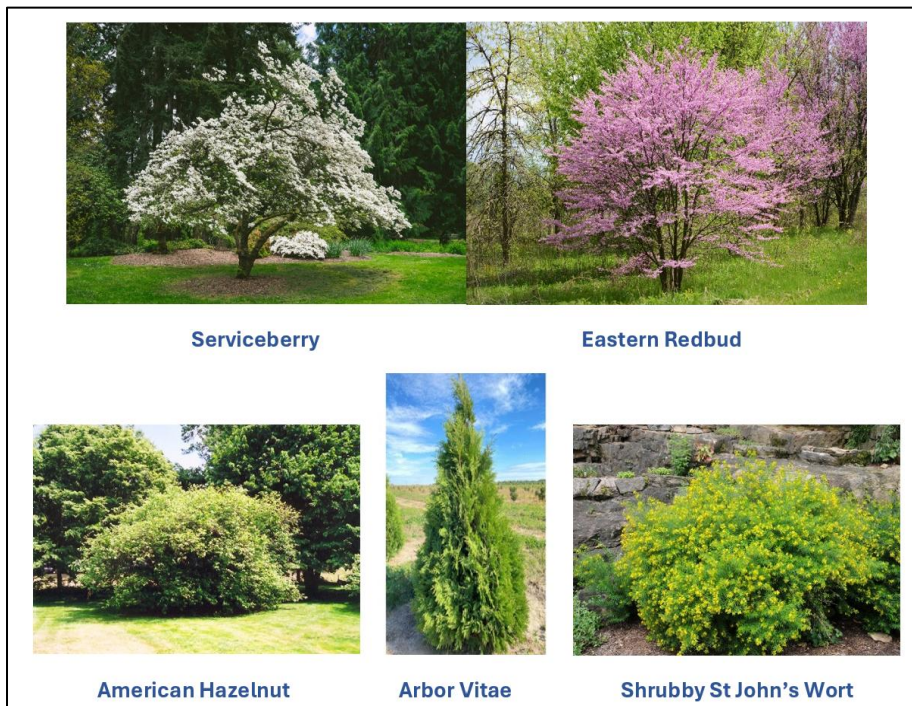


Figure 8 - Perimeter Landscape Vegetation

Vegetation Plan

Regular vegetation management will be conducted multiple times annually during the growing season. This proactive approach will minimize shading on the solar modules and ensure the maintenance of a well-kept site.

Subject to change, the proposed vegetation for the McHenry Solar Farm project will consist of the Butterfly Milkweed, Spiderwort, Stiff Coreopsis, and Calico Beardtongue. As part of the landscape plan MSF is proposing the following:

- ❖ Planned plant diversity in rows and under solar arrays.
- ❖ Seeding used for native perimeter and buffer areas.
- ❖ Planned number of native species in perimeter and buffer areas.
- ❖ Planned percentage of perimeter and buffer area dominated by desirable wildflowers.
- ❖ Habitat site preparation prior to implementation.



Figure 9 - Proposed Vegetation

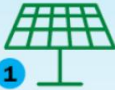
Pollinators

Research conducted by the **Solar Technologies Office (SETO)** of the **US Department of Energy** has concluded that pollinators – bees, insects, butterflies, etc. – play a critical role in global food production. Planting beneficial vegetation under and around solar arrays has been proven to not only support native pollinators but play a key role in soil preservation by incorporating responsible environmental practices into renewable energy systems.




WHAT IS POLLINATOR-FRIENDLY SOLAR?


Growing pollinator-friendly plants under solar panels can produce clean energy while providing habitat and food for birds, bees, butterflies, and other beneficial insects.



1
Ground-mounted solar panels are installed.




2
Pollinator-friendly plants are seeded beneath and around the panels. On average, these plants take 2-3 years to be established.



3
The pollinator-friendly solar site attracts pollinators, like bees and butterflies.


Pollinator-friendly plants can even improve water quality and help reduce erosion.



U.S. DEPARTMENT OF **ENERGY** | Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

Figure 10 - Pollinators and Solar Arrays


The McHenry Solar Farm project will feature a variety of pollinator-friendly plantings such as those illustrated below, to minimize the proliferation of weeds and prevent erosion for the life of the project.




Hoary Vervain




Pollinators on a Typical Solar Site



Golden Alexanders



Black-Eyed Susan



Purple Prairie Clover

Figure 11 - Typical Pollinators Used on Solar Sites



Weed Management

From the initial stages of development through monitoring and retreatment phases, MSF will implement weed management, as the initial stage of a long-term **Landscape Management and Monitoring Plan (LMMP)**.

❖ **Early Eradication:**

- Initiate eradication of invasive species before any ground-disturbing activities, with collaboration between McHenry County and the local SWCD, if needed.

❖ **Strategic Seeding with Native Mix:**

- Utilize native grasses and pollinator-friendly seed mix.
- Engage a professional with expertise in re-vegetation to approve a final seed mix, ensuring compatibility with local conditions.

❖ **Regular Mowing:**

- Establish a routine maintenance schedule, including a minimum of six mowings per year within the project area.
- Adjust the frequency of mowing or grazing as needed, potentially conducting these activities during the growing season to effectively manage vegetation.

❖ **Long-Term Monitoring and Retreatment:**

- Recognizing the longevity of weed seeds in the soil, commit to a comprehensive, long-term site and weed management process.
- Regularly monitor for any resurgence of weeds.
- Revisiting areas as necessary using industry-standard weed management practices and procedures.
- Once grass is established spot mowing and hand pulling will be administered to maintain vegetation and limit weeds.



Section VIII - Decommissioning

MSF is subject to decommissioning as per the guidelines set forth in the AIMA executed with the IDOA and under McHenry County code. All community solar facilities must, by state law, execute this agreement with the department to ensure the decommissioning of the system is successfully executed when the project reaches the effective end of its lifecycle.

In conformance with the AIMA, the Applicant must file a **decommissioning plan** with the AHJ responsible for approving the facility. Both the decommissioning plan and any required **financial surety or bond** will be placed with McHenry County to ensure sufficient decommissioning capital is available and the site can be restored to its pre-construction condition. **Restoration** will allow the site to be returned to agriculture after decommissioning and appropriate measures will be implemented to fulfill this objective by the Applicant.

Facility decommissioning is described as the removal of all system components and rehabilitation of the site to pre-construction conditions. The facility's components will either be recycled to then current standards recommended at the time of decommissioning, sold to third parties, properly disposed of, or donated to non-profit organizations if there is a need.

The decommissioning of MSF will proceed in the **reverse order of installation**. The step-by-step process to decommission the facility is as follows:

- ❖ The facility will be disconnected from the local utility power grid.
- ❖ Modules will be disconnected from the racking system.
- ❖ Racking systems will be disconnected, disassembled, and recycled (if possible).
- ❖ Steel foundation will be removed and recycled by an approved metals recycler.
- ❖ Above ground electrical interconnection cables will be removed and recycled or disposed of offsite at an approved facility.
- ❖ During the disassembly process, all equipment will be segregated and temporarily placed on site for transportation to its recycling or disposal facility.
- ❖ Electrical and electronic devices such as transformers & inverters will be removed and recycled or disposed of offsite.
- ❖ Fencing will be removed once all materials have been transported to offsite recycling facilities.
- ❖ Grading and necessary fill will be provided to restore the site to a condition conducive to the resumption of agricultural use. This would conclude the decommissioning process of the facility.

Per state law, the Applicant must post a **decommissioning bond** equal to the cost of decommissioning. Prior to the issuance of construction permits, the Applicant will engage a third-party engineer to review projected expenses to ensure the bonded decommissioning funds are accurate and sufficient to cover costs. Once reviewed, the engineer's decommissioning estimates will be submitted to McHenry County staff for further review and final approval.

As part of this submittal, the Applicant has provided a preliminary **Decommissioning Plan/Cost Estimate (DECOM)** which provides context for the specific items and costs to be included later in the final plan along with the required bond/surety.



Section IX - Additional Considerations

The Applicant asks the McHenry County Board and designated reviewers to consider these factors and overall benefits associated with the McHenry Solar Farm and upon thorough review, approve the issuance of a conditional use permit.

- ❖ **Renewable energy sources** – like MSF – help lower the cost of electric bills, stimulate economic growth, and increase energy independence for our society, while decreasing our reliance on fossil fuels.
- ❖ **Property values impacted by solar development** have been extensively analyzed – with **data consistently showing no negative impacts** - a conclusion reached by numerous studies at the state and national levels – including **project-specific and comparative studies** conducted in Illinois (**McHenry**, Kane, LaSalle and Winnebago) and Indiana counties (Elkhart, Lake, Madison, Marion and Porter) (www.illinoisolar.org) – and nationally some as recently as December 2024.
- ❖ The **low profile** of community solar farms along with project-specific landscaping minimizes the visual aesthetic associated with solar facilities. Solar is the least obtrusive type of energy generation available.
- ❖ Solar farms offer the **lowest cost method of power generation** with the added benefit of being pollution-free. Advances in technology have drastically reduced the price of solar power – cheaper than coal, gas, or nuclear power in most cases.
- ❖ Projects like MSF will generate **30 years of steady tax revenue – often in excess of \$1,000,000 dollars** - to help fund schools and other community services - contributing to lower taxes for homeowners. In addition to tax benefits, solar will create local construction and operations jobs, and increased business for local services.
- ❖ An **overall decrease in emissions** associated with power generation by public utilities – due to the introduction of renewable energy resources. Traffic controls indicate minimal congestion, post-construction, and minimal trip generation during operations.
- ❖ Community solar is a **temporary use of private land** combined with a commitment to respect the future use of the land for agricultural purposes while **allowing landowners the right to develop their property** with a use that complies with all federal, state, and local policies, codes, and development guidelines.
- ❖ At the conclusion of the project’s lifecycle, the Applicant is contractually obligated to **decommission the solar farm**, remove/recycle equipment and restore the site for agricultural use.
- ❖ **Respecting the land** translates into several demonstrable features:
 - Solar farms do not pose a threat to birds or wildlife – or humans.
 - The use of native vegetation onsite particularly pollinator-friendly plantings.
 - The lack of regular agricultural use creates fallow ground which helps preserve and recharge groundwater/aquifers.
 - No harmful chemicals are released into the ground.
 - Stormwater management and drain tile repair or replacement support a site’s eventual return to agricultural use.



Section X - Insurance

McHenry Solar Farm LLC will be required to maintain adequate **insurance coverage** under long-term contracts with various parties, including, but not limited to, Commonwealth Edison, investors, and participating lenders.

Section XI - Interconnection

McHenry Solar Farm LLC has filed an **interconnection application** with Commonwealth Edison, enabling the electricity generated by MSF to be distributed through the utility's grid. Interconnection is proposed to occur at a point illustrated on the project's site plan. A redacted copy of the final, executed **Interconnection Agreement** will be provided prior to construction permitting. A copy of the MSF interconnection application can be found in **EXHIBIT T**.

Section XII - Concluding Remarks

On behalf of the McHenry Solar Farm LLC project team, I would like to thank you in advance for the time spent reviewing our CUP application. Our team looks forward to presenting the project for review and approval. In the interim, please contact us with any questions regarding our submittal or if any additional information is required.

Sincerely,



Robert McNeill

Project Development Manager

McHenry Solar Farm LLC

P: 224-524-1830 | E-Mail: robertmcneill@suryapowered.com



MCHENRY SOLAR FARM LLC MCHENRY COUNTY, ILLINOIS

SHEET LIST :

E-DEV.01-CP	COVER PAGE
E-DEV.02-EC	EXISTING GENERAL CONDITIONS PLAN
E-DEV.03-EC	EXISTING CONDITIONS
E-DEV.04-SP	SITE PLAN
E-DEV.05-CD	CONSTRUCTION DETAILS
E-DEV.06-FD	FENCE DETAILS
E-DEV.07-ES	EQUIPMENT SPECIFICATIONS

SHEET NOTE

LEGAL DESCRIPTION OF THE PROJECT SITE IN RELATION TO THE DEVELOPMENT PARCEL SUBMITTED TO MCHENRY COUNTY OF RECORD.

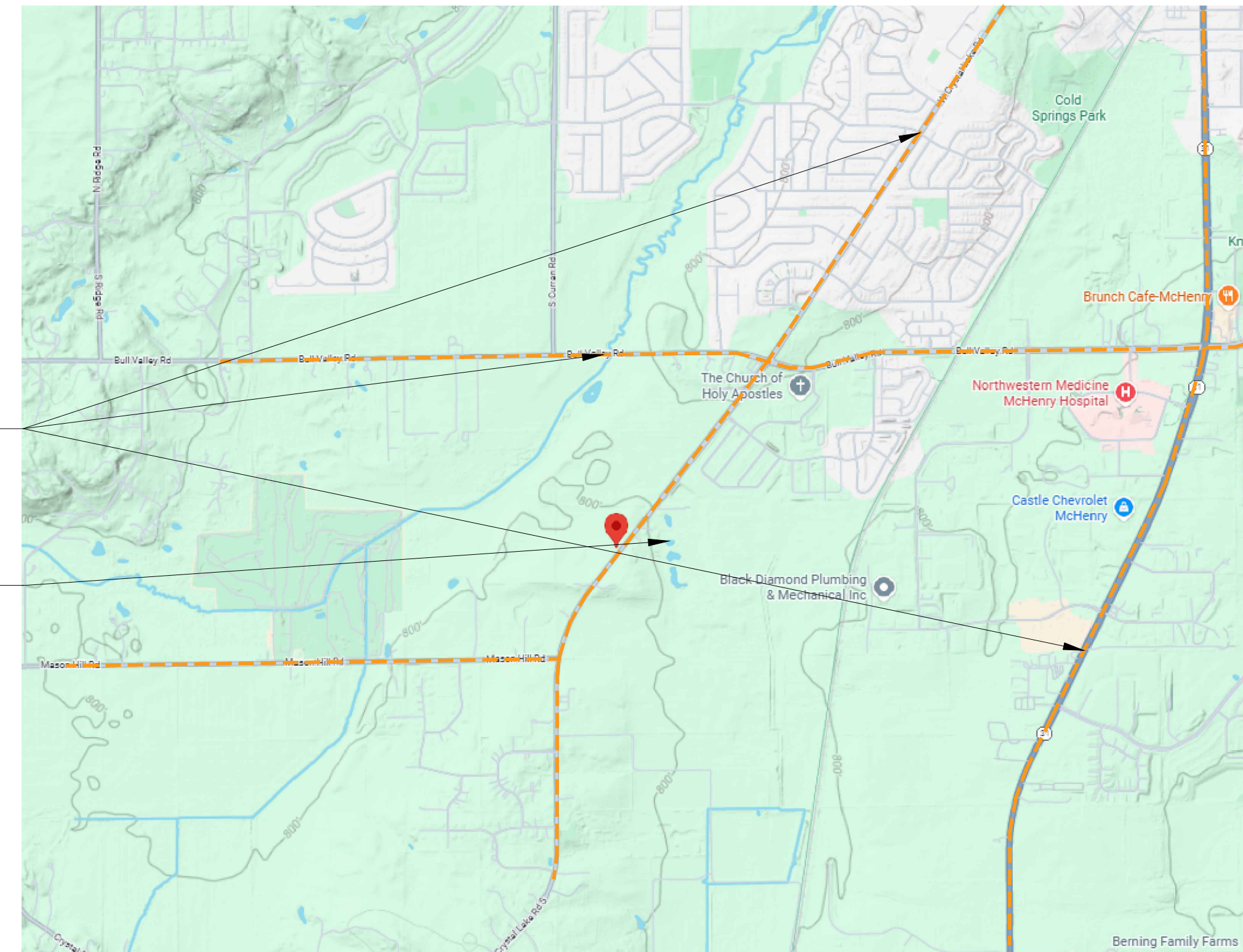
REFER TO DETAIL 1 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: PV MODULE 625 WATT (DC) INFORMATION.

REFER TO DETAIL 2 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: STRING INVERTER 125 KW (AC) INFORMATION.

VARIOUS MEANS OF TRANSPORTATION ACCESS (TYP.)

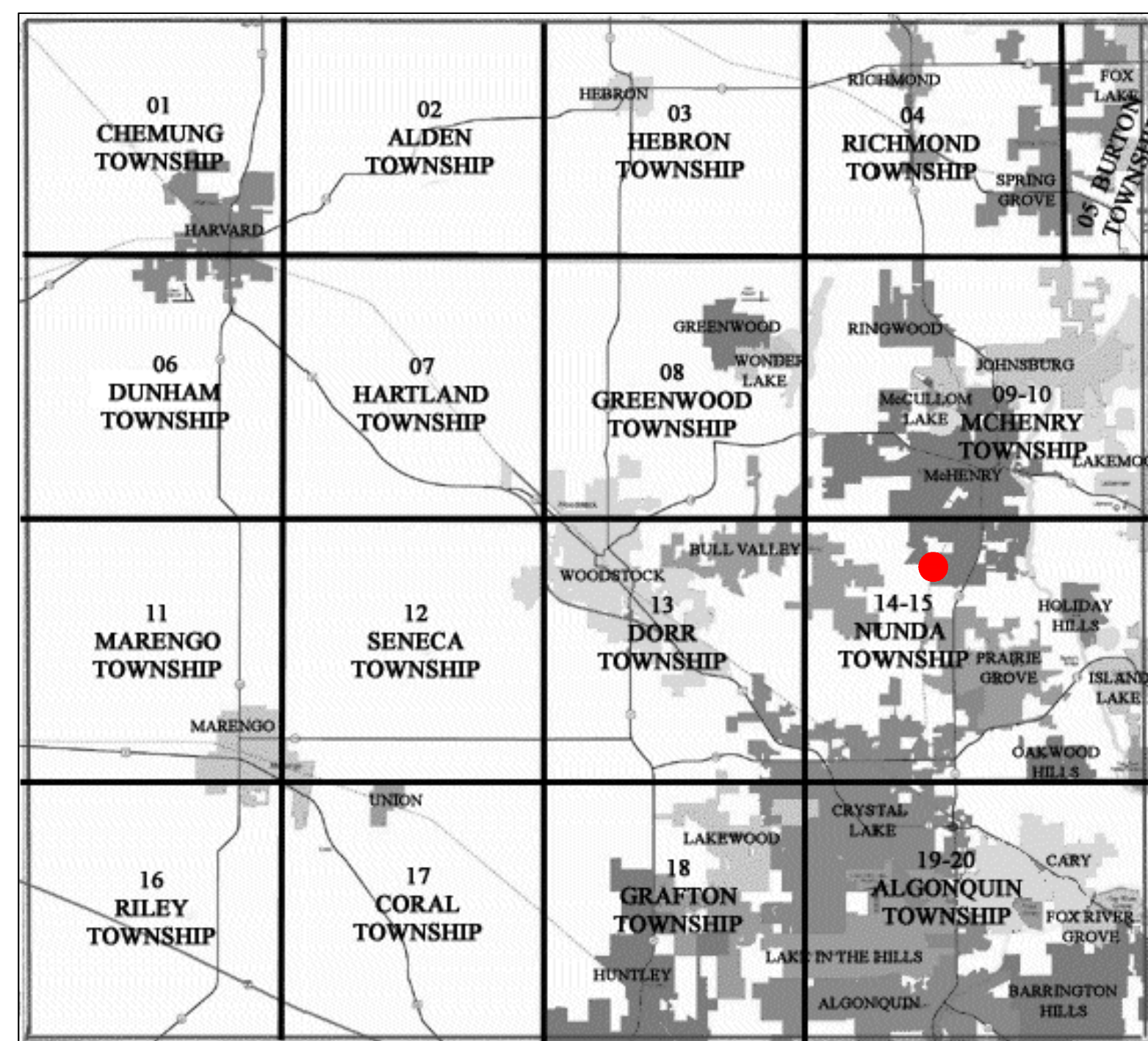
PROJECT ADDRESS PRIMARY CONSTRUCTION LOGISTICS ROUTE

ANY INTERSTATE VIA (IL-31) HEADING WEST TOWARDS TO BULL VALLEY RD. HEADING SOUTH TO CRYSTAL LAKE RD S. PARCEL LOCATED WEST OF CRYSTAL LAKE RD S.

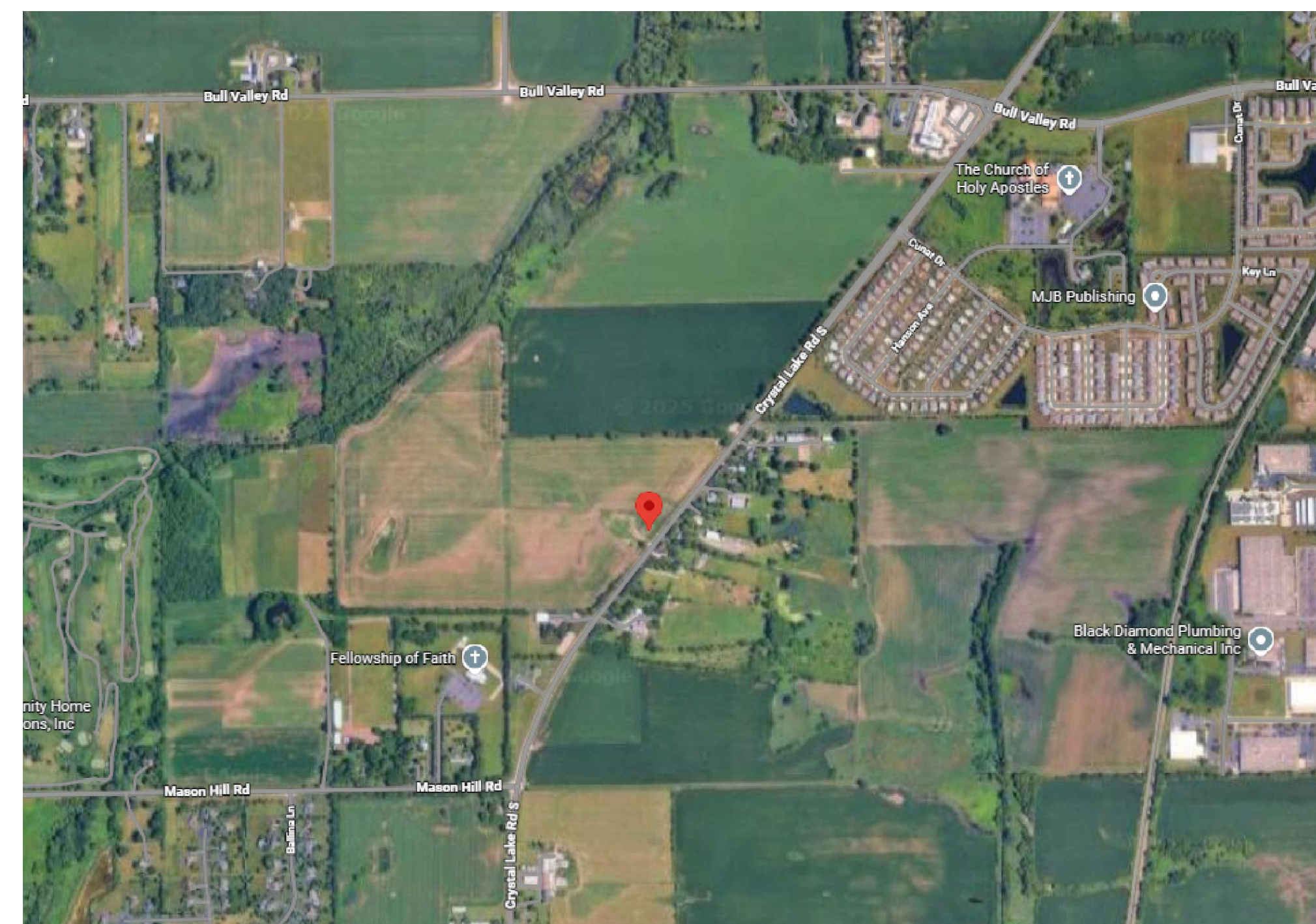


1 IDOT CONSTRUCTION LOGISTICS ROUTE(S)
NOT TO SCALE

2 MCHENRY COUNTY, IL
NOT TO SCALE



3 McHENRY COUNTY LOCATION MAP
NOT TO SCALE



4 VICINITY MAP
NOT TO SCALE

SITE INFORMATION

PARCEL ZONING	: A-1 AGRICULTURE
PROJECT DESCRIPTION	
PROJECT LOCATION	: 1207 Crystal Lake Rd S, McHenry, IL 60050
PROJECT PARCEL	: 37 ACRES
P.I.N	: 14-09-100-001 (Partial) 14-09-100-002 (Partial)
UTILITY	
UTILITY	: COMMONWEALTH EDISON
SYSTEM SIZE DC	: 7590 kWp
SYSTEM SIZE AC	: 5000 KW
DC/AC RATIO	: 1.52
AZIMUTH	: 180°
TILT	: +/- 52°
GROUND COVERAGE RATIO	: 33.5%
MODULE MAKE & MODEL	
MODULE MAKE & MODEL	: QCELL Q.TRON XL-G2 625
MODULE RATING	: 625 Wp
MECHANICAL SYSTEM	: HORIZONTAL TRACKER
INVERTER MAKE & MODEL	: CPS SCH125KTL-DO/US-600

REV	Date	Revision Details	PM	ENG	CHK
R2	02/17/2026	ISSUE FOR SUP			
R1	01/24/2026	ISSUE FOR SUP			
R0	01/03/2026	ISSUE FOR REVIEW			

Engineer	
----------	--

Developer
MCHENRY SOLAR FARM LLC
141 W JACKSON BLVD, STE 1692
CHICAGO, IL 60604
WWW.SURYAPOWERED.COM

Project Name & Address
MCHENRY SOLAR FARM LLC
1207 CRYSTAL LAKE RD S,
MCHENRY, IL 60140
MCHENRY
P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
COVER PAGE

Project No	Drawing No
1104	E-DEV.01-CP
Paper Size	Sheet No.
36" x 24"	01



SHEET NOTE

LEGAL DESCRIPTION OF THE PROJECT SITE IN RELATION TO THE DEVELOPMENT PARCEL SUBMITTED TO McHENRY COUNTY OF RECORD.

REFER TO DETAIL 1 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: PV MODULE 625 WATT (DC) INFORMATION.

REFER TO DETAIL 2 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: STRING INVERTER 125 KW (AC) INFORMATION.

LEGENDS

— DEVELOPMENT PARCEL

REV	Date	Revision Details	PM	ENG	CHK
R2	02/17/2026	ISSUE FOR SUP			
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Engineer

Developer
MCHENRY SOLAR FARM LLC
 141 W JACKSON BLVD, STE 1692
 CHICAGO, IL 60604
 WWW.SURYAPOWERED.COM

Project Name & Address
MCHENRY SOLAR FARM LLC
 1207 CRYSTAL LAKE RD S.
 MCHENRY, IL 60140
 MCHENRY
 P.L.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
EXISTING CONDITIONS
 EXISTING GENERAL CONDITIONS PLAN
 SHOWING ADJACENT LAND PARCELS ZONING
 & PIN NUMBER, ROADS, GEOGRAPHY
 PROPERTIES, SATELLITE VIEW

Project No 1104	Drawing No E-DEV.02-EC
Paper Size 36" x 24"	Sheet No. 02

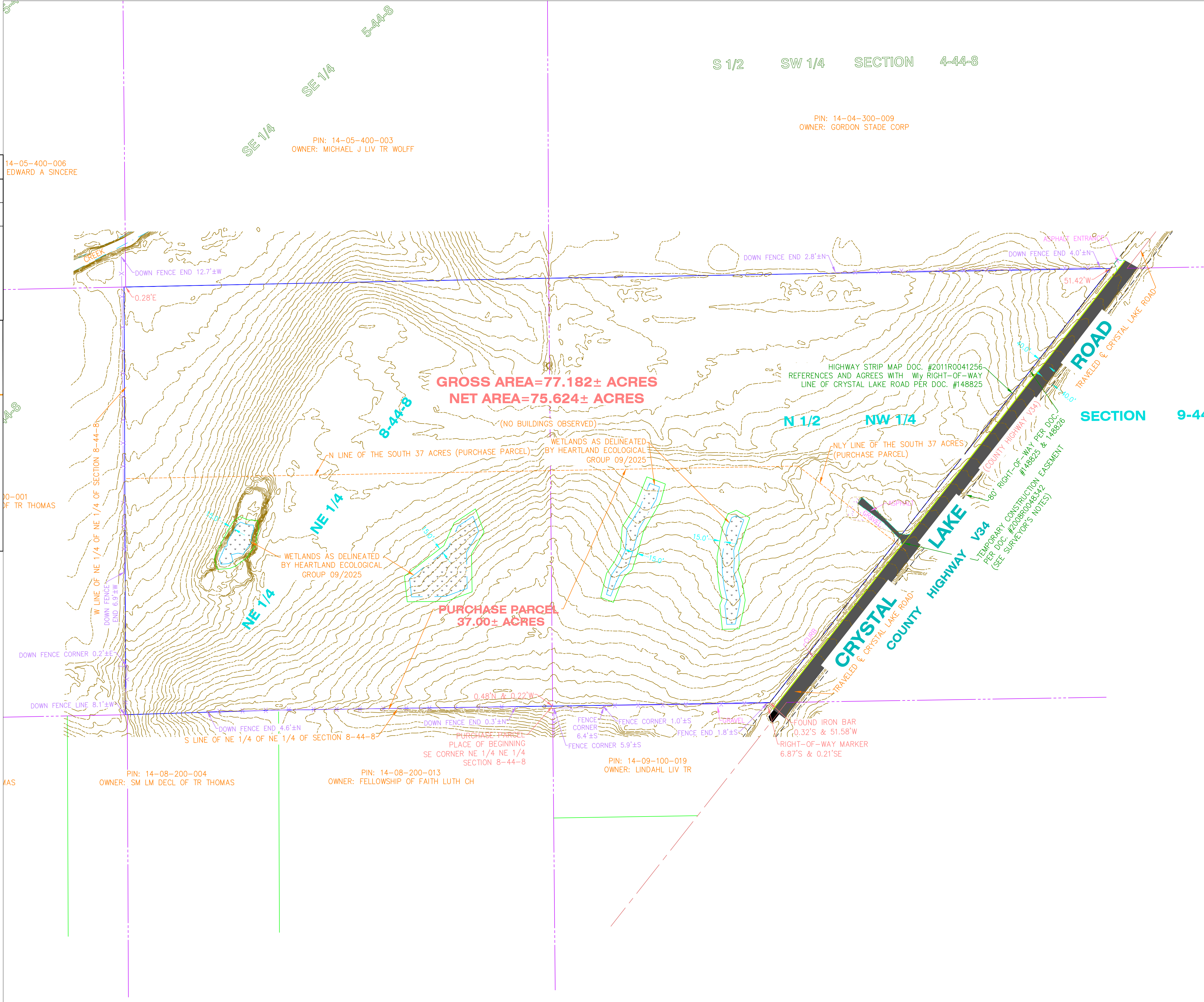
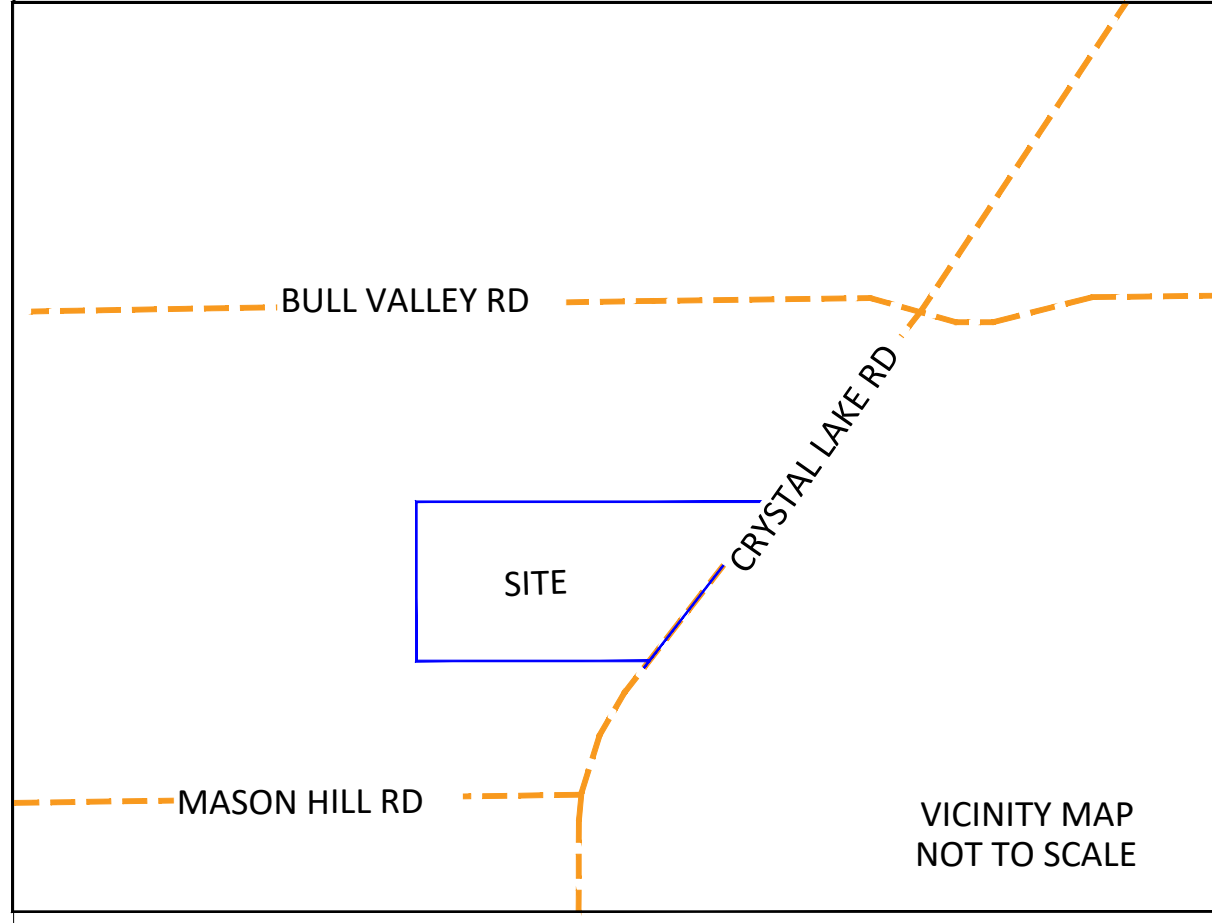
1 EXISTING GENERAL CONDITION PLAN
 SCALE: 1" = 250'

GENERAL NOTE

1. COMPARE ALL DISTANCE AND POINTS IN FIELD AND REPORT ANY DISCREPANCIES TO THE SURVEYOR.
2. UTILITY SHOWN HEREIN ARE BY VISIBLE LOCATION OF ABOVE GROUND STRUCTURES ONLY.
3. CALL 811 ("COMMON GROUND ALLIANCE" NATIONAL UNDERGROUND UTILITY LINES PRIOR TO ANY DIGGING OR CONSTRUCTION.
4. NO DIMENSION ASSUMED BY SCALING.
5. FOR MISSING OR SUBSTANDARD SECTION CORNER MONUMENTS SHOWN ON THIS SURVEY AND/OR CORNERS MISSING A CURRENT & COMPLETE MONUMENT RECORD.
6. ALL RIGHT-OF-WAY WIDTHS SHOWN HEREON ARE APPROXIMATE.

LEGEND

	PROPERTY LINE
	PARCEL LINE



SHEET NOTE

LEGAL DESCRIPTION OF THE PROJECT SITE IN RELATION TO THE DEVELOPMENT PARCEL SUBMITTED TO MCHENRY COUNTY OF RECORD.

REFER TO DETAIL 1 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: PV MODULE 625 WATT (DC) INFORMATION.

REFER TO DETAIL 2 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: STRING INVERTER 125 KW (AC) INFORMATION.

LEGENDS

	EXISTING PROPERTY LINE
--	------------------------

REV	Date	Revision Details	PM	ENG	CHK
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Engineer

Developer

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141 W JACKSON BLVD, STE 1692
CHICAGO, IL 60604
WWW.SURVAPOWERED.COM

Project Name & Address

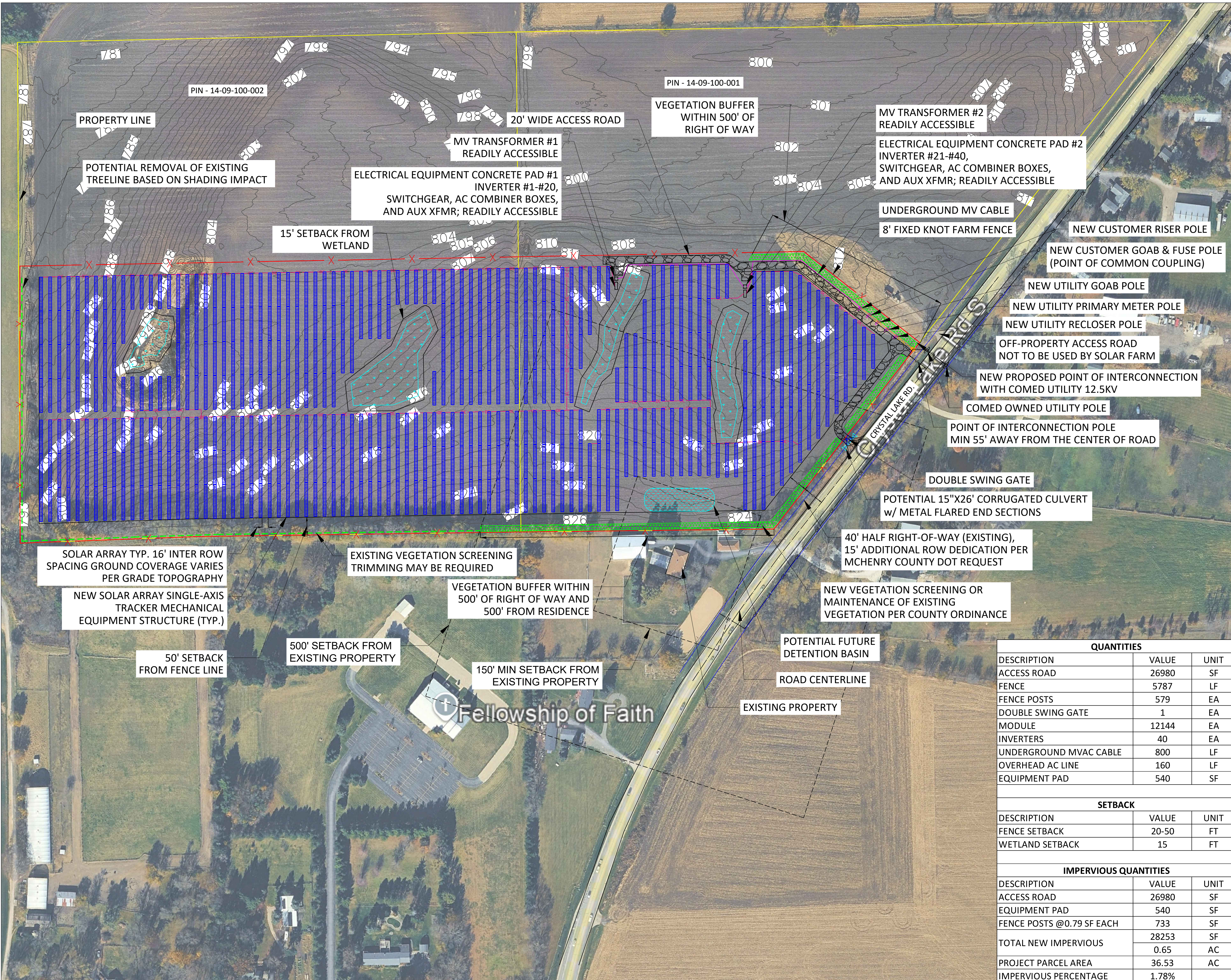
MCHENRY SOLAR FARM LLC
1207 CRYSTAL LAKE RD S,
MCHENRY, IL 60140
MCHENRY
P.L.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title

EXISTING CONDITION
ALTA AND TOPOGRAPHY SURVEY OF THE SITE

Project No	1104	Drawing No.	E-DEV.03-EC
Paper Size	36" x 24"	Sheet No.	03

1 EXISTING CONDITION PLAN
SCALE: 1" = 150'



SYSTEM SUMMARY

SYSTEM SIZE DC	: 7590 KWP
SYSTEM SIZE AC	: 5000 KW
DC/AC RATIO	: 1.52
MODULE MAKE & MODEL	: QCELL Q.TRON XL-G2 625
MODULE RATING	: 625 WP
MODULE COUNT	: 12144
INVERTER MAKE & MODEL	: CPS SCH125KTL-D0/US-600
INVERTER RATING	: 125 KW
INVERTER COUNT	: 40
RACKING TYPE	: SINGLE AXIS TRACKER
AZIMUTH	: 180°
TILT	: +/- 52°
GROUND COVERAGE RATIO	: 33.5%
INTER ROW SPACING	: 16 FT
MODULES PER STRING	: 23
INTERCONNECTION UTILITY	: COMED
INTERCONNECTION VOLTAGE	: 12.5 KV

DESIGN CRITERIA

DESIGN TEMPERATURE	: -24°C/ 36°C
WIND SPEED (ASCE 7-10)	: 100 MPH
GROUND SNOW LOAD	: 40 PSF

- GENERAL NOTES**
1. INSTALLATION MUST COMPLY WITH INSTALLATION NOTES AND MANUFACTURER'S INSTRUCTIONS.
 2. SEE SINGLE LINE DIAGRAM FOR EQUIPMENT AND CONDUCTOR SPECIFICATIONS.
 3. CONTRACTOR SHALL NOTIFY DESIGNER OF DISCREPANCIES IN CONDUIT LENGTH THAT MAY INCREASE VOLTAGE DROP.
 4. SEE SUBARRAY LAYOUTS FOR PV SOURCE CIRCUIT LOCATIONS.
 5. UNLESS OTHERWISE STATED, EXISTING OVERHEAD, UNDERGROUND FACILITIES, AND EQUIPMENT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC IN NATURE AND FOR INFORMATIONAL PURPOSES ONLY. ACTUAL LOCATIONS SHALL BE FIELD VERIFIED. THE INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE ACCURACY OF THE EXISTING SITE, ALL SYSTEM AS-BUILT DOCUMENTATION USED IN THE WORK, AND SHALL REPORT ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL EQUIPMENT AND SITE CONDITIONS TO THE OWNER AND ENGINEER BEFORE COMMENCING WORK.
 6. CIRCUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY. THE INSTALLATION CONTRACTOR SHALL COORDINATE ACTUAL ROUTING OF CONDUITS, BUT SHALL NOT EXCEED THE MAXIMUM CONDUCTOR LENGTHS IDENTIFIED IN THE PLAN SET. CHANGES FROM THE SPECIFIED MAXIMUM LENGTH MAY REQUIRE INCREASED CONDUCTOR SIZES AND MUST BE APPROVED BY THE OWNER AND ENGINEER.

SHEET NOTE

UTILITY POLES ARE SHOWN FOR INDICATING LOCATION ONLY, SPACING BETWEEN POLES, PHYSICAL PROTECTION BARRIER FOR SWITCHBOARDS, ETC. WILL BE ADDED IN THE DRAWINGS PREPARED FOR THE CONSTRUCTION DOCUMENTS.

FENCE LINE WILL BE THE NEW PROPERTY LINE ONCE PARCELS ARE SPLIT FROM THE GREATER PARCELS

INTERCONNECTION TYPE: PRIMARY
24/7 UNESCORTED KEYLESS ACCESS PROVIDED FOR ALL UTILITY ENERGY EQUIPMENT INCLUDING THE METERS AND AC DISCONNECT.

PROJECT ADDRESS:
LAT: 42.310870
LONG: -88.313501

QUANTITIES

DESCRIPTION	VALUE	UNIT
ACCESS ROAD	26980	SF
FENCE	5787	LF
FENCE POSTS	579	EA
DOUBLE SWING GATE	1	EA
MODULE	12144	EA
INVERTERS	40	EA
UNDERGROUND MVAC CABLE	800	LF
OVERHEAD AC LINE	160	LF
EQUIPMENT PAD	540	SF

SETBACK

DESCRIPTION	VALUE	UNIT
FENCE SETBACK	20-50	FT
WETLAND SETBACK	15	FT

IMPERVIOUS QUANTITIES

DESCRIPTION	VALUE	UNIT
ACCESS ROAD	26980	SF
EQUIPMENT PAD	540	SF
FENCE POSTS @0.79 SF EACH	733	SF
TOTAL NEW IMPERVIOUS	28253	SF
	0.65	AC
PROJECT PARCEL AREA	36.53	AC
IMPERVIOUS PERCENTAGE	1.78%	

LEGEND

	PROPERTY LINE
	NEW FIXED FARM KNOT FENCE
	NEW VEGETATION SCREENING OR MAINTENANCE OF EXISTING VEGETATION
	EXISTING VEGETATION SCREENING TRIMMING MAY BE REQUIRED
	EXISTING UTILITY OVERHEAD LINE (COMED 12.5KV)
	PROPOSED NEW POWER POLE STRUCTURE
	PROPOSED DC CABLE TRENCH
	PROPOSED MV AC CABLE TRENCH
	PROPOSED OVERHEAD AC
	SETBACK
	WETLAND
	ACCESS ROAD (20')
	FUTURE POTENTIAL DETENTION BASIN

REV	Date	Revision Details	PM	ENG	CHK
R2	02/17/2026	ISSUE FOR SUP			
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Revision Table

Developer:
MCHENRY SOLAR FARM LLC
141 W JACKSON BLVD, STE 1692
CHICAGO, IL 60604
WWW.SURYAPOWERED.COM

Project Name & Address:
MCHENRY SOLAR FARM LLC
1207 CRYSTAL LAKE RD S.
MCHENRY, IL 60140
MCHENRY
P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

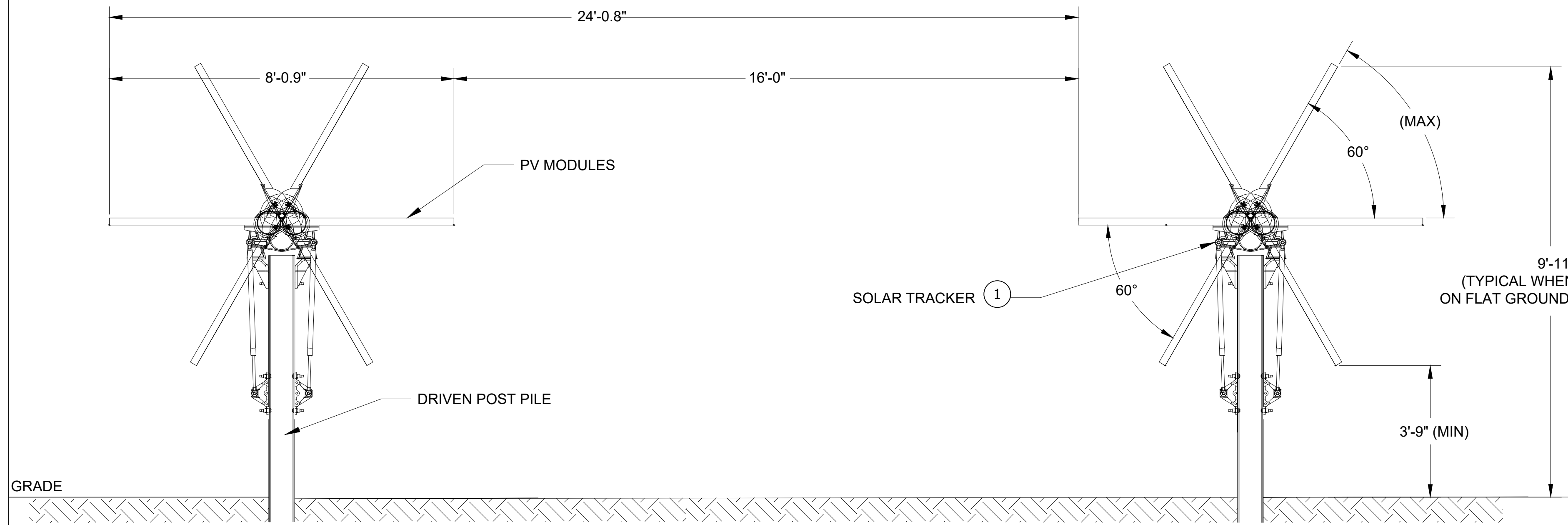
Drawing Title:
SITE PLAN
NEW SITE PLAN LAYOUT OF SOLAR FARM EQUIPMENT, INTERNAL ROADS AND SETBACKS

Project No:
1104

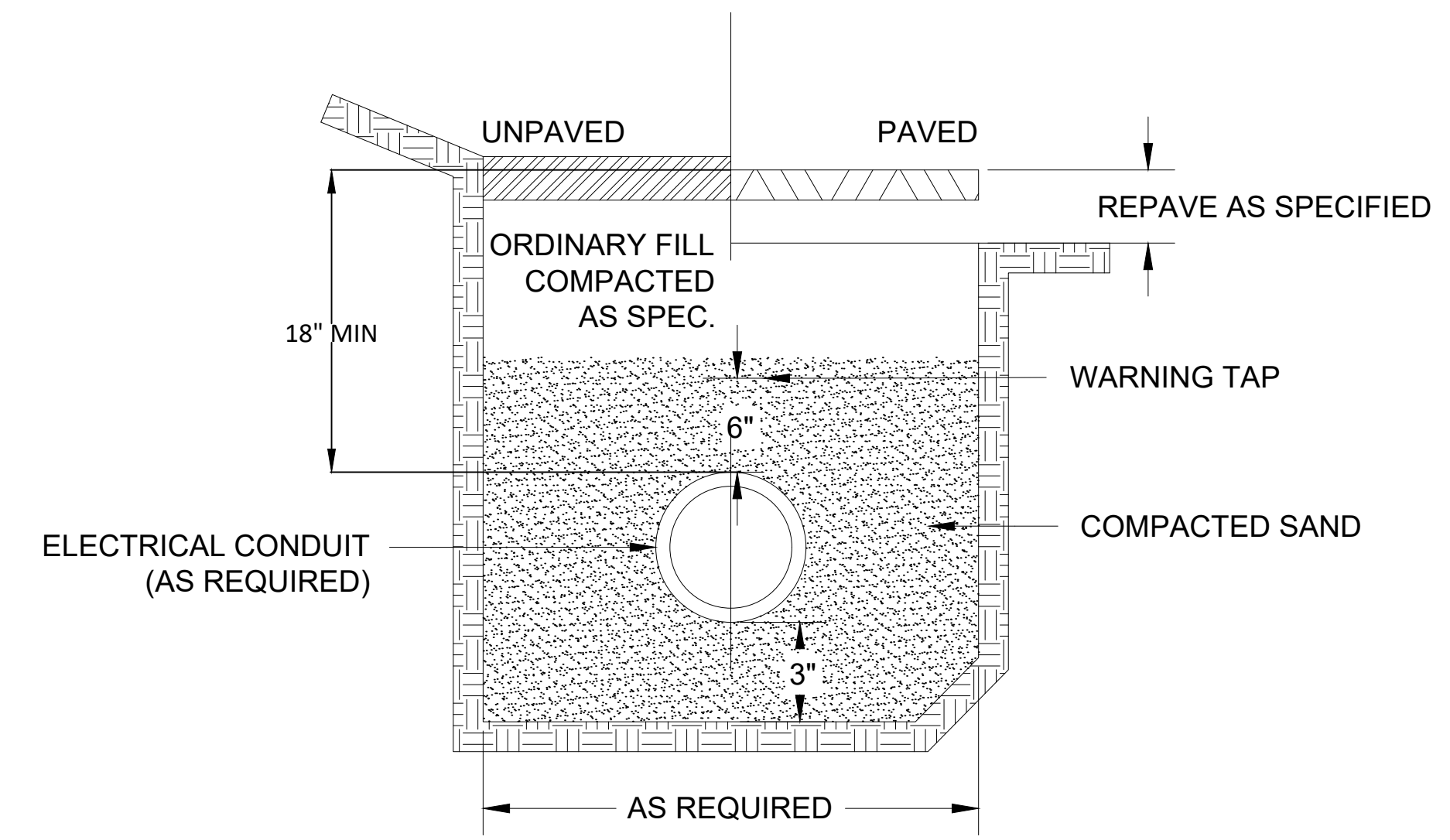
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36" x 24"

Drawing No:
E-DEV.04-SP

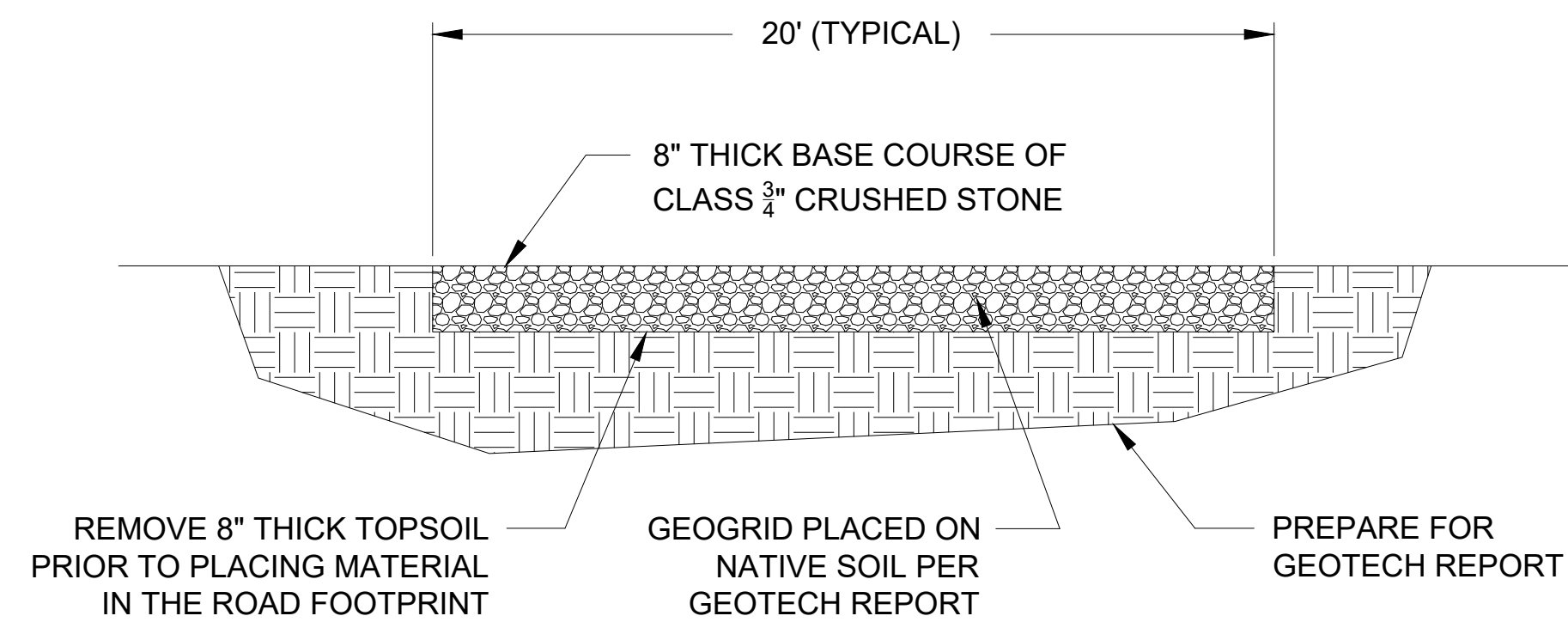
Sheet No:
04



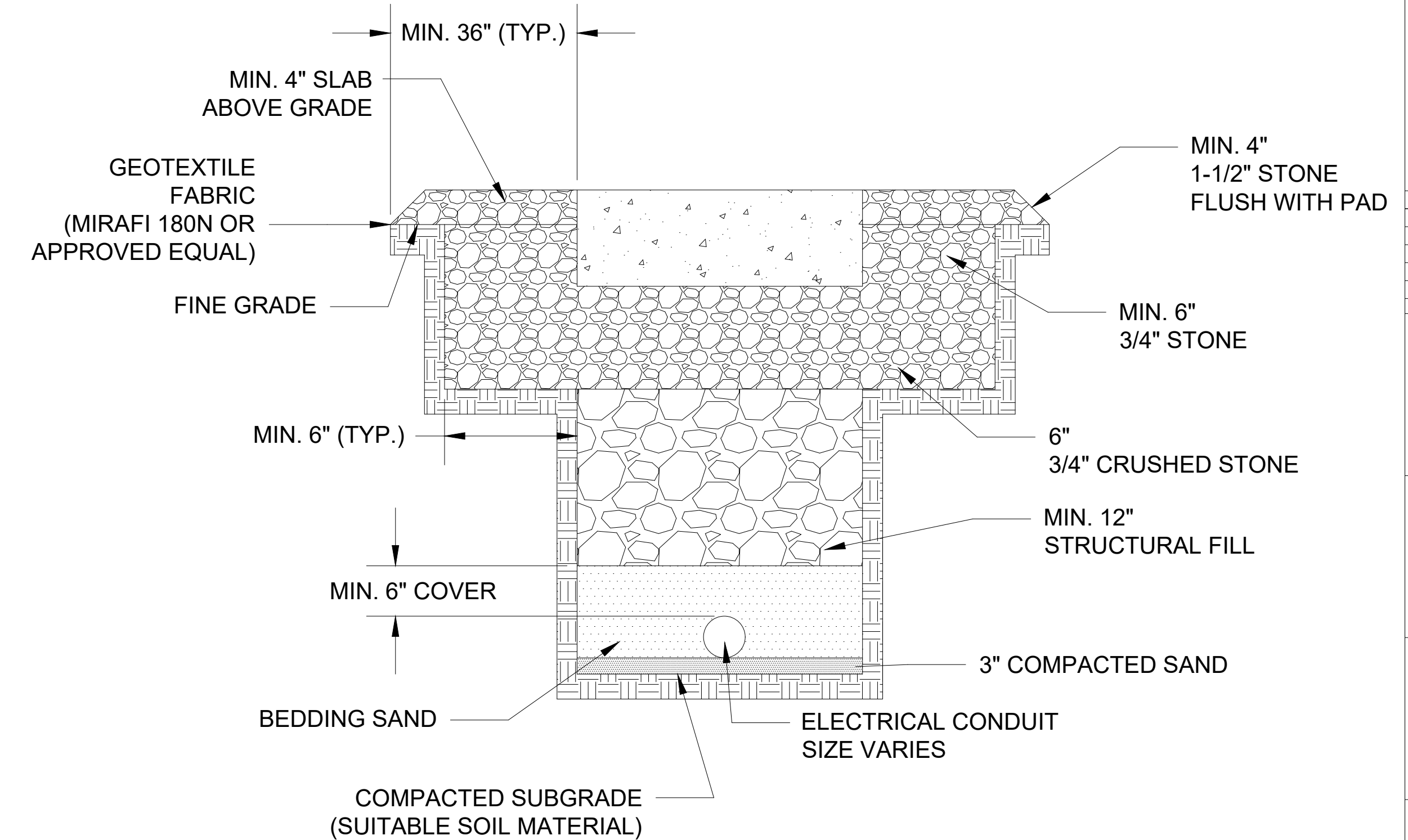
1 MECHANICAL SINGLE AXIS TRACKER RACKING STRUCTURE SYSTEM DETAIL: SCHEMATIC DESIGN
NOT TO SCALE



2 U.G.E. DIRECT BURIED ELECTRICAL CONDUIT TRENCH DETAIL
NOT TO SCALE



3 FIRE DEPARTMENT ACCESS ROAD DETAIL
NOT TO SCALE



5 SUBGRADE EQUIPMENT REINFORCED FOUNDATION DETAIL
NOT TO SCALE

SHEET NOTE
1. SINGLE AXIS TRACKER MECHANICAL RACKING SYSTEM BY AXIAL TRACKER, SEE MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
2. STRUCTURE DIMENSIONS SHOWN ARE TYPICAL FOR FLAT GRADE. DIMENSIONS MAY VARY WHERE SLOPES EXIST.

REV	Date	Revision Details	PM	ENG	CHK
R2	02/17/2026	ISSUE FOR SUP			
R1	01/24/2026	ISSUE FOR SUP			
R0	01/03/2026	ISSUE FOR REVIEW			

Revision Table

Engineer

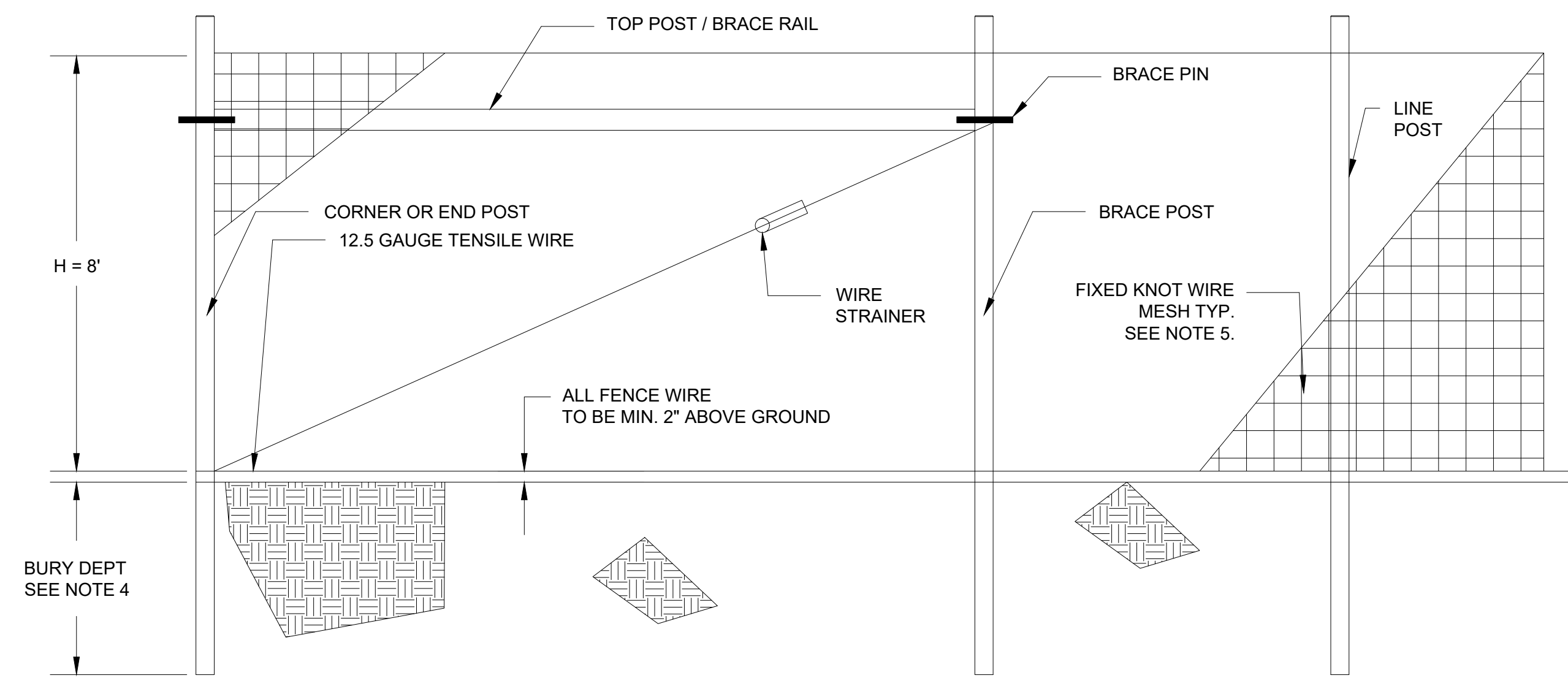
Developer
MCHENRY SOLAR FARM LLC
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CHICAGO, IL 60604
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Project Name & Address
MCHENRY SOLAR FARM LLC
1207 CRYSTAL LAKE RD S.
MCHENRY, IL 60140
MCHENRY
P.L.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
CONSTRUCTION DETAILS
TYPICAL DETAILS, CUT SECTIONS & ELEVATIONS OF FIRE DEPARTMENT ACCESS ROAD, EQUIPMENT FOUNDATIONS, PV MECHANICAL TRACKER RACKING STRUCTURE SYSTEM, U.G.E. CONDUIT TRENCHING

Project No 1104	Drawing No E-DEV.05-CD
Paper Size 36" x 24"	Sheet No. 05

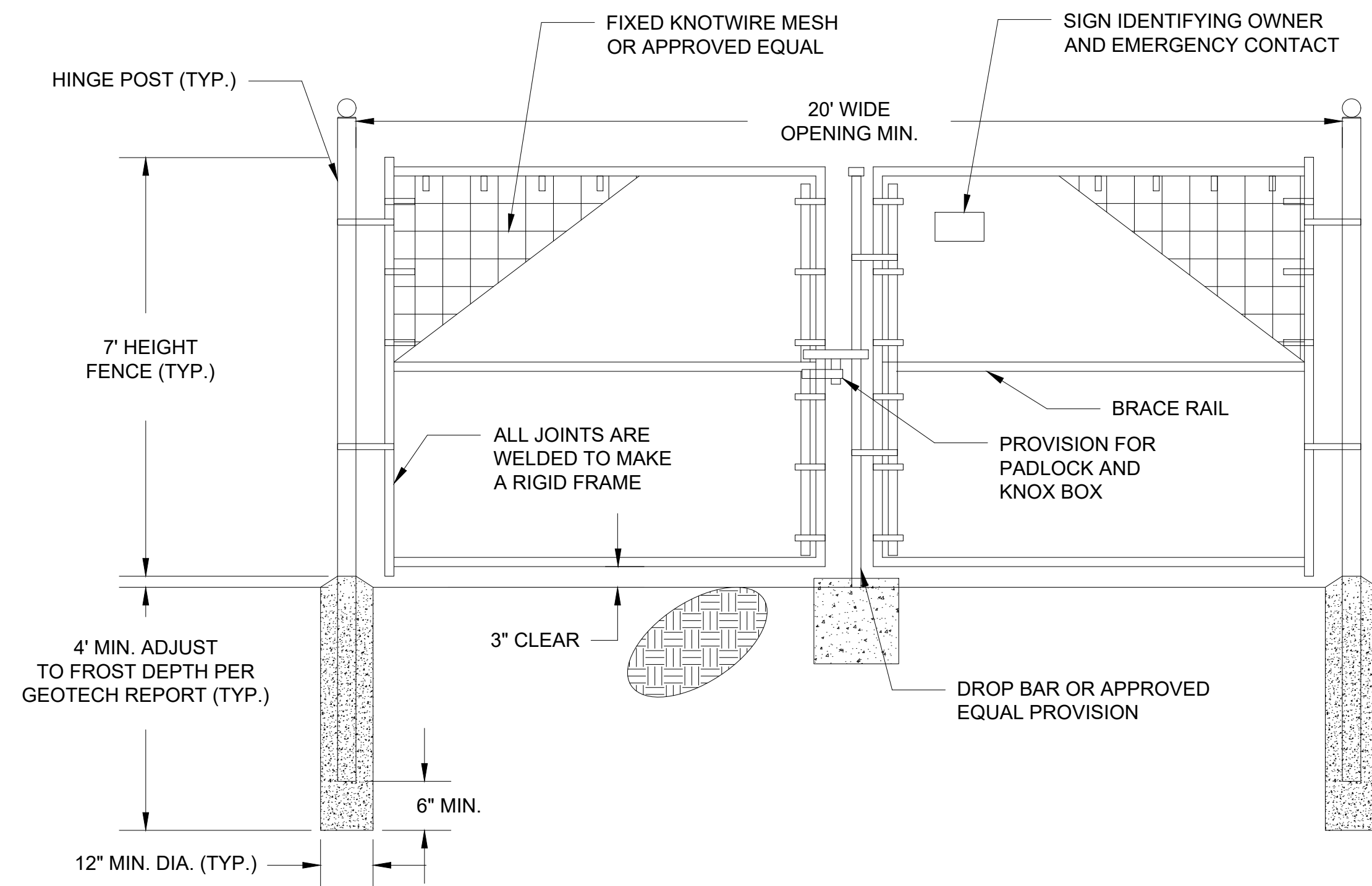
GENERAL NOTES:
 ADDITIONAL FENCING AND GATE DETAILS TO BE FURTHER REVIEWED BY McHENRY COUNTY OF RECORD AUTHORITY HAVING JURISDICTION DURING BUILDING PERMIT APPROVAL. THE FOLLOWING PLAN IS CONCEPTUAL, PRELIMINARY SCHEMATIC DESIGN AND IS SUBJECT TO CHANGE.



1 FIXED KNOT FARM FENCE DETAIL
 NOT TO SCALE

NOTES:

1. INSTALL ALL FENCING COMPONENTS PER MANUFACTURERS SPECIFICATIONS.
2. ALL FENCING AND HARDWARE SHALL BE GALVANIZED, UNLESS OTHERWISE NOTED.
3. ALL SQUARE POSTS TO BE MIN. 5"x5" NOMINAL SIZE OR ROUND POST WITH MIN. 5" OR 6" DIAMETER PRESSURE TREATED WOOD OR APPROVED EQUAL. PREFER POSTS TO HAVE A CHAMFERED TOP.
4. ALL LINE POST TO BE SET TO A MIN. DEPTH OF 4' BELOW GRADE, ALL CORNER, END OR GATE POSTS SHALL BE SET TO A MIN. DEPTH OF 6' BELOW GRADE, UNLESS OTHERWISE NOTES.
5. FIXED KNOT WIRE MESH TO BE BEKAERT SOLID LOCK® PRO, 12.5 GAUGE, CLASS 3 GLAVANIZED, 6" VERTICAL SPACING OR APPROVED EQUAL.
6. BRACING IS REQUIRED AT ALL CORNER, END AND GATE POSTS, DOUBLE BRACING (TWO BRACE ASSEMBLIES IN A ROW) SHOULD BE USED FOR STRAIGHT RUNS OF FENCE THAT EXCEED 1,000 LF. AN ADDITIONAL BRACE ASSEMBLY SHOULD BE INSTALLED MID SPAN FOR STRAIGHT RUNS OF FENCE THAT EXCEED 1,320 LF. ADDITIONAL BRACING MAY BE STILL BE REQUIRED OVER UNEVEN TERRAIN, CONTRACTOR SHALL INSTALL ADDITIONAL BRACING AS NEEDED IF DEFLECTION IS NOTICED DURING TENSIONING.



2 FIXED KNOT FARM FENCE 20' WIDE DOUBLE SWING GATE DETAIL
 NOT TO SCALE

NOTES:

1. INSTALL ALL FENCING COMPONENTS PER MANUFACTURER'S SPECIFICATIONS.
2. ALL FENCING AND HARDWARE SHALL BE GALVANIZED, UNLESS OTHERWISE NOTES.
3. HINGE POSTS MAY BE TIMBER IF CONTRACTOR DESIRES, TIMBER HINGE POSTS DO NOT NEED TO BE SET IN CONCRETE. UTILIZE HINGE THRU BOLTS TO CONNECT TO TIMBER HINGE POSTS OR LAG SCREWS, PER MANUFACTURERS RECOMMENDATIONS.
4. IF CONTRACTOR UTILIZES METAL HINGE POST THAN POSTS SHALL BE SET IN CONCRETE AS SHOWN IN DETAIL.
5. BRACING REQUIRED AT FOR ALL GATES. SEE FIXED KNOT FARM FENCE DETAIL.
6. FIXED KNOT WIRE MESH TO BE BEKAERT SOLIDLOCK® PRO, 12.5 GAUGE, CLASS 3 GLAVANIZED, 6" VERTICAL SPACING OR APPROVED EQUAL.
7. BRACE RAIL SHOWN FOR REFERENCE ADDITIONAL BRACE RAILS MAY BE REQUIRED (NOT SHOWN) OR TRUSS RODS MAY BE REQUIRED PER MANUFACTURER'S RECOMMENDATIONS.

REV	Date	Revision Details	PM	ENG	CHK
R2	02/17/2026	ISSUE FOR SUP			
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Revision Table

Engineer

Developer
MCHENRY SOLAR FARM LLC
 141 W JACKSON BLVD, STE 1692
 CHICAGO, IL 60604
 WWW.SURVAPOWERED.COM

Project Name & Address
MCHENRY SOLAR FARM LLC
 1207 CRYSTAL LAKE RD S.
 MCHENRY, IL 60140
 MCHENRY
 P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
FENCE DETAILS
 TYPICAL DETAILS, CUT SECTIONS & ELEVATION OF FENCING & DOUBLE SWING ACCESS GATE

Project No 1104	Drawing No E-DEV.06-FD
Paper Size 36" x 24"	Sheet No. 06

Q.TRON XL-G2 SERIES

610- 635 Wp | 156 Cells
22.7% Maximum Module Efficiency



MODEL QTRON XL-G2.3/BFG



- High performance Qcells N-type solar cells**
QANTUM NEO Technology with optimized module layout boosts module efficiency up to 22.7%.
- Bifacial energy yield gain of up to 21%**
Bifacial QANTUM NEO solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.
- A reliable investment**
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty¹.
- Enduring high performance**
Long-term yield security with Anti-LatD and Anti-PID Technology², Hot Spot Protect.
- Frame for versatile mounting options**
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (3750 mph³).
- Innovative all-weather technology**
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

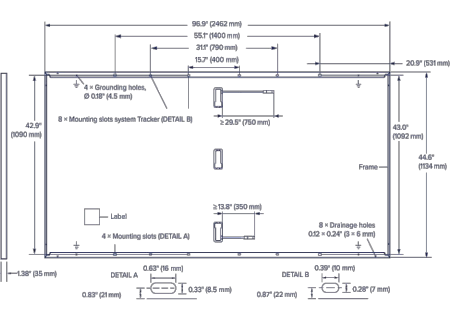
¹ See data sheet on our website for further information.
² Anti-PID test conditions according to IEC 61215-2:2016 method B1 (1500V, 100h) including post treatment according to IEC 61215-2:2016.
³ See Installation Manual for instructions.

The ideal solution for:
Ground-mounted solar panels



Q.TRON XL-G2 SERIES

- Mechanical Specification**
- | | |
|--------------|--|
| Format | 96 in x 44.6 in x 1.38 in (including frame) |
| Weight | 29.62 lb (13.44 kg) |
| Front Cover | 0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology |
| Back Cover | 0.08 in (2.0 mm) semi-tempered glass |
| Frame | Anodized aluminum |
| Cell | 6 x 20 monocrystalline QANTUM NEO solar half cells |
| Junction box | 2.09 x 3.38 x 1.26 x 0.59 x 0.71 in (53.03 mm x 85.91 mm x 32.60 mm x 15.88 mm), Protection class IP67 with typical IP68 |
| Cable | 4 mm ² Solar cable, (1 x 25.5 in (650 mm), (1 x 13.8 in (350 mm)) |
| Connector | Substr. MCA-Evo2, Shaded MCA: IP68 |



POWER CLASS

POWER CLASS	610	615	620	625	630	635
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE ±0.5%/0.5%)						
Power at MPP ¹	59.5	60.5	61.5	62.5	63.5	64.5
Short Circuit Current ²	13.7	13.7	13.7	13.7	13.7	13.7
Open Circuit Voltage ³	56.7	56.7	56.7	56.7	56.7	56.7
Current at MPP	10.5	10.5	10.5	10.5	10.5	10.5
Voltage at MPP	47.0	47.0	47.0	47.0	47.0	47.0
Efficiency ⁴	22.7	22.7	22.7	22.7	22.7	22.7

¹ Efficiency of P_{max} and I_{sc} is 15% efficiency given for rear side irradiation on the STC (front side) according to IEC 60904-2.
² Measurement tolerance P_{max} ± 0.5%, I_{sc} ± 5% at STC, 1000 W/m², q = 15° W/m², q = 80%, 25 ± 2°C, AM 1.5 according to IEC 60904-3.
³ MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOPT⁵

POWER CLASS	610	615	620	625	630	635
Power at MPP	48.5	48.5	48.5	48.5	48.5	48.5
Short Circuit Current	11.0	11.0	11.0	11.0	11.0	11.0
Open Circuit Voltage	53.2	53.2	53.2	53.2	53.2	53.2
Current at MPP	9.1	9.1	9.1	9.1	9.1	9.1
Voltage at MPP	45.2	45.2	45.2	45.2	45.2	45.2

⁵ 1000 W/m², NMOPT, spectrum AM 1.5
⁶ Qcells PERFORMANCE WARRANTY: At least 98.5% of nominal power during the entire lifetime. Theoretical max. 93.5% degradation per year. At least 95.5% of nominal power up to 30 years. All data with measurement tolerance. Full warranty in terms of the Qcells solar equipment with the warranty obligations of your respective country.

TEMPERATURE COEFFICIENTS	α [1/K]	β [1/K]	γ [1/K]
Temperature Coefficient of P _{max}	-0.04	-0.04	-0.04
Temperature Coefficient of I _{sc}	0	0	0
Temperature Coefficient of V _{oc}	-0.30	-0.30	-0.30

Properties for System Design

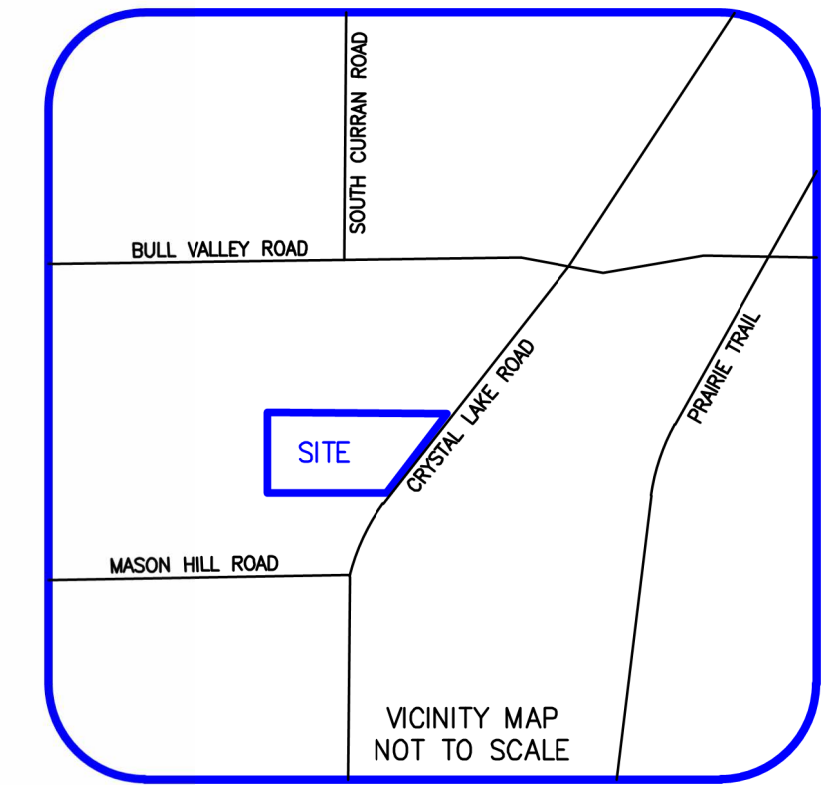
Maximum System Voltage	V _{max} [V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	30	Fuse Rating based on ANSI/UL 6753	TYPE 227
Max. Pull Load ¹ , Test/Design	[N]	113 (5400 Pa) / 75 (3500 Pa)	Permitted Module Temperature	-40°F up to 185°F (-40°C up to 85°C)
Max. Pull Load ² , Test/Design	[N]	78 (3700 Pa) / 52 (2500 Pa)	Max. Module Operating Temperature	NMOT [°F]

Qualifications and Certificates
UL 6703-1 & UL 6703-2 CE compliant, Quality Certified PV, TÜV Rheinland, IEC 61215-2, IEC 61730-2, UL 9540, IEC 61853-1, IEC 61853-2, IEC 61853-3, IEC 61853-4, IEC 61853-5, IEC 61853-6, IEC 61853-7, IEC 61853-8, IEC 61853-9, IEC 61853-10, IEC 61853-11, IEC 61853-12, IEC 61853-13, IEC 61853-14, IEC 61853-15, IEC 61853-16, IEC 61853-17, IEC 61853-18, IEC 61853-19, IEC 61853-20, IEC 61853-21, IEC 61853-22, IEC 61853-23, IEC 61853-24, IEC 61853-25, IEC 61853-26, IEC 61853-27, IEC 61853-28, IEC 61853-29, IEC 61853-30, IEC 61853-31, IEC 61853-32, IEC 61853-33, IEC 61853-34, IEC 61853-35, IEC 61853-36, IEC 61853-37, IEC 61853-38, IEC 61853-39, IEC 61853-40, IEC 61853-41, IEC 61853-42, IEC 61853-43, IEC 61853-44, IEC 61853-45, IEC 61853-46, IEC 61853-47, IEC 61853-48, IEC 61853-49, IEC 61853-50, IEC 61853-51, IEC 61853-52, IEC 61853-53, IEC 61853-54, IEC 61853-55, IEC 61853-56, IEC 61853-57, IEC 61853-58, IEC 61853-59, IEC 61853-60, IEC 61853-61, IEC 61853-62, IEC 61853-63, IEC 61853-64, IEC 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ALTA/NSPS LAND TITLE SURVEY

LEGAL DESCRIPTION OF PROPERTY
 The Northeast Quarter of the Northeast Quarter of Section 8; also all that part of the North Half of the Northwest Quarter of Section 9 that lies on the Westerly side of the center of the highway running in a Northeasterly and Southwesterly direction across said 80 acre tract, all being in Township 44 North, Range 8 East of the Third Principal Meridian in McHenry County, Illinois.

LEGAL DESCRIPTION PURCHASE PARCEL:
 Part of the Northeast Quarter of the Northeast Quarter of Section 8 and part of the North Half of the Northwest Quarter of Section 9, that lies Northwesterly of the centerline of Crystal Lake Road (County Highway V34), both in Township 44 North, Range 8 East of the Third Principal Meridian, described as follows: Beginning at the Southeast corner of said Northeast Quarter of the Northeast Quarter; thence South 88 degrees 51 minutes 03 seconds West along the South line thereof, 1308.67 feet to the Southwest corner thereof; thence North 00 degrees 13 minutes 17 seconds West along the West line of said Northeast Quarter of the Northeast Quarter of Section 8, a distance of 726.19 feet; thence North 88 degrees 55 minutes 49 seconds East, 2067.05 feet; thence South 51 degrees 52 minutes 22 seconds East, 420.54 feet to said centerline of Crystal Lake Road; thence South 38 degrees 07 minutes 38 seconds West along said centerline, 594.00 feet to a point on the South line of said North Half of the Northwest Quarter of Section 9; thence South 89 degrees 04 minutes 29 seconds West 719.64 feet along the South line thereof, 719.64 feet to the Place of Beginning in McHenry County, Illinois.



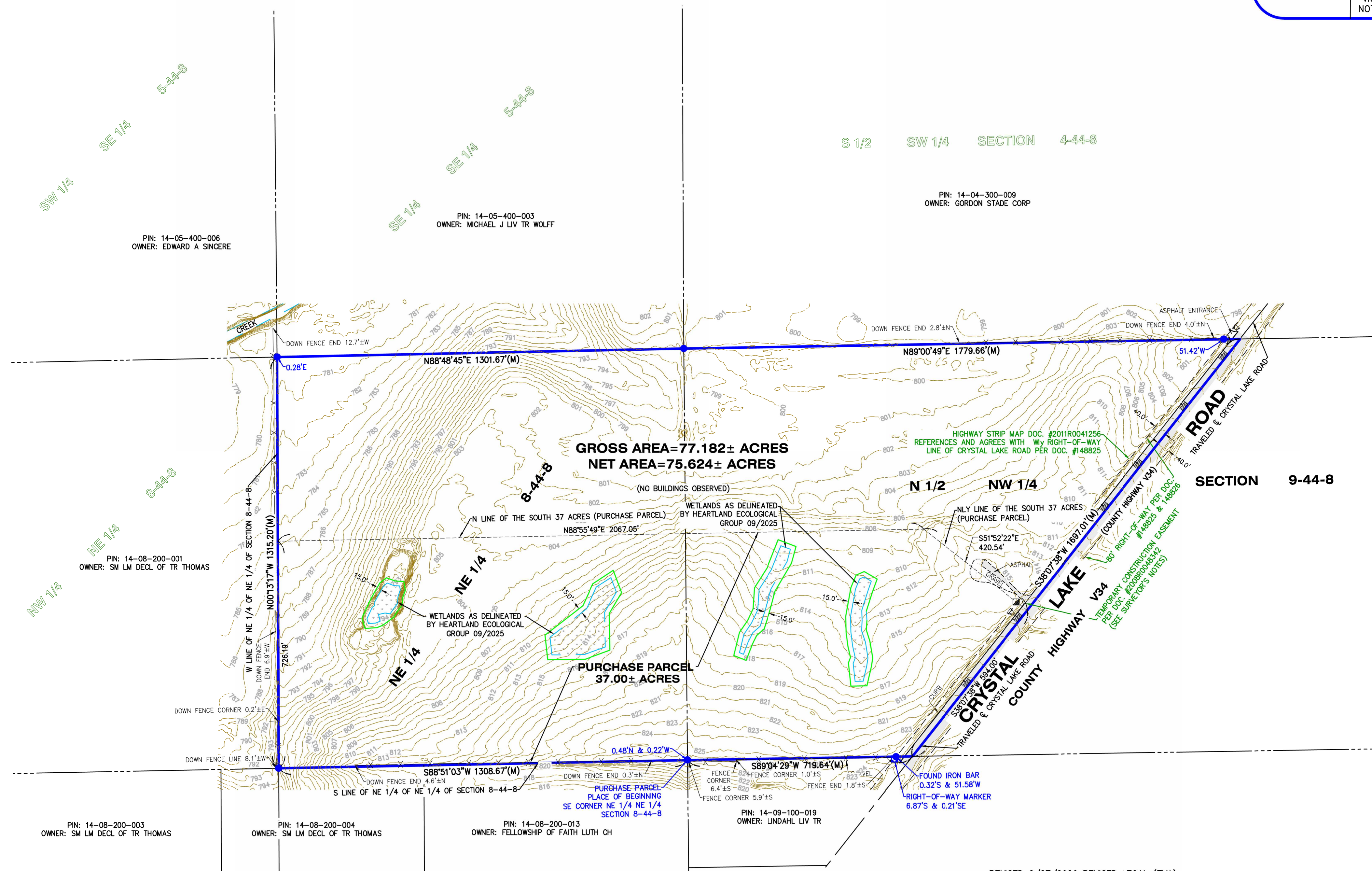
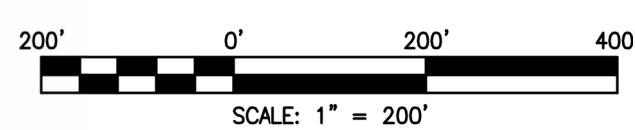
SURVEYOR'S NOTES:

- The legal description and utility easements shown hereon have been provided by Stewart Title Guaranty Company, Commitment policy #61002662 dated September 4, 2025. The title information shown hereon is exclusively that provided to the Surveyor by the Title Insurer or the client. The Surveyor does not warrant the exact location of the Utility Easements shown hereon, but does state that they are located as accurately as possible from the information provided.
- Based on Flood Insurance Rate Map, Panel No. 17111C0215J, dated November 16, 2006, the subject property lies within Zone "X", areas determined to be outside the 0.2% annual chance floodplain. (Pertains to Table A, item 3).
- Distances are marked in feet and decimal places thereof, no dimension shall be assumed by scale measurement hereon. Distances and/or bearings shown with a "D" in parenthesis (D) are record or deed values, not field measured.
- Compare this plat, legal description and all survey monuments before building, and immediately report any discrepancies to the surveyor.
- The location of the property lines shown on the face of this plat are based on the legal description contained in the title commitment and shown hereon. This information has been furnished by the client and compared to record deeds to check for gaps and /or overlaps. However, this survey may not reflect historical matters of title and ownership that have not been disclosed by the title commitment.
- Only the improvements which were visible from above ground at time of survey and through a normal search and walk through of the site are shown on the face of this plat. Lawn sprinkler systems, if any, are not shown on this survey.
- Manholes, inlets and other utility rims or grates shown hereon are from field location of such, and only represent such utility improvements which are visible from above ground survey at the time of survey, through a normal search and walk through of the site. The labeling of these manholes (sanitary, water, etc) are based solely on the "stamped" markings on the rim. No underground observations have been made to verify the actual use or existence of underground utilities.
- Surface indications of utilities on the surveyed parcel have been shown. Underground and offsite observations have not been made to determine the extent of utilities serving or existing on the property, public and/or private records have not been searched to provide additional information. Overhead wires and poles (if any) have been shown, however their function and dimensions have not been shown.
- This survey may not reflect all utilities or improvements, if such items are hidden by landscaping, or are covered by such items as dumpsters or trailers or when the site was covered with snow. At the time of survey, the site was not covered by snow.
- This survey makes no statement regarding the actual presence or absence of any service or utility line. Controlled underground exploratory effort together with "JULIE" markings is recommended to determine the full extent of underground service and utility lines. Contact J.U.L.I.E. at 1-800-892-0123.
- Restrictions that may be found in local buildings and/or zoning codes have not been shown. Height and bulk restrictions (if any) have not been shown. Only those setback restrictions shown on the recorded subdivision plat or in the title commitment have been shown.
- Site address: 1207 S Crystal Lake Rd., McHenry, IL 60050. (Pertains to Table A, item 2).
- Topography shown hereon is based on McHenry County GIS contours. (Pertains to Table A, item 5).
- The surveyed property is Zoned A1 Agriculture District based on the County of McHenry GIS site. Plottable restrictions from said Zoning District have not been shown. (Pertains to Table A, item 6).
- There is a total of 0 striped parking spaces for cars, including 0 of which are marked handicapped and 0 of which are for motorcycles. (Pertains to Table A, item 9).
- The Property is approximately 1400' Northeast of Mason Hill Road. (Pertains to Table A, item 14).
- There was no observable evidence of earth moving work, building construction or building additions at time of fieldwork. (Pertains to Table A, item 16).
- The County of McHenry has been contacted and there are no Proposed changes in the street right of way lines or any evidence of recent street or sidewalk construction. (Pertains to Table A, item 17)
- The title commitment referenced in note #1 does indicate a dedicated right-of-way width of 80' for Crystal Lake Road (County Highway V34) based on Document No. 2011R0041256. The location of the center of the road is based on an opinion and is based on the centerline as traveled. Net areas were calculated using this information and removing any area located within the dedicated right-of-ways.

SCHEDULE B, PART II EXCEPTIONS:

- Exceptions 1, 4, 5, 6, 7 are not survey related.
- Exceptions 2, 3, 8, 9 & 11 are blanket in nature.
- Exception 10: Northern Illinois Gas Company Easement per Document No. 579084 along and across the Westerly Half of Public Highway known as Crystal Lake Road, see document for particulars.

LEGEND	
	CURB INLET
	ELECTRIC RISER
	FLARED END SECTION
	FOUND IRON BAR
	FOUND ROW MARKER
	SIGN
	TELEPHONE RISER
	UTILITY POLE
(M)	MEASURE
(D)	DEED



REVISED 2/27/2026 REVISED LEGAL (TVA)
 REVISED 12/02/2025 ADJUSTED PURCHASE PARCEL (TVA)
 REVISED 11/21/2025 NEW PURCHASE AREA (TVA)
 REVISED 10/24/2025 ADDED PURCHASE AREA (TVA)

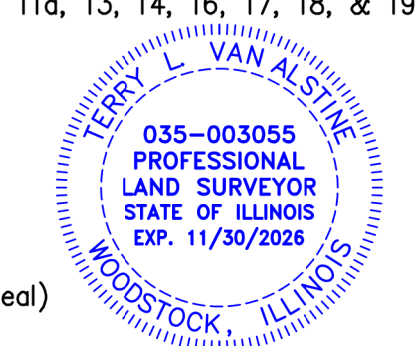
STATE OF ILLINOIS)
) S.S.
 COUNTY OF McHENRY)
 Certified to: 1) SURYA POWERED LLC
 2) MICHAEL J. WOLFF, AS TRUSTEE OF THE MICHAEL J. WOLFF LIVING TRUST DATED MAY 15, 2000
 3) STEWART TITLE GUARANTY COMPANY

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6, 7a, 7b, 7c, 8, 9, 11a, 13, 14, 15, 17, 18, & 19 of Table A thereof. The field work was completed on October 2nd, 2025.

Dated this 14th day of October, 2025 A.D.

VANDERSTAPPEN LAND SURVEYING INC.
 Design Firm No. 184-002792

Terry Van Alstine, 035-003055 (seal)
 PROFESSIONAL LAND SURVEYOR



McHENRY~LAKE COUNTY SOIL & WATER CONSERVATION DISTRICT

NATURAL RESOURCES INFORMATION REPORT

26-001-4784

January 9, 2026



This report has been prepared for:
McHenry Solar Farm LLC

Contact Person:
Robert McNeill

PREPARED BY:
MCHENRY-LAKE COUNTY SOIL & WATER CONSERVATION
DISTRICT

1648 S. EASTWOOD DR.

WOODSTOCK, IL 60098

PHONE: (815) 338-0444

www.mchenryswcd.org

The McHenry-Lake County Soil & Water Conservation District
is an equal opportunity provider and employer.

EXECUTIVE SUMMARY OF NRI REPORT #26-001-4784

It is the opinion of the McHenry-Lake County Soil and Water Conservation District Board of Directors that this report as summarized on these pages are pertinent to the requested zoning change.



Site Picture 1: Looking west from Crystal Lake Road.



Aquifer Sensitivity Map (*This is the area beneath the soil profile down to bedrock)
 The Geologic features map indicates the parcel is comprised of 10.67 acres of A3, 2.38 acres of A6, and 23.53 acres of B3 geologic limitations. A3 and A6 have a high contamination potential and B3 has a moderately high contamination potential.



Sensitive Aquifer Recharge Areas (Includes the soil profile and underlying geology).
 The Sensitive Aquifer Recharge Map indicates the parcel is not within an area designated as Sensitive Aquifer Recharge.



Soil Leachability Map (This is only the soil profile within the parcel from the surface down to approx. 5 feet).
 The Soil Leachability Index indicates 32.9 acres or 89.8% of the parcel has high leachability soils, for fertilizers (identified in red).

Soil Permeability (This is only the soil profile within the parcel from the surface down to approx. 5 feet. Soil permeability is a reflection of the speed in which water (with or without pollutants) can move through the soil profile.)
 The USDA-NRCS Soil Survey Map of the area indicates 2.5 acres or 6.9% of highly permeable soils on the parcel.

Soil Limitations (This evaluates the parcel from the surface down to approximately 5 feet.):

Erosion Ratings

The NRCS Soils Survey indicates 7.3 acres or 20.0% of the parcel contains highly erodible soils.



Prime Farmland Soils

The Natural Resources Conservation Service (NRCS) Soil Survey indicates 35.4 acres or 96.5% of the parcel is comprised of prime farmland soils (identified in green).



Ground-Based Solar Arrays

The Natural Resources Conservation Service (NRCS) Soil Survey indicates 8.3 acres or 20.8% of the parcel has very limited soils for ground-based solar arrays (identified in red).

Hydric Soils

The NRCS Soil Survey indicates there are no hydric soils on the parcel.

Floodplain Information:

The Flood Insurance Rate Map

Indicates the parcel is outside of the 100-year floodplain.

Flood of Record Map (Hydrologic Atlas)

The Flood of Record Map for this area indicates the parcel has not previously flooded.

Wetland Information:

USDA-NRCS Wetland Inventory

The NRCS Wetlands Inventory indicates there are no wetlands on the parcel.

ADID Wetland Inventory

The ADID Wetland Study indicates there are no wetlands on the parcel.

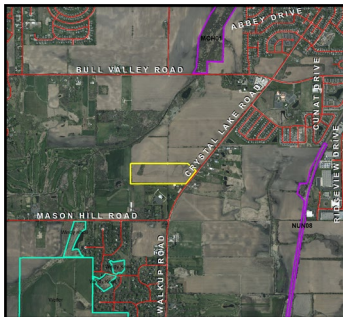
Flooding Frequency

The NRCS Soil Survey indicates that flooding is not probable on the parcel. The chance of flooding is nearly 0% in any year. Flooding occurs less than once in 500 years.

Ponding Frequency

The NRCS Soil Survey indicates that frequent ponding is not probable. The chance of ponding is nearly 0 percent in any year.

Cultural Resources: Office maps indicate there is not a high probability for cultural/historical features within the parcel in question.



Preserved or Recognized Ecological Sites: McHenry County Natural Areas Inventory Site - (MCH01) Boone Creek Lowlands is north of the parcel and (NUN08) Crystal Lake - McHenry RR Prairie is east of the parcel.

Boone Creek Lowlands contains a low order low gradient stream and sedge meadow, which is threatened by an upstream impoundment, water table alteration, cattail expansion, Reed Canary Grass, and development.

Crystal Lake-McHenry RR Prairie contains a mesic silt loam prairie and wet silt loam prairie, which is threatened by water table alteration, brush encroachment, Reed Canary Grass, chemical drift and run-off, development, and railroad bed maintenance.

Additionally, the Land Conservancy of McHenry County holds conservation easements south of the parcel identified as Weiler and Windy Knoll.

Woodlands: None Identified

Agricultural Areas: Office Maps indicate there are no State designated agricultural areas on the parcel in question.

Land Evaluation Site Assessment (LESA)

The Land Evaluation Score for the parcel is 84.84 and the Site Assessment Score is 80, for a total LESA Score of 164.84 indicating the land use change has a high impact to existing land use and resources.

Vegetation: Information provided by the applicant indicate the site will be revegetated with native plantings and a management and monitoring plan will be developed in accordance with guidance from the Illinois Department of Natural Resources and McHenry County Department of Planning & Development.

Agricultural Impact Mitigation Agreement: We have received notice from the Illinois Department of Agriculture that an Agricultural Impact Mitigation Agreement has been filed.



NATURAL RESOURCE INFORMATION REPORT (NRI)

NRI Report Number	26-001-4784	
Applicant's Name	McHenry Solar Farm LLC	
Size of Parcel	37 acres	
Zoning Change	Conditional Use - Solar Facility	
Parcel Index Number(s)	14-08-200-002, 14-09-100-001	
Common Location	Undefined	
Contact Person	Robert McNeill	
<i>Copies of this report or notification of the proposed land-use change were provided to:</i>	<i>yes</i>	<i>no</i>
The Applicant	x	
The Applicant's Legal Representation/Consultant		x
The Village/City/County Planning and Zoning Department or Appropriate Agency	x	

Report Prepared By: *Spring M. Duffey*

Position: *Executive Director*

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PURPOSE AND INTENT

The purpose of this report is to inform officials of the local governing body and other decision-makers with natural resource information. This information may be useful when undertaking land use decisions concerning variations, amendments or relief of local zoning ordinances, proposed subdivision of vacant or agricultural lands and the subsequent development of these lands. This report is a requirement under Section 22.02a of the Illinois Soil and Water Conservation Districts Act.

The intent of this report is to present the most current natural resource information available in a readily understandable manner. It contains a description of the present site conditions, the present resources, and the potential impacts that the proposed change may have on the site and its resources. The natural resource information was gathered from standardized data, on-site investigations and information furnished by the petitioner. This report must be read in its entirety so that the relationship between the natural resource factors and the proposed land use change can be fully understood.

Due to the limitations of scale encountered with the various resource maps, the property boundaries depicted in the various exhibits in

this report provide a generalized representation of the property location and may not precisely reflect the legal description of the PIQ (Parcel in Question).

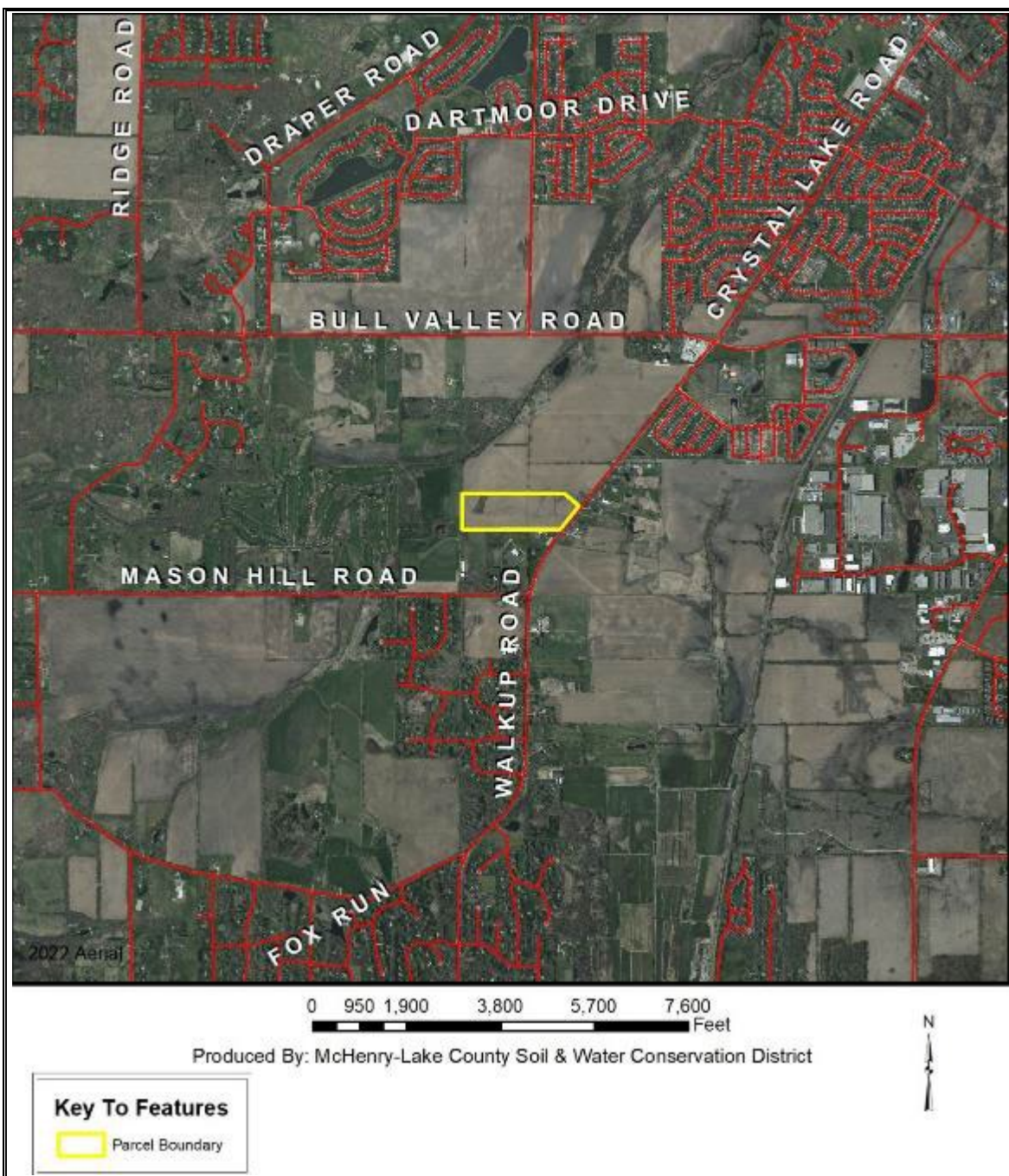
This report, when used properly, will provide the basis for proper land use change decisions and development while protecting the natural resource base of the county. It should not be used in place of detailed environmental and/or engineering studies that are warranted under most circumstances, but in conjunction with those studies.

The conclusions of this report in no way indicate that a certain land use is not possible, but it should alert the reader to possible problems that may occur if the capabilities of the land are ignored. Any questions on the technical data supplied in this report or if anyone feels that they would like to see more additional specific information to make the report more effective, please contact:

**McHenry-Lake County Soil & Water
Conservation District
1648 S. Eastwood Dr.
Woodstock, IL 60098
Phone: (815) 338-0444 ext. 3
www.mchenryswed.org
E-mail: Spring.Duffey@il.nacdnet.net**

PARCEL LOCATION

Location Map for Natural Resources Information Report # 26-001-4784
In the Northeast Quarter of Section 8 and the Northwest Quarter of Section 9, Township 44 North, Range 8 East, on 37 acres. This parcel is located on the west side of Crystal Lake Road north of the intersection of Crystal Lake road and Mason Hill Road, McHenry County, IL.



ARCHAEOLOGIC/CULTURAL RESOURCES

Simply stated, cultural resources are all the past activities and accomplishments of people. They include the following: buildings; objects made or used by people; locations; and less tangible resources, such as stories, dance forms, and holiday traditions. The Soil and Water Conservation District most often encounters cultural resources as historical properties. These may be prehistoric or historical sites, buildings, structures, features, or objects. The most common type of historical property that the Soil and Water Conservation District may encounter is non-structural archaeological sites. These sites often extend below the soil surface, and must be protected against disruption by development or other earth moving activity if possible. Cultural resources are *non-renewable* because there is no way to “grow” a site to replace a disrupted site.

Landowners with historical properties on their land have ownership of that historical property. However, the State of Illinois owns all of the following: human remains, grave markers, burial mounds, and artifacts associated with graves and human remains.

Non-grave artifacts from archaeological sites and historical buildings are the property of the landowner. The landowner may choose to disturb a historical property, but may not receive federal or state assistance to do so. If an earth moving activity disturbs human remains, the landowner must contact the county coroner within 48 hours.

Office maps indicate there is not a high probability for cultural/historical features on the parcel in question. (PIQ)

ECOLOGICALLY SENSITIVE AREAS

What is Biological Diversity and Why Should it be Conserved?¹

Biological diversity, or biodiversity, is the range of life on our planet. A more thorough definition is presented by botanist Peter H. Raven: “At the simplest level, biodiversity is the sum total of all the plants, animals, fungi and microorganisms in the world, or in a particular area; all of their individual variation; and all of the interactions between them. It is the set of living organisms that make up the fabric of the planet Earth and allow it to function as it does, by capturing energy from the sun and using it to drive all of life’s processes; by forming communities of organisms that have, through the several billion years of life’s history on Earth, altered the nature of the atmosphere, the soil and the water of our Planet; and by making possible the sustainability of our planet through their life activities now.” (Raven 1994)

It is not known how many species occur on our planet. Presently, about 1.4 million species have been named. It has been estimated that there are perhaps 9 million more that have not been identified. What is known is that they are vanishing at an unprecedented rate. Reliable estimates show extinction occurring at a rate several orders of magnitude above “background” in some ecological systems. (Wilson 1992, Hoose 1981)

The reasons for protecting biological diversity are complex, but they fall into four major categories.

First, loss of diversity generally weakens entire natural systems. Healthy ecosystems tend to have many natural checks and balances. Every species plays a role in maintaining this system. When simplified by the loss of diversity, the system becomes more susceptible to natural and artificial perturbations. The chances of a system-wide collapse increase. In parts of the

¹Taken from *The Conservation of Biological Diversity in the Great Lakes Ecosystem: Issues and Opportunities*, prepared by the Nature Conservancy Great Lakes Program 79W, Monroe Street, Suite 1309, Chicago, IL 60603, January 1994

midwestern United States, for example, it was only the remnant areas of natural prairies that kept soil intact during the dust bowl years of the 1930s. (Roush 1982)

Simplified ecosystems are almost always expensive to maintain. For example, when synthetic chemicals are relied upon to control pests, the target species are not the only ones affected. Their predators are almost always killed or driven away, exasperating the pest problem. In the meantime, people are unintentionally breeding pesticide-resistant pests. A process has begun where people become perpetual guardians of the affected area, which requires the expenditure of financial resources and human ingenuity to keep the system going.

A second reason for protecting biological diversity is that it represents one of our greatest untapped resources. Great benefits can be reaped from a single species. About 20 species provide 90% of the world's food. Of these 20, just three, wheat, maize and rice-supply over one half of that food. American wheat farmers need new varieties every five to 15 years to compete with pests and diseases. Wild strains of wheat are critical genetic reservoirs for these new varieties.

Further, every species is a potential source of human medicine. In 1980, a published report identified the market value of prescription drugs from higher plants at over \$3 billion. Organic alkaloids, a class of chemical compounds used in medicines, are found in an estimated 20% of plant species. Yet only 2% of plant species have been screened for these compounds. (Hoose 1981)

The third reason for protecting diversity is that humans benefit from natural areas and depend on healthy ecosystems. The natural world supplies our air, our water, our food and supports human economic activity. Further, humans are creatures that evolved in a diverse natural environment between forest and grasslands. People need to be reassured that such places remain. When people speak of "going to the country," they generally mean more than getting out of town. For reasons of their own sanity and well being, they need a holistic, organic experience. Prolonged exposure to urban

monotony produces neuroses, for which cultural and natural diversity cure.

Historically, the lack of attention to biological diversity, and the ecological processes it supports, has resulted in economic hardships for segments of the basin's human population.

The final reason for protecting biological diversity is that species and natural systems are intrinsically valuable. The above reasons have focused on the benefits of the natural world to humans. All things possess intrinsic value simply because they exist.

Biological Resources Concerning the Subject Parcel

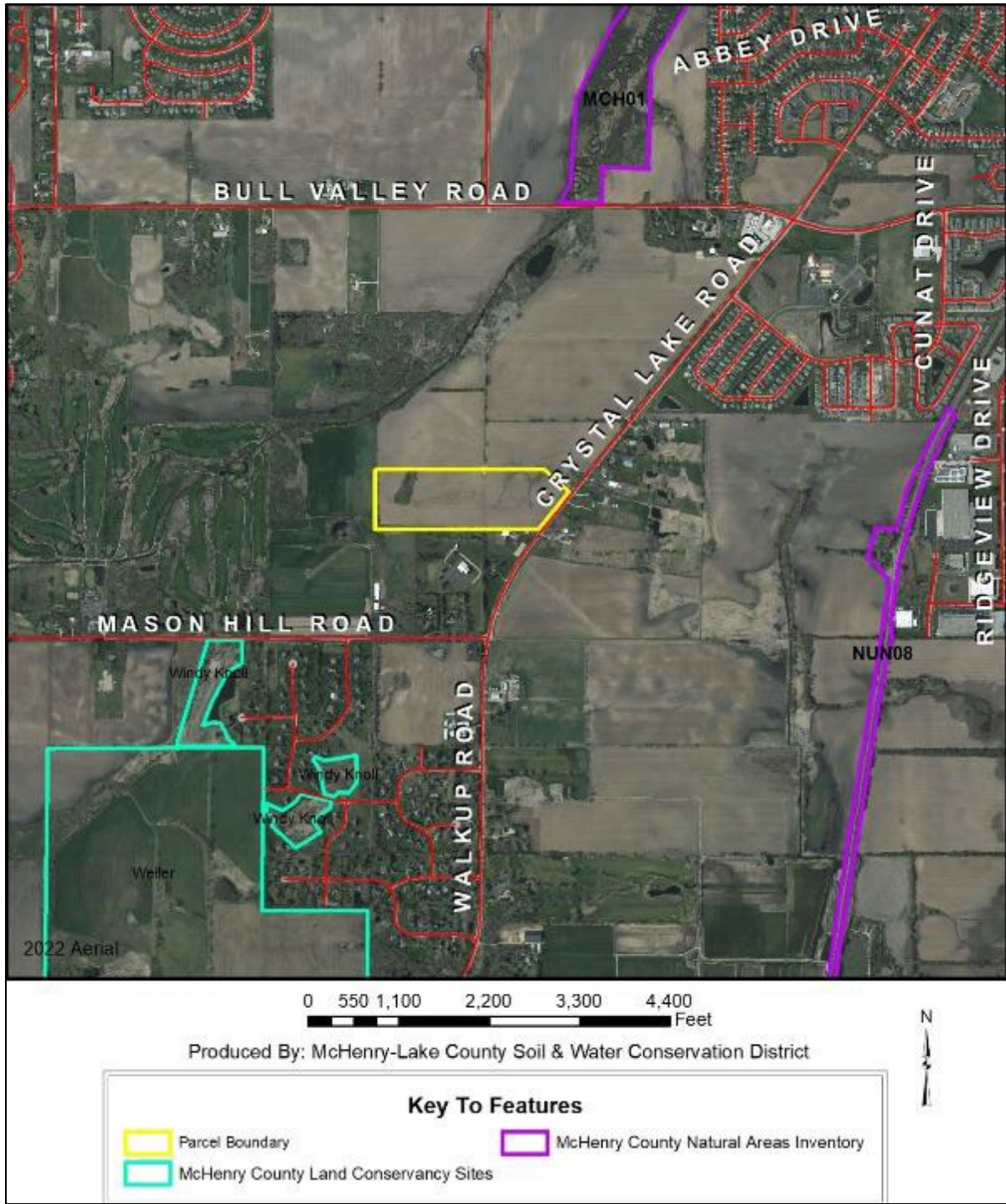
As part of the Natural Resources Information Report, staff checks office maps to determine if any nature preserves are within 500 feet of the parcel in question. If there is a nature preserve in the area, then that resource will be identified as part of the report. The SWCD recommends that every effort be made to protect that resource. Such efforts should include, but are not limited to erosion control, sediment control, stormwater management, and groundwater monitoring.

Office maps indicate McHenry County Natural Areas Inventory Site – (MCH01) Boone Creek Lowlands is north of the parcel and (NUN08) Crystal Lake -McHenry RR Prairie is east of the parcel.

Boone Creek Lowlands contains a low order low gradient stream and sedge meadow, which is threatened by an upstream impoundment, water table alteration, cattail expansion, Reed Canary Grass, and development.

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Additionally, the Land Conservancy of McHenry County holds conservation easements south of the parcel identified as Weiler and Windy Knoll.



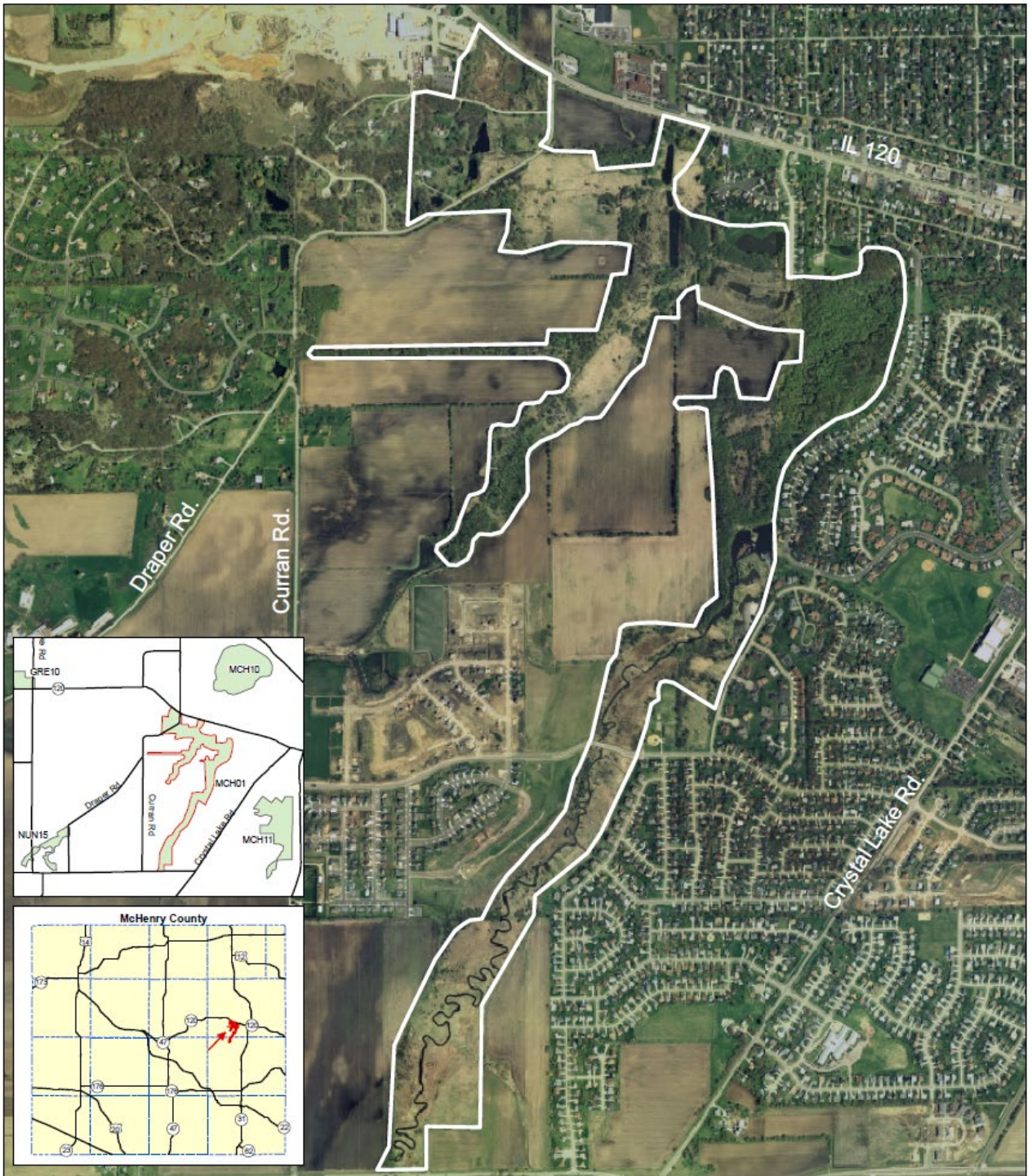
M.C.N.A.I.
2005

Boone Creek Lowlands

MCCD-NRM
Base map: 2001 aerial photo
Site last visited: 1998
Map Date: 2/16/05

0 500 1,000 1,500 2,000 Feet
0 200 400 600 Meters

Townships: McHenry-9,
Nunda-14
Sections: 27-28, 33-34; 4
Former ID: U154

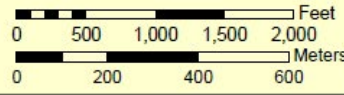


Crystal Lake-McHenry RR Prairie

NUN08



MCCD-NRM
Base map: 2001 aerial photo
Site last visited: 1998
Map Date: 3/8/05



Township: Nunda-14
Sections: 9-10, 16
Former ID: U316



WOODLANDS

Existing mature trees should be preserved whenever possible. Woodlands provide a large number of benefits such as wildlife habitat, erosion control, air and water quality improvements, as well as aesthetic values. Construction activities can indirectly destroy trees. Oak trees are particularly susceptible to long term, permanent damage caused by construction activities and require special consideration. It is also recommended that invasive non-native species be removed whenever possible.

Native woodlands are no longer a common occurrence throughout much of McHenry County. Although forests originally covered nearly 40% of Illinois, today only about 12% of the state is forested, with most of this being secondary growth (Ill. Natural History Survey Reports, Nov/Dec 1993, No. 324). The composition of Illinois forests has changed markedly over the past three decades. 97% of the timberland is classified as hardwood forest. The forest acreage continues to increase from 4.2 million acres in 1985 to 4.3 million acres in 1998. (IL Forest Development Council News, IL DNR, Winter 2001/Volume 2, No. 1). Oak-hickory forests, which had made up half of the acreage, have declined by 14%, and make up 2.1 million acres. This decline is largely a result of wildfire suppression that allows maples to take over. Thus, the acres of maple-beech forest have risen more than 40-fold from 1962 to 1985, to one quarter of the total forest area, 696 thousand acres. Dutch elm disease and the conversion of forested bottomlands to agriculture have resulted in huge declines in the elm-ash-cottonwood forests, 906 thousand acres, falling from one third - one sixth of the Illinois forest area. Elm accounts for the greatest number of individual trees – 412 million. Other species groups with more than 100 million trees include hickory, red oak, sugar/black maple, ash, hackberry, and black cherry.

Woodlands provide many benefits such as wildlife habitat, erosion control, air and water quality improvements, and aesthetic values. Forests are responsible for much of the biological diversity in the state. Many species are dependent upon forests for food & shelter, including threatened/endangered species.

One of the most serious problems facing Illinois forests is the invasion of exotic plants and animals. Some of the most damaging plants includes European buckthorn, multiflora rose, honeysuckle, purple loosestrife, and garlic mustard.

Many trees, particularly hardwoods (especially oaks) are extremely sensitive to construction-induced disturbances. The area most susceptible to damage is within the "drip radius," the ground surface directly beneath the leafy canopy of the tree. Many trees have an extensive system of feeder roots, located within one foot of the surface, and supply the tree with the majority of its moisture and nutrient needs.

Construction activities can negatively impact trees in several different ways. Earth-moving activities that stockpile soil near trees can suffocate tree roots that, although buried, require oxygen. Vehicle traffic can compact the soil to a point where the roots no longer function effectively. Grading activities for road cuts and foundations can cause a localized drop in the water table, placing the trees under stress. The placement of pavement or stormwater management facilities near established trees can also radically change soil moisture. The removal of the accumulated organic materials normally present on a woodland floor, and the subsequent establishment of turf lawns, can drastically affect the soil temperature and nutrient balance. Injury to the bark of a tree can increase the chance of the tree being subjected to a potentially harmful disease.

If existing trees are to be maintained in a healthy state, the appropriate planning is necessary. Someone with a working knowledge of forestry should assess existing trees to determine which trees should be protected. Some tree species are not considered desirable due to their aggressive growth, behavior, and limited value to local wildlife. Proper management of woodlands and open space includes the selective elimination of such trees and replacement by more desirable species. **Trees that are to be saved should be marked and protected with snow fencing or similar material, installed around the drip radius, to prevent root damage,** and vehicle traffic should

be minimized around the drip line. Contractors should be informed of the intention to preserve trees and be expected to conduct their work accordingly.

Tree damage resulting from construction activities may not be apparent for a number of

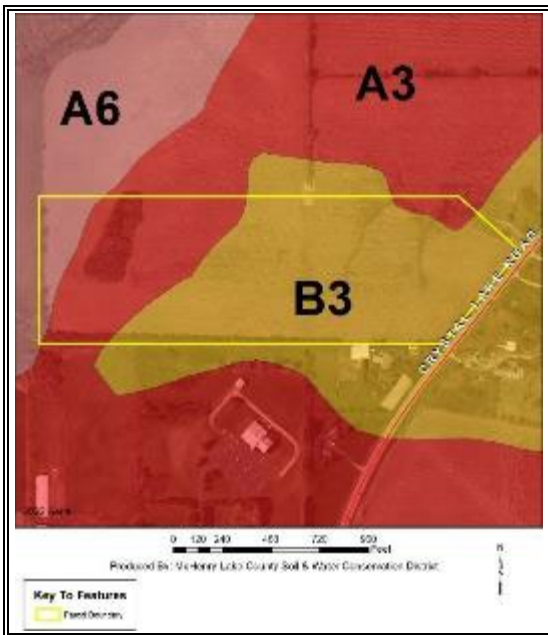
years. While it is recognized that some tree loss is unavoidable, this should be minimized to the extent possible. It is highly recommended that trees lost to development activity be replaced by younger specimens of the native trees now found on the PIQ.

GEOLOGIC INFORMATION

Geology and the Proposed Land Use

As density of septic systems increases, the concern for pollution potential of local groundwater rises. Local geology plays an important role in determining the pollution potential. Groundwater pollution potential is an important factor when determining a specific area's suitability for a given land use. The local geology, is an important element of the natural resource base. This information, when compared to soils information, gives a clearer picture of conditions on this parcel.

Geological data comes from the Illinois State Geological Survey Circular 559, *Geologic Mapping for Environmental Planning, McHenry County, Illinois*.



Aquifer Sensitivity, McHenry County, Illinois (e.g., septic systems) (Vaiden et al.)

The Geologic features map indicates the parcel is comprised of 10.67 acres of A3, 2.38 acres of A6, and 23.53 acres of B3 geologic limitations.

A3: Geologic limitations. The potential for contaminating shallow aquifers is high. In these areas, contaminants from any source can move rapidly through these sand and gravel deposits to wells or nearby streams. In addition, this thick surficial aquifer is commonly hydraulically connected to underlying aquifers (Berg 1994). Land-use practices should be very conservative in all areas mapped as unit A. (Curran et al 1997) (Contains 20 –50 feet Henry sand and gravel at surface).

A-6: Geologic limitations. The potential for contaminating shallow aquifers is high. In these areas, contaminants from any source can move rapidly through these sand and gravel deposits to wells or nearby streams. In addition, this thick surficial aquifer is commonly hydraulically connected to underlying aquifers (Berg 1994). Land-use practices should be very conservative in all areas mapped as unit A. (Curran et al 1997) (Contains less than 20 feet fine-grained materials overlying greater than 50 feet Henry sand and gravel.)

B-3: Geologic limitations. The potential for contamination is moderately high. Groundwater in these thin sand and gravel deposits is not commonly tapped for water resource; however, contaminated groundwater may flow into aquifers of adjoining units, or it may migrate through the sand and gravel, especially along the contact with underlying fine-grained deposits, and discharge on slopes or into surface-water bodies. (Contains greater than 20 feet Henry sandy diamicton overlying less than 20 feet Henry sand and gravel.)

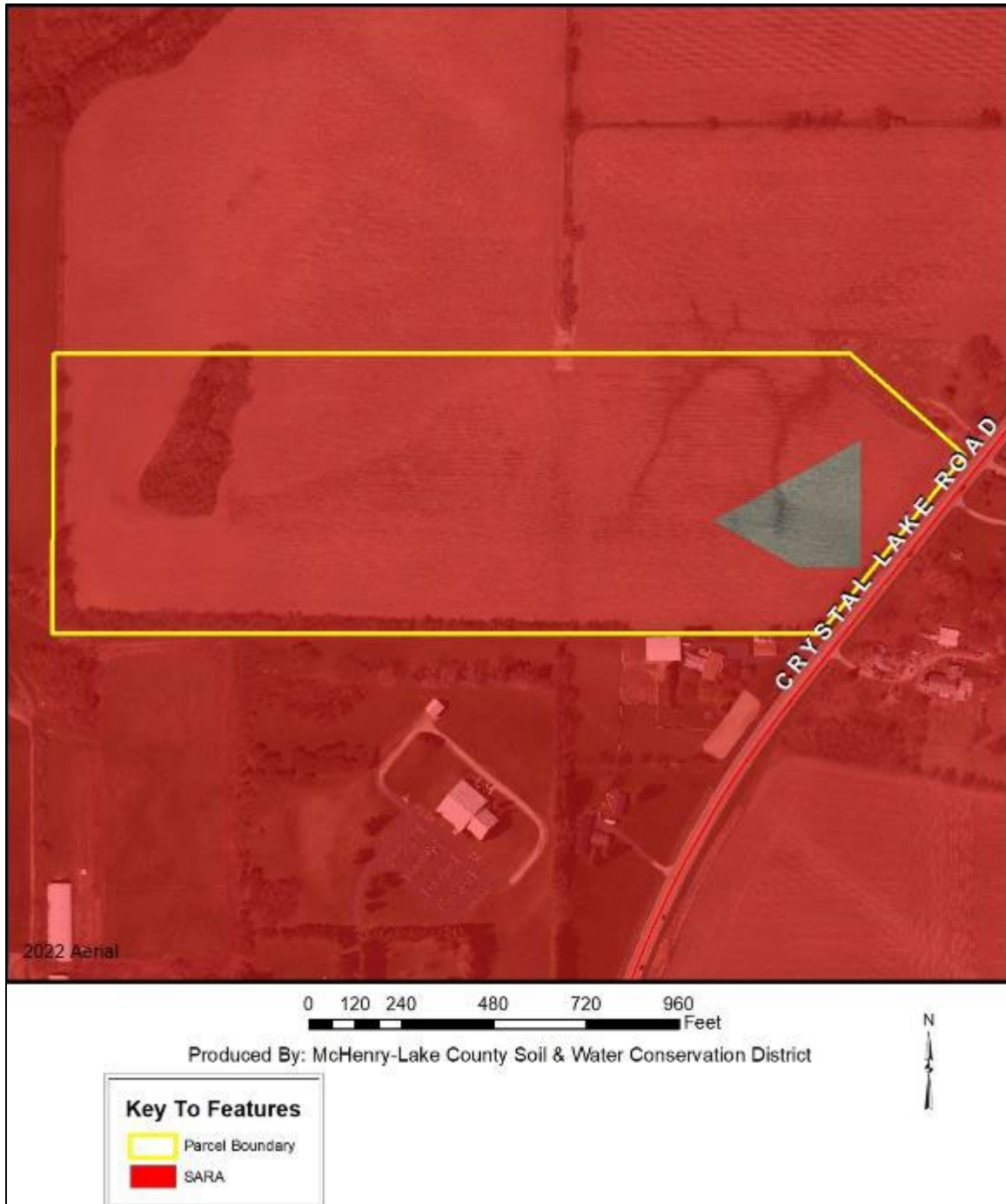
SENSITIVE AQUIFER RECHARGE AREAS

Developed for McHenry County in 2008 and revised in 2018 is the “McHenry County Sensitive Aquifer Recharge Areas” map. Because McHenry County is 100% reliant on groundwater and has been experiencing groundwater quantity/quality issues, the county board in 1995 authorized a groundwater investigation/report titled “County of McHenry Groundwater Resources Management Plan”. Many facts in that report startled decision makers. For example, the report found that in 2000, one township was withdrawing groundwater at unsustainable rates and by 2030 if status-quo, three townships would be doing the same and that three other townships would be approaching that un-sustainability. In 2007, the County Board hired a full time Water Resources Manager and authorized the creation of the McHenry County Groundwater Task Force. The Recharge Subcommittee of the Groundwater Task Force was charged with identifying areas within the county that could be considered to have high potential for recharge of shallow groundwater and develop recommendations for protecting those areas in terms of both quantity and quality. The original main basis for the map identifying recharge is areas of high or moderately high potential for aquifer contamination as identified in the Illinois State Geological Survey’s Circular 559, “Geologic Mapping for Environmental Planning, McHenry County, IL”. In a meeting of the recharge subcommittee, Illinois State Geological Survey and Illinois State Water Survey, it was determined that the areas of high or moderately high potential for aquifer contamination could be qualified by using soil properties. The plan was to remove from the high and moderately high areas those soils with slow permeability, steep slopes and hydric soils that discharge groundwater. Using Table 6 of the Soil Survey of McHenry County a digital layer was developed of soil properties:

- Restricted permeability
- Slopes 4% or greater (except if the soil had excessive permeability, it was not included)

Also digitized were groundwater discharge hydric soils. NRCS Illinois Area 3 Resource Soil Scientists in 2002 developed a hydric soil recharge/flow through/discharge guide to use when designing wetland restoration. Because recharge/flow through/discharge is very complex and changes depending on the year only soils that were thought to be generally only groundwater discharge were used.

Subsequent to the original map development, 3D groundwater modeling has occurred and provided more precise groundwater flow data and thus was the basis for the 2018 map update. *(Information Courtesy of the McHenry County Groundwater Taskforce – Recharge Subcommittee.)*



**The map indicates 34.91 acres of the parcel is within a Sensitive Aquifer Recharge Area.*

SOILS INFORMATION

Importance of Soils Information

Soils information comes from Natural Resources Conservation Service Soil Maps and Descriptions for McHenry County. This information is important to all parties involved in determining the suitability of the proposed land use change.

Each soil polygon is given a number, which represents its soil type. The letter found after the soil type number indicates the soils slope class.

Each soil map unit has limitations for a variety of land uses such as septic systems, buildings with basements, and buildings without basements. It is important to remember that soils do not function independently of each other. The behavior of a soil depends upon the physical properties of adjacent soil types, the presence of artificial drainage, soil compaction, and its position in the local landscape.

The limitation categories (slight, moderate or severe) indicate the potential for difficulty in using that soil unit for the proposed activity and, thus, the degree of need for thorough soil borings and engineering studies. A limitation does not

necessarily mean that the proposed activity cannot be done on that soil type. It does mean that the reasons for the limitation need to be thoroughly understood and dealt with in order to complete the proposed activity successfully. A severe limitation indicates that the proposed activity will be more difficult and costly to do on that soil type than on a soil type with a moderate or slight rating.

Soil survey interpretations are predictions of soil behavior for specified land uses and specified management practices. They are based on the soil properties that directly influence the specified use of the soil. Soil survey interpretations allow users of soil surveys to plan reasonable alternatives for the use and management of soils.

Soil interpretations do not eliminate the need for on-site study and testing of specific sites for the design and construction for specific uses. They can be used as a guide for planning more detailed investigations and for avoiding undesirable sites for an intended use. The scale of the maps and the range of error limit the use of the soil delineations.



Map Unit Symbol	Map Unit Name	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded	4.8	13.1%
802B	Orthents, loamy, undulating	1.2	3.4%

Soil Interpretations Explanation

Nonagricultural

General

These interpretative ratings help engineers, planners, and others to understand how soil properties influence behavior when used for nonagricultural uses such as building site development or construction materials. This report gives ratings for proposed uses in terms of limitations and restrictive features. The tables list only the most restrictive features. Other features may need treatment to overcome soil limitations for a specific purpose.

Ratings come from the soil's "natural" state, that is, no unusual modification occurs other than that which is considered normal practice for the rated use. Even though soils may have limitations, an engineer may alter soil features or adjust building plans for a structure to compensate for most degrees of limitations. Most of these practices, however, are costly. The final decision in selecting a site for a particular use generally involves weighing the costs for site preparation and maintenance.

Soil properties influence development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. Soil limitation ratings of slight, moderate, and severe are given for the types of proposed improvements that are listed or inferred by the petitioner as entered on the report application and/or zoning petition. The most

common types of building limitation that this report gives limitations ratings for is: septic systems. It is understood that engineering practices can overcome most limitations for buildings with and without basements, and small commercial buildings. Limitation ratings for these types of buildings are not commonly provided. Organic soils, when present on the parcel, are referenced in the hydric soils section of the report. This type of soil is considered to be unsuitable for all types of construction.

Limitations Ratings

1. **Slight** - This soil has favorable properties for the use. The degree of limitation is minor. The people involved can expect good performance and low maintenance.
2. **Moderate** - This soil has moderately favorable properties for the use. Special planning, design, or maintenance can overcome this degree of limitation. During some part of the year, the expected performance is less desirable than for soils rated slight.
3. **Severe or Very Severe** - This soil has one or more properties that are unfavorable for the rated use. These may include the following: steep slopes, bedrock near the surface, flooding, high shrink-swell potential, a seasonal high water table, or low strength. This degree of limitation generally requires major soil reclamation, special design, or intensive maintenance, which in most situations is difficult and costly.

SOIL LEACHABILITY

This interpretation is designed to evaluate the potential for nitrate-nitrogen to be transmitted through the soil profile below the root zone by percolating water under nonirrigated conditions. Leaching nitrates have the potential to contaminate shallow and deep aquifers used for drinking water. The ratings are based on inherent soil and climate properties that affect nitrate leaching and do not account for management practices, such as crop rotation and rates and timing of nitrogen fertilizer applications.

The following soil and climate factors are used in the interpretation criteria:

1. Mean annual precipitation minus potential evapotranspiration - This factor provides an estimate of the amount of water that is available to move through the soil profile on an annual basis. Potential evaporation is estimated from mean annual air temperature using an algorithm (developed by the National Soil Survey Center) that employs the Hamon potential evapotranspiration method.
2. Water travel time through the entire soil profile - This factor uses the saturated hydraulic conductivity (Ksat) and thickness of each soil horizon to estimate the number of hours that would be required for a given volume of water to move through the entire soil profile. One advantage of this method for estimating the rate of water movement is that the properties and thickness of each soil horizon are accounted for instead of using an average saturated hydraulic conductivity for the entire profile. This method accounts for subtle differences between soils in texture, structure, horizon thickness, and depth to water-restricting layers.
3. Available water capacity - This factor accounts for the cumulative amount of water available to plants that the entire soil profile can hold at field capacity to a depth of 150 cm. The more water the soil profile can hold, the less water is available for deep leaching.
4. Depth to and duration of a water table - This factor uses a water table index based on the minimum average depth to a water table and the number of months that the water table is present during the period from April through October. The factor is used to account for the loss of nitrates to the atmosphere as nitrous oxide or nitrogen gas due to denitrification under anaerobic conditions caused by water saturation. The higher the water table and the longer its duration, the larger the quantity of nitrates that would potentially be lost to the atmosphere and therefore would not be available for deep leaching.
5. Slope gradient adjusted for hydrologic soil group - The steeper the slope gradient, the higher the potential for surface runoff and the lower the amount of water available to move through the soil profile. The following adjustments are made to the slope gradient by hydrologic group to account for differences in potential for surface runoff:

Hydrologic group A-slope % x 0.75

Hydrologic group B-slope % x 0.85

Hydrologic group C-slope % x 0.95

Hydrologic group D-no adjustment

The ratings are both verbal and numerical. The ratings for Nitrate Leaching Potential, Nonirrigated Areas, are calculated as follows:

- The Mean Annual Precipitation minus Potential Evapotranspiration subrule is weighted by multiplying by 0.60.
- The Water Travel Time subrule is weighted by multiplying by 0.25.
- The Available Water Capacity subrule is weighted by multiplying by 0.15.
- The sum of these three weighted subrules results in a value between 0.00 and 1.00.
- Adjustments are then made for water table depth and duration and for slope gradient adjusted for hydrologic group. The sum of the values from these subrules is subtracted from the sum in step 4 above. The maximum reduction is 0.50 for the water table index subrule and 0.30 for the slope gradient subrule.

The following rating classes for Nitrate Leaching Potential, Nonirrigated Areas, are assigned based on the final calculation from the factors above:

Low: 0.00 to 0.25

Moderate: 0.26 to 0.50

Moderately high: 0.51 to 0.75 High: 0.76 to 1.00

The ratings indicate the potential for nitrate leaching below the root zone, based on inherent soil and climate properties. A "low" rating indicates a low potential for leaching of nitrates below the root zone. A "high" rating indicates a high potential for leaching of nitrates below the root zone. The "moderate" and "moderately high" ratings indicate intermediate potential.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

Nitrate Leaching Potential, Nonirrigated—McHenry County, Illinois



Nitrate Leaching Potential, Nonirrigated						
Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	High	Proctor (95%)	Water quantity available for leaching (0.97)	5.9	16.0%
				Water travel time (0.88)		
				Water holding capacity (0.18)		
149A	Brenton silt loam, 0 to 2 percent slopes	Moderate	Brenton (97%)	Water quantity available for leaching (0.99)	2.5	6.8%
				Water travel time (0.83)		
				Denitrification due to saturation (0.50)		
				Water holding capacity (0.06)		
			Drummer, drained (3%)	Water quantity available for leaching (0.99)		
				Water travel time (0.84)		
				Denitrification due to saturation (0.50)		
				Water holding capacity (0.08)		
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	Low	Pella, cool (85%)	Water quantity available for leaching (0.99)	0.0	0.0%
				Denitrification due to saturation (0.50)		
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	High	Warsaw, eroded (95%)	Water quantity available for leaching (1.00)	2.5	6.9%
				Water travel time (1.00)		
				Water holding capacity (0.89)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
			Rodman, eroded (5%)	Water quantity available for leaching (1.00) Water travel time (1.00) Water holding capacity (0.98)		
297B	Ringwood silt loam, 2 to 4 percent slopes	High	Ringwood (90%)	Water quantity available for leaching (1.00) Water travel time (0.93) Water holding capacity (0.14)	19.7	53.7%
			Elburn, cool (5%)	Water quantity available for leaching (1.00) Water travel time (0.85)		
363C2	Griswold loam, 4 to 6 percent slopes, eroded	High	Griswold, eroded (90%)	Water quantity available for leaching (1.00) Water travel time (0.90) Water holding capacity (0.36)	4.8	13.1%
			Warsaw (10%)	Water quantity available for leaching (1.00) Water travel time (1.00) Water holding capacity (0.89)		
802B	Orthents, loamy, undulating	Moderately high	Orthents, loamy (100%)	Water quantity available for leaching (0.97)	1.2	3.4%
Rating		Acres			Percent	
High		32.9			89.8%	
Moderate		2.5			6.8%	
Moderately high		1.2			3.4%	
Low		0.0			0.0%	

SOIL PERMEABILITY

Soil permeability is the quality of the soil that enables water or air to move downward through the profile. The rate at which a saturated soil transmits water is accepted as a measure of this quality.

For the purposed of the NRI Report, those soils which have “rapid” to “very rapid” permeability, have been identified as “highly permeable.”

Terms describing permeability, measured in inches per hour, are as follows:

Extremely slow	0.0 to 0.01 inch
Very slow	0.01 to 0.06 inch
Slow	0.06 to 0.2 inch
Moderately slow	0.2 to 0.6 inch
Moderate	0.6 inch to 2.0 inches
Moderately rapid	2.0 to 6.0 inches
Rapid	6.0 to 20 inches
Very rapid	more than 20 inches

Highly Permeable Soils			
Map Unit Symbol	Highly Permeable	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes - No	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes - No	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes - No	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded - Yes	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes - No	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded - No	4.8	13.1%
802B	Orthents, loamy, undulating - No	1.2	3.4%
Total Highly Permeable		2.5	6.9%

SOIL EROSION & SEDIMENT CONTROL

Erosion is the wearing away of the soil by water, wind, and other forces. Soil erosion threatens the Nation's soil productivity and contributes the most pollutants in our waterways. Water causes about two thirds of erosion on agricultural land. Four properties, mainly, determine a soil's erodibility:

1. Texture
2. Slope
3. Structure
4. Organic matter content

Slope has the most influence on soil erosion potential when the site is under construction. Erosivity and runoff increase as slope grade increases. The runoff then exerts more force on the particles, breaking their bonds more readily and carrying them farther before deposition. The longer water flows along a slope before reaching a major waterway, the greater the potential for erosion.

Soil erosion during and after this proposed construction can be a primary non-point source of water pollution. Eroded soil during the construction phase can create unsafe conditions on roadways, decrease the storage capacity of lakes, clog streams and drainage channels, cause

deterioration of aquatic habitats, and increase water treatment costs. Soil erosion also increases the risk of flooding by choking culverts, ditches and storm sewers, and by reducing the capacity of natural and man-made detention facilities.

The general principles of erosion and sedimentation control measures include:

- reducing or diverting flow from exposed areas, storing flows or limiting runoff from exposed areas,
- staging construction in order to keep disturbed areas to a minimum,
- establishing or maintaining or temporary or permanent groundcover,
- retaining sediment on site and
- properly installing, inspecting and maintaining control measures.

Erosion control practices are useful controls only if they are properly located, installed, inspected and maintained.

The SWCD recommends an erosion control plan for all building sites, especially if there is a wetland or stream nearby.

Highly Erodible Soils (HEL)

Highly Erodible Soils (HEL)			
Map Unit Symbol	HEL	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes – Non-HEL	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes – Non-HEL	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes – Non-HEL	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded - HEL	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes – Non-HEL	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded - HEL	4.8	13.1%
802B	Orthents, loamy, undulating – Non-HEL	1.2	3.4%
Total Highly Erodible Soils		7.3	20.0%

PRIME FARMLAND SOILS

Prime farmland soils are an important resource to McHenry County. Some of the most productive soils in the United States occur locally. Each soil map unit in the United States is assigned a prime or non-prime rating. Prime agricultural land does not need to be in the production of food & fiber.

Section 310 of the NRCS general manual states that urban or built-up land on prime farmland soils is not prime farmland. The percentages of soils map units on the parcel reflect the determination that urban or built up land on prime farmland soils is not prime farmland.

Prime Farmland Soils

Map unit symbol	Map unit name	Rating	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	All areas are prime farmland	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes	All areas are prime farmland	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	Prime farmland if drained	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	All areas are prime farmland	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes	All areas are prime farmland	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded	All areas are prime farmland	4.8	13.1%
802B	Orthents, loamy, undulating	Not prime farmland	1.2	3.4%
Total Prime Farmland Soils			35.4	96.5%



GROUND-BASED SOLAR ARRAYS, SOIL-PENETRATING ANCHOR SYSTEMS

Description

Ground-based solar arrays are sets of photovoltaic panels that are not situated on a building or pole. These installations consist of a racking system that holds the panel in the desired orientation and the foundation structures that hold the racking system to the ground. Two basic methods are used to hold the systems to the ground, based on site conditions and cost. One method employs driven piles, screw augers, or concrete piers that penetrate into the soil to provide a stable foundation. The ease of installation and general site suitability of soil-penetrating anchoring systems depends on soil characteristics such as rock fragment content, soil depth, soil strength, soil corrosivity, shrink-swell tendencies, and drainage. The other basic anchoring system utilizes precast ballasted footings or ballasted trays on the soil surface to make the arrays too heavy to move. The site considerations that impact both basic systems are slope, slope aspect, wind speed, land surface shape, flooding, and ponding. Other factors that will contribute to the function of a solar power array include daily hours of sunlight and shading from hills, trees or buildings.

Soil-penetrating anchoring systems can be used where the soil conditions are not limited. Installation of these systems requires some power equipment for hauling components and either driving piles, turning helices, or boring holes to install the anchoring apparatus.

Soils can be a non-member, partial member or complete members of the set of soils that are limited for "Ground-based Solar Panel Arrays". If a soil's property within 150 cm (60 inches) of the soil surface has a membership indices greater than zero, then that soil property is limiting and the soil restrictive feature is identified. The overall interpretive rating assigned is the maximum membership indices of each soil interpretive property that comprise the "Ground-based Solar Panel Array" interpretive rule. Minor restrictive soil features are identified but not considered as part of the overall rating process. These restrictive features could be important factors where the major restrictive features are overcome through

design application.

Soils are placed into interpretive rating classes per their rating indices. These are not limited (rating index = 0), somewhat limited (rating index greater than 0 and less than 1.0), or very limited (rating index = 1.0).

Numerical ratings indicate the degree of limitation. The ratings are shown in decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil has the least similarity to a good site (1.00) and the point at which the soil feature is very much like known good sites (0).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

References:

Canada, S. 2012. Corrosion impacts on steel piles. Solarpro. Solarprofessional.com.

Romanoff, Melvin. 1962. Corrosion of Steel Pilings in Soils. *Journal of Research of the National Bureau of Standards*. (Volume 66C, No. 3). July/September, 1962.

Solar Arrays, Soil-based Anchor Systems—McHenry County, Illinois



Solar Arrays, Soil-based Anchor Systems

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	Very limited	Proctor (95%)	Frost action (1.00)	5.9	16.0%
				Steel corrosion (0.75)		
				Low strength (0.29)		
				Hillslope position (0.25)		
				Shrink-swell (0.02)		
149A	Brenton silt loam, 0 to 2 percent slopes	Very limited	Brenton (97%)	Frost action (1.00)	2.5	6.8%
				Steel corrosion (0.75)		
				Depth to saturated zone (0.75)		
				Low strength (0.53)		
				Hillslope position (0.25)		
			Drummer, drained (3%)	Ponding (1.00)		
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (0.76)		
				Steel corrosion (0.75)		
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	Very limited	Pella, cool (85%)	Ponding (1.00)	0.0	0.0%
				Depth to saturated zone (1.00)		
				Frost action (1.00)		
				Low strength (0.70)		
				Slope shape across (0.30)		

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres	Percent
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	Somewhat limited	Warsaw, eroded (95%)	Steel corrosion (0.75)	2.5	6.9%
				Frost action (0.50)		
				Hillslope position (0.13)		
			Rodman, eroded (5%)	Steel corrosion (0.75)		
297B	Ringwood silt loam, 2 to 4 percent slopes	Somewhat limited	Ringwood (90%)	Frost action (0.50)	19.7	53.7%
				Slope shape across (0.20)		
				Hillslope position (0.13)		
				Low strength (0.02)		
				Shrink-swell (0.01)		
363C2	Griswold loam, 4 to 6 percent slopes, eroded	Somewhat limited	Griswold, eroded (90%)	Frost action (0.50)	4.8	13.1%
				Hillslope position (0.25)		
				Slope shape across (0.20)		
			Warsaw (10%)	Steel corrosion (0.75)		
				Frost action (0.50)		
				Hillslope position (0.25)		
802B	Orthents, loamy, undulating	Somewhat limited	Orthents, loamy (100%)	Frost action (0.50)	1.2	3.4%
				Shrink-swell (0.50)		
				Steel corrosion (0.25)		
				Low strength (0.05)		
Rating		Acres			Percent	
Somewhat limited		28.2			77.2%	
Very limited		8.3			22.8%	

AGRICULTURAL AREAS

The Agricultural Areas Conservation and Protect Act became effective July 1, 1980. The purpose of the Act is to provide a means by which agricultural land may be protected and enhanced as a viable segment of the State's economy and as an economic and environmental resource of major importance. Established Ag Areas tend to influence adjacent and surrounding land use changes since they are voluntary in nature and petitioned before the County Board for approval. Ag Areas are considered a high commitment to agriculture. Designated Ag Areas limit land

utilization to specified agricultural uses within their designated boundaries. Ag Areas allow landowners limited benefits such as immunity from locally enacted ordinances, which would limit farming operations and immunity from special tax assessments from local units of government.

Office Maps indicate there are no State Designated agricultural areas on or adjacent to the parcel in question.

LAND EVALUATION & SITE ASSESSMENT (LESA)

The Land Evaluation and Site Assessment system is a tool designed to evaluate the viability of agricultural lands where changes in land-use are proposed. LESA was developed as a decision-making tool used by the Zoning Board of Appeals, City Councils or County Boards to help make unbiased decisions of proper land-use. The LESA system was developed by the USDA-NRCS and takes into consideration local conditions such as physical characteristics of the land, compatibility of surrounding land-uses, urban growth factors, and land-use policies determined by local government. LESA was designed to be used in conjunction with the county's land-use plan, zoning ordinances, and other policies being used to decide land-use changes.

Decision makers use the Land Evaluation and Site Assessment (LESA) System to determine the suitability of a land use change and/or a zoning request as it relates to agricultural land. The LESA System is a two step procedure that includes:

- ◆ Land Evaluation (LE), soils value
- ◆ Site Assessment (SA), land use

Land Evaluation (**LE**) encompasses information regarding soils found on the site and their suitability for agricultural purposes. McHenry

County soils consist of 73 different soil series ranging from gravely loams to wet muck soils and from highly productive agricultural soils to high quality gravel deposits. For purposes of the Land Evaluation portion of the LESA system, each soil is assigned a relative value number, from 0 to 100, a 0 being the worst soils for crop production, 100 the best. Parcels containing higher percentages of higher valued soils will rate higher on the overall LESA score while those containing higher percentages lowered value soils will rate lower in the overall LESA score. McHenry County SWCD provides a weighted average of the soils using a simple, mechanical, unbiased method of determining agricultural suitability of soils on site.

Site Assessment (**SA**) identifies and weighs 10 criteria, other than soils information, that contributes to the quality of a site for agricultural uses. The determination to include the specific site assessment factors directly resulted from the following:

- ◆ McHenry County Zoning Ordinance,
- ◆ 2030 Land Use Plan,
- ◆ Other adopted county policies.

In summary, the LESA evaluation addresses all factors, including soils information, together to provide a rational, consistent, and unbiased determination of the impact to agriculture from the proposed land use and zoning changes.

LAND EVALUATION (LE) WORKSHEET

Map Unit Symbol	Map Unit Name	LE Score	Acres	Percent	Weighted Ave
148A	Proctor silt loam, 0 to 2 percent slopes	94	5.9	16.0%	15.04
149A	Brenton silt loam, 0 to 2 percent slopes	98	2.5	6.8%	6.66
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	94	0.0	0.0%	-
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	78	2.5	6.9%	5.38
297B	Ringwood silt loam, 2 to 4 percent slopes	89	19.7	53.7%	47.79
363C2	Griswold loam, 4 to 6 percent slopes, eroded	76	4.8	13.1%	9.96
802B	Orthents, loamy, undulating	0	1.2	3.4%	-
Land Evaluation Score					84.84

Explanation of the LE Worksheet:

Symbol: is the soil type of the polygon on the soils map.

Percentage and Acreage: the percentages of the parcel, and the area that the soil polygon represents.

LE Score: the numeric value from 0 - 100 that is assigned that soil unit

Weighted Ave: The acreage multiplied by the value of that soil unit.

SITE ASSESSMENT (SA) WORKSHEET:

FACTORS CONSIDERED		MAX POINTS	POINTS GIVEN	COMMENTS
1.	Percent of the same zoning classification within one and one-half (1.5) miles of the property in question.	20	10	74% - 26%
2.	Percent of the same zoning classification adjacent to the property in question.	20	10	74% - 26%
3.	Existence of natural, historic and/or cultural resources on or adjacent to the property in question.	20	20	yes
4.	Consistency of proposed use with surrounding land uses within a quarter (1/4) mile of the property in question.	20	20	Different use/ inconsistent
5.	Consistency of proposed use the McHenry County Comprehensive Plan.	20	20	Not consistent with plan map or text
6.	Distance from a municipal boundary.	20	0	One and one-half (1.5) miles or less
7.	Level of emergency service.	20	0	Full time fire/rescue district
8.	Type of wetland(s) on the property in question.	20	0	no wetland present
9.	Type of regulatory floodplain on the property in question.	20	0	No floodplain present
10.	Percentage of hydric soils on the property in question.	20	0	Less than 15%

LESA SUMMARY TABLE:

LAND EVALUATION TOTAL:	84.84	300 – 201 Maintain existing land use
SITE ASSESSMENT TOTAL:	80	200 – 151 High impact to existing land use and resources
TOTAL LESA SCORE:	164.84	150 – 101 Moderate impact to existing land use and resources 100 – 0 Low impact to existing land use and resources

LAND USE PLANS

Many counties, municipalities, villages and townships have developed land-use plans. These plans are intended to reflect the existing and future land-use needs of a given community.

This parcel is within the McHenry County 2030 Land Use Plan Map and is identified as estate.

DRAINAGE, RUNOFF AND FLOOD INFORMATION

U.S.G.S Topographic maps give information on elevations, which are important mostly to determine slopes, drainage directions, and watershed information.

Elevations determine the area of impact of floods of record. Slope information determines steepness and erosion potential. Drainage directions determine where water leaves the PIQ, possibly impacting surrounding natural resources.

Watershed information is given for changing land use to a subdivision type of development on parcels greater than 10 acres.

What is a watershed?

Simply stated, a watershed is the area of land that contributes water to a certain point. The point that we use on these reports is usually the point where water exits the parcel. The point is marked with a “O.” The watershed boundary is drawn in using the following marking: (— ● ● —). Often times, water will flow off the parcel in two or more directions. In that case, there is a watershed break on the parcel. (— ● ● —), and there are two or more watersheds on the parcel.

The watershed boundary is important because the area of land in the watershed can now be calculated using an irregular shape area calculator such as a dot counter or planimeter.

Using regional storm event information, and site specific soils and land use information, the peak stormwater flow through the point marked “O”

for a specified storm event can be calculated. This value is called a “Q” value (for the given storm event), and is measured in cubic feet per second (CFS).

When construction occurs, the Q value naturally increases because of the increase in impermeable surfaces. This process decreases the ability of soils to accept and temporarily hold water. Therefore, more water runs off and increases the Q value.

Theoretically, if each development, no matter how large or small, maintains their preconstruction Q value after construction by the installation of stormwater management systems, the streams and wetlands and lakes will not suffer damage from excessive urban stormwater.

For this reason, the McHenry County SWCD recommends that the developer for intense uses such as a subdivision calculate the preconstruction Q value for the exit point(s). A stormwater management system should be designed, installed, and maintained to limit the postconstruction Q value to be at or below the preconstruction value.

Importance of Flood Information

A floodplain is defined as land adjoining a watercourse (riverine) or an inland depression (non-riverine) that is subject to periodic inundation by high water. Floodplains are important areas demanding protection since they have water storage and conveyance functions which affect upstream and down stream flows,

water quality and quantity, and suitability of the land for human activity. Since floodplains play distinct and vital roles in the hydrologic cycle, development that interferes with their hydrologic and biologic functions should be carefully considered.

Flooding is both dangerous to people and destructive to their properties. The following maps, when combined with wetland and topographic information, can help developers and future homeowners to “sidestep” potential flooding or ponding problems.

FIRM is the acronym for the Flood Insurance Rate Map, produced by the Federal Emergency Management Agency. These maps define flood elevation adjacent to tributaries and major bodies of water, and superimpose that onto a simplified USGS topographic map. The scale of the FIRM maps is generally dependent on the size and density of parcels in that area. (This is to correctly determine the parcel location and flood plain location.) The FIRM map has three (3) zones. A is the zone of 100 year flood, zone B is the 100 to 500 year flood, and zone C is outside the flood plain.

The Hydrologic Atlas (H.A.) Series of the Flood of Record Map is also used for the topographic information. This map is different from the FIRM map mainly because it will show isolated, or pocketed flooded areas. McHenry County uses both these maps in conjunction with each other for flooded area determinations. The Flood of Record maps, show the areas of flood for various years. Both of these maps stress that the recurrence of flooding is merely statistical. That is to say a 100-year flood may occur twice in one year, or twice in one week, for that matter.

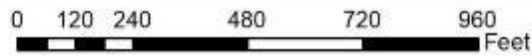
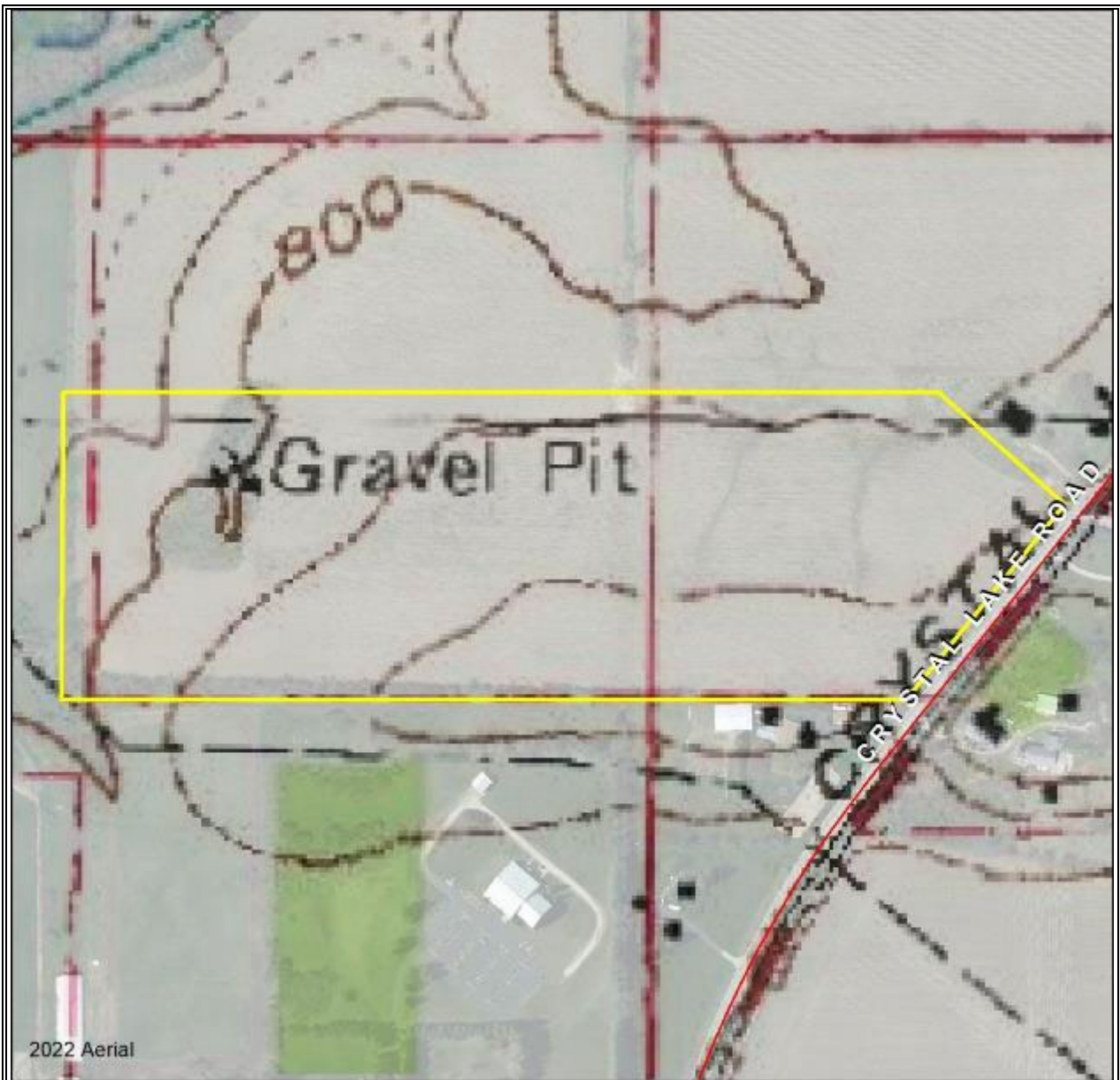
It should be noted that greater floods than those shown on the two maps are possible. The flood

boundaries indicated provide a historic record only until the map publication date. Additionally, these flood boundaries are a function of the watershed conditions existing when the maps were produced. Cumulative changes in runoff characteristics caused by urbanization can result in an increase in flood height of future flood episodes.

Floodplains play a vital role in reducing the flood damage potential associated with an urbanizing area and, when left in an undisturbed state, also provide valuable wildlife habitat benefits. If it is the petitioner's intent to conduct floodplain filling or modification activities, the petitioner and the Unit of Government responsible need to consider the potentially adverse effects this type of action could have on adjacent properties. The change or loss of natural floodplain storage often increases the frequency and severity of flooding on adjacent property.

If the available maps indicate the presence of a floodplain on the PIQ, the petitioner should contact the IDOT-DWR and FEMA to delineate a floodplain elevation for the parcel. If a portion of the property is indeed floodplain, applicable state, county and local regulations will need to be reflected in the site plans.

Another indication of flooding potential can be found in the soils information. Hydric soils indicate the presence of drainageways, areas subject to ponding, or a naturally occurring high water table. These need to be considered along with the floodplain information when developing the site plan and the stormwater management plan. If the site does include these hydric soils and development occurs, thus raising the concerns of the loss of water storage in these soils and the potential for increased flooding in the area.



Produced By: McHenry-Lake County Soil & Water Conservation District



Key To Features

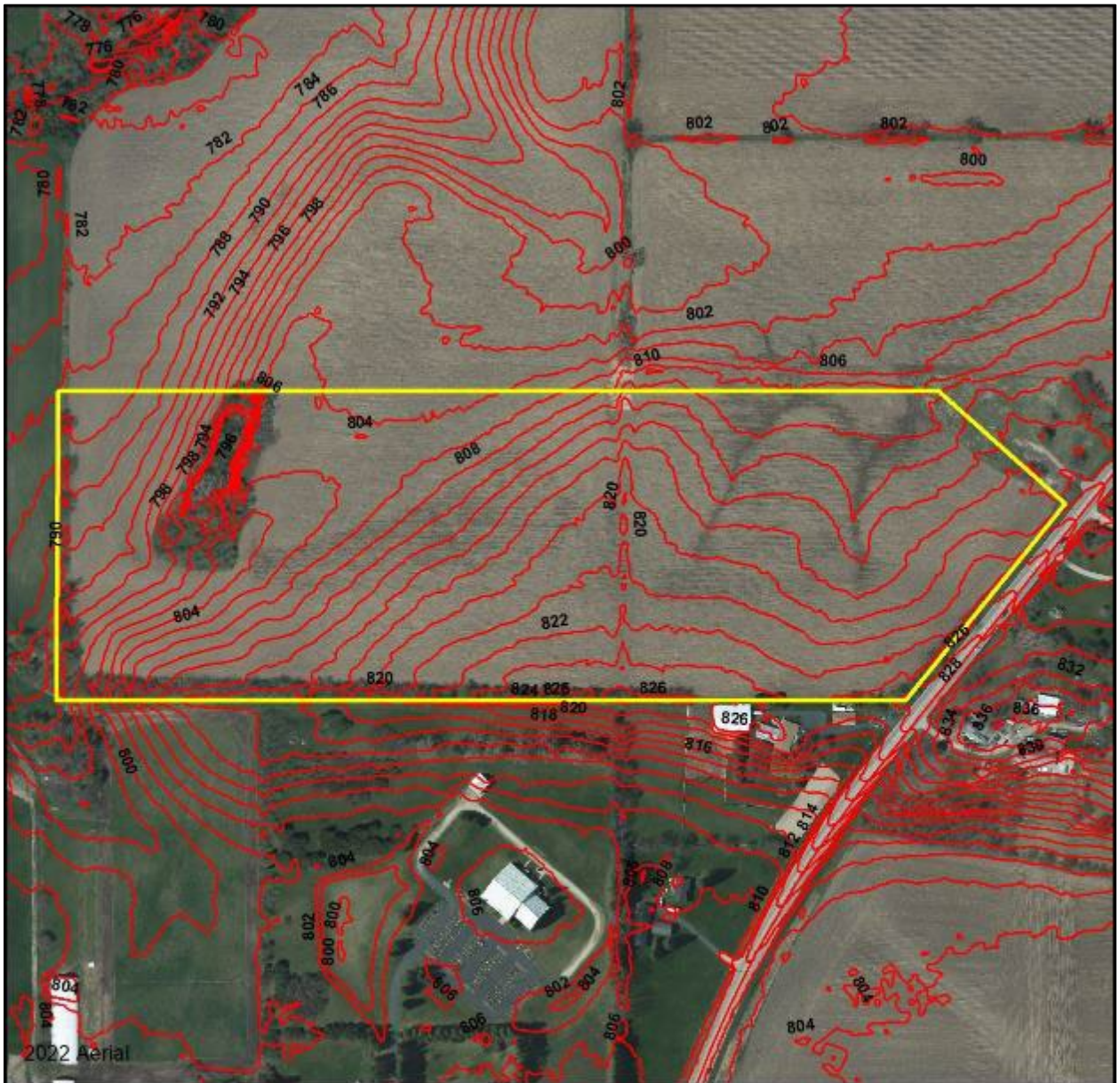
Parcel Boundary

Flood of Record Map Showing Topographic Information

This parcel is located on sloping topography (slopes 0 to 6%) involving high and low areas (elevation ranges from 784' above sea level to 826' above sea level). An erosion control system should include a sedimentation basin to address these exiting concentrated flows during construction. The same area used for a sedimentation basin during construction can be used for a stormwater retention system after construction.

During construction, temporary vegetation can decrease erosion on the slopes if the area is to be mass graded.

Also, the flood of record for this area indicates no previous flooding on the parcel.

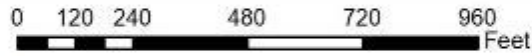
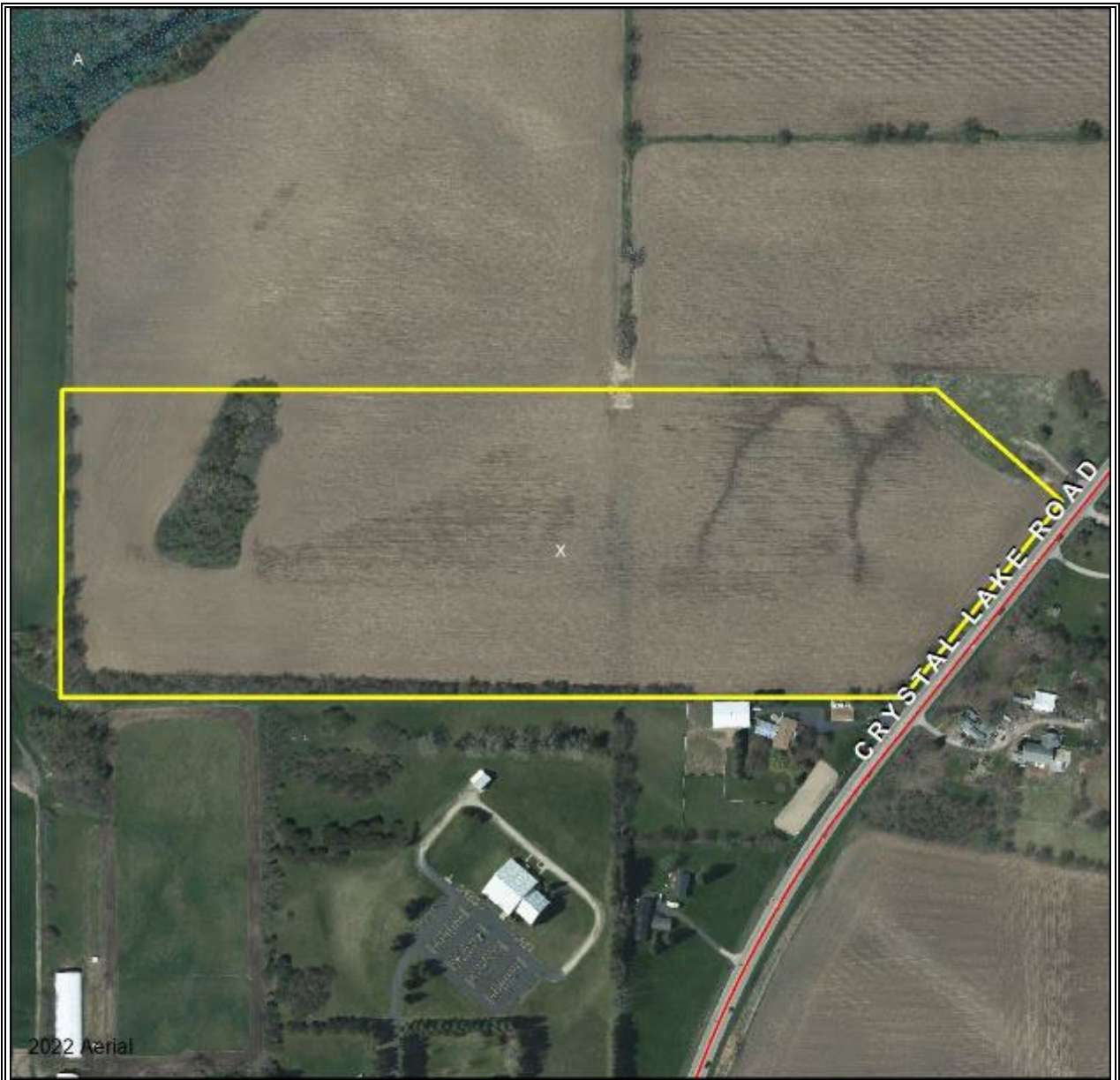


Produced By: McHenry-Lake County Soil & Water Conservation District

Key To Features

-  Parcel Boundary
-  2 Ft Contours





Produced By: McHenry-Lake County Soil & Water Conservation District



Key To Features	
	Parcel Boundary
FEMA Floodplain	
Flood Zone	
	0.2 PCT ANNUAL CHANCE FLOOD HAZARD
	100 yr
	100 yr with base flood elevations determined
	100 yr with 1-3 ft. flood depths
	100 yr usually sheet flow

Federal Emergency Management Agency: Flood Insurance Rate Map Panel 17111C0215J

The map indicates the parcel is outside of the 100-year floodplain.

WATERSHED PLANS

Watershed and Subwatershed Information

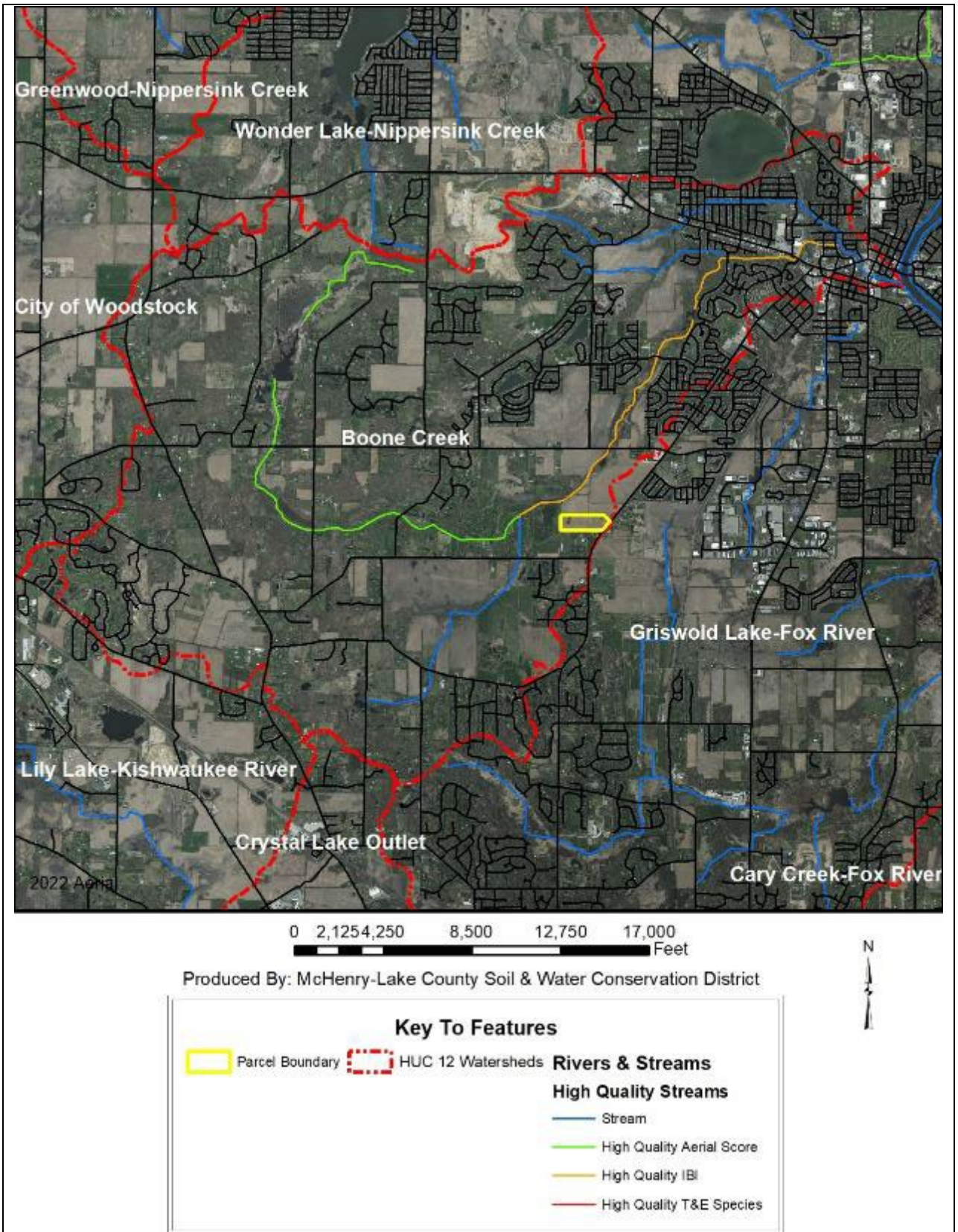
A watershed is the area of land that drains into a specific point including a stream, lake or other body of water. High points on the Earth's surface, such as hills and ridges define watersheds. When rain falls in the watershed, it flows across the ground towards a stream or lake. Rainwater carries any pollutants it comes in contact with such as oils, pesticides, and soil. Everyone lives in a watershed. Their actions can impact natural resources and people living downstream. Residents can minimize this impact by being aware of their environment and implications of their activities, implementing practices recommended in watershed plans and educating others about their watershed.

The parcel is within the Boone Creek Subwatershed (HUC 12 – 071200061101) of the Upper Fox River Watershed, which encompasses 60,214.11 acres of McHenry County. This watershed is part of the Fox River Ecosystem Partnership. The **Fox River Ecosystem Partnership (FREP)** was formed in 1996 after the Illinois Department of Natural Resources (IDNR) designated a core of high-quality ecological resources in the northern-most watershed as a "Resource Rich Area". Portions of eleven counties, including Lake, McHenry, Kane, Kendall and LaSalle, form the Fox River watershed, which is home to 11% of the state's population. The watershed contains the Fox Chain O'Lakes (one of the nation's busiest inland waterways), many high quality Natural Areas, and suburban areas with some of the highest growth rates in the state.

The Partnership is a diverse group, made up of landowners, businesses, non-profit organizations, agencies and governments within the Fox River Watershed region.

In 1998 FREP began a comprehensive planning process, identifying 16 critical factors and 6 areas of concern. The result was the ***Integrated Management Plan for the Fox River Watershed in Illinois*** that makes 35 recommendations for action.

The petitioner is encouraged to contact their **Communications Manager: Becky Hoag**, at 630/482-9157 or email at: info@foxriverecosystem.org



WETLAND INFORMATION

Importance of Wetland Information

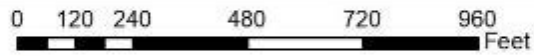
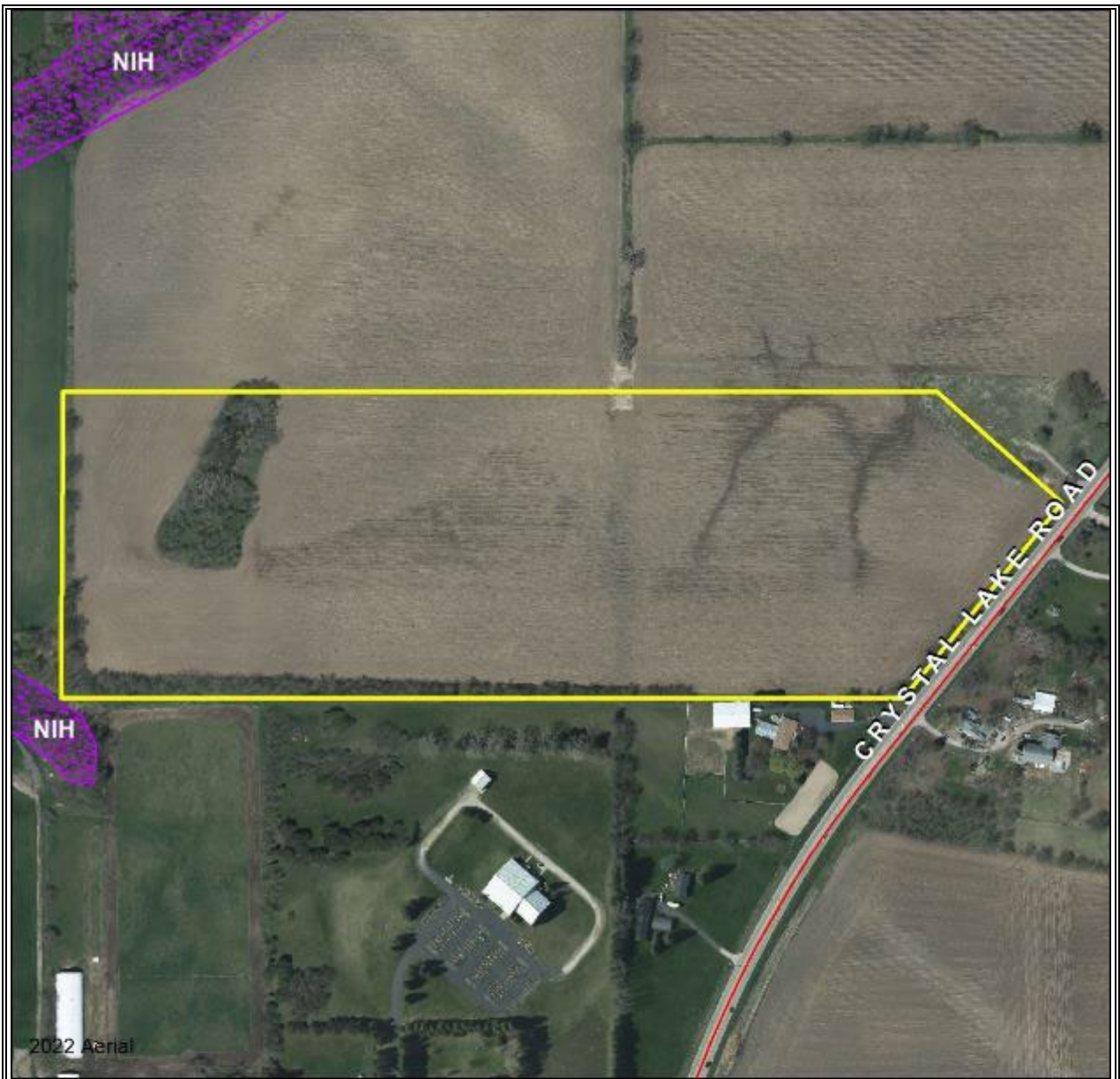
Wetlands function in many ways to provide numerous benefits to society. They control flooding by offering a slow release of excess water downstream or through the soil. They cleanse water by filtering out sediment and some pollutants, and can function as rechargers of our valuable groundwater. They also are essential breeding, rearing, and feeding grounds for many species of wildlife.

These benefits are particularly valuable in urbanizing areas as development activity typically adversely affects water quality, increases the volume of stormwater runoff, and increases the demand for groundwater. In an area where many individual homes rely on shallow groundwater wells for domestic water supplies, activities that threaten potential groundwater recharge areas are contrary to the public good. The conversion of wetlands, with their sediment trapping and nutrient absorbing vegetation, to biologically barren stormwater detention ponds can cause additional degradation of water quality in downstream or adjacent areas.

It has been estimated that over 95% of the wetlands that were historically present in Illinois have been destroyed while only recently has the true environmental significance of wetlands been fully recognized. America is losing 100,000 acres of wetland a year, and has saved 5 million acres total (since 1934). One acre of wetland can filter 7.3 million gallons of water a year. These are reasons why our wetlands are high quality and important.

This section contains the NRCS (Natural Resources Conservation Service) Wetlands Inventory, which is the most comprehensive inventory to date. The NRCS Wetlands Inventory is reproduced from an aerial photo at a scale of 1" equals 660 feet. The NRCS developed these maps in cooperation with U.S. EPA (Environmental Protection Agency,) and the U.S. Fish and Wildlife Service, using the National Food Security Act Manual, 3rd Edition. The main purpose of these maps is to determine wetland areas on agricultural fields and areas that may be wetlands but are in a non-agriculture setting.

The NRCS Wetlands Inventory in no way gives an exact delineation of the wetlands, but merely an outline, or the determination that there is a wetland within the outline. For the final, most accurate wetland **determination** of a specific wetland, a wetland **delineation** must be certified by NRCS staff using the National Food Security Act Manual (on agricultural land.) On urban land, a certified wetland delineator must perform the delineation using the ACOE 1987 Manual. *See the glossary section for the definitions of "delineation" and "determination."*



Produced By: McHenry-Lake County Soil & Water Conservation District



Key To Features

Parcel Boundary	Farmed Wetland
Farmed Wetland Pasture	Non-inventoried Hydric Soil
Non-inventoried Soil With Hydric Inclusions	Prior Converted
Wetland	

Natural Resources Conservation Service: Wetland Inventory Map.

The map indicates there are no wetlands on the parcel.

ADID (ADVANCED IDENTIFICATION OF AQUATIC RESOURCES)

Wetlands are some of the most productive and diverse ecological systems on Earth. The unique characteristics of plants, soils, and water distinguish these systems. Marshes, wet meadows, fens and bogs are some of the common wetland types found within McHenry County. There are also various streams scattered throughout the county, including several that rank among the highest quality in Illinois.

These wetlands, lakes and streams provide needed habitat and food for fish and wildlife. Diverse plants both common and rare are can be found in wetlands, and over 40 percent of Illinois' threatened and endangered plant and animal species rely on wetlands.

Wetlands have many other roles. They are critical to the control of flooding by storing vast quantities of runoff water during floods, and releasing it slowly to rivers and streams as the floodwater recedes. This in turn helps to prevent erosion in downstream channels, aids in groundwater recharge, and stabilizes the baseflow in streams and rivers. Wetlands are also crucial in protecting water quality. Wetlands that border lakes and streams prevent erosion by holding soil in place and deflecting erosive flows and waves.

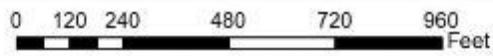
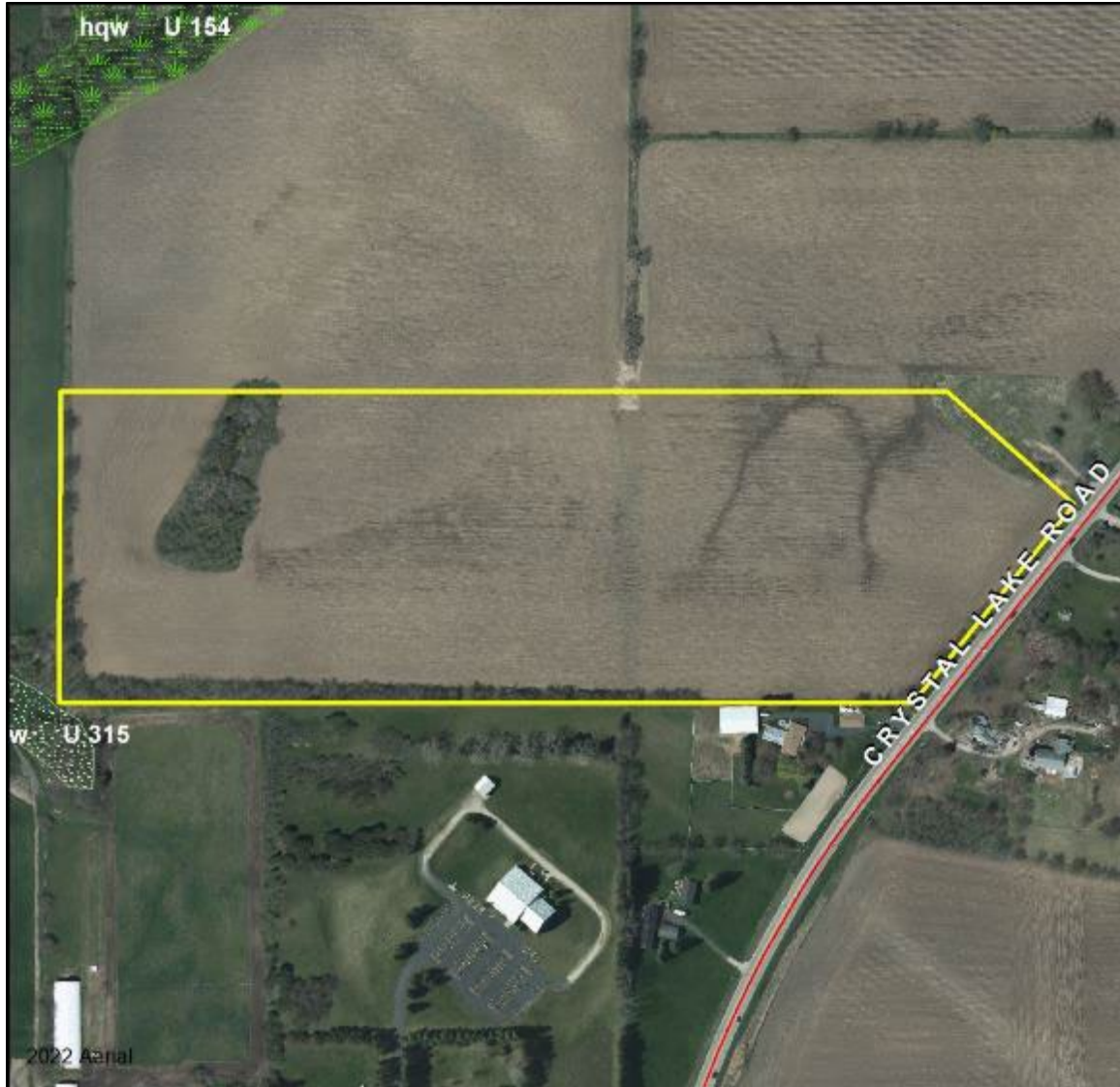
They also remove sediment, nutrients, and toxic chemicals from runoff water.

Other benefits include groundwater recharge, discharge of clean water, recreation, enhancement of natural aesthetics and serve as buffers between adjacent developments.

This program designed by the EPA (Environmental Protection Agency), is intended to improve awareness of the functions and values of wetlands and other U.S. waters. It is also intended to inform landowners and developers that high quality sites may not be unsuitable for the disposal of dredged or fill material. These ADID projects can also provide guidance on the long-term protection and management of aquatic resources.

The wetland boundaries shown are not jurisdictional delineations. Any proposed drainage work in wet areas requires a certified wetland determination.

The ADID study indicates there are no wetlands on the parcel.



Produced By: McHenry-Lake County Soil & Water Conservation District



Key To Features	
	Parcel Boundary
	farmed wetland
	high functional wetland
	high quality lake
	high quality wetland
	lake
	wetland

Hydric Soils

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated

or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field.

These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States. Federal Register. September 18, 2002. Hydric soils of the United States.

Soils information gives another indication of flooding potential. The soils map on this page indicates the soil(s) on the parcel that the Natural Resources Conservation Service indicates as hydric. Hydric soils by definition have seasonal high water at or near the soil surface and/or have potential flooding or ponding problems. All hydric soils range from poorly suited to unsuitable for building. One group of the hydric soils, are the organic soils, which formed from dead organic material. Organic soils are unsuitable for building because of not only the high water table, but also their subsidence problems.

It is also important to add the possibility of hydric inclusions in a soil type. An inclusion is a soil polygon that is too small to appear on these maps. While relatively insignificant for agricultural use, hydric soil inclusions become more important to more intense uses such as a residential subdivision.

While considering hydric soils and hydric inclusions, it is noteworthy to mention that subsurface agriculture drainage tile occurs in almost all poorly drained and somewhat poorly

drained soils. Drainage tile expedites drainage and facilitates farming. It is imperative that these drainage tiles remain undisturbed. A damaged subsurface drainage tile may return original hydrologic conditions to all of the areas that drained through the tile (ranging from less than one acre to many square miles.)

For an intense land use, such as a subdivision, the McHenry County SWCD recommends the following:

1. A topographical survey with 1 foot contour intervals to accurately define the flood area on the parcel.
2. An intensive soil survey to define most accurately the locations of the hydric soils and inclusions
3. A drainage tile survey on the area to locate the tiles that must be preserved.

In general, the District does not recommend building on hydric soils because of the unfavorable properties they exhibit and because of their long term, negative effects on the structures built.

Hydric Rating by Map Unit				
Map unit symbol	Map unit name	Rating	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	0	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes	3	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	87 - Hydric	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	0	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes	5	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded	0	4.8	13.1%
802B	Orthents, loamy, undulating	0	1.2	3.4%
Total Hydric			0.0	0.0%



FLOODING FREQUENCY

Flooding is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent.

"None" means that flooding is not probable. The chance of flooding is nearly 0 percent in any year. Flooding occurs less than once in 500 years.

"Very rare" means that flooding is very unlikely but possible under extremely unusual weather conditions. The chance of flooding is less than 1 percent in any year.

"Rare" means that flooding is unlikely but possible under unusual weather conditions. The chance of flooding is 1 to 5 percent in any year.

"Occasional" means that flooding occurs infrequently under normal weather conditions. The chance of flooding is 5 to 50 percent in any year.

"Frequent" means that flooding is likely to occur often under normal weather conditions. The chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year.

"Very frequent" means that flooding is likely to occur very often under normal weather conditions. The chance of flooding is more than 50 percent in all months of any year.

Flooding Frequency Class				
Map unit symbol	Map unit name	Rating	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	None	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes	None	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	None	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	None	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes	None	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded	None	4.8	13.1%
802B	Orthents, loamy, undulating	None	1.2	3.4%
Total Flooding			0.0	0.0%

Flooding Frequency Class—McHenry County, Illinois



PONDING FREQUENCY

Ponding is standing water in a closed depression. The water is removed only by deep percolation, transpiration, or evaporation or by a combination of these processes. Ponding frequency classes are based on the number of times that ponding occurs over a given period. Frequency is expressed as none, rare, occasional, and frequent.

"None" means that ponding is not probable. The chance of ponding is nearly 0 percent in any year.

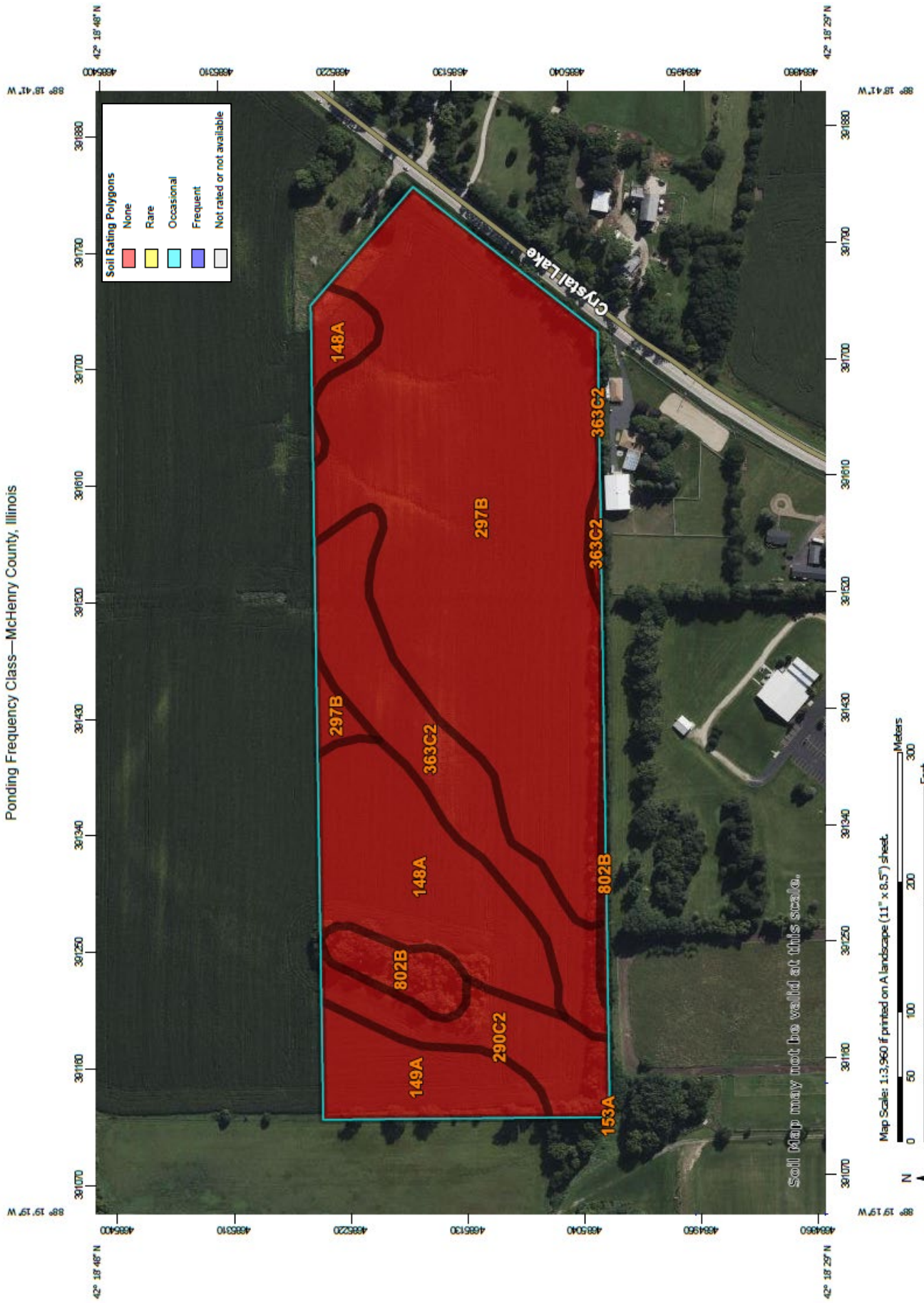
"Rare" means that ponding is unlikely but possible under unusual weather conditions. The chance of ponding is nearly 0 percent to 5 percent in any year.

"Occasional" means that ponding occurs, on the average, once or less in 2 years. The chance of ponding is 5 to 50 percent in any year.

"Frequent" means that ponding occurs, on the average, more than once in 2 years. The chance of ponding is more than 50 percent in any year.

Ponding Frequency Class				
Map unit symbol	Map unit name	Rating	Acres	Percent
148A	Proctor silt loam, 0 to 2 percent slopes	None	5.9	16.0%
149A	Brenton silt loam, 0 to 2 percent slopes	None	2.5	6.8%
153A	Pella silty clay loam, cool, 0 to 2 percent slopes	Frequent	0.0	0.0%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	None	2.5	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes	None	19.7	53.7%
363C2	Griswold loam, 4 to 6 percent slopes, eroded	None	4.8	13.1%
802B	Orthents, loamy, undulating	None	1.2	3.4%
Total Frequent Ponding			0.0	0.0%

Ponding Frequency Class—McHenry County, Illinois



WETLAND AND FLOODPLAIN REGULATIONS

PLEASE READ THE FOLLOWING IF YOU ARE PLANNING TO DO ANY WORK NEAR A STREAM (THIS INCLUDES SMALL UNNAMED STREAMS), LAKE, WETLAND OR FLOODWAY.

The laws of the United States and the State of Illinois assign certain agencies specific and different regulatory roles to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against flood way encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated use of the waters within the State of Illinois could permanently destroy or alter the character of these valuable resources and adversely impact the public. Therefore, please contact the proper regulatory authorities when planning any work associated with Illinois waters so that proper consideration and approval can be obtained.

WHO MUST APPLY

Anyone proposing to dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, flood plain or flood way subject to County, State or Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES:

- ◆ **Wetlands or U.S. Waters:** U.S. Army Corps of Engineers, Chicago District, 231 S. LaSalle St., Suite 1500 Chicago, IL 60604 Phone: (312) 846-5330
- ◆ **Isolated Wetlands and Floodplain:** McHenry County Department of Planning & Development Stormwater Division, 2200 N. Seminary Ave., Woodstock, IL 60098 Phone: (815) 334-4560
- ◆ **Flood plains:** Illinois Department of Natural Resources \ Office of Water Resources, 201 W. Center Court, Schaumburg, IL 60196-1096, phone (847).705.
- ◆ **Water Quality \ Erosion Control:** Illinois Environmental Protection Agency, Division of Water Pollution Control, Permit Section, Watershed Unit, 2200 Churchill Road, Springfield, IL 62706, phone (217).782.0610.

COORDINATION

We recommend Early coordination with the regulatory agencies BEFORE finalizing work plans. This allows the agencies to recommend measures to mitigate or compensate for adverse impacts. Also, the agency can make possible environmental enhancement provisions early in the project planning stages. This could reduce time required to process necessary approvals.

CAUTION: Contact with the United States Army Corps of Engineers is strongly advised before commencement of any work in or near a water of the United States. This could save considerable time and expense. Persons responsible for willful and direct violation of Section 10 of the River And Harbor Act of 1899 or Section 404 of the Federal Water Pollution Control Act are subject to fines ranging up to \$27,500 per day of violation and imprisonment for up to one year or both.

THREATENED & ENDANGERED SPECIES

The State of Illinois provides habitat for 500 threatened and endangered species, including 356 plants and 144 animals. Twelve counties in Illinois have 50 or more endangered species, 5 of which are in northeastern Illinois. ("Endangered Species of Illinois," by the U.S. Fish & Wildlife Service, IDOC Division of Natural Heritage & Endangered Species Protection Board).

Approximately 40% of the state's listed species depend on wetlands for survival. The two main causes for species decline are the loss of habitat and the degradation of habitat. While habitat loss is the primary reason species become endangered, the effects of habitat change are not always seen overnight. It is seldom simply a case of individual animals or plants being killed. More often, habitat loss and the resulting species declines are indirectly caused and are the result of cumulative impacts over a period of time.

It is because of this slow encroachment of habitat degradation, fragmentation and loss that wildlife habitat must be looked at on a greater scale than just

the site. Cumulative impacts occur because a small amount of damage is being done over here and little over there and no one is looking at the whole picture. Thus, the villages and county are strongly encouraged to look at habitat management on a regional scale.

THERE IS A POSSIBILITY FOR ENDANGERED SPECIES ON THE SITE. IF A REQUEST HAS NOT ALREADY BEEN SUBMITTED, THE PETITIONER SHOULD ASK THE ILLINOIS DEPARTMENT OF NATURAL RESOURCES TO CHECK THIS PARCEL FOR THE PRESENCE OF THREATENED OR ENDANGERED SPECIES. SHOULD ANY SUCH SPECIES BE IDENTIFIED AS UTILIZING THIS PARCEL, THE PETITIONER WILL BE NOTIFIED ACCORDINGLY. FOR MORE INFORMATION ON HOW TO REQUEST AN ENDANGERED SPECIES CHECK ON THIS PARCEL, PLEASE VISIT www.dnrecocat.state.il.us/ecopublic.

GLOSSARY

AGRICULTURAL PROTECTION AREAS (AG AREAS) - Allowed by P.A. 81-1173. An AG AREA consists of a minimum of 350 acres of farmland, as contiguous and compact as possible. Petitioned by landowners, AG AREAS protect for a period of ten years initially, then reviewed every eight years thereafter. AG AREA establishment exempts landowners from local nuisance ordinances directed at farming operations, and designated land can not receive special tax assessments on public improvements that do not benefit the land, e.g. water and sewer lines.

AGRICULTURE - The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable including dairying, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year around hired farm workers.

B.G. - Below Grade. Under the surface of the Earth.

BEDROCK - Indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

FLOODING - Indicates frequency, duration, and period during year when floods are likely to occur.

HIGH LEVEL MANAGEMENT - The application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reaction and near optimum levels of available nitrogen, phosphorus, and potassium for individual crops are maintained. Efficient use is made of available crop residues, barnyard manure, and/or green manure crops. All operations, when combined efficiently and timely, can create favorable growing conditions and reduce harvesting losses -- within limits imposed by weather.

HIGH WATER TABLE - A seasonal high water table is a zone of saturation at the highest average

depth during the wettest part of the year. May be apparent, perched, or artesian kinds of water tables.

Water Table, Apparent - A thick zone of free water in the soil. An apparent water table is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.

Water Table, Artesian - A water table under hydrostatic head, generally beneath an impermeable layer. When this layer is penetrated, the water level rises in an uncased borehole.

Water Table, Perched - A water table standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

DELINEATION - For Wetlands: A series of orange flags placed on the ground by a certified professional that outlines the wetland boundary on a parcel.

DETERMINATION - A polygon drawn on a map using map information that gives an outline of a wetland.

HYDRIC SOIL - This type of soil is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part (USDA Natural Resources Conservation Service 1987)

INTENSIVE SOIL MAPPING - Mapping done on a smaller more intensive scale than a modern soil survey to determine soil properties of a specific site, e.g. mapping for septic suitability.

LAND EVALUATION AND SITE

ASSESSMENT (L.E.S.A.) - LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

MODERN SOIL SURVEY - A soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent shown on a map, and an accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of the soils under different used and the soils' response to management. Predictions are made for areas of soil at specific places. Soils information collected in a soil survey is useful in developing land-use plans and alternatives involving soil management systems and in evaluating and predicting the effects of land use.

PALUSTRINE - Name given to inland fresh water wetlands

PERMEABILITY - Values listed estimate the range (in rate and time) it takes for downward movement of water in the major soil layers when saturated, but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PIQ - Parcel in question

POTENTIAL FROST ACTION - Damage that may occur to structures and roads due to ice lens formation causing upward and lateral soil movement. Based primarily on soil texture and wetness.

PRIME FARMLAND - Prime farmland soils are lands that are best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well managed soil economically to produce a sustained high yield of crops. Prime farmland produces in highest yields with minimum inputs of energy and economic resources, and farming the land results in the least damage to the environment.

Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent. (Source USDA Natural Resources Conservation Service)

PRODUCTIVITY INDEXES - Productivity indexes for grain crops express the estimated yields of the major grain crops grown in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state. This group of soils is composed of the Muscatine, Ipava, Sable, Lisbon, Drummer, Flanagan, Littleton, Elburn and Joy soils. Each of the 425 soils found in Illinois are found in Circular 1156 from the Illinois Cooperative Extension Service.

SEASONAL - When used in reference to wetlands indicates that the area is flooded only during a portion of the year.

SHRINK-SWELL POTENTIAL - Indicates volume changes to be expected for the specific soil material with changes in moisture content.

SOIL MAPPING UNIT - A map unit is a collection of soil areas of miscellaneous areas delineated in mapping. A map unit is generally an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying phase terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for taxa and in terms of ranges of taxadjuncts and inclusions.

SOIL SERIES - A group of soils, formed from a particular type of parent material, having horizons that, except for texture of the A or surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

SUBSIDENCE - Applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

TERRAIN - The area or surface over which a particular rock or group of rocks is prevalent.

TOPSOIL - That portion of the soil profile where higher concentrations of organic material, fertility, bacterial activity and plant growth take place. Depths of topsoil vary between soil types.

WATERSHED - An area of land that drains to an associated water resource such as a wetland, river or lake. Depending on the size and topography, watersheds can contain numerous tributaries, such as streams and ditches, and ponding areas such as detention structures, natural ponds and wetlands.

WETLAND - An area that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of

hydrophytic vegetation typically adapted for life in saturated soil conditions.

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Wetland Delineation Report

McHenry Solar Farm

Nunda Township, McHenry County, Illinois

November 12, 2025

Project Number: 20251635

McHenry Solar Farm

Nunda Township, McHenry County, Illinois

November 12, 2025

Prepared for:

Mr. Akshar Patel

Surya Powered LLC

141 W. Jackson Blvd., Suite 1692

Chicago, IL 60604

aksharpatel@suryapowered.com

Prepared by:

Heartland Ecological Group, Inc.

506 Springdale Street

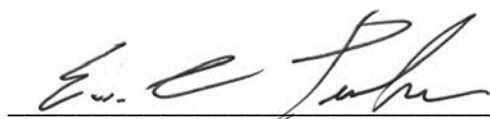
Mount Horeb, WI 53572

608-490-2450

www.heartlandecological.com



Preparation Assistant:
Soleil Bieniek, Environmental Technician



Lead Investigator and Final Reviewer:
Eric C. Parker, SPWS Principal Scientist

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1.0 Introduction

Heartland Ecological Group, Inc. (“Heartland”) completed a wetland determination and delineation on the McHenry Solar Farm site on October 7, 2025 at the request of Surya Powered, LLC. Fieldwork was completed by Eric C. Parker, SPWS (Appendix F, Qualifications). The 75.92-acre site (the “Study Area”) is northwest of the intersection of Crystal Lake Road South and Mason Hill Road, in the northeast ¼ of Section 9 and northwest ¼ of Section 9, T44N, R8E, Township of Nunda, McHenry County, IL (Figure 1, Appendix A). The purpose of the wetland delineation was to determine the location and extent of wetlands within the Study Area and identify and approximately map observed watercourses and waterbodies.

Four (4) wetland areas totaling approximately 1.26 acres were delineated and mapped within the Study Area (Figure 6, Appendix A). No watercourses/waterways or waterbodies were observed within the Study Area. Boone Creek is near the northwest corner of the Study Area.

Wetlands, waterways, and waterbodies discussed in this report may be subject to federal regulation under the jurisdiction of the U.S. Army Corps of Engineers (USACE), state regulation under the jurisdiction of the Illinois Environmental Protection Agency (IEPA), and local or county zoning authorities. Heartland recommends this report be submitted to local authorities, the IEPA, and USACE for final jurisdictional review and concurrence.



2.0 Methods

2.1 Wetlands

Wetlands were determined and delineated using the criteria and methods described in the USACE Wetlands Delineation Manual, T.R. Y-87-1 (“1987 Corps Manual”) and the applicable *Regional Supplement to the Corps of Engineers Wetland Delineation Manual*.

Determinations and delineations utilized available resources including the U.S. Geological Survey’s (USGS) *IL 7.5 Minute Series (Topographic) Map* (Figure 2, Appendix A), the Natural Resource Conservation Service’s (NRCS) Soil Survey Geographic Database (SSURGO), U.S. Department of Agriculture’s (USDA) *Web Soil Survey* (Figure 3, Appendix A), the U.S. Fish and Wildlife Service’s (USFWS) *National Wetland Inventory* (NWI) data layer (Figure 4, Appendix A), and the Illinois State Geological Survey’s (ISGS) *Illinois Height Modernization (ILHMP) LiDAR Data* (Figure 5, Appendix A). The USGS *National Hydrography Dataset* is included in Figures 2 and 4, Appendix A.

Wetland determinations were completed on-site at sample points, often along transects, using the three (3) criteria (vegetation, soil, and hydrology) approach per the 1987 Corps Manual and the Regional Supplement. Procedures in these sources were followed to demonstrate that, under normal circumstances, wetlands were present or not present based on a predominance of hydrophytic vegetation, hydric soils, and wetland hydrology.

In actively farmed areas within the Study Area where hydric soils may be present, methods described in Chapter 5 (Difficult Wetland Situations) of the Regional Supplement were followed. Available aerial imagery was analyzed using procedures described in the *Guidance for Offsite Hydrology/Wetland Determinations* (USACE and Minnesota Board of Water and Soil Resources, July 2016 – “July 2016 Guidance”) and the ECS-Wetland Mapping Conventions per Illinois Bulletin No. IL 190-8-4, December 1997 (1997 Illinois Guidance). However, FSA slides were not utilized. An off-site aerial imagery analysis (Off-Site Analysis) was completed to document the presence or absence of wetland signatures and assist in the wetland determination. A wetland signature is evidence, recorded by aerial imagery, of ponding, flooding, or impacts of saturation for sufficient duration to meet wetland hydrology and possibly wetland vegetation criteria. Wetland signatures often vary based on the type and seasonal date of the aerial imagery. For example, there are seven (7) standardized signature types in actively farmed settings described in the July 2016 Guidance and in the



Illinois Guidance. To assist in interpretations of wetland signatures, a WETS analysis was used to compare antecedent precipitation in the three (3) months leading up to each aerial image to the long-term (30-year) precipitation averages and standard deviation to determine if antecedent precipitation conditions for each image was normal, wet, or dry. Areas within agricultural fields are typically determined to be wetland if hydric soils and wetland hydrology indicators are present and aerial images taken in the five (5) (or more) most recent normal antecedent precipitation images show at least one (1) of the wetland signatures per the July 2016 Guidance and Illinois Guidance. Although the Off-Site Analysis concentrates on imagery taken under normal antecedent precipitation conditions, the images determined to be taken under wet and dry antecedent precipitation conditions were also analyzed and considered. Determinations and delineation of wetlands in agricultural areas are typically based on an outline of the largest wetland signature on an image taken under “normal” antecedent conditions and based on the consistency of the signatures (1997 Illinois Guidance).

In non-farmed wetlands a Floristic Quality Assessment (FQA) was completed by listing species identified and applying the assessment technique developed by Swink and Wilhelm (1994) for a fast evaluation of plant communities. This method calculates a mean Coefficient of Conservatism value (C) and a Floristic Quality Index value (FQI) for each wetland area. A state or region assigns each native species a C value ranging between 0 to 10 that represents an estimated probability that a plant species is likely to occur in a landscape relatively unaltered from what is thought to be a pre-settlement condition. A C-value of 0 is applied to a species that demonstrates no fidelity to any remnant natural community, whereas a C-value of 10 is applied to plants that are nearly always restricted to pre-settlement remnant communities. Values lower than 4 generally represent weedy species and values closer to 10 represent more “conservative”, rare, or disturbance intolerant species (Swink and Wilhelm, 1994). FQI values were calculated using the following formula:

$$FQI = \text{Mean } C (\sqrt{N})$$

C = Coefficient of Conservatism

N = species richness (Identifiable Native and Non-native)



The FQI has traditionally been calculated using C values and species richness of only native species. However, more recently, scientists have been including the non-native species in the calculations, giving all non-native species a C value of “0”. This methodology better reflects the actual integrity of a site, particularly in highly disturbed conditions dominated by non-native taxa. Disregarding the non-native species can often give sites falsely elevated mean C and FQI values that do not reflect the presence or abundance of these less-desirable species, which can influence the overall floristic quality of an area.

Recent weather conditions influence the visibility or presence of certain wetland hydrology indicators. An assessment of recent precipitation patterns helps to determine if climatic/hydrologic conditions were typical when the field investigation was completed. Therefore, a review of antecedent precipitation in the 90 days leading up to the field investigation was completed. Using an Antecedent Precipitation Tool (APT) analysis developed by the USACE (Deters & Gutenson 2021), the amount of precipitation over these 90 days was compared to averages and standard deviation thresholds observed over the past 30 years to generally represent if conditions encountered during the investigation were normal, wet, or dry. Recent precipitation events in the weeks prior to the investigation were also considered while interpreting wetland hydrology indicators. Finally, the Palmer Drought Severity Index was checked for long-term drought or moist conditions (NOAA, 2018).

The uppermost wetland boundary and sample points were identified and marked with wetland flagging and located with a Global Navigation Satellite System (GNSS) receiver capable of sub-meter accuracy. In some cases, wetland flagging was not utilized to mark the boundary, and the location was only recorded with a GNSS receiver, particularly in active agricultural areas. The GNSS data was then used to map the wetlands using ESRI ArcGIS Pro™ software.

Field-observed waterways and waterbodies within the Study Area were identified and mapped in this investigation if they may be under federal, state, or local zoning authority or were previously identified in Figures 2 and 4. Culverts associated with ditches and waterways were also identified and located with GPS if they were adjacent to wetland boundaries.



3.0 Results and Discussion

3.1 Desktop Review

Climatic Conditions

According to the APT analysis using the previous 90 days of precipitation data, conditions encountered at the time of the fieldwork were expected to be normal for the time of year (Appendix B). The Palmer Drought Severity Index was checked as part of the APT analysis, and the long-term conditions at the time of the fieldwork were not available. Fieldwork was completed outside the dry season based on long-term regional hydrology data utilized in the WebWIMP Climatic Water Balance and computed as part of the APT analysis.

General Topography and Land Use

The topography within the Study Area was rolling, with various hills and slopes and a topographic high of approximately 826 feet above mean sea level (msl) on the south side, with a topographic low of approximately 781 feet above msl near the northwest corner (Figures 2, 5, and 6, Appendix A). Land uses within the Study Area and surrounding areas are primarily agricultural row cropping with residential and wooded areas also present.

Soil Mapping

Soils mapped by the NRCS Soil Survey within the Study Area and their hydric status are summarized in Table 1. Wetlands identified during the field investigation are located primarily within areas mapped as hydric or partially hydric soils including wetland indicator soils (Figures 3 and 4, Appendix A).

Table 1. Summary of NRCS Mapped Soils within the Study Area

Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
148A: Proctor silt loam, 0-2% slopes	Proctor	91-100	Outwash plains, stream terraces	No
	Brenton	0-9	Outwash plains, stream terraces	No
148B: Proctor silt loam, 2-5% slopes	Proctor	91-100	Stream terraces, outwash plains	No
	Brenton	0-9	Stream terraces, outwash plains	No



Soil symbol: Soil Unit Name	Soil Unit Component	Soil Unit Component Percentage	Landform	Hydric status
149A: Brenton silt loam, 0-2% slopes	Brenton	91-100	Stream terraces, outwash plains	No
	Drummer-Drained	0-9	Swales on outwash plains and till plains	Yes
153A: Pella silty clay loam, cool, 0-2% slopes	Pella-Cool	80-91	Interdrumlins	Yes
	Virgil	5-9	Drumlins	No
	Elburn	4-8	Drumlins	No
	Houghton	1-3	Depressions	Yes
290C2: Warsaw loam, 4-6% slopes, eroded	Warsaw-Eroded	90-100	Stream terraces, kames	No
	Rodman-Eroded	0-10	Outwash plains	No
297B: Ringwood silt loam, 2-4% slopes	Ringwood	85-95	Moraines	No
	Elburn-Cool	3-8	Moraines	No
	Pella-Cool	2-7	Drainageways	Yes
363C2: Griswold loam, 4-6% slopes, eroded	Griswold-Eroded	80-95	Till plains	No
	Warsaw	5-20	Kames, till plains	No
802B: Orthents, loamy, undulating	Orthents-Loamy	100	Outwash plains, ground moraines	No

Wetland Mapping

The NWI mapping (Figure 4, Appendix A) identifies no (0) wetland areas within the Study Area. Riverine (R5UBH) wetlands are depicted just outside the Study Area to the northwest.

Waterway and Waterbody Mapping

The NHD data included in Figures 2 and 4 (Appendix A) identifies no (0) waterways and no (0) waterbodies within the Study Area. Boone Creek is depicted nearby to the northwest.

Aerial Photography

Available NAIP imagery of the Study Area from the period of 2004-2023 (Appendix G) was reviewed for evidence of wetland signatures and to gain insight into the site's recent history. The majority of the Study Area was row cropped in each year analyzed and a wetland signature was present in at least one (1) area in every year. Two (2) small



structures on the east edge of the Study Area were removed between June 2014 and September 2015. No other major changes to the Study Area were observed.

Off-Site Analysis

Agricultural fields within the Study Area have mapped hydric or potentially hydric soils and were the focus of the Off-Site Analysis (OSA - Appendix G). From the aerial imagery, in farmed depressional and swale areas, the secondary wetland hydrology indicators of “Saturation Visible on Aerial Imagery” (C9) and “Stunted or Stressed Plants” (D1) were noted.

A total of 18 aerial images were selected and reviewed based on availability and quality of the imagery. Of these images, ten (10) were taken under normal antecedent precipitation conditions. Signatures were noted in six (6) areas within the Study Area in landscape positions described by the NRCS to support hydric soil components and were the focus of the OSA. At least one (1) of the seven (7) described wetland signatures per the July 2016 Guidance were consistently or somewhat consistently noted in five (5) of these areas on imagery taken under normal antecedent precipitation conditions. In imagery taken under wet antecedent precipitation conditions, such wetland signatures were noted in five (5) of the five (5) images. In imagery taken under dry antecedent precipitation conditions, there were wetland signatures noted in three (3) of the seven (3) images.

Based on the OSA, five (5) areas were thought to be potentially wetland prior to the fieldwork. Two (2) of these five (5) areas appeared to be located along drainageways, while the others were situated either on a slope or in a depression. Drain tile signatures were not visible in the images included in the OSA.

3.2 Field Review

Four (4) wetlands were identified and delineated within the Study Area. Wetland determination data sheets (Appendix C) were completed at twelve (12) sample points that were representative of the wetland and upland conditions near the boundary and where potential wetlands may be present based on the desktop review and field reconnaissance. Appendix D provides photographs, typically at the sample point locations of the wetlands and adjacent uplands. The wetland boundary and sample point locations are shown on Figure 6 (Appendix A), and the wetlands are summarized in Table 2 and detailed in the following sections.



Table 2. Summary of Wetlands Identified within the Study Area

Wetland ID	Wetland Description	*Surface Water Connections	Acreage (on-site)
W-1	Wet Meadow/ Shallow Marsh	Appearing as isolated	0.16
W-2	Farmed Wet Meadow	Appearing as isolated	0.58
W-3	Farmed Wet Meadow	Appearing as isolated	0.24
W-4	Farmed Wet Meadow	Appearing as isolated	0.29
<i>*Classification based on Heartland’s professional opinion. Local zoning authorities may have additional restrictions. USACE has authority for determining federal jurisdiction of wetlands and waterways.</i>			0.96

Wetland 1 (W-1)

Wetland 1 (W-1) is a 0.16-acre wet meadow and shallow marsh located in a depression that appears to have been historically excavated and is being farmed around. W-1 appears isolated within the landscape. The boundary of W-1 generally coincided with a well-defined topographic break. W-1 is a ruderal community with a native Mean C of 2.4 and a native FQI of 6.8 (Appendix E).

Dominant vegetation observed in W-1 included reed canary grass (*Phalaris arundinacea*, FACW). The wetland vegetation parameter was met via the Rapid Test for Hydrophytic Vegetation, the Dominance Test, and a Prevalence Index of 1.82.

The Hydrogen Sulfide (A4), Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) hydric soil indicators were noted in W-1; thus, the hydric soil parameter was met.

The primary wetland hydrology indicators of Surface Water (A1), High Water Table (A2), Saturation (A3), and Hydrogen Sulfide Odor (C1) were noted within W-1. Furthermore, the secondary indicators included Saturation Visible on Aerial Imagery (C9), Geomorphic Position (D2), and a positive FAC-Neutral Test (D5). Therefore, the wetland hydrology parameter was met.



Wetland 2 (W-2)

Wetland 2 (W-2) is a 0.58-acre farmed wet meadow located on a side slope in the central portion of the Study Area and appears isolated. W-2 was identified during the OSA, was verified and delineated in the field, and did not coincide with a topographic break.

Dominant vegetation observed in W-2 included fall panic grass (*Panicum dichotomiflorum*, FACW) and three-seeded-mercury (*Acalypha rhomboidea*, FACU). The wetland vegetation parameter was met via the Prevalence Index of 2.85. Vegetation was disturbed due to agricultural row cropping, and the 2025 corn crop appeared healthy at the location of the sample point.

The Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators were noted in W-2; thus, the hydric soil parameter was met.

No primary wetland hydrology indicators were observed within W-2. However, the secondary indicators included Saturation Visible on Aerial Imagery (C9) and Stunted or Stressed Plants (D1) per the OSA. Therefore, the wetland hydrology parameter was met.

Wetland 3 (W-3)

Wetland 3 (W-3) is a 0.24-acre farmed wet meadow located in a slight swale/depression in the central/east portion of the Study Area and appears isolated. Wetland W-3 was identified in the OSA, verified in the field, and the boundary generally coincided with a poorly defined topographic break.

Dominant vegetation observed in W-3 included fall panic grass (FACW), barnyard grass (*Echinochloa crus-galli*, FAC), and three-seeded-mercury (FACU). The wetland vegetation parameter was met via the Dominance Test and a Prevalence Index of 3.0. Vegetation was disturbed due to agricultural row cropping, and the 2025 corn crop appeared healthy at the location of the sample point.

The Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators were noted in W-3; thus, the hydric soil parameter was met.

No primary wetland hydrology indicators were observed within W-3. However, the secondary indicators included Saturation Visible on Aerial Imagery (C9) and Stunted or Stressed Plants (D1) per the OSA. Therefore, the wetland hydrology parameter was met.



Wetland 4 (W-4)

Wetland 4 (W-4) is a 0.29-acre farmed wet meadow located in a slight swale/depression in the southeast portion of the Study Area and appears isolated. The boundary of W-4 was identified during the OSA and preliminary delineation, and verified in the field, and generally coincided with a poorly defined topographic break.

Dominant vegetation observed in W-4 included fall panic grass (FACW), barnyard grass (FAC), and three-seeded-mercury (FACU). The wetland vegetation parameter was met via the Dominance Test and a Prevalence Index of 2.73. Vegetation was disturbed due to agricultural row cropping, and the 2025 corn crop appeared healthy at the location of the sample point.

The Depleted Matrix (F3) hydric soil indicator was noted in W-4; thus, the hydric soil parameter was met.

No primary wetland hydrology indicators were observed within W-3. However, the secondary indicators included Saturation Visible on Aerial Imagery (C9), Stunted or Stressed Plants (D1) per the OSA, and a positive FAC-Neutral Test (D5). Therefore, the wetland hydrology parameter was met.

Waterways/Watercourses and Waterbodies

No watercourses/waterways or waterbodies were observed within the Study Area. However, Boone Creek is approximately 100 feet northwest of the Study Area.

3.3 Other Considerations

This report is limited to the identification and delineation of wetlands within the Study Area. Other regulated environmental resources that could result in land use restrictions may be present within the Study Area that were not evaluated by Heartland (e.g., floodplains, cultural resources, and threatened or endangered species).



4.0 Conclusion

Heartland completed a wetland determination and delineation within the McHenry Solar Farm site on October 7, 2025 at the request of Surya Power, LLC. Fieldwork was completed by Eric C. Parker, SPWS, (Appendix F). The Study Area lies in Section 8 and Section 9, T44N, R8E, Township of Nunda, McHenry County, IL (Figure 1, Appendix A).

Four (4) wetland areas were delineated and mapped within the 75.92-acre Study Area (Figure 7, Appendix A). The wetlands, which may be classified as wet meadow / shallow marsh and farmed wet meadow, total approximately 1.26 acres within the Study Area. No watercourses/waterways or waterbodies were observed within the Study Area; however, Boone Creek is near the Study Area's northwest corner.

Wetlands, waterways, and waterbodies discussed in this report may be subject to federal regulation under the jurisdiction of the USACE, state regulation, and the local zoning authority. Heartland recommends this report be submitted to the USACE for final jurisdictional review and concurrence. Review by local or state authorities may be necessary for determination of any applicable zoning and setback restrictions.

Heartland recommends that all applicable regulatory agency reviews and permits are obtained prior to beginning work within the Study Area or within or adjacent to wetlands or waterways. Heartland can assist with evaluating the need for additional environmental reviews, surveys, or regulatory agency coordination in consideration of the proposed activity and land use as requested but is outside of the scope of the wetland delineation.

Experienced and qualified professionals completed the wetland determination and delineation using standard practices and professional judgment. Wetland boundaries may be affected by conditions present within the Study Area at the time of the fieldwork. All final decisions on wetlands and their boundaries are made by the USACE and/or sometimes a local unit of government. Wetland determination and boundary reviews by regulatory agencies may result in modifications to the findings presented to the Client. These modifications may result from varying conditions between the time the wetland delineation was completed and the time of the review. Factors that may influence the findings may include but are not limited to precipitation patterns, drainage modifications, changes or modification to vegetation, and the time of year.



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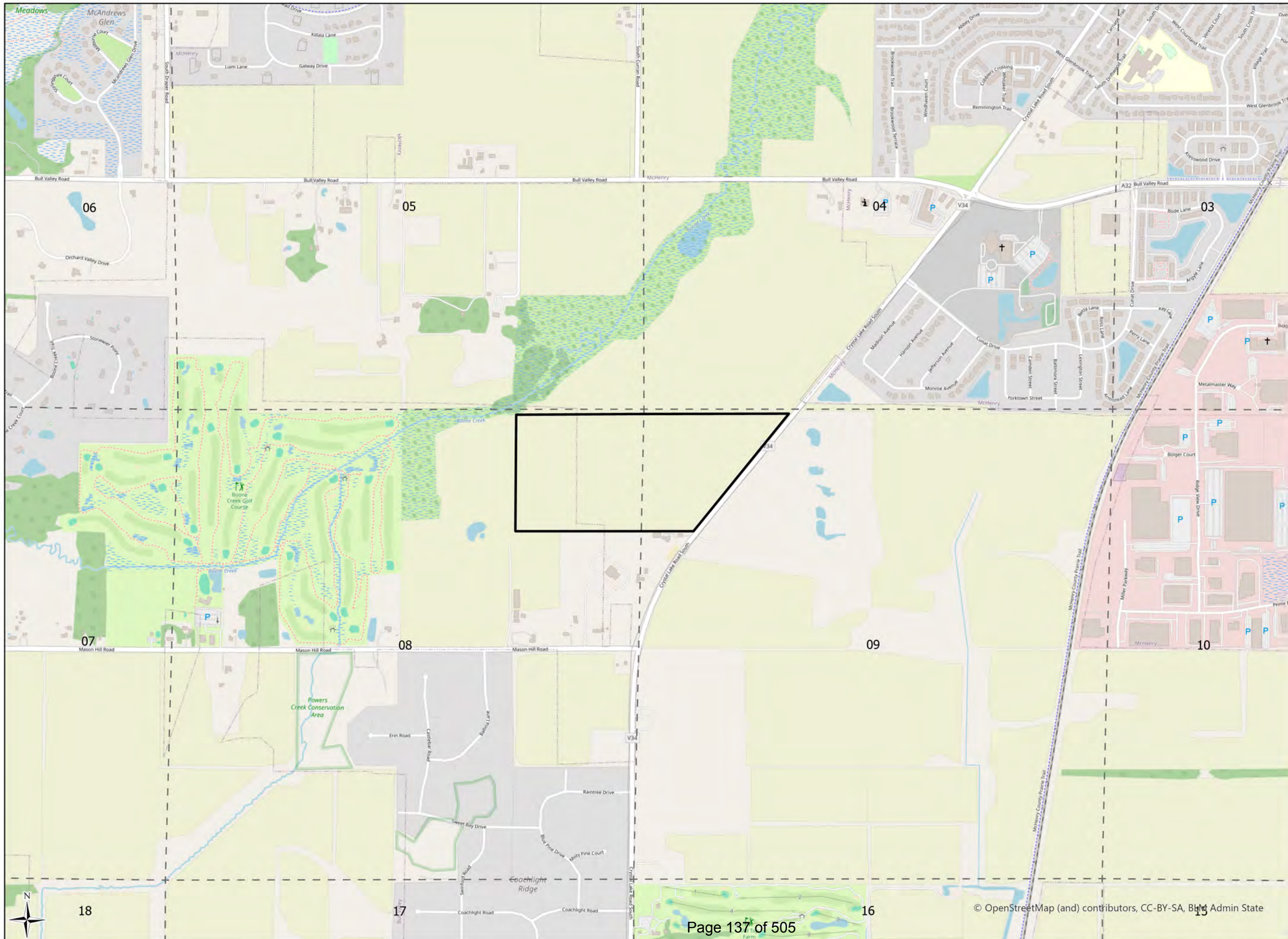
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Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix A | Figures



Study Area (75.92 ac)
 PLSS Section

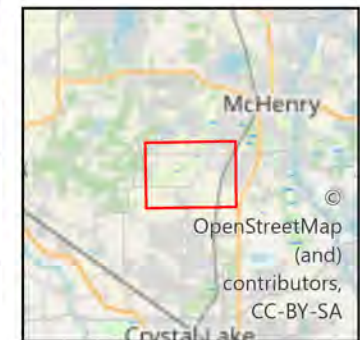
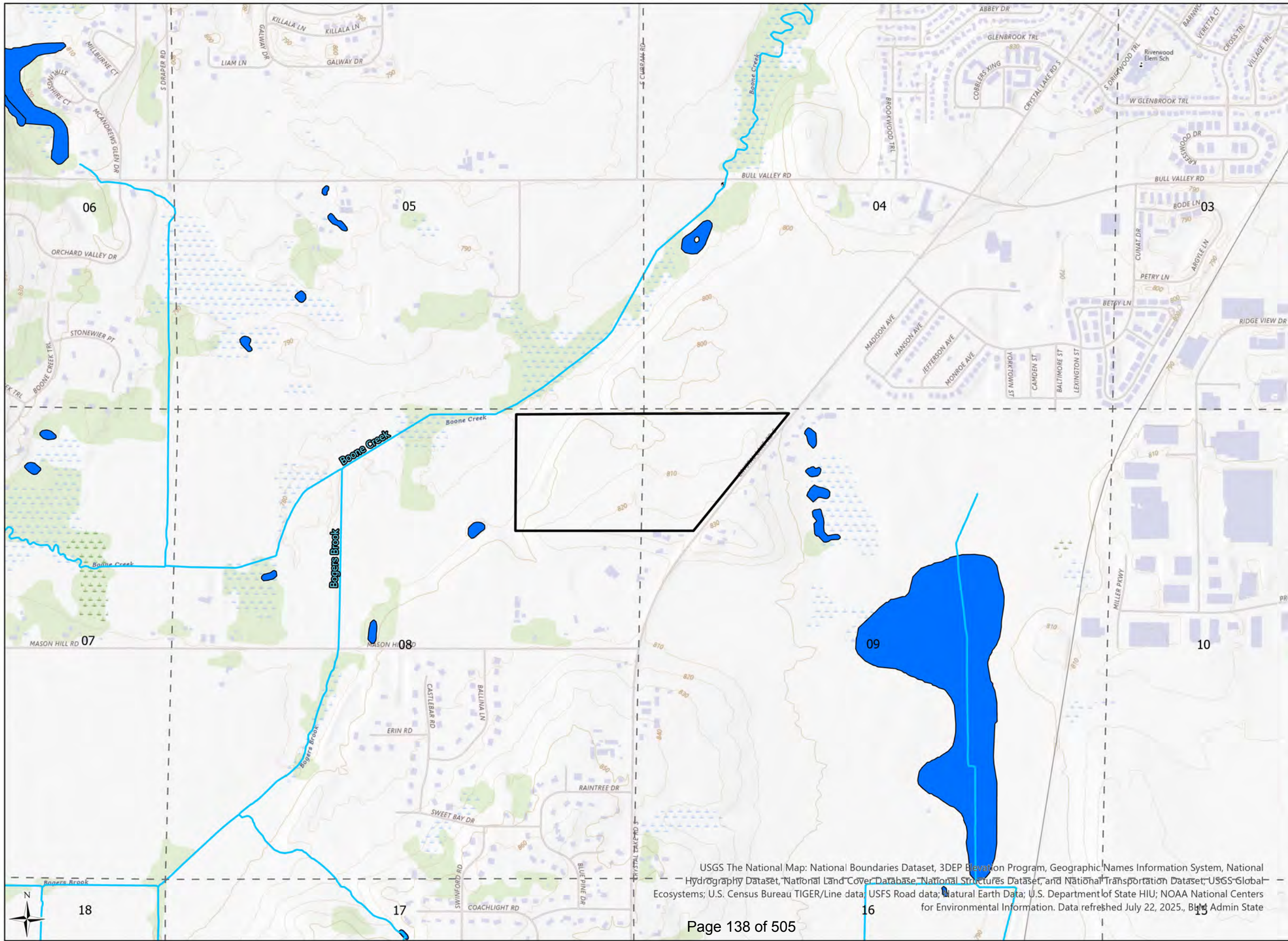


Heartland
ECOLOGICAL GROUP INC

Figure 1. Project Location
 McHenry Solar Farm
 Project #20251635
 T44N, R8E, S08 & S09
 T Nunda, McHenry Co, IL

OpenStreetMap
 ESRI LRR: NCNE

Figure Created: 9/16/2025



- Study Area (75.92 ac)
- PLSS Section
- NHD Waterway
- NHD Waterbody



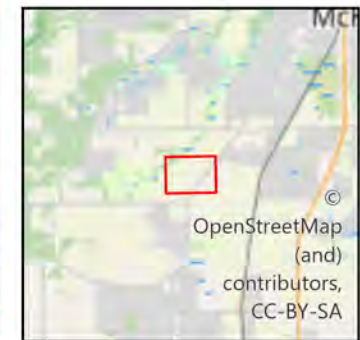
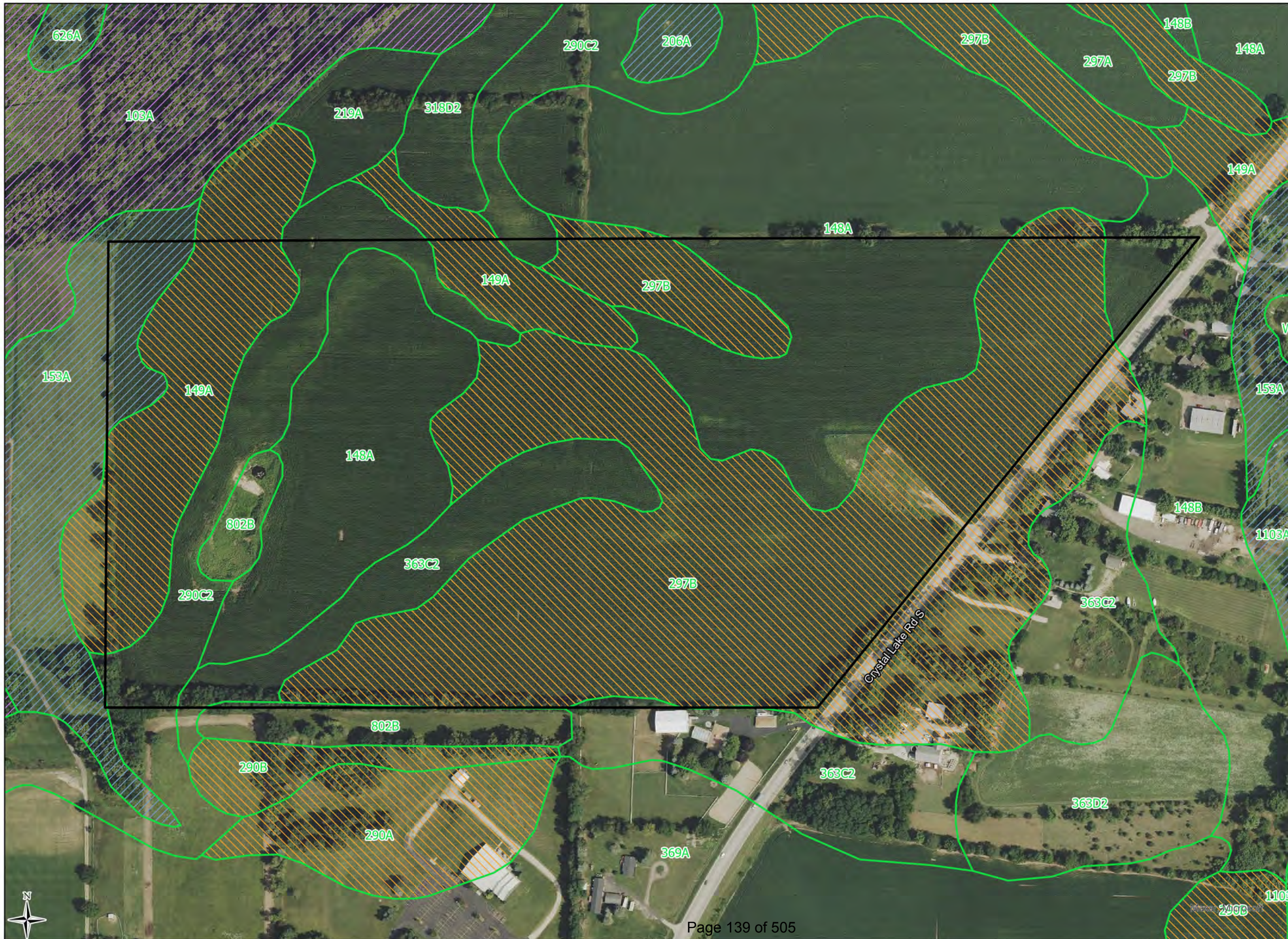
Heartland
ECOLOGICAL GROUP INC

Figure 2. USGS Topography
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL

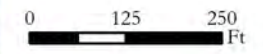
USGSTopo
USGS LRR: NCNE

USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information. Data refreshed July 22, 2025., Blm Admin State





- Study Area (75.92 ac)
- Hydric (100%)
- Predominantly Hydric (85-99%)
- Partially Hydric (16-84%)
- Predominantly Non-Hydric 1-15%
- Non-Hydric (0%)

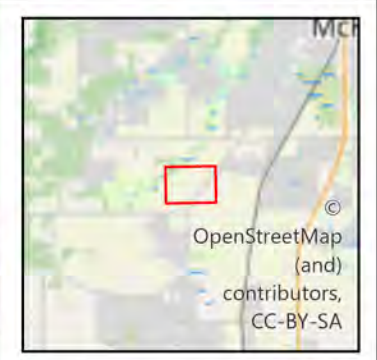






Heartland
 ECOLOGICAL GROUP INC

Figure 3. NRCS
 Hydric Soils
 McHenry Solar Farm
 Project #20251635
 T44N, R8E, S08 & S09
 T Nunda, McHenry Co, IL

2023 NAIP
 NRCS LRR: NCNE

Figure Created: 9/16/2025



-  Study Area (75.92 ac)
-  NWI Wetlands
-  NHD Waterway
-  NHD Waterbody



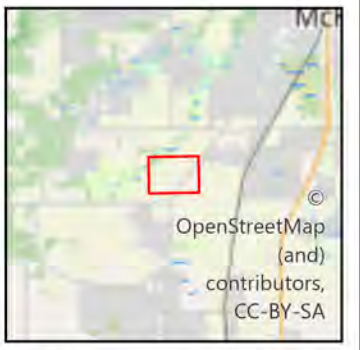
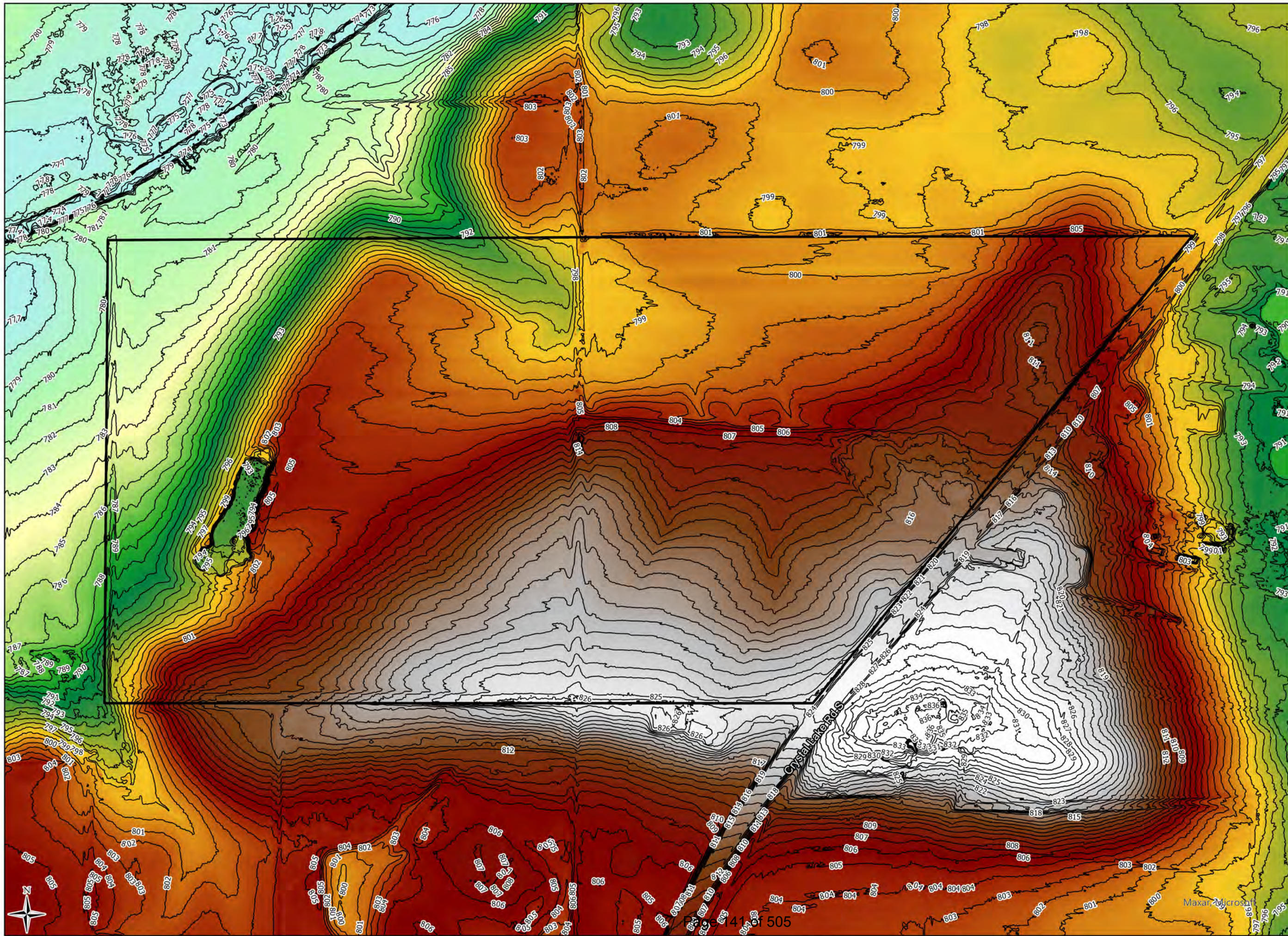
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Figure 4. National Wetland Inventory
 McHenry Solar Farm
 Project #20251635
 T44N, R8E, S08 & S09
 T Nunda, McHenry Co, IL

2023 NAIP
 USFWS, USGS

LRR: NCNE

Figure Created: 9/16/2025



Study Area (75.92 ac)
~ McHenry Co 1' Contours

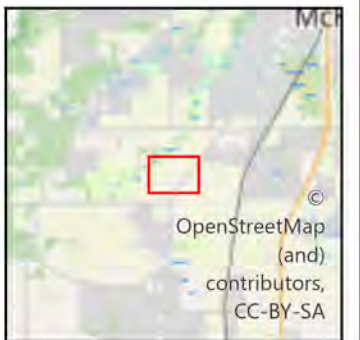
0 125 250 Ft

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Figure 5. Color-Stretch
 Digital Elevation Model
 McHenry Solar Farm
 Project #20251635
 T44N, R8E, S08 & S09
 T Nunda, McHenry Co, IL

ILHMP ISGS LRR: NCNE

Figure Created: 9/22/2025



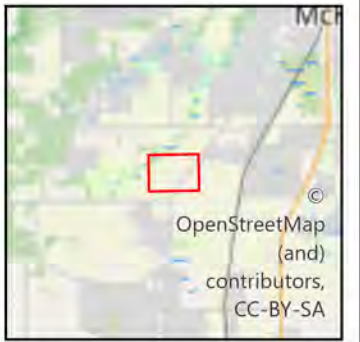
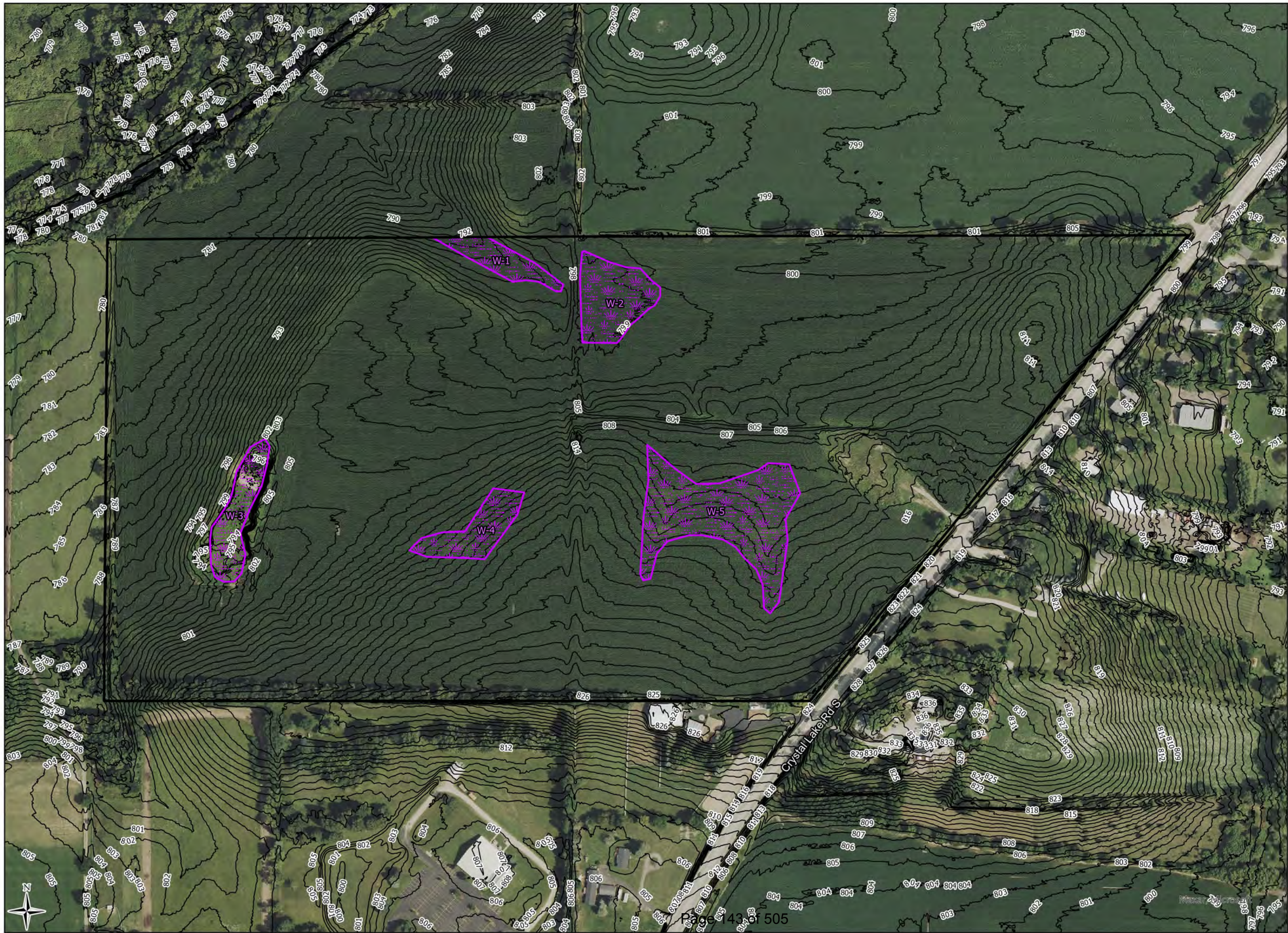
- Study Area (75.92 ac)
 - Field Delineated Wetlands (1.26 ac)
 - McHenry Co 1' Contours
- Sample Points**
- Upland
 - Wetland



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Figure 6. Field Delineated Wetlands
 McHenry Solar Farm
 Project #20251635
 T44N, R8E, S08 & S09
 T Nunda, McHenry Co, IL

2023 NAIP
 McHenry Co, HEG
 LRR: NCNE
 Figure Created: 11/11/2025



- Study Area (75.92 ac)
- Preliminary Wetlands (5.06 ac)
- McHenry Co 1' Contours

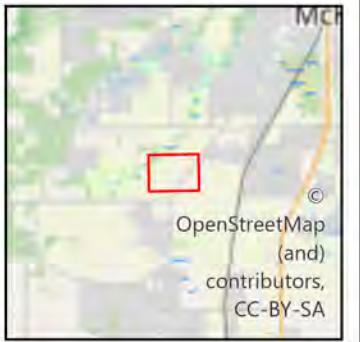
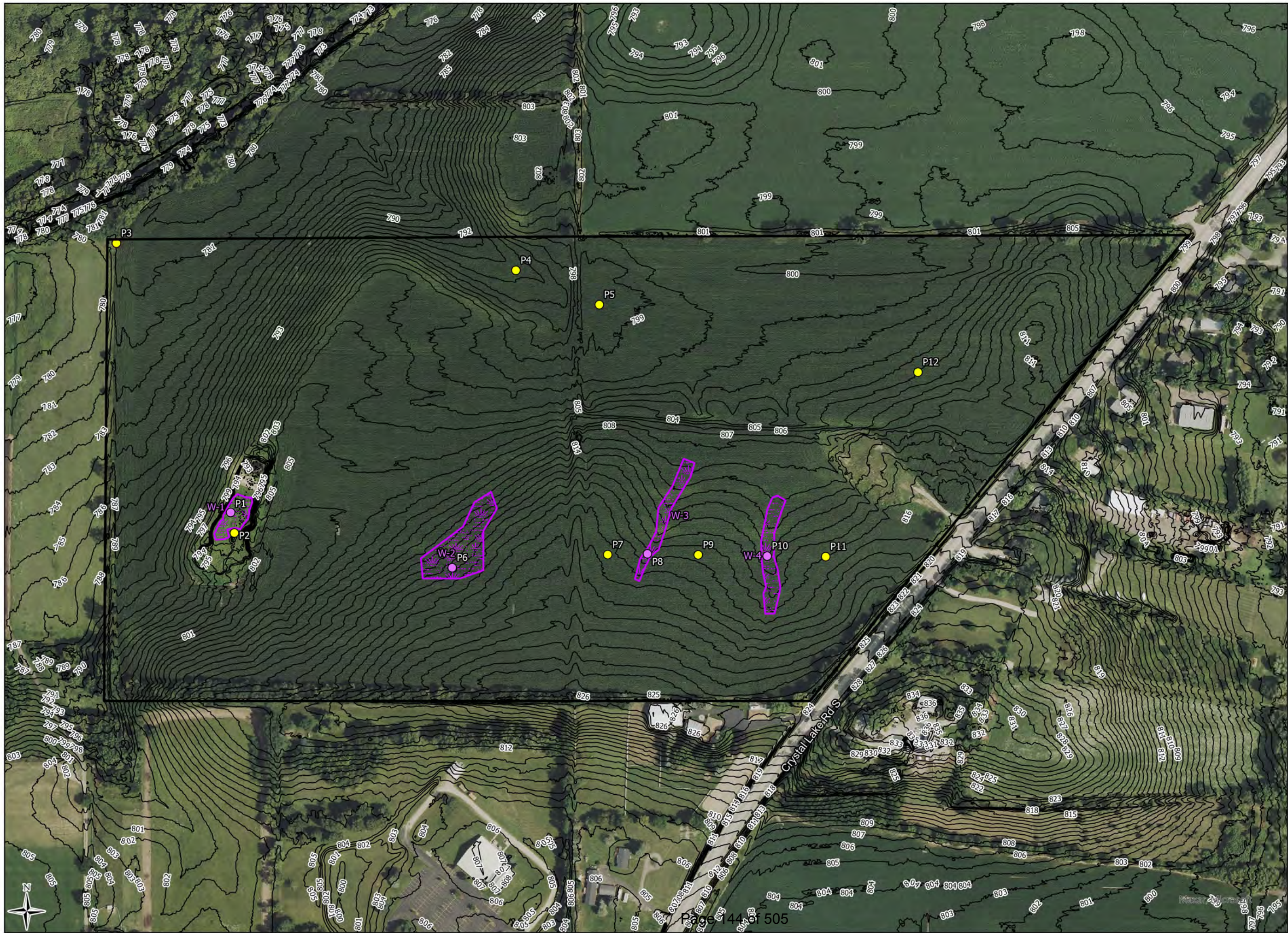


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Figure 6. Preliminary Wetlands
 McHenry Solar Farm
 Project #20251635
 T44N, R8E, S08 & S09
 T Nunda, McHenry Co, IL

2023 NAIP
 McHenry Co, HEG LRR: NCNE

Figure Created: 9/22/2025



- Study Area (75.92 ac)
 - Field Delineated Wetlands (1.26 ac)
 - McHenry Co 1' Contours
- Sample Points**
- Upland
 - Wetland



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Figure 7. Field Delineated Wetlands
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL

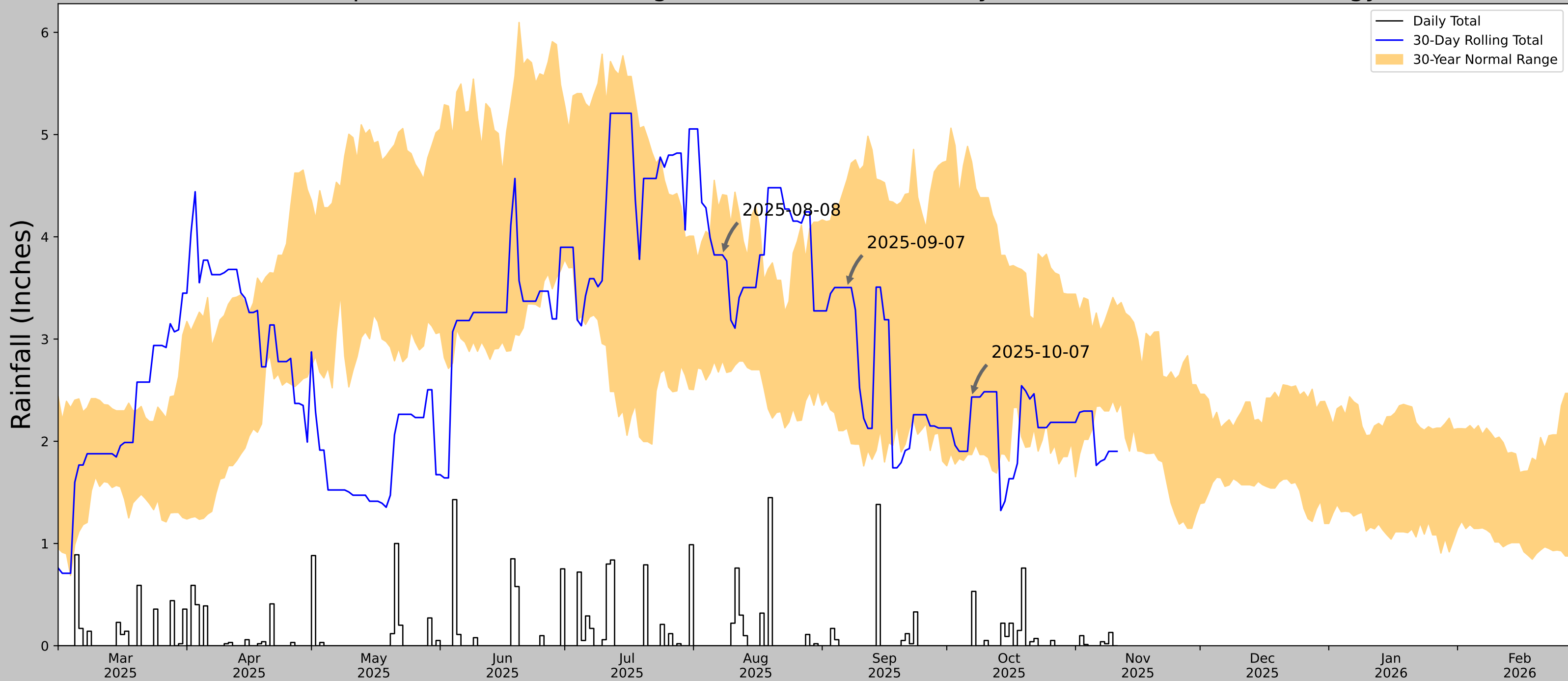
2023 NAIP
McHenry Co, HEG
LRR: NCNE
Figure Created: 10/17/2025



Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix B | APT Analysis

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	42.54041, -88.29059
Observation Date	2025-10-07
Elevation (ft)	857.469
Drought Index (PDSI)	Not available (2025-09)
WebWIMP H ₂ O Balance	Wet Season

30 Days Ending	30 th %ile (in)	70 th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-10-07	1.869685	4.733071	2.433071	Normal	2	3	6
2025-09-07	2.12874	4.561417	3.503937	Normal	2	2	4
2025-08-08	2.788976	4.412205	3.822835	Normal	2	1	2
Result							Normal Conditions - 12

Figures and tables made by the
Antecedent Precipitation Tool
Version 3.0



US Army Corps of Engineers



ERDC

Developed by:
U.S. Army Corps of Engineers and
U.S. Army Engineer Research and
Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
PELL LAKE WWTP	42.5322, -88.3328	848.097	2.223	9.372	1.021	6771	87
GENOA CITY 2.7 NW	42.5324, -88.3562	863.845	1.191	15.748	0.555	1	1
GENOA CITY	42.5, -88.3786	850.066	3.223	1.969	1.457	2567	0
BURLINGTON 6.2 SSW	42.5902, -88.3024	883.858	4.296	35.761	2.087	2	2
TWIN LAKES 1.5 NE	42.5354, -88.2386	791.011	4.801	57.086	2.435	5	0
LAKE GENEVA 0.6 NE	42.6157, -88.4177	873.032	5.964	24.935	2.833	10	0
LAKE GENEVA WWTP	42.6006, -88.4253	846.129	6.67	1.968	3.015	1997	0



Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix C | Wetland Determination Data Sheets

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P1
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope %: 0-2
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311325 Long: -88.319896 Datum: WGS84
 Soil Map Unit Name: Orthents, loamy, undulating NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-1</u>
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
---	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery

Remarks:
 Rain overnight last night, wet conditions. Depression appears to be historical excavation many decades ago. Now partially wetland.

VEGETATION – Use scientific names of plants.

Sampling Point: P1

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>18</u></td><td>x 1 = <u>18</u></td></tr> <tr><td>FACW species <u>80</u></td><td>x 2 = <u>160</u></td></tr> <tr><td>FAC species <u>0</u></td><td>x 3 = <u>0</u></td></tr> <tr><td>FACU species <u>0</u></td><td>x 4 = <u>0</u></td></tr> <tr><td>UPL species <u>0</u></td><td>x 5 = <u>0</u></td></tr> <tr><td>Column Totals: <u>98</u></td><td>(A) <u>178.00</u> (B)</td></tr> <tr><td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.82</u></td></tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>18</u>	x 1 = <u>18</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>98</u>	(A) <u>178.00</u> (B)	Prevalence Index = B/A = <u>1.82</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>18</u>	x 1 = <u>18</u>																			
FACW species <u>80</u>	x 2 = <u>160</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>98</u>	(A) <u>178.00</u> (B)																			
Prevalence Index = B/A = <u>1.82</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>PHALARIS ARUNDINACEA</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Schoenoplectus fluviatilis</u>	<u>15</u>	<u>N</u>	<u>OBL</u>																	
3. <u>Typha latifolia</u>	<u>3</u>	<u>N</u>	<u>OBL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>98.0</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Wet meadow/Shallow marsh				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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 ¹	Loc ²		
0-8	7.5YR 3/1	97	7.5YR 3/3	3	C	M	SIL	
8-18	7.5YR 4/1	80	7.5YR 4/6	20	C	M	SICL	
18-24	10YR 5/2	95	10YR 5/4	5	C	M	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
- (MLRA 144A, 145, 149B)**
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)
- Red Parent Material (F21) (MLRA 145)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L) Thin
- Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Red Parent Material (F21) (outside MLRA 145)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
 Historical excavation

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P2
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Depression Side slope Local relief (concave, convex, none): Microtopography Slope %: 3-7
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311301 Long: -88.319885 Datum: WGS84
 Soil Map Unit Name: Orthents, loamy, undulating NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
---	--

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Depression appears to be historical excavation many decades ago. Now partially wetland.

VEGETATION – Use scientific names of plants.

Sampling Point: P2

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>0</u></td><td>x 1 = <u>0</u></td></tr> <tr><td>FACW species <u>15</u></td><td>x 2 = <u>30</u></td></tr> <tr><td>FAC species <u>15</u></td><td>x 3 = <u>45</u></td></tr> <tr><td>FACU species <u>90</u></td><td>x 4 = <u>360</u></td></tr> <tr><td>UPL species <u>30</u></td><td>x 5 = <u>150</u></td></tr> <tr><td>Column Totals: <u>150</u></td><td>(A) <u>585.00</u> (B)</td></tr> <tr><td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.9</u></td></tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>15</u>	x 2 = <u>30</u>	FAC species <u>15</u>	x 3 = <u>45</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>30</u>	x 5 = <u>150</u>	Column Totals: <u>150</u>	(A) <u>585.00</u> (B)	Prevalence Index = B/A = <u>3.9</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>15</u>	x 2 = <u>30</u>																			
FAC species <u>15</u>	x 3 = <u>45</u>																			
FACU species <u>90</u>	x 4 = <u>360</u>																			
UPL species <u>30</u>	x 5 = <u>150</u>																			
Column Totals: <u>150</u>	(A) <u>585.00</u> (B)																			
Prevalence Index = B/A = <u>3.9</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)																				
1. <u>Solidago canadensis</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>DAUCUS CAROTA</u>	<u>20</u>	<u>Y</u>	<u>UPL</u>																	
3. <u>PHALARIS ARUNDINACEA</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>																	
4. <u>Verbena urticifolia</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>																	
5. <u>Cirsium arvense</u>	<u>10</u>	<u>N</u>	<u>FACU</u>																	
6. <u>Bromus inermis</u>	<u>10</u>	<u>N</u>	<u>UPL</u>																	
7. <u>Arctium minus</u>	<u>7</u>	<u>N</u>	<u>FACU</u>																	
8. <u>LONICERA X BELLA</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
9. <u>Symphotrichum pilosum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
10. <u>Erigeron canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
11. <u>Sonchus oleraceus</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
12. <u>Rosa multiflora</u>	<u>3</u>	<u>N</u>	<u>FACU</u>																	
	<u>150.0</u>	=Total Cover		Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)
 Old field community

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 ¹	Loc ²		
0-12	7.5YR	3/2	100					L	
12-24	10YR	3/1	98	7.5YR	3/3	2	C	M	SL

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
Historical excavation

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P3
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Backslope Local relief (concave, convex, none): None Slope %: 0-2
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.313488 Long: -88.321055 Datum: WGS84
 Soil Map Unit Name: Pella silty clay loam, cool, 0 to 2 percent slopes NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. Near OSA signature area 1 in non-farmed area, representative of landscape position.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Tile pump observed 200ft west of P3.

VEGETATION – Use scientific names of plants.

Sampling Point: P3

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Pinus strobus</u>	20	Y	FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)																
2. <u>Ulmus pumila</u>	3	N	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>23.0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>14</u></td> <td>x 3 = <u>42</u></td> </tr> <tr> <td>FACU species <u>41</u></td> <td>x 4 = <u>164</u></td> </tr> <tr> <td>UPL species <u>100</u></td> <td>x 5 = <u>500</u></td> </tr> <tr> <td>Column Totals: <u>155</u> (A)</td> <td><u>706.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.55</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>14</u>	x 3 = <u>42</u>	FACU species <u>41</u>	x 4 = <u>164</u>	UPL species <u>100</u>	x 5 = <u>500</u>	Column Totals: <u>155</u> (A)	<u>706.00</u> (B)	Prevalence Index = B/A = <u>4.55</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>14</u>	x 3 = <u>42</u>																			
FACU species <u>41</u>	x 4 = <u>164</u>																			
UPL species <u>100</u>	x 5 = <u>500</u>																			
Column Totals: <u>155</u> (A)	<u>706.00</u> (B)																			
Prevalence Index = B/A = <u>4.55</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)																				
1. <u>Acer negundo</u>	7	Y	FAC	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. <u>Ulmus pumila</u>	1	N	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>8.0</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
1. <u>Bromus inermis</u>	95	Y	UPL																	
2. <u>Solidago canadensis</u>	10	N	FACU																	
3. <u>Cirsium arvense</u>	7	N	FACU																	
4. <u>Euthamia graminifolia</u>	7	N	FAC																	
5. <u>Physalis heterophylla</u>	5	N	UPL																	
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>124.0</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)				Hydrophytic Vegetation Present? Yes <u> </u> No <u> ✓ </u>																
1. _____																				
2. _____																				
3. _____																				
4. _____																				
	<u>0</u>	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)
 Old field community

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 ¹		
0-5	7.5YR	3/2	100				L	No redox
5-15	10YR	3/1	60				SIL	Mixed matrix, no redox, soil dry
	10YR	4/3	40				SIL	
15-24	10YR	3/1	85				SICL	Mixed matrix, no redox, soil dry
	10YR	4/3	15				SICL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)
- Red Parent Material (F21) (MLRA 145)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L) Thin
- Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Red Parent Material (F21) (outside MLRA 145)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P4
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope %: 0-2
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.313224 Long: -88.316920 Datum: WGS84
 Soil Map Unit Name: Pella silty clay loam, cool, 0 to 2 percent slopes NWI classification: None Depicted

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)
 APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> FAC-Neutral Test (D5)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 2, representative.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Tile system thought to be present in this swale.

VEGETATION – Use scientific names of plants.

Sampling Point: P4

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u> =Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>1</u> x 3 = <u>3</u> FACU species <u>7</u> x 4 = <u>28</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>8</u> (A) <u>31.00</u> (B) Prevalence Index = B/A = <u>3.88</u>
Sapling/Shrub Stratum	(Plot size: <u>15' radius</u>)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u> =Total Cover			
Herb Stratum	(Plot size: <u>5' radius</u>)			
1. <u>Acalypha rhomboidea</u>	<u>7</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>RHAMNUS CATHARTICA</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>8.0</u> =Total Cover			
Woody Vine Stratum	(Plot size: <u>30' radius</u>)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u> =Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10ft tall, healthy. Weeds present.

SOIL

Sampling Point P4

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 ¹	Loc ²			
0-14	10YR	3/2	100					L	No redox	
14-20	10YR	3/2	97	10YR	3/3	3	C	M	Faint redox w//20% stones	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Auger refusal at 20in due to stones.

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P5
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope %: 0-2
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.313173 Long: -88.316962 Datum: WGS84
 Soil Map Unit Name: Brenton silt loam, 0 to 2 percent slopes NWI classification: None Depicted

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)
 APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> FAC-Neutral Test (D5)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 3, representative.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Tile system thought to be present in this swale.

VEGETATION – Use scientific names of plants.

Sampling Point: P5

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	<u>0</u> =Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>5</u> x 4 = <u>20</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>10</u> (A) <u>30.00</u> (B) Prevalence Index = B/A = <u>3.0</u>	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	<u>0</u> =Total Cover			Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)					
1. <u>Acalypha rhomboidea</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>		
2. <u>Panicum dichotomiflorum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
	<u>10.0</u> =Total Cover			Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.	
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	<u>0</u> =Total Cover			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10ft tall, healthy. Weeds present.

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 ¹	Loc ²		
0-15	7.5YR	3/2	100					SIL	No redox
15-24	10YR	3/2	98	10YR	3/3	2	C	M	Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Iron Monosulfide (A18) <input type="checkbox"/> Mesic Spodic (A17) (MLRA 144A, 145, 149B) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> High Chroma Sands (S11) (LRR K, L) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR K, L) <input type="checkbox"/> Red Parent Material (F21) (MLRA 145)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) Thin <input type="checkbox"/> Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Red Parent Material (F21) (outside MLRA 145) <input type="checkbox"/> Very Shallow Dark Surface (F22) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
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Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P6
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Backslope Local relief (concave, convex, none): None Slope %: 3-7
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.310882 Long: -88.317541 Datum: WGS84
 Soil Map Unit Name: Griswold loam, 4 to 6 percent slopes, eroded NWI classification: None Depicted

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-2</u>
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Remarks: (Explain alternative procedures here or in a separate report.)
 APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 4, representative.

Remarks:
 Rain overnight last night, wet conditions. D1 hydrology indicator per OSA.

VEGETATION – Use scientific names of plants.

Sampling Point: P6

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																									
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)																								
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
	<u>0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:right;">Multiply by:</td> <td></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 =</td> <td><u>0</u></td> </tr> <tr> <td>FACW species <u>7</u></td> <td>x 2 =</td> <td><u>14</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 =</td> <td><u>3</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 =</td> <td><u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 =</td> <td><u>0</u></td> </tr> <tr> <td>Column Totals: <u>13</u></td> <td>(A)</td> <td><u>37.00</u> (B)</td> </tr> <tr> <td colspan="3" style="text-align:center;">Prevalence Index = B/A = <u>2.85</u></td> </tr> </table>	Total % Cover of:	Multiply by:		OBL species <u>0</u>	x 1 =	<u>0</u>	FACW species <u>7</u>	x 2 =	<u>14</u>	FAC species <u>1</u>	x 3 =	<u>3</u>	FACU species <u>5</u>	x 4 =	<u>20</u>	UPL species <u>0</u>	x 5 =	<u>0</u>	Column Totals: <u>13</u>	(A)	<u>37.00</u> (B)	Prevalence Index = B/A = <u>2.85</u>		
Total % Cover of:	Multiply by:																											
OBL species <u>0</u>	x 1 =	<u>0</u>																										
FACW species <u>7</u>	x 2 =	<u>14</u>																										
FAC species <u>1</u>	x 3 =	<u>3</u>																										
FACU species <u>5</u>	x 4 =	<u>20</u>																										
UPL species <u>0</u>	x 5 =	<u>0</u>																										
Column Totals: <u>13</u>	(A)	<u>37.00</u> (B)																										
Prevalence Index = B/A = <u>2.85</u>																												
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
	<u>0</u>	=Total Cover																										
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)																												
1. <u>Panicum dichotomiflorum</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																								
2. <u>Acalypha rhomboidea</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																									
3. <u>RHAMNUS CATHARTICA</u>	<u>1</u>	<u>N</u>	<u>FAC</u>																									
4. _____	_____	_____	_____																									
5. _____	_____	_____	_____																									
6. _____	_____	_____	_____																									
7. _____	_____	_____	_____																									
8. _____	_____	_____	_____																									
9. _____	_____	_____	_____																									
10. _____	_____	_____	_____																									
11. _____	_____	_____	_____																									
12. _____	_____	_____	_____																									
	<u>13.0</u>	=Total Cover																										
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)																												
1. _____	_____	_____	_____																									
2. _____	_____	_____	_____																									
3. _____	_____	_____	_____																									
4. _____	_____	_____	_____																									
	<u>0</u>	=Total Cover																										

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10ft tall, healthy. Weeds present.

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 ¹	Loc ²			
0-6	7.5YR	3/2	100					SIL	No redox	
6-14	10YR	4/2	93	10YR	4/4	7	C	M	SL	
14-24	7.5YR	5/4	90	7.5YR	5/6	10	C	M	SCL	W/15% gravel-stones

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
- (MLRA 144A, 145, 149B)**
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)
- Red Parent Material (F21) (MLRA 145)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L) Thin
- Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Red Parent Material (F21) (outside MLRA 145)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No _____

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P7
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Sideslope Local relief (concave, convex, none): Concave Slope %: 3-7
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311002 Long: -88.315921 Datum: WGS84
 Soil Map Unit Name: Ringwood silt loam, 2 to 4 percent slopes NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) 	Secondary Indicators (minimum of two required) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. Outside OSA signature area 5.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Tile system thought to be present in nearby swales.

VEGETATION – Use scientific names of plants.

Sampling Point: P7

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>7</u></td> <td>x 2 = <u>14</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>7</u></td> <td>x 4 = <u>28</u></td> </tr> <tr> <td>UPL species <u>5</u></td> <td>x 5 = <u>25</u></td> </tr> <tr> <td>Column Totals: <u>19</u></td> <td>(A) <u>67.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.53</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>7</u>	x 2 = <u>14</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>7</u>	x 4 = <u>28</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>19</u>	(A) <u>67.00</u> (B)	Prevalence Index = B/A = <u>3.53</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>7</u>	x 2 = <u>14</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>7</u>	x 4 = <u>28</u>																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>19</u>	(A) <u>67.00</u> (B)																			
Prevalence Index = B/A = <u>3.53</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)																				
1. <u>Acalypha rhomboidea</u>	<u>7</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 ¹ <u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Panicum dichotomiflorum</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>																	
3. <u>Physalis heterophylla</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>19.0</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.) Corn crop not yet harvested, 10-11ft tall, healthy. Weeds present.				Hydrophytic Vegetation Present? Yes <u> </u> No <u>✓</u>																

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 ¹	Loc ²		
0-7	7.5YR 3/2	100					L	No redox
7-13	7.5YR 3/2	98	7.5YR 3/3	2	C	M	SIL	Faint redox
13-17	10YR 5/3	95	10YR 5/4	5	C	M	SL	Faint redox
17-24	10YR 5/4	100					SCL	No redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17) **(MLRA 144A, 145, 149B)**
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P8
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope %: 0-2
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311013 Long: -88.315508 Datum: WGS84
 Soil Map Unit Name: Ringwood silt loam, 2 to 4 percent slopes NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-3</u>
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks) 	Secondary Indicators (minimum of two required) <ul style="list-style-type: none"> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 5.

Remarks:
 Rain overnight last night, wet conditions. D1 hydrology indicator per OSA. Possible tile system present.

VEGETATION – Use scientific names of plants.

Sampling Point: P8

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u> =Total Cover			Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>20</u> (A)</td> <td><u>60.00</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>20</u> (A)	<u>60.00</u> (B)	Prevalence Index = B/A = <u>3.0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>10</u>	x 3 = <u>30</u>																			
FACU species <u>5</u>	x 4 = <u>20</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>20</u> (A)	<u>60.00</u> (B)																			
Prevalence Index = B/A = <u>3.0</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	<u>0</u> =Total Cover																			
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																
1. <u>Echinochloa crus-galli</u>	<u>7</u>	<u>Y</u>	<u>FAC</u>																	
2. <u>Acalypha rhomboidea</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Panicum dichotomiflorum</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>																	
4. <u>Setaria pumila</u>	<u>3</u>	<u>N</u>	<u>FAC</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
	<u>20.0</u> =Total Cover																			
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>0</u> =Total Cover																			

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10ft tall, healthy. Weeds present.

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 ¹	Loc ²		
0-7	7.5YR 3/2	97	10YR 3/3	3	C	M	SIL	Faint redox
7-14	10YR 4/2	90	10YR 4/4	10	C	M	SICL	
14-24	10YR 5/2	85	10YR 5/6	15	C	M	SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P9
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Rise Local relief (concave, convex, none): Convex Slope %: 3-7
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311011 Long: -88.314976 Datum: WGS84
 Soil Map Unit Name: Ringwood silt loam, 2 to 4 percent slopes NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 5.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Tile system thought to be present in nearby swales.

VEGETATION – Use scientific names of plants.

Sampling Point: P9

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.00</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>0</u></td><td>x 1 = <u>0</u></td></tr> <tr><td>FACW species <u>3</u></td><td>x 2 = <u>6</u></td></tr> <tr><td>FAC species <u>0</u></td><td>x 3 = <u>0</u></td></tr> <tr><td>FACU species <u>10</u></td><td>x 4 = <u>40</u></td></tr> <tr><td>UPL species <u>5</u></td><td>x 5 = <u>25</u></td></tr> <tr><td>Column Totals: <u>18</u></td><td>(A) <u>71.00</u> (B)</td></tr> <tr><td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.94</u></td></tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>3</u>	x 2 = <u>6</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>10</u>	x 4 = <u>40</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>18</u>	(A) <u>71.00</u> (B)	Prevalence Index = B/A = <u>3.94</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>3</u>	x 2 = <u>6</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>10</u>	x 4 = <u>40</u>																			
UPL species <u>5</u>	x 5 = <u>25</u>																			
Column Totals: <u>18</u>	(A) <u>71.00</u> (B)																			
Prevalence Index = B/A = <u>3.94</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover		Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes <u> </u> No <u> ✓ </u>																
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)																				
1. <u>Acalypha rhomboidea</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Physalis heterophylla</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>																	
3. <u>Panicum dichotomiflorum</u>	<u>3</u>	<u>N</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>18.0</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10-11ft tall, healthy. Weeds present.

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 ¹	Loc ²			
0-9	7.5YR	4/2	100					SIL	No redox	
9-15	7.5YR	4/2	97	7.5YR	4/3	3	C	M	SICL	Faint redox
15-24	10YR	5/3	97	10YR	5/4	3	C	M	SIC	Faint redox

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
- (MLRA 144A, 145, 149B)**
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)
- Red Parent Material (F21) (MLRA 145)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L) Thin
- Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Red Parent Material (F21) (outside MLRA 145)
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P10
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Swale Local relief (concave, convex, none): Concave Slope %: 0-2
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311011 Long: -88.314252 Datum: WGS84
 Soil Map Unit Name: Ringwood silt loam, 2 to 4 percent slopes NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>W-4</u>
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 5, representative.

Remarks:
 Rain overnight last night, wet conditions. D1 hydrology indicator per OSA. Possible tile system present.

VEGETATION – Use scientific names of plants.

Sampling Point: P10

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.67</u> (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	<u>0</u> =Total Cover			Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>7</u> x 2 = <u>14</u> FAC species <u>5</u> x 3 = <u>15</u> FACU species <u>3</u> x 4 = <u>12</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>15</u> (A) <u>41.00</u> (B) Prevalence Index = B/A = <u>2.73</u>	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
	<u>0</u> =Total Cover			Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Panicum dichotomiflorum</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>		Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
2. <u>Echinochloa crus-galli</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>		
3. <u>Acalypha rhomboidea</u>	<u>3</u>	<u>Y</u>	<u>FACU</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
	<u>15.0</u> =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	<u>0</u> =Total Cover			Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10ft tall, healthy. Weeds present.

SOIL

Sampling Point P10

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 ¹	Loc ²		
0-10	7.5YR 4/2	93	10YR 4/4	7	C	M	SICL	
10-24	10YR 5/2	80	10YR 5/6	20	C	M	SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P11
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Sideslope Local relief (concave, convex, none): None Slope %: 3-7
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.311545 Long: -88.312644 Datum: WGS84
 Soil Map Unit Name: Ringwood silt loam, 2 to 4 percent slopes NWI classification: None Depicted
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Water (A1)</td><td><input type="checkbox"/> Water-Stained Leaves (B9)</td></tr> <tr><td><input type="checkbox"/> High Water Table (A2)</td><td><input type="checkbox"/> Aquatic Fauna (B13)</td></tr> <tr><td><input type="checkbox"/> Saturation (A3)</td><td><input type="checkbox"/> Marl Deposits (B15)</td></tr> <tr><td><input type="checkbox"/> Water Marks (B1)</td><td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td></tr> <tr><td><input type="checkbox"/> Sediment Deposits (B2)</td><td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td></tr> <tr><td><input type="checkbox"/> Drift Deposits (B3)</td><td><input type="checkbox"/> Presence of Reduced Iron (C4)</td></tr> <tr><td><input type="checkbox"/> Algal Mat or Crust (B4)</td><td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td></tr> <tr><td><input type="checkbox"/> Iron Deposits (B5)</td><td><input type="checkbox"/> Thin Muck Surface (C7)</td></tr> <tr><td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td><td><input type="checkbox"/> Other (Explain in Remarks)</td></tr> <tr><td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td><td></td></tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <table style="width:100%; border: none;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
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<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
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<input type="checkbox"/> FAC-Neutral Test (D5)																																

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. Outside OSA signature area 5.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed. Tile system thought to be present in nearby swales.

VEGETATION – Use scientific names of plants.

Sampling Point: P11

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.33</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover		Prevalence Index worksheet: <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>0</u></td><td>x 1 = <u>0</u></td></tr> <tr><td>FACW species <u>10</u></td><td>x 2 = <u>20</u></td></tr> <tr><td>FAC species <u>0</u></td><td>x 3 = <u>0</u></td></tr> <tr><td>FACU species <u>7</u></td><td>x 4 = <u>28</u></td></tr> <tr><td>UPL species <u>5</u></td><td>x 5 = <u>25</u></td></tr> <tr><td>Column Totals: <u>22</u></td><td>(A) <u>73.00</u> (B)</td></tr> <tr><td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.32</u></td></tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>7</u>	x 4 = <u>28</u>	UPL species <u>5</u>	x 5 = <u>25</u>	Column Totals: <u>22</u>	(A) <u>73.00</u> (B)	Prevalence Index = B/A = <u>3.32</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
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Column Totals: <u>22</u>	(A) <u>73.00</u> (B)																			
Prevalence Index = B/A = <u>3.32</u>																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		
<u>Herb Stratum</u> (Plot size: <u>5' radius</u>)																				
1. <u>Panicum dichotomiflorum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Acalypha rhomboidea</u>	<u>7</u>	<u>Y</u>	<u>FACU</u>																	
3. <u>Amaranthus retroflexus</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
	<u>22.0</u>	=Total Cover																		
<u>Woody Vine Stratum</u> (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
	<u>0</u>	=Total Cover																		

Hydrophytic Vegetation Indicators:

 1 - Rapid Test for Hydrophytic Vegetation

 2 - Dominance Test is >50%

 3 - Prevalence Index is ≤3.0¹

 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No ✓

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10-11ft tall, healthy. Weeds present.

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 ¹	Loc ²		
0-7	7.5YR 4/2	100					SICL	No redox
7-12	7.5YR 4/2	98	7.5YR 4/3	2	C	M	SICL	Faint redox
12-24	10YR 5/3	95	10YR 5/6	5	C	M	SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Project/Site: 20251635 McHenry Solar Farm City/County: McHenry County Sampling Date: 2025-10-07
 Applicant/Owner: Surya Powered State: Illinois Sampling Point: P12
 Investigator(s): Eric C Parker, SPWS Section, Township, Range: sec 08 T044N R008E
 Landform (hillside, terrace, etc.): Backslope Local relief (concave, convex, none): None Slope %: 3-7
 Subregion (LRR or MLRA): LRR L, MLRA 95 Lat: 42.312453 Long: -88.312706 Datum: WGS84
 Soil Map Unit Name: 148A (non-hydric) NWI classification: None Depicted

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
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Remarks: (Explain alternative procedures here or in a separate report.)
 APT analysis indicates climatic conditions are in the normal range. Agricultural field planted in corn, not NC.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
 NAIP and county historical imagery. OSA signature area 6.

Remarks:
 Rain overnight last night, wet conditions. No wetland hydrology indicators observed.

VEGETATION – Use scientific names of plants.

Sampling Point: P12

<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>10</u> x 2 = <u>20</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>6</u> x 4 = <u>24</u> UPL species <u>2</u> x 5 = <u>10</u> Column Totals: <u>18</u> (A) <u>54.00</u> (B) Prevalence Index = B/A = <u>3.0</u>
Sapling/Shrub Stratum	(Plot size: <u>15' radius</u>)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Herb Stratum	(Plot size: <u>5' radius</u>)			
1. <u>Panicum dichotomiflorum</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Acalypha rhomboidea</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>	
3. <u>THLASPI ARVENSE</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
4. <u>Amaranthus retroflexus</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>18.0</u>	=Total Cover		
Woody Vine Stratum	(Plot size: <u>30' radius</u>)			
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks: (Include photo numbers here or on a separate sheet.)
 Corn crop not yet harvested, 10-11ft tall, healthy. Weeds present.

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 ¹	Loc ²		
0-9	7.5YR 4/2	100					SIL	No redox
9-14	7.5YR 4/2	97	7.5YR 4/3	3	C	M	SICL	Faint redox
14-24	10YR 5/3	93	10YR 5/6	7	C	M	SIC	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Iron Monosulfide (A18)
- Mesic Spodic (A17)
(MLRA 144A, 145, 149B)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- High Chroma Sands (S11) **(LRR K, L)**
- Loamy Mucky Mineral (F1) **(LRR K, L)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR K, L)**
- Red Parent Material (F21) **(MLRA 145)**

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- Polyvalue Below Surface (S8) **(LRR K, L)** Thin
- Dark Surface (S9) **(LRR K, L)**
- Iron-Manganese Masses (F12) **(LRR K, L, R)**
- Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- Red Parent Material (F21) **(outside MLRA 145)**
- Very Shallow Dark Surface (F22)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:



Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix D | Site Photographs



Photo #1 Sample point P1



Photo #2 Sample point P1



Photo #3 Sample point P1



Photo #4 Sample point P1



Photo #5 Sample point P2



Photo #6 Sample point P2



Photo #7 Sample point P2



Photo #8 Sample point P2



Photo #9 Sample point P3



Photo #10 Sample point P3



Photo #11 Sample point P3



Photo #12 Sample point P3



Photo #13 Sample point P4



Photo #14 Sample point P4

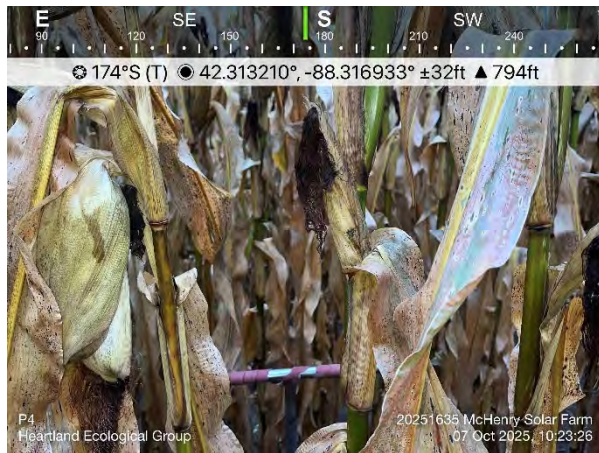


Photo #15 Sample point P4



Photo #16 Sample point P4



Photo #17 Sample point P5

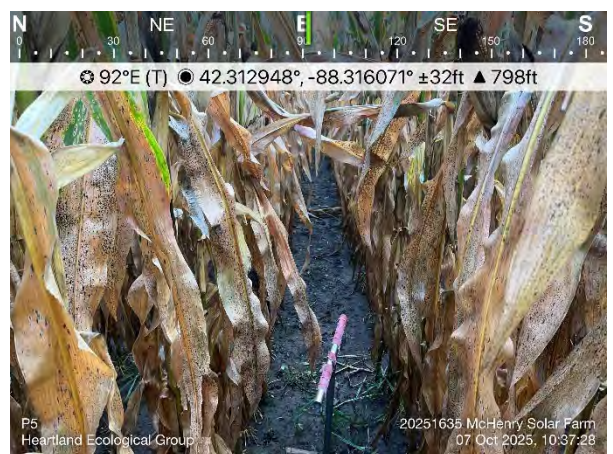


Photo #18 Sample point P5



Photo #19 Sample point P5



Photo #20 Sample point P5



Photo #21 Sample point P6

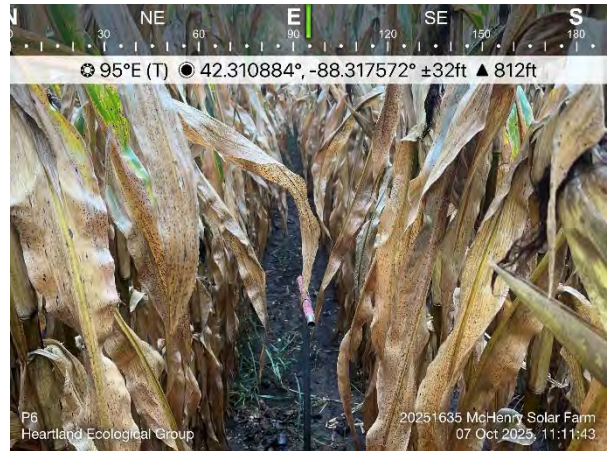


Photo #22 Sample point P6



Photo #23 Sample point P6



Photo #24 Sample point P6



Photo #25 Sample point P7



Photo #26 Sample point P7

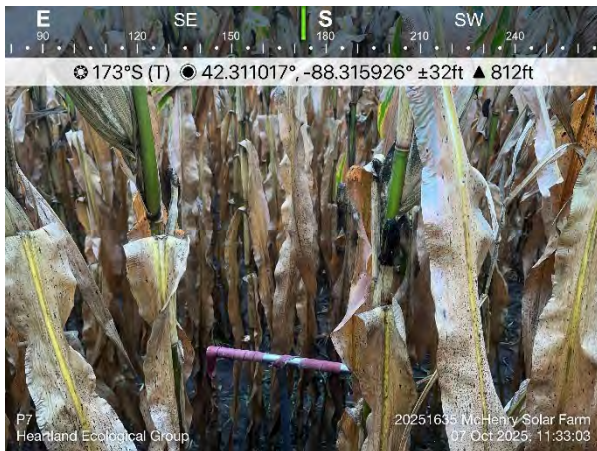


Photo #27 Sample point P7



Photo #28 Sample point P7



Photo #29 Sample point P8



Photo #30 Sample point P8



Photo #31 Sample point P8

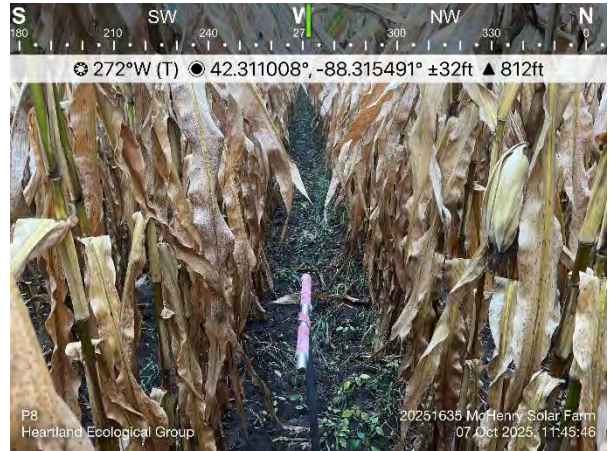


Photo #32 Sample point P8

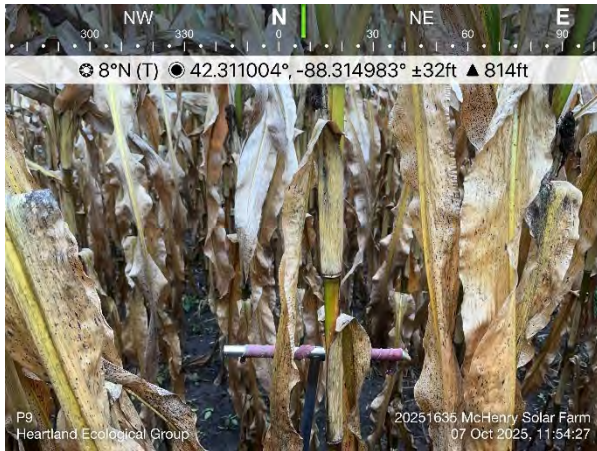


Photo #33 Sample point P9



Photo #34 Sample point P9

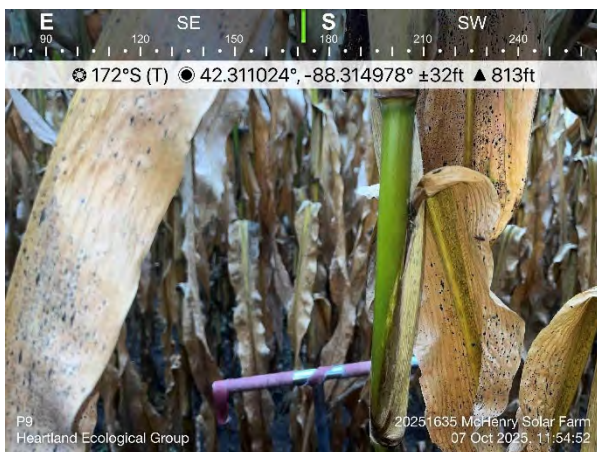


Photo #35 Sample point P9



Photo #36 Sample point P9



Photo #37 Sample point P10



Photo #38 Sample point P10



Photo #39 Sample point P10



Photo #40 Sample point P10

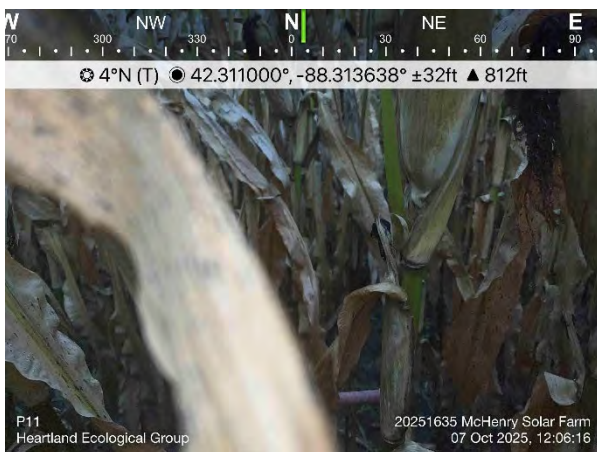


Photo #41 Sample point P11

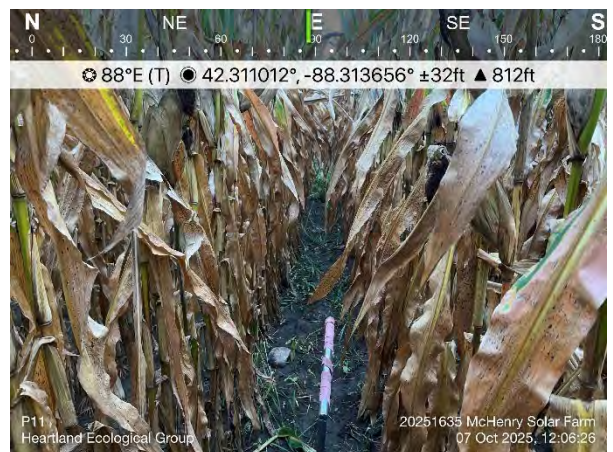


Photo #42 Sample point P11



Photo #43 Sample point P11



Photo #44 Sample point P11



Photo #45 Sample point P12

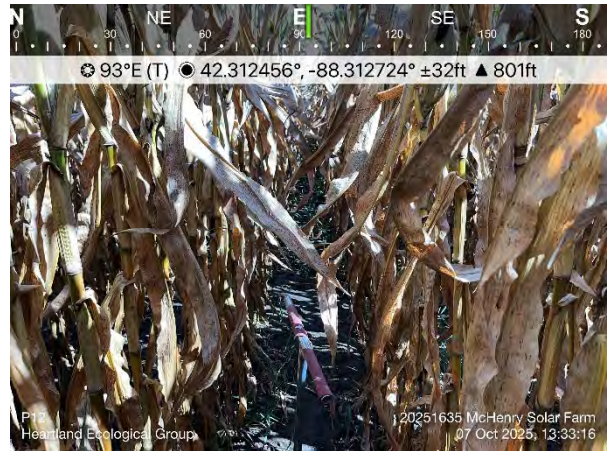


Photo #46 Sample point P12

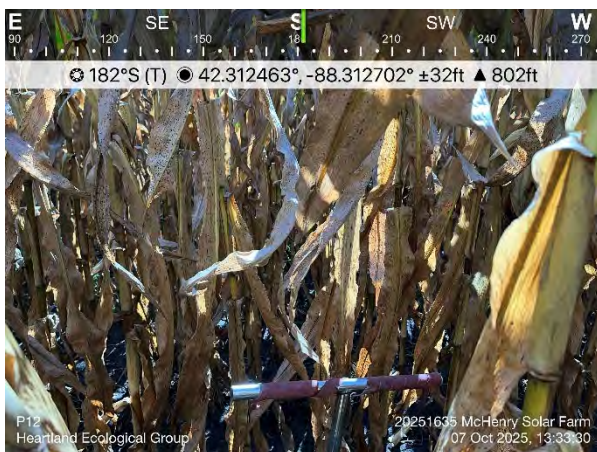


Photo #47 Sample point P12



Photo #48 Sample point P12



Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix E | Floristic Quality Assessment

Wet Meadow-Shallow Marsh

10/7/2025

McHenry Solar Farm

Nunda Township
McHenry County, IL

FQA DB Region: Flora of the Chicago Region
FQA DB Publication Year: 2017
FQA DB Description: Flora of the Chicago Region UFQA Database. 2018. Kenneth Johnson. [As per Flora of the Chicago Region: A Floristic and Ecological Synthesis. 2017. Gerould Wilhelm and Laura Rericha. Indiana Academy of Science. Indianapolis, IN.]

Practitioner: Eric C. Parker, SPWS
Private/Public: Private

Conservatism-Based Metrics:

Total Mean C: 1.9
Native Mean C: 2.4
Total FQI: 6
Native FQI: 6.8
Adjusted FQI: 21.5
% C value 0: 40
% C value 1-3: 40
% C value 4-6: 20
% C value 7-10: 0
Native Tree Mean C: 2.5
Native Shrub Mean C: 2
Native Herbaceous Mean C: 2.4

Species Richness:

Total Species: 10
Native Species: 8 80%
Non-native Species: 2 20%

Species Wetness:

Mean Wetness: -1.1
Native Mean Wetness: -1.4

Physiognomy Metrics:

Tree: 2 20%
Shrub: 1 10%
Vine: 0 0%
Forb: 5 50%
Grass: 1 10%
Sedge: 1 10%
Rush: 0 0%
Fern: 0 0%
Bryophyte: 0 0%

Duration Metrics:

Annual: 1 10%
Perennial: 9 90%
Biennial: 0 0%
Native Annual: 1 10%
Native Perennial: 7 70%
Native Biennial: 0 0%

Species:

Scientific Name	Family	Acronym	Native?	C	W	Physiognomy	Duration	Common Name
<i>Acer negundo</i>	Sapindaceae	ACENEG	native	0	0	tree	perennial	boxelder
<i>Alisma triviale</i>	Alismataceae	ALITRI	native	3	-2	forb	perennial	large-flowered water plantain
<i>Bolboschoenus fluviatilis</i>	Cyperaceae	BOLFLU	native	3	-2	sedge	perennial	river bulrush
<i>Cirsium arvense</i>	Asteraceae	CIRARV	non-native	0	1	forb	perennial	field thistle
<i>Persicaria pensylvanica</i>	Polygonaceae	PERPEN	native	0	-1	forb	annual	pinkweed
<i>Phalaris arundinacea</i>	Poaceae	PHAARA	non-native	0	-1	grass	perennial	reed canary grass
<i>Salix interior</i>	Salicaceae	SALINT	native	2	-1	shrub	perennial	sandbar willow
<i>Salix nigra</i>	Salicaceae	SALNIG	native	5	-2	tree	perennial	black willow
<i>Typha latifolia</i>	Typhaceae	TYPLAT	native	5	-2	forb	perennial	broad-leaved cattail
<i>Urtica gracilis</i>	Urticaceae	URTGRA	native	1	-1	forb	perennial	tall nettle



Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix F | Delineator Qualifications



Eric C. Parker, SPWS

Principal Scientist
506 Springdale Street
Mount Horeb, WI 53572
eric@heartlandecological.com
(414) 380-0269



Mr. Parker is a Senior Professional Wetland Scientist and Professionally Assured Wetland Delineator in Wisconsin with 35 years of experience assisting public and private clientele. He has completed wetland projects in other states including IL, IN, OH, MI, ND, MO, PA, TX, MD, VA, and NC. His work has supported thousands of institutional, commercial, utility, residential, industrial & transportation projects. Mr. Parker's natural resource specialties include botanical surveys, wetland science, restoration and mitigation, and environmental corridor mapping. He has a widespread understanding of the scientific, technical, and regulatory aspects of natural resources projects. His interests also include floristic quality assessment (FQA) and wetness categorization of plant species.

Mr. Parker's experience includes the following: Botanical / Biological Surveys and Natural Resource Inventories; Rare Species Surveys, Conservation Plans and Monitoring; Wetland Determination, Delineation and Functional Assessment; Wetland Exemptions; Environmental Corridor Determinations/Mapping; Wetland Restoration, Mitigation, Banking and Monitoring; Habitat Restoration, Wildlife Surveys, SCAT surveys, Environmental Assessments; Local, state, federal permit applications; Expert Witness testimony; and Regulatory permit compliance.

Education

BS, Watershed Management, Soils Minor
University of WI - Stevens Point, 1983

Wetland Ecosystems (including delineation & assessment), USEPA Graduate School Washington DC, 1988

Field Oriented Wetland Delineation Course (1987 Corps Manual) Wetlands Training Institute (WTI) St. Paul, MN, 1994

Basic Wetland Delineation Training Wisconsin Dept. of Administration Waukesha, WI, 1997

Vegetation Description, UWM Cedarburg Bog Field Station, Saukville, WI, 1998

Advanced Wetland Delineation, U. of WI - La Crosse, Bayfield County, WI, 2001

Critical Methods in Wetland Delineation, University of WI - La Crosse Continuing Education and Extension, Madison, WI, 2006, 2008, 2010, 2014, 2016-2020

Mosses ID & Ecology, UWM Cedarburg Bog Field Station, Saukville, WI, 1998

Sedges ID & Ecology, UWM Cedarburg Bog Field Station, Saukville, WI, 2002, 2006, 2010

Grasses ID & Ecology, UWM Cedarburg Bog Field Station, Saukville, WI, 1998

Registrations

Senior Professional Wetland Scientist #838, (SPWS), Society of Wetland Scientists Professional Certification Program, 1995-current

Certified Wetland Scientist #C-058, (CWS), Stormwater Management Commission Lake County, IL, 2002-current

Qualified Wetland Review Specialist #W-057, (QWRS), Kane County, IL, 2006-current



Project Experience

Wetland Delineation & Regulatory Support

2022 Wetland Delineations, Exemption Submittals, and Permitting (104 sites)

Capitol Dr Property, Waukesha Co., WI (Jan); Puetz Rd Property, Milwaukee Co., WI (Jan); Glas Driveway Wetlands and GP, Kenosha Co., (Mar); 19555 W Lincoln Ave GP, Waukesha Co., WI (Mar); Northern Oaks Subd GP-AWER, Waukesha Co., WI (Mar); Workman Properties, Waukesha Co., WI (Apr); 5732 W Rawson Av, Milwaukee Co., WI (Apr); 2705 West Rd, Racine Co., WI (Apr); CTH CW Site, Dodge Co., WI (Apr); 4-Mile Rd Property, Racine Co., WI (Apr); Kurtze Ln Property, Waukesha Co., WI (Apr); 128th St Parcel, Kenosha Co., WI (Apr); Thomas Property Wetlands-PEC-Navigability, Waukesha Co., WI (Apr); Ament Property, Racine Co., WI (Apr); W3970 South Shore Dr, Walworth Co., WI (Apr); N2280 Temperance Tr, Walworth Co., WI (Apr); S Clark St Parcel, Dodge Co., WI (Apr); Deer Haven GC, Waukesha Co., WI (May); Petrie Rd 7.5 Ac Parcel, Walworth Co., WI (Apr); 5.5Ac Parcel Mukwonago, Waukesha Co., WI (Apr); S107 W16311 Loomis Rd Parcel, Waukesha Co., WI (Apr); CTH A & USH 12 Property, Walworth Co., WI (Apr); Cape Crossing NFE, Milwaukee Co., WI (Apr); Teipner Parcel, Waukesha Co., WI (Apr); Lichner Parcel, Waukesha Co., WI (Apr); Biocut Systems Site AWER, Waukesha Co., WI (Apr); Spring St Parcels, Racine Co., WI (May); US41 Corridor, Waukesha Co., WI (Apr); Reddelien Rd Parcel, Waukesha Co., WI (May); Watertown Rd Property, Waukesha Co., WI (May); 10027 Camelot Dr, Racine Co., WI (May); Koller Property, Ozaukee Co., WI (May); Altschaefl Property, Waukesha Co., WI (May); Pipito Property Pond, Dodge Co., WI (May); Kenora Rd Parcels, Waukesha Co., WI (May); Moorland & Greenfield Wetlands-AWER, Waukesha County, WI (May); Alliant Edgewater GS, Sheboygan Co., WI (May); Arbet North Parcel, Kenosha Co., WI (May); Pleasant Prairie Police Station, Kenosha Co., WI (May); 3rd Ave Pleasant Prairie Site, Kenosha Co., WI (May); 10766 N Torrey Dr Property, Ozaukee Co., WI (Jun); Kolnick Parcel, Kenosha Co., WI (Jun); Gateway Dr Watertown, Jefferson Co., WI (Jun); Green Bay Gardens Site, Kenosha Co., WI (Jun); DuCharme Property Wetlands-PEC, Waukesha Co., WI (Jun); 2301 Lakeshore Dr. GP-Tree Survey, Ozaukee Co., WI (Jun); 641 Drexel Wetlands-GP, Milwaukee Co., WI (Jun); Quigley Farm, Washington Co., WI (Jun); Big Bend Business Park, Waukesha Co., WI (Jun); Lad Lake Property, Waukesha Co., WI (Jun); Pleasant Prairie PP Utility Corridor, Kenosha Co., WI (Jul); Pleasant Prairie Fire Station 3, Kenosha Co., WI (Jul); CTH H Parcels, Walworth Co., WI (Jul); Oakwood Rd Parcels, Milwaukee Co., WI (Jul); Big Bend Rd Property, Waukesha Co., WI (Jul); Heartland Communities, Racine Co., WI (Jul); Leo Living Bristol Wetlands-PEC, Kenosha Co., WI (Jul); Stream Conservation Union Grove, Racine Co., WI (Jul); 8979 S 42nd St Franklin, Milwaukee Co., WI (Jul); 2205 Silvernail Rd, Waukesha Co., WI (Jul); East Wolf Run Mukwonago, Waukesha Co., WI (Jul); 1302 Roundtable Dr, Racine Co., WI (Jul); Corporation Parcel Dover, Racine Co., WI (Jul); 11925 W Lake Park Dr, Milwaukee Co., WI (Jul); 17905 W Capitol Dr Parcel, Waukesha Co., WI (Jul); Mosconi West Property, Kenosha Co., WI (Jul); Promise Builders Site, Kenosha Co., WI (Jul); Highland Dr Menomonee Falls Botanical Survey, Waukesha Co., WI (Aug); METRO RDF Expansion, Milwaukee Co., WI (Aug); 5.53 Ac Mukwonago Site, Waukesha Co., WI (Aug); Northstar Beloit Site, Rock Co., WI (Aug); Wirth Farm PEC-AWER-Tree Survey, Ozaukee Co., WI (Aug); Olympia Fields Wetlands-AWER, Waukesha Co., WI (Aug); Maple Rd Softball Field, Washington Co., WI (Aug); Blise Property Pond, Washington Co., WI (Aug); St. Johns NW Military Academy Wetlands-PEC, Waukesha Co., WI (Aug); Wildwood Property Wetlands-Navigability, Walworth Co., WI (Aug); Goldendale Rd Property, Washington Co., WI (Aug); 6951 S Lovers Lane, Milwaukee Co., WI (Aug); Klumb Property Wetlands-Corridor, Waukesha Co., WI (Aug); Ulao Creek Residential, Ozaukee Co., WI (Sep); Grand Hills Castle Expansion GP, Waukesha Co., WI (Sep); 31110 82nd St Property, Kenosha Co., WI (Sept); Miller Property Wetlands-SEC, Waukesha Co., WI (Sep); Townline Rd Water Main Wetlands-GP, Waukesha Co., WI (Sep); Sanctuary at Good Hope East PEC, Waukesha Co., WI (Oct); Kutzler Express Property, Kenosha Co., WI (Oct); 47th Ave Property, Kenosha Co., WI (Oct); Steinbrink Property, Kenosha Co., WI (Oct); Caledonia Developments, Racine Co., WI (Oct); DeGrave Farm, Racine Co., WI (Oct); Nettesheim Farm Pewaukee, Waukesha Co., WI (Oct); Fisher-Barton Property, Waukesha Co., WI (Oct); BRP shipyard Sturtevant, Racine Co., WI (Oct); CTH C Site Sheboygan Falls, Sheboygan Co., WI (Oct); Willabay Meadows Residential, Walworth Co., WI (Oct); Thode Dr Property, Waukesha Co., WI (Oct); Middle Rd Property Wetlands-AWER, Racine Co., WI (Oct); Three Pillars Dousman Ph1A, Waukesha Co., WI (Oct); Primrose School Site Brookfield, Waukesha Co., WI (Oct); Grand Geneva Housing Site, Walworth Co., WI (Nov); 2651 Fuller Rd Site, Rock Co., WI (Nov); Willis Ray Rd Property, Walworth Co., WI (Nov); Harding Dr Menomonee Falls Site, Waukesha Co., WI (Nov).

2021 Wetland Delineations, Exemption Submittals, and Permitting (95 sites)

CTH CW Property Exemption, Jefferson Co., WI (Jan); BP Parcel Determination, Kenosha Co., WI (Mar); Narula Property, Kenosha Co., WI (Apr); So Wi Veterans Mem Cemetery, Racine Co., WI (Apr); N. 70th St. Site, Milwaukee Co., WI (Apr); 6th & Grange Site, Milwaukee Co., WI (Apr); North Lake Dr Site, Racine Co.,



WI (Apr); E. Lakeshore Dr Property, Kenosha Co., WI (Apr); Deaton Parcel Exemption, Kenosha Co., WI (Apr); Alliant Energy Solar Site, Sheboygan Co., WI (Apr); Breg-3 Site Exemptions, Milwaukee Co., WI (Feb); Bristol Highlands, Kenosha Co., WI (Apr); Sandalwood Lot 20, Oconto Co., WI (Apr); Martin Rd Parcels, Waukesha Co., WI (Apr); Fair Meadow Subd Exemption, Walworth Co., WI (Apr); Will Rose Haven GP, Waukesha Co., WI (Apr); Bristol Property Wetlands & Exemption, Kenosha Co., WI (Apr); 11900 N Port Washington Rd, Ozaukee Co., WI (Apr); Gibbs Parcel, Kenosha Co., WI (May); Schaefer Farm, Racine Co., WI (May); Lisbon 12-Ac Parcel, Waukesha Co., WI (May); Coach Hills Exemptions, Racine Co., WI (May); Ventimiglia Property, Oconto Co., WI (May); Case HS Property, Racine Co., WI (May); Warntjes North-South Parcels, Kenosha Co., WI (May/Jul); CSM 3325 Dover, Racine Co., WI (May); STH 175 Parcel, Washington Co., WI (May); Holy Hill Rd Property, Washington Co., WI (May); Lyons Parcel Determination, Walworth Co., WI (May); CSM 3591 Mequon, Ozaukee Co., WI (May); Parcel 293-0965 Pleasant Prairie, Kenosha County, WI (May); Denoon Country Estates Muskego, Waukesha Co., WI (May); Blaze Landscaping Lisbon Parcel Wetlands-Exemption, Waukesha Co., WI (Jun); Hughes Parcel wetlands-Woodlands-PEC, Racine Co., WI (Jun); Logan Parcel, Washington Co., WI (May); CTH LL Property, Ozaukee Co., WI (Jun); Steenburg Farm Oakridge, Fond du Lac Co., WI (Jun); Steenburg Farm Dallman, Fond du Lac Co., WI (Jun); UW Parkside Utility Renovations, Kenosha County, WI (May); Salem Lakes Parcel 70412, Kenosha County, WI (Jun); Russet Ct Muskego Site, Waukesha Co., WI (Jun); Kazmierczak Property, Washington Co., WI (Jun); Parcel 152-0100 Pleasant Prairie, Kenosha Co., WI (Jun); 59-Acre Parcel Lisbon Property, Waukesha Co., WI (Jun); 98th St Parcel Randall, Kenosha Co., WI (Jun); Ryan Rd 80-Ac Site, Milwaukee Co., WI (Jul); Hickory Hill West Wetland-PEC Lisbon, Waukesha Co. WI (Jun); Cranberry Creek Landvill, Wood Co., WI (Jul); Christina Estates Outlot 1 Exemption, Racine Co., WI (Jul); LG House of Music Property, Walworth Co., WI (Jul); STH 158-194 Property, Kenosha Co., WI (Aug); 3-Mile Rd Property, Racine Co., WI (Jul); Price Parcel Ottawa, Waukesha Co., WI (Jul); Lot 1 Lilac Rd Rubicon, Dodge Co., WI (Aug); 633 Progress Dr Determination, Ozaukee Co., WI (Jul); I41 & STH60 Property Slinger, Washington Co., WI (Aug); Summit Parcel 0708985 Determination, Waukesha Co., WI (Aug); Timberline Trail Landfill Wetlands and Exemption, Rusk Co., WI (Aug); Seasons at Mt Pleasant Sewer, Racine Co., WI (Aug); Kenny Dr Lots 1-2, Washington Co., WI (Aug); Bliffert Lumber Germantown, Washington Co., WI (Aug); Gibson Parcels Eagle Site, Waukesha Co., WI (Aug); Clover Run Stables, Racine Co., WI (Sep); Pink Property Salem Lakes GP, Kenosha Co., WI (Sep); Albano Property Carol Beach, Kenosha Co., WI (Sep); Mosconi Parcel Somers, Kenosha Co., WI (Sep); Petrie Rd Property Geneva, Walworth Co., WI (Sep); NML Property Oak Creek, Milwaukee Co., WI (Sep); Carol Beach Estates, Kenosha Co., WI (Sep); Mt. Pleasant Business Ctr Site, Racine Co., WI (Sep); Pleasant Prairie Power Plant, Kenosha Co., WI (Sep); STH 31 Property, Racine Co., WI (Sep); 112th St Expansion Parcel, Milwaukee Co., WI (Oct); Glacier Ridge Landfill EC Site, Dodge Co., WI (Sep); City-View Subdivision Horicon, Dodge Co., WI (Sep); Rock Rd Co Beloit, Rock Co., WI (Oct); Glass Parcels Richfield, Washington Co., WI (Oct); Alliant Clinton Substation, Rock Co., WI (Oct); Triggs Property Delafield, Waukesha Co., WI (Oct); Singh Parcel Franklin, Milwaukee Co., WI (Oct); Hilmer Property Muskego, Waukesha Co., WI (Oct); Baseler Property Muskego, Waukesha Co., WI (Oct); ALDI Property Oak Creek, Milwaukee Co., WI (Oct); Plank Rd Property Burlington, Racine Co., WI (Oct); Jackson Marsh Restoration Site, Washington Co., WI (Oct); Pilgrim Rd Parcel Brookfield, Waukesha Co., WI (Oct); Henneberry Parcel Muskego, Waukesha Co., WI (Oct); Ewig Parcel Franklin, Milwaukee Co., WI (Oct); STH 120 Site L Geneva, Walworth Co., WI (Oct); KMHS Wales, Waukesha Co., WI (Oct); 184th Ave Bristol Property, Kenosha Co., WI (Oct); 144th Ave Bristol Property, Kenosha Co., Pabst Rd Oconomowoc Site, Waukesha County, WI (Oct); N Lake Shore Dr Mequon, Ozaukee Co., WI (Nov); 28414 Wilmot Rd Salem Lakes, Kenosha Co., WI (Nov); 819 E Drexel Site, Milwaukee Co., WI (Nov).

2020 Wetland Delineations, Exemption Submittals, and Permitting (90 sites)

Courtney Street Storage Buildings, Racine Co., WI (Feb); 86th Ave & STH 165 Parcel, Kenosha Co., WI (Feb-Apr); Harris Gravel Pit, Dane Co., WI (Mar-Apr); Alliant Birnamwood Substation, Shawano Co., WI (Apr); Rolling Meadows Drive Parcel, Fond du Lac Co., WI (Apr); Lieds Nursery Site, Waukesha Co., WI (Apr); Plas-Tech Engineering Site, Walworth Co., WI (Apr); Fink Parcel, Racine Co., WI (Apr); Lot 1 Proposed CSM 3258, Racine Co., WI (Apr); Harris Gravel Pit, Dane Co., WI (May); Schumacher Rd Reconstruction, Dane Co., WI (Apr); Whitetail Ridge Ph2, Kenosha Co., WI (Apr), Kelly Pit Addition, Dane Co., WI (Apr); Myrtle Way Road Improvements, Rock Co., WI (Apr); Pewaukee Industrial Park South, Waukesha Co., WI (May); Mueller Property, Fond du Lac Co., WI (Apr); 3901 Kipp Street Site, Dane Co., WI (Apr); Witte Parcels, Dane Co., WI (Apr); Sandalwood Lots 7-8, Oconto Co., WI (Apr); Yellowstone Outdoor Resort, Lafayette Co., WI (Apr); S&L Underground Expansion, Columbia Co., WI (May); 200 Baraboo Street, Sauk Co., WI (May); Jefferson Pit, Jefferson Co., WI (May); Rock Point Village, Waukesha Co., WI (May); Blanchardville Coop Oil & NGSD Parcels, Green Co., WI (May); Logtown Development, Sauk Co., WI (Jun); Maple Ave Property, Waukesha Co., WI (May); Wanasek Property, Racine Co., WI (May); Meier Farms, Dane Co., WI (Jun); 76th & Ryan Site, Sauk Co., WI (May); Milton Townline Road Site, Rock County, WI (May); Somers Multi-family Site, Kenosha



Co., WI (May); Cazenovia WWTP Expansion, Waukesha Co., WI (Jun); Waukegan Property, Lake Co., IL (Jun); Ozaukee Christian School, Washington Co., WI (Jun); Kohler Distribution Center, Sheboygan Co., WI (Jun); Veterans Memorial Park West Site, Kenosha County, WI (Jun); Veterans Memorial Park East Site, Kenosha County, WI (Oct); Bristol Commons Site, Kenosha Co., WI (Jun); Barels Property, Racine Co., WI (Jun); Rogich Property, Milwaukee Co., WI (Jun); CTH MM Intersection Reconstruction, Dane Co., WI (Jul); Rose Property, Racine Co., WI (Jun); Baldev Court Property, Ozaukee Co., WI (Jul); Paul-Meghan Dominic Property, Dane Co., WI (Jul); Union Court Site, Kenosha Co., WI (Jul); Webcrafters Parcels, Dane Co., WI (Jul); Site Security Upgrades Site, Waukesha Co., WI (Jul); Scuppernong Creek Site, Waukesha Co., WI (Jul); W9030 Oak Ridge Road Property, Jackson Co., WI (Jul); Cherokee Golf Course, Dane Co., WI (Aug); W3948 South Shore Drive, Walworth Co., WI (Aug); Caledonia Multifamily Site, Racine Co., WI (Aug), Mittelstaedt Property, Sauk Co., WI (Aug); 1525 Bryce Drive Parcel, Winnebago Co., WI (Sep); Platten Property, Outagamie Co., WI (Sep); St. Mary's Springs Site, Fond du Lac Co., WI (Sep); Fairway Village Site, Ozaukee Co., WI (Sep); Quarry Park Site, Waukesha Co., WI (Sep); CTH F-Concord Site, Jefferson Co., WI (Sep); HJ Williams Farm, Adams Co., WI (Oct); STH 16-Lisbon Rd Parcel, Waukesha Co., WI (Sep); Golden Lake Road Property, Waukesha Co., WI (Sep); 4522 CTH P Parcel, Washington Co., WI (Sep); Darby Farms, Kenosha Co., WI (Sep); 227 Sussex Street, Waukesha Co., WI (Sep); Lexus of Brookfield Site, Milwaukee Co., WI (Sep); Wesner Greenfield Ave Parcels, Waukesha Co., WI (Sep); Oriole Lane Parcels, Ozaukee Co., WI (Oct); Wayside Parkview Estates, Brown Co., WI (Sep); Wind Point Parcel, Racine Co., WI (Oct); Geneva National Lot 18-23, Walworth Co., WI (Oct); Badger Farm, Racine Co., WI (Oct); Dorset Corners Substation, Monroe Co., WI (Sep); Covered Bridge Rd Site, Ozaukee Co., WI (Oct); Trek Distribution Center, Jefferson Co., WI (Oct); Craftsman Drive Parcel, Waukesha Co., WI (Oct); Village Green Subdivision, Ozaukee Co., WI (Oct); Ansay Farm, Ozaukee Co., WI (Oct); Zenner Farm Property, Racine Co., WI (Oct); West Snell Rd Site, Winnebago Co., WI (Oct); Kenosha County Bridges, Kenosha Co., WI (Oct); Confidential Site Janesville, Rock Co., WI (Oct); Janesville Airport Site, Rock Co., WI (Oct); 10920 West Liberty Drive, Milwaukee Co., WI (Oct); V of River Hills 53-Acre Site, Milwaukee Co., WI (Oct); Hwy 14 & Lacy Rd Site, Dane Co., WI (Oct); Wilderness Way Parcel, Waukesha County, WI (Oct); Hummingbird Lane Parcel, Sheboygan Co., WI (Oct); Plainview Rd Site, Waukesha Co., WI (Nov); Delimat Property, Kenosha Co., WI (Nov); 11900 N Port Washington Rd Parcel, Ozaukee Co., WI (Nov); Canopy Hills Artificial Wetland, Racine Co., WI (Dec); Strauss Brands Facility, Milwaukee County, WI (Dec).

2019 Wetland Delineations, Exemption Submittals, and Permitting (39 sites)

North Hills Subdivision, Waukesha Co., WI (Jan); Prairie Walk Subdivision, Waukesha Co., WI (Apr); Loomis Parcel Determination, WI (Mar-Apr); Lamminem Parcel, Kenosha Co., WI (Apr); Lot 103 Burlington, Racine Co., WI (Apr); 7220 Ryan Rd Parcel, Milwaukee Co., WI (Apr); 1-Acre Franklin Parcel, Milwaukee Co., WI (June); 256th Ave Site, Kenosha Co., WI (May); 915 Main St Mukwonago, Waukesha Co., WI (May); Muskego Lakes CC, Muskego, Waukesha Co., WI (June), Bonniwell Road Parcel, Ozaukee Co., WI (July); 333 Portland Rd Site, City of Waterloo, Jefferson Co., WI (May); Thompson Lane Parcel, Village of Chenequa, Waukesha Co., WI (May); Schmitz Redi-Mix Site, Village of Mt. Pleasant, Racine Co., WI (June); New Berlin Redi-Mix Site, City of New Berlin, Waukesha Co., WI (May); Elm Grove Road Basin, City of New Berlin, Waukesha Co., WI (May); Lathrop-Meacham Parcels Mitigation Site, Village of Mt. Pleasant, Racine Co., WI (May-July); Lot 18-31 Geneva National Site, Town of Geneva, Walworth Co., WI (July); Bohner's Lake Parcel, Town of Burlington, Racine Co., WI (Sept); 6970 South 6th St., City of Oak Creek, Milwaukee Co., WI (Aug); Weatherstone Meadows site, City of New Berlin, Waukesha Co., WI (Aug); Parkview Apartments site, Village of Somers, Kenosha Co., WI (Aug); Volkswagen Expansion site, Village of Pleasant Prairie, Kenosha Co., WI (Aug); Pewaukee-Brookfield Trail, Waukesha Co., WI (Aug-Sept); Parcel 1268-993, City of New Berlin, Waukesha Co., WI (Aug); Germantown Industrial Business Park, Washington Co., WI (Oct); Haasch- Finger site, City of Brookfield, Waukesha Co., WI (Oct); Kennedy Property, Village of Waunakee, Dane Co., WI (Oct); Jefferson County Interurban Trail, Towns of Watertown and Ixonia, Jefferson Co., WI (Oct); Mukwonago Residential Parcel, Village of Mukwonago, Waukesha Co., WI (Oct); Pine Ridge Estates, City of Oconomowoc, Waukesha Co., WI (Oct); Silver Lake Parcels, Village of Salem Lakes, Kenosha Co., WI (Oct); New Berlin Trail Phase II, City of Waukesha, Waukesha Co., WI (Oct); 1910 W Puetz Road site, City of Oak Creek, Milwaukee County, WI (Oct); Project Redline, Village of Menomonee Falls, WI (Oct); CSM 3232 Oulot 1, Village of Mt. Pleasant, Racine Co., WI (Oct); Plant Community Mapping and Assessment, City of Oak Creek, Milwaukee Co., WI (Nov); Faber Property, Village of Williams Bay, Walworth Co., WI (Nov); Campus Drive Property, Village of Hartland, Waukesha Co., WI (Dec).

Example 2018 Wetland Delineations in WI and IL (50 sites)

Homestead Acres, Racine Co., WI (Apr); Greenmeadows, Racine Co., WI (Apr), Wind Point School, Racine Co., WI (Apr); Vintage Parc East, Kenosha Co., WI (Apr); Nelson-Heckel, Kenosha Co., WI (Apr); Caledonia Storage, Racine Co., WI (Apr); New Berlin Storage, Waukesha Co., WI (Mar); Manke Gravel Pit, Columbia



Co., WI (May); Drissel-Wallace, Kenosha Co., WI (May); LaBelle Golf Course, Waukesha Co., WI (May); Waterloo Aluminum, Jefferson Co., WI (May); Salem Business Park, Kenosha Co., WI (May); Audubon Arboretum, Racine Co., WI (May); Briarwood, Racine Co., WI (May); Basting-Brown Parcels, Waukesha Co., WI (May); 84-Acre Site, Racine Co., WI (May); Jolenta Lane, Waukesha Co., WI (Apr); Rock Road Storage, Walworth Co., WI (May); Wildwood Creek, Winnebago Co., WI (Jun); Green Bay Site, Brown Co., WI (Jun); Main Street Market, Kenosha Co., WI (Jul); Armstrong Eddy Park, Rock Co., WI (May); Hickory St Site, Ozaukee Co., WI (Jun); Parcel DW 800004, Walworth Co. (Jun); Lot 8 Parcel WCA-0003, Walworth Co., WI (Jun); RRR Grundy, Kane Co., IL (Jul); Coleman Norris Parcel, Waukesha Co., WI (Jul); Deaton Parcel, Kenosha Co., WI (Aug); Hintz Parcel, Washington Co., WI (Aug); Loomis-Ryan Rds Site, Milwaukee Co., WI (Aug); Grass Parcels, Waukesha Co., WI (Sep); Mallard Ridge Landfill Pipeline, Walworth Co., WI (Sep); Glacier Ridge Landfill Pipeline, Dodge Co., WI (Sep); Ravenwoods, Waukesha Co., WI (Aug); Canopy Hills, Racine Co., WI (Sep); Duck Pond, Kenosha Co., WI (Sep); Splinter Parcels, Racine Co., WI (Oct); Berget Parcel, Walworth Co., WI (Sep); Saylesville Rd Parcel, Waukesha Co., WI (Oct); Racine Ave-Lawnsdale Rd Parcel, Waukesha Co., WI (Oct); Braun Rd-90th St Parcel, Racine Co., WI (Oct); Grafton Parcels, Ozaukee Co., WI (Dec); Crawford Parcel, Racine Co., WI (Nov); Kotas Parcels, Racine Co., WI (Nov); Altamount Acres South, Racine Co., WI (Dec); Christina Estates, Racine Co., WI (Dec); Christina Estates NE, Racine Co., WI (Dec); Lathrop Parcel, Racine Co., WI (Dec); Hillside Ridge, Waukesha Co., WI (Dec); Stolz Property, Waukesha Co., WI (Dec).

Example 2017 Wetland Delineations in WI, MI, IN, and IL (31 Sites)

Back 40 Mine, Menominee Co., MI (Jan); Oakdale Rd Site, Waukesha Co., WI (Sep); Birds Eye Foods, Walworth Co., WI (Sep); Boss Property, Leelanau Co., MI (Jul); Brighton Estates, Waukesha Co., WI (Sep); Saltzman North, Waukesha Co., WI (Sep); Susnar Parcel, Waukesha Co., WI (Sep); Wrenwood Site, Washington Co., WI; Chorneyko Site, Walworth Co., WI (Apr); CN Railroad Bridges-6 Sites, Fond du Lac & Winnebago Co's, WI; CN Railroad Freepart Culvert, Kane Co., IL (May); Herrling Site, Dane Co., WI (Sep); MMSD Sewerage Project, Milwaukee Co., WI (May); Spring St Site, Racine Co., WI (Oct); Goshen Midway Cell Tower, Elkhart Co., IN (Apr); Two Creeks Utility Site, Manitowoc Co., WI (Nov); Suncast Site, Kane Co., IL (Dec); Lot 51 Lakeview Corp Park, Kenosha Co., WI (Oct); Lakefront Gun Range, Racine Co., WI (Oct); WI Club Golf Course, Milwaukee Co., WI (Apr); WisDOT Improvements, STH 32 Racine Co (Aug), STH 67 Walworth Co. (Sep), STH 20, Racine Co. (Oct), 27th St, Milwaukee Co. (Sep); Conference Point Boat Launch, Walworth Co., WI (Oct); Lake View RR Corridor, Portage Co., WI (Sep).

Example 2016 Wetland Delineations in WI, OH, MI and IL (Mostly Large Projects)

AEP Wavery-Adams-Seaman 138 kV Trans. Line Rebuild, Adams & Pike Co's, OH (Dec); Kansas West-Faraday Trans. Line Rebuild-Macon, Moultrie, & Coles Co's, IL (Jan), Riveredge Nature Center Preliminary, Ozaukee Co., WI (Feb); Lost Creek Mitigation Site, Portage Co., WI (Jun); I-41 Burleigh to Good Hope Corridor WisDOT, Milwaukee Co., WI (Jul); STH 60 Corridor, Ozaukee & Washington Co's, WI (Aug-Oct); Erin Hills Golf Course, Washington Co., WI (Sep); Back 40 Mine, Menominee Co., MI; Lake Zurich SW Cell Tower, Lake Co., IL (Oct); Acme Steel Coke Site, Cook Co., IL (Dec).

Example 2015 Wetland Delineations in WI, IL, and MO (Mostly Large Projects)

Bolser Street MO33211-M Cell Tower Site, Grundy Co., MO (Sep); Section 9 Site, Dane Co., WI (Apr); Franzel Rd Site, Bayfield Co., WI (Apr); Big Eau Pleine Mitigation Site, Marathon Co., WI (Aug); Taylor Road Siding Track, Jackson Co., WI (Nov); UPS-CACH Site, Cook Co., IL (Jun); Eggers Woods Forest Preserve, Cook Co., IL (Mar).

Example 2014 Wetland Delineations in WI, IL, and MI (Mostly Large Projects)

Emerald Park Western Expansion, Waukesha Co., WI (Oct); Arcadia Mining Site-Trempealeau Co., WI (Apr); Kalamazoo River Parcel, Kalamazoo and Calhoun Co's, MI (Jul); G2 Mitigation Site - Winnebago Co., WI (May); Line 6A MP 378.94, McHenry Co., IL (Sep); Geneva National Site, Walworth Co., WI (Nov); Nortrax Site -Lincoln Co., WI (Oct); Toberman Parcel- Crawford Co., WI (Oct).

Example 2013 Wetland Delineations in WI, IL, OH, and MI (Mostly Large Projects)

West Central Lateral - Eau Claire, Clark, Jackson & Monroe Co's, WI (Apr-May); Walker Cranberry 80- acre Parcel - Jackson Co., WI (Sept - Oct); Berne to Natrium Pipeline, Monroe Co., OH (Oct); CNX Noble Pipeline - Noble Co., OH (Oct); Deer Grove Forest Preserve, Cook Co., IL (Nov).

Example 2012 Wetland Delineations in WI, IL, IN, and TX (Mostly Large Projects)

West Central Lateral (190 miles), Eau Claire, Clark, Jackson & Monroe Co's, WI (Sep-Nov); Morrison Creek



Cranberry Parcel, Jackson Co., WI (Aug); London Mitigation Site, Jefferson Co., WI (July); Southern Access Pipeline, Sawyer & Washburn Co's, WI (Jun); I-80 Interchange, LaPorte Co., IN (Mar); Eagle-Ford Shale Plays, LaSalle & McMullen Co's, TX (Jan-Feb).

I-94 Corridor Wetland and Primary Environmental Corridor Mapping and Endangered Species Study, Milwaukee, Racine, and Kenosha Counties, WI (Project Manager and Lead Scientist)

Primary Environmental Corridor Delineation Parkview Site, Village of Somers, WI (Lead Scientist)

Elm Road Generating Station, Oak Creek & Caledonia, WI (Project Manager & Lead Scientist)

Tri-State Tollway, Deerfield Plaza Wetland and Endangered Species Investigation, Lake and Cook Counties, IL (Lead Scientist)

Guardian II Laterals, Fox Valley, Hartford and West Bend, WI (Project Manager and Lead Scientist)

ATC Paris to St. Martins (KK3025) 138KV Line Rebuild, Kenosha, Racine and Milwaukee Counties, WI (Project Manager and Lead Scientist)



Surya Powered LLC
McHenry Solar Farm – McHenry Co.
Project #: 20251635
November 12, 2025

Appendix G | Off-Site Analysis

TABLE A1

Wetland Hydrology from Aerial Imagery - Recording Form*

Project Name: McHenry County Solar Farm
Investigator: Eric C. Parker, SPWS

Date: 9/21/2025
Legal Description (T, R, S): _____

County: McHenry Co, IL
T44N R8E S8, S9

Summary Table

Date Image Taken*	Image Source	Climate Condition (wet, dry, normal)	Image Interpretation(s)					
			See Signature Areas Figure for outlines of Areas 1-6					
			Area: 1	Area: 2	Area: 3	Area 4	Area 5	Area 6
2004-08-22	NAIP	Normal	SS	SS	NV NSS	NV NSS	CS-	CS
2005-07-10	NAIP	Dry	SS	SS	NV NSS	NV NSS	SS	NV NSS
2006-07-17	NAIP	Normal	NV NSS	WS	CS	NV NSS	AP	CS
2007-07-21	NAIP	Wet	WS	WS	CS	CS-	NV NSS	CS-
2009-08-06	NAIP	Normal	NV NSS	NV NSS	CS-	NV NSS	SS-	NV NSS
2009-05-01	County	Wet	NV NSS	NC SS	SS	NV NSS	SS	SS
2010-07-01	NAIP	Wet	SS-	NC SS	NV NSS	NV NSS	CS	NV NSS
2011-08-26	NAIP	Normal	NV NSS	NC	NV NSS	CS	CS	CS
2012-06-19	NAIP	Dry	NV NSS	SS	SS-	NV NSS	CS-	NV NSS
2014-06-13	NAIP	Dry	NV NSS	SS	NV NSS	SS	SS	SS
2015-09-16	NAIP	Normal	NV NSS	WS	CS	CS SS	CS WS	NV NSS
2017-04-15	County	Wet	NV NSS	SS-	NV NSS	SS	SS	SS
2017-09-01	NAIP	Wet	NV NSS	NV NSS	CS	CS	CS DO	CS
2019-09-14	NAIP	Normal	NV NSS	WS AP	AP	NV NSS	NV NSS	WS CS
2021-04-15	County	Normal	NV NSS	NV NSS	NV NSS	NV NSS	SS-	NV NSS
2021-09-05	NAIP	Normal	NV NSS	NV NSS	NV NSS	CS-	CS-	NV NSS
2022-04-15	County	Normal	NV NSS	SS-	NV NSS	NV NSS	SS	NV NSS
2023-08-18	NAIP	Normal	NV NSS	NV NSS	NV NSS	CS--	CS-	NV NSS
Normal Climate Condition			Area: 1	Area: 2	Area: 3	Area 4	Area 5	Area 6
Number			10	10	10	10	10	10
Number with wet signatures			1	6	4	4	9	4
Percent with wet signatures			10%	60%	40%	40%	90%	40%

Key		
WS - Wetland Signature	SS - Soil Wetness Signature	CS - Crop Stress
NC - Not Cropped	AP - Altered Pattern	NV - Normal Vegetative Cover
DO - Drowned Out	SW - Standing Water	NSS - No Soil Wetness Signature
Other labels or comments:		

* Images that were taken after the 20th of their respective month were evaluated under the following month's table to account for otherwise missing precipitation data from the start of the month to the date the image was recorded.

- Use above key to label image interpretations. It is imperative that the reviewer read and understand the guidance associated with the use of these labels. If alternate labels are used, indicate in box above.
- If less than five (5) images taken during normal climate conditions are available, use an equal number of images taken during wet and dry climate conditions and use as many images as you have available. Describe the results using this methodology in your report.

* Source: http://www.bwsr.state.mn.us/wetlands/delineation/Guidance_for_Offsite_Hydrology_and_Wetland_Determinations.pdf



Wetland Determination from Aerial Imagery - Recording Form*

Project Name: McHenry County Solar Farm
Investigator: Eric C. Parker, SPWS

Date: 9/21/2025 County: McHenry, IL
Legal Description (T, R, S): T44N R8E S8, S9

Use the decision matrix below to create Table A2

Hydric Soils Present? ¹	Identified on NWI or WWI? ²	Percent with Wet Signatures from TABLE A1	Field Verification Required? ³	Wetland?
Yes	Yes	>50%	No	Yes
Yes	Yes	30-50%	No	Yes
Yes	Yes	<30%	Yes	Yes, if other hydrology indicators are present
Yes	No	>50%	No	Yes
Yes	No	30-50%	Yes	Yes, if other hydrology indicators are present
Yes	No	<30%	No	No
No	Yes	>50%	No	Yes
No	Yes	30-50%	No	Yes
No	Yes	<30%	No	No
No	No	>50%	Yes	Yes, if other hydrology indicators are present
No	No	30-50%	Yes	Yes, if other hydrology indicators are present
No	No	<30%	No	No

¹ The presence of hydric soils can be determined from the "Hydric Rating by Map Unit Feature" under "Land Classifications" from the Web Soil Survey. "Not Hydric" is the only category considered to not have hydric soils. Field sampling for the presence/absence of hydric soil indicators can be used in lieu of the hydric rating if appropriately documented by providing completed field data sheets.

² At minimum, the most updated NWI data available for the area must be reviewed for this step. Any and all other local or regional wetland maps that are publically available should be reviewed.

³ Area should be reviewed in the field for the presence/absence of wetland hydrology indicators per the applicable 87 Manual Regional Supplement, including the D2

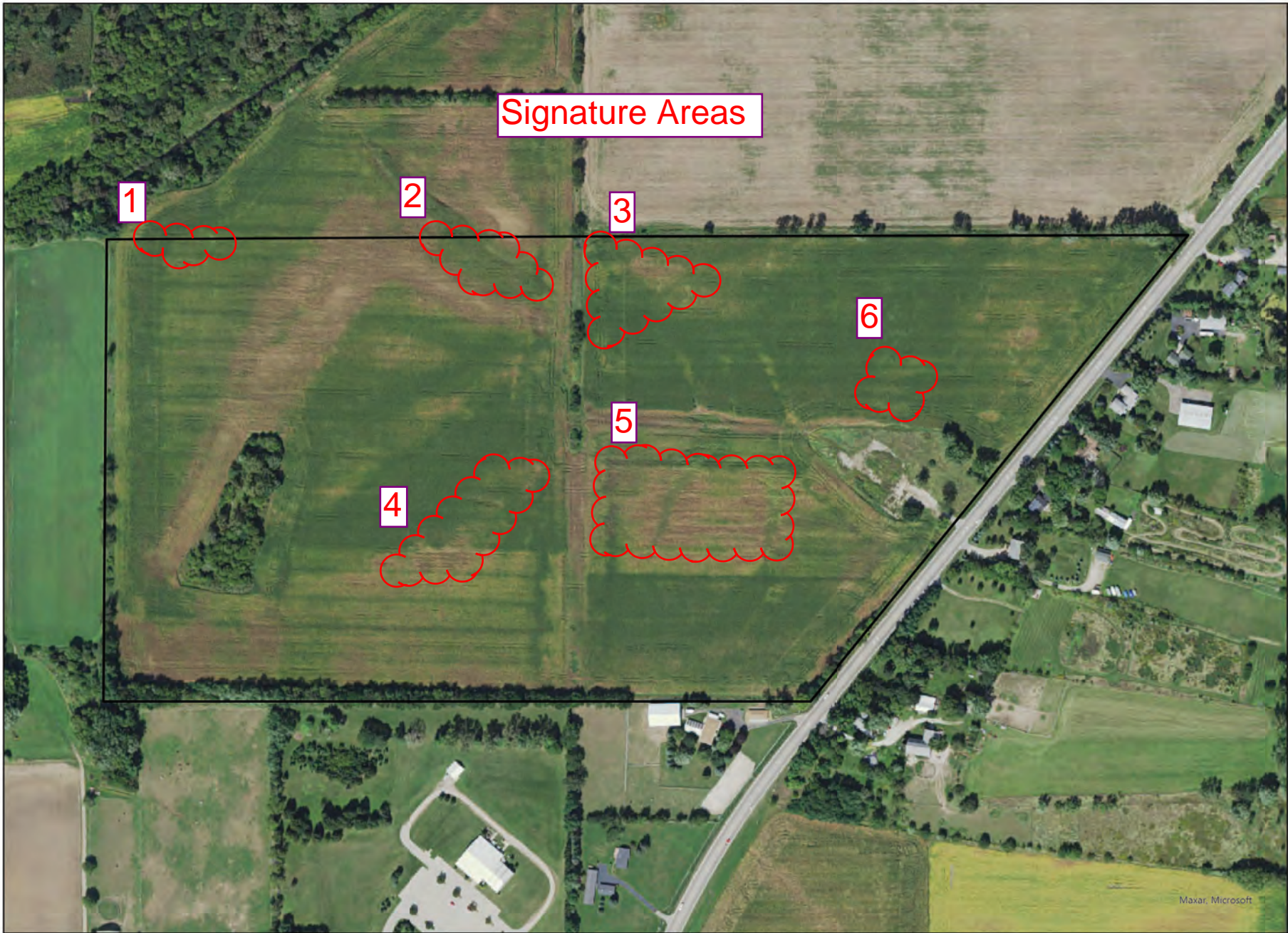
TABLE A2

Area	Hydric Soils Present? ¹	Identified on NWI or WWI?	Percent with Wet Signatures from TABLE A1	Other Hydrology Indicators Present? ¹	Wetland?
1	Yes	No	10%		No
2	No	No	60%		Field verification req.
3	No	No	40%		Field verification req.
4	No	No	40%		Field verification req.
5	No	No	90%		Field verification req.
6	No	No	40%		Field verification req.

¹ Answer "N/A" if field verification is not required and was not conducted.

* Source: http://www.bwsr.state.mn.us/wetlands/delineation/Guidance_for_Offsite_Hydrology_and_Wetland_Determinations.pdf

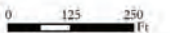




Signature Areas

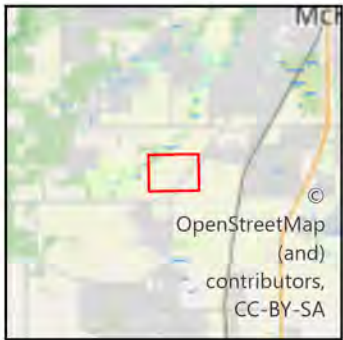


Study Area (75.92 ac)



Heartland
ECOLOGICAL GROUP INC
2015-09-16 NAIP Aerial Imagery
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL
2015 NAIP
USDA

Figure Created: 9/16/2025



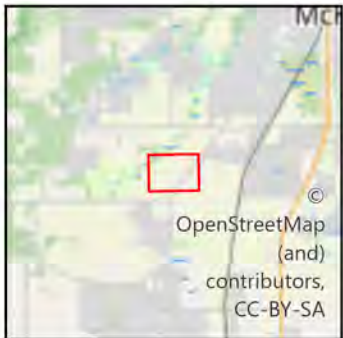
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McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL
2004 NAIP
USDA

Maxar, Microsoft



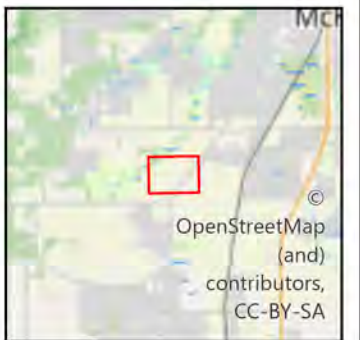
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T Nunda, McHenry Co, IL
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Maxar, Microsoft



Study Area (75.92 ac)

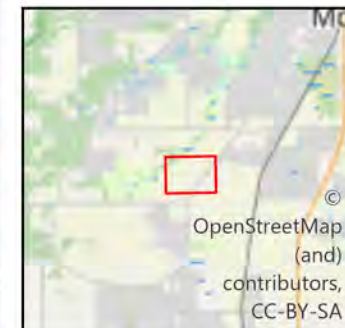


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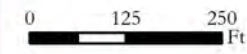
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T Nunda, McHenry Co, IL

2006 NAIP
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Study Area (75.92 ac)

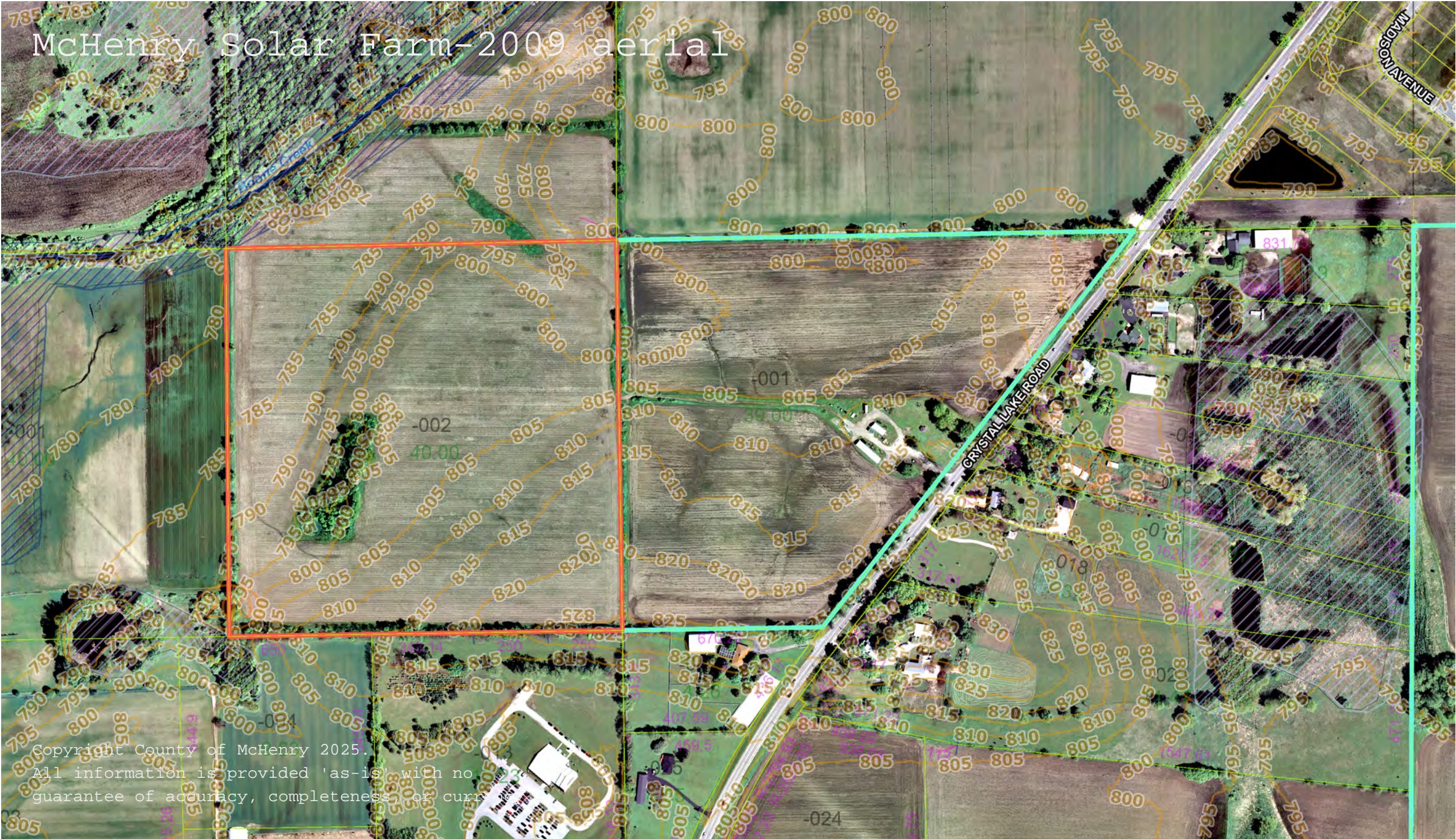


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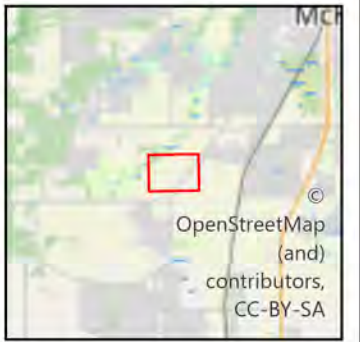
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T Nunda, McHenry Co, IL
2007 NAIP
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McHenry Solar Farm-2009 aerial

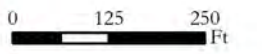


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OpenStreetMap
(and)
contributors,
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Study Area (75.92 ac)

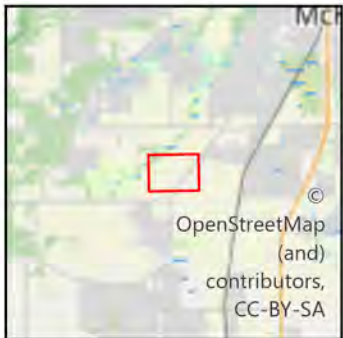


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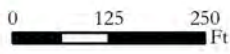
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T Nunda, McHenry Co, IL

2009 NAIP
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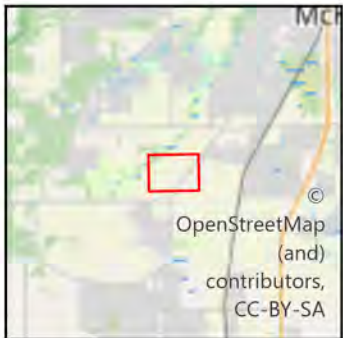
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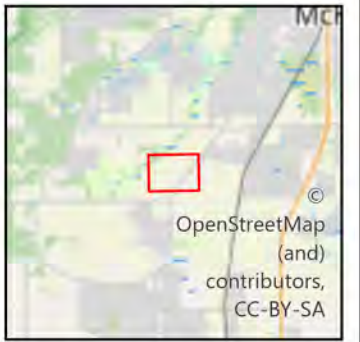


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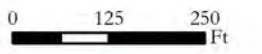
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2011 NAIP
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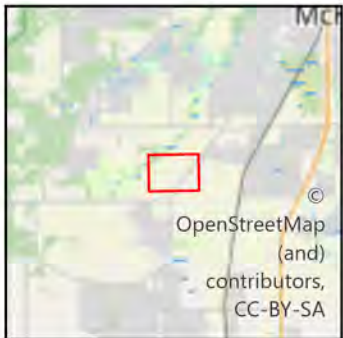
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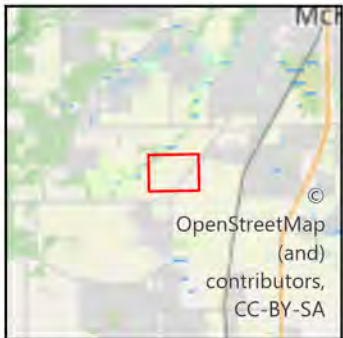
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Heartland
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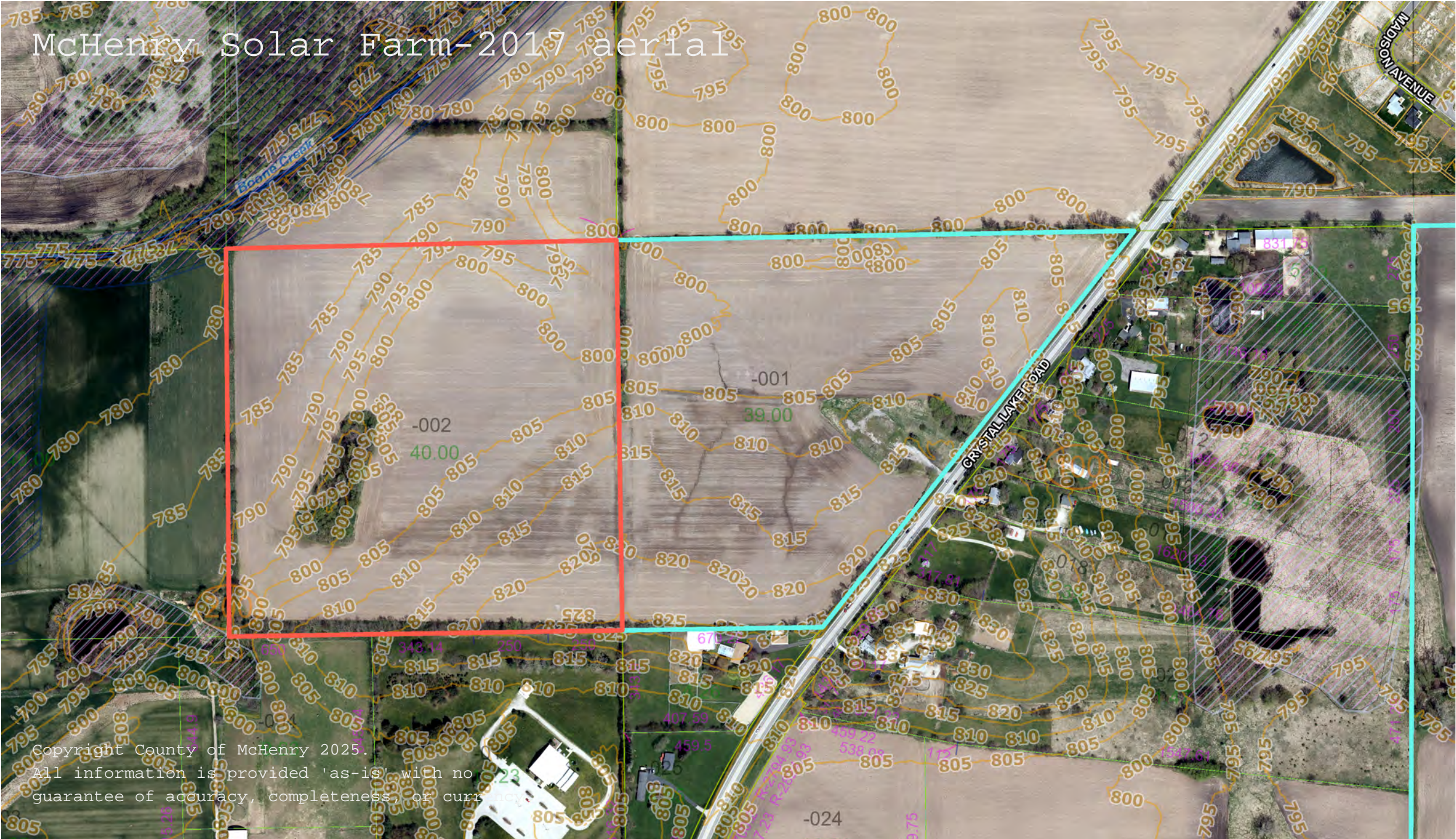
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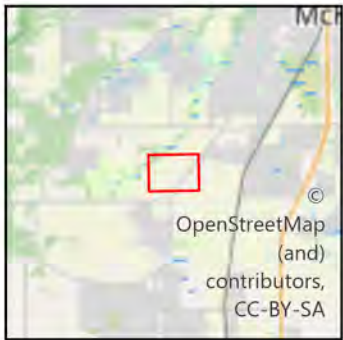
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Imagery
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL
2015 NAIP
USDA

Maxar, Microsoft

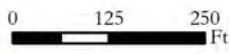
McHenry Solar Farm-2017 aerial



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All information is provided 'as-is' with no
guarantee of accuracy, completeness, or currency.



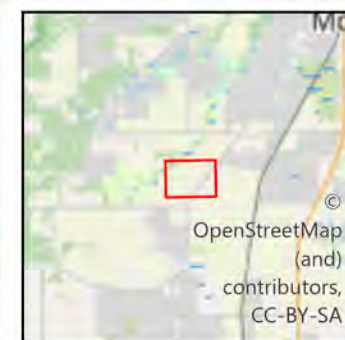
Study Area (75.92 ac)



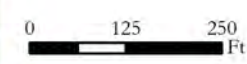
Heartland
ECOLOGICAL GROUP INC

2017-09-01 NAIP Aerial Imagery
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL
2017 NAIP
USDA

Maxar, Microsoft



Study Area (75.92 ac)

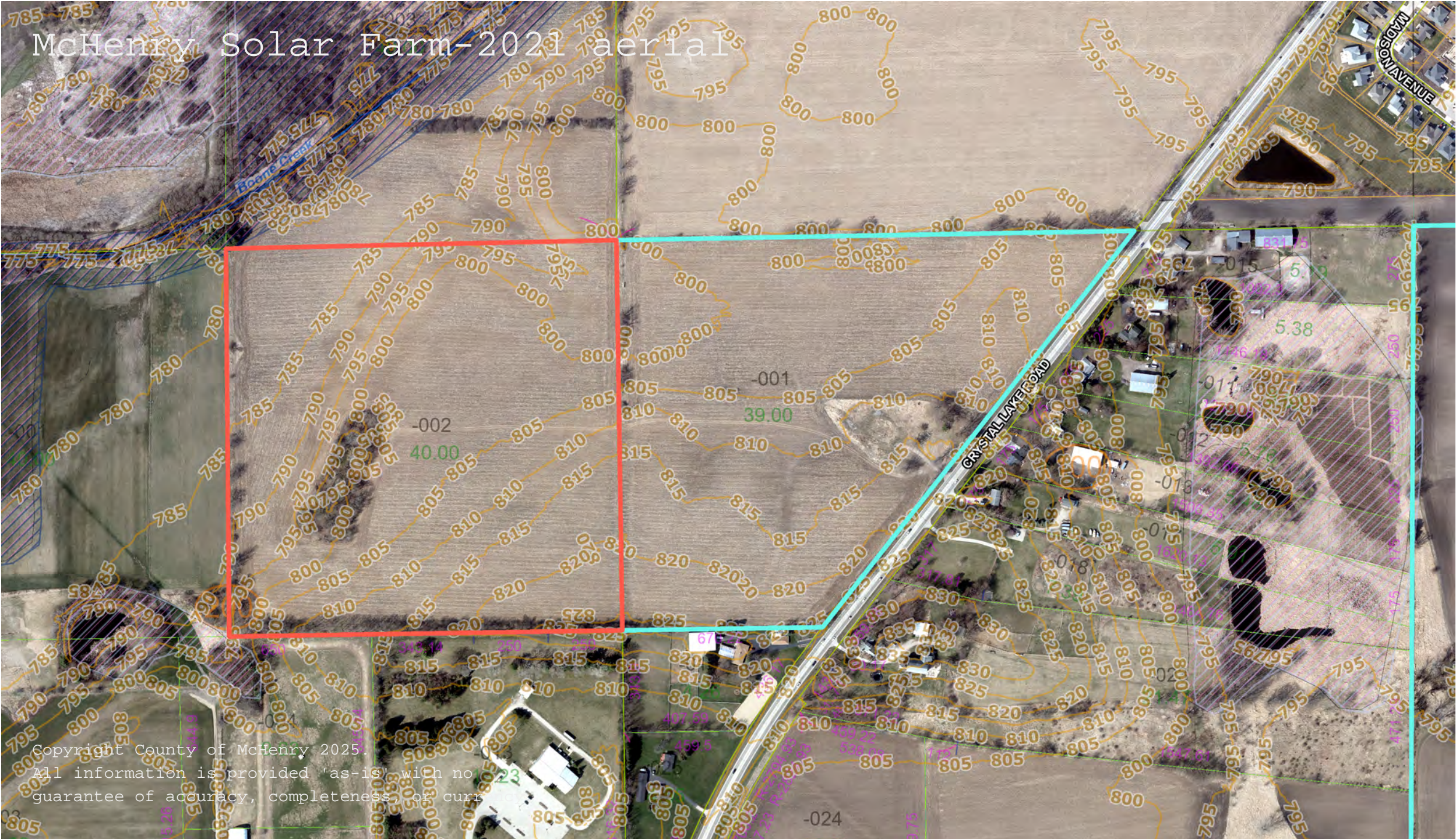


Heartland
ECOLOGICAL GROUP INC

2019-09-14 NAIP Aerial
Imagery
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL
2019 NAIP
USDA

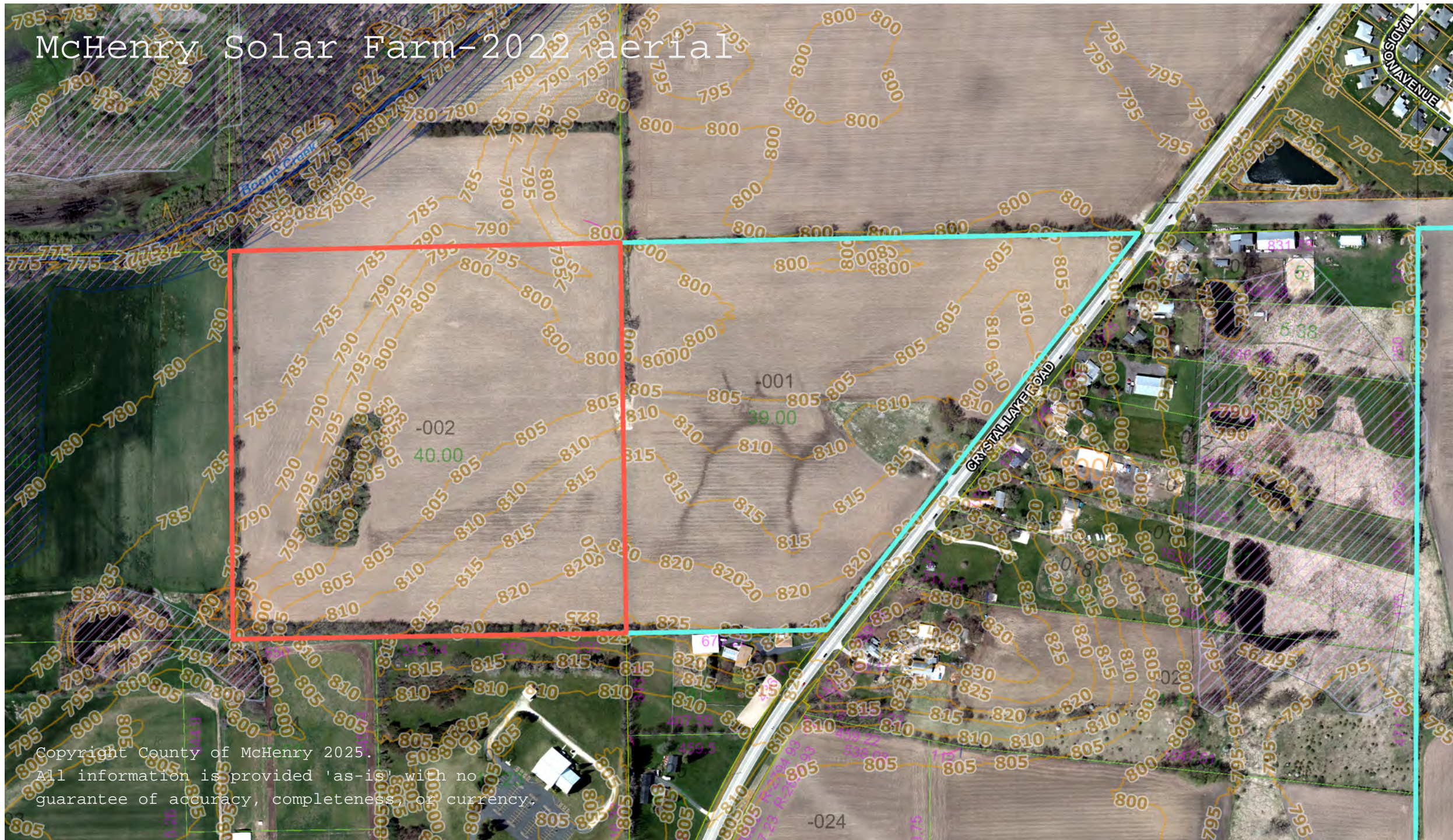
Maxar, Microsoft

McHenry Solar Farm-2021 aerial

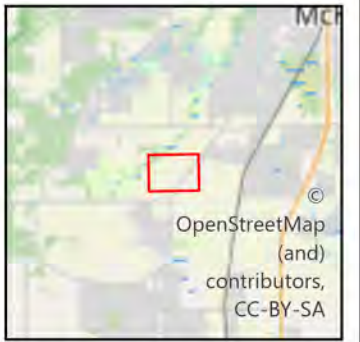


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McHenry Solar Farm-2022 aerial



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guarantee of accuracy, completeness, or currency.



Study Area (75.92 ac)

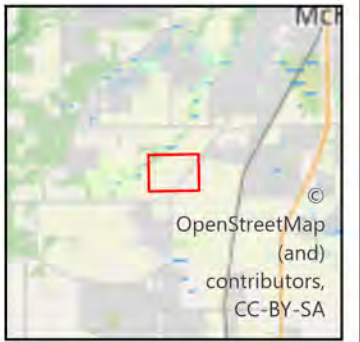
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Heartland
ECOLOGICAL GROUP INC

2021-09-05 NAIP Aerial Imagery
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL

2021 NAIP
USDA

Maxar, Microsoft



Study Area (75.92 ac)

0 125 250 Ft

Heartland
ECOLOGICAL GROUP INC

2023-08-18 NAIP Aerial Imagery
McHenry Solar Farm
Project #20251635
T44N, R8E, S08 & S09
T Nunda, McHenry Co, IL

2023 NAIP
USDA

April Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	January	Weighted Precip	February	Weighted Precip	March	Weighted Precip		
2017-04-15	2.32	3	1.56	4	4.42	9	16	Wet
2021-04-15	2.28	3	0.91	4	0.96	3	10	Normal
2022-04-15	0.62	1	1.37	4	2.78	9	14	Normal
30% chance less than**	1.05		0.90		1.42			
30 Year Average**	1.67		1.62		2.15			
30% chance more than**	2.02		1.97		2.59			

McHenry Stratton Lock-Dam

30-Year Precipitation Data (1995-2024) from NOAA Website

<http://agacis.rcc-acis.org/>

May Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	February	Weighted Precip	March	Weighted Precip	April	Weighted Precip		
2009-05-01	2.18	3	3.62	6	4.17	6	15	Wet
30% chance less than**	0.90		1.42		2.67			
30 Year Average**	1.62		2.15		3.60			
30% chance more than**	1.97		2.59		4.22			

McHenry Stratton Lock-Dam

30-Year Precipitation Data (1995-2024) from NOAA Website

<http://agacis.rcc-acis.org/>

June Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	March	Weighted Precip	April	Weighted Precip	May	Weighted Precip		
2012-06-19	2.12	2	3.24	4	3.11	3	9	Dry
2014-06-13	0.91	1	3.38	4	3.23	3	8	Dry
30% chance less than**	1.42		2.67		3.24			
30 Year Average**	2.15		3.60		4.64			
30% chance more than**	2.59		4.22		5.51			

McHenry Stratton Lock-Dam
 30-Year Precipitation Data (1995-2024) from NOAA Website
<http://agacis.rcc-acis.org/>

July Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	April	Weighted Precip	May	Weighted Precip	June	Weighted Precip		
2005-07-10	1.71	1	3.20	2	1.60	3	6	Dry
2006-07-17	2.74	2	5.02	4	4.00	6	12	Normal
2010-07-01	2.70	2	5.53	6	7.10	9	17	Wet
30% chance less than**	2.67		3.24		3.25			
30 Year Average**	3.60		4.64		4.72			
30% chance more than**	4.22		5.51		5.63			

McHenry Stratton Lock-Dam

30-Year Precipitation Data (1995-2024) from NOAA Website

<http://agacis.rcc-acis.org/>

August Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	May	Weighted Precip	June	Weighted Precip	July	Weighted Precip		
2007-07-21	1.80	1	5.97	6	5.00	9	16	Wet
2009-08-06	4.94	2	6.52	6	1.57	3	11	Normal
2023-08-18	1.21	1	2.05	2	4.79	9	12	Normal
30% chance less than**	3.24		3.25		2.47			
30 Year Average**	4.64		4.72		3.87			
30% chance more than**	5.51		5.63		4.67			

McHenry Stratton Lock-Dam

30-Year Precipitation Data (1995-2024) from NOAA Website

<http://agacis.rcc-acis.org/>

September Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	June	Weighted Precip	July	Weighted Precip	August	Weighted Precip		
2004-08-22	4.95	2	1.96	2	3.47	6	10	Normal
2011-08-25	3.46	2	8.41	6	3.72	6	14	Normal
2015-09-16	4.79	2	4.70	6	2.63	6	14	Normal
2017-09-01	6.49	3	8.31	6	2.93	6	15	Wet
2019-09-14	3.64	2	5.77	6	3.17	6	14	Normal
2021-09-05	3.04	1	1.32	2	6.21	9	12	Normal
30% chance less than**	3.25		2.47		2.54			
30 Year Average**	4.72		3.87		3.79			
30% chance more than**	5.63		4.67		4.54			

McHenry Stratton Lock-Dam

30-Year Precipitation Data (1995-2024) from NOAA Website

<http://agacis.rcc-acis.org/>

October Analysis

Date	Monthly Rainfall in Inches ¹						Weighted Sum	Relative Wetness
	July	Weighted Precip	August	Weighted Precip	September	Weighted Precip		
2018-09-23	1.16	1	6.03	6	7.26	9	16	Wet
30% chance less than**	2.47		2.54		1.91			
30 Year Average**	3.87		3.79		3.58			
30% chance more than**	4.67		4.54		4.37			

McHenry Stratton Lock-Dam

30-Year Precipitation Data (1995-2024) from NOAA Website

<http://agacis.rcc-acis.org/>

WETS Table

WETS Station: MCHENRY
STRATTON LOCK/DAM, IL

Requested years: 1995 - 2024

Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	29.3	13.6	21.4	1.67	1.05	2.02	4	10.5
Feb	33.3	16.0	24.7	1.62	0.90	1.97	4	7.9
Mar	44.9	26.2	35.6	2.15	1.42	2.59	5	3.9
Apr	57.4	36.7	47.1	3.60	2.67	4.22	7	1.0
May	68.9	47.4	58.1	4.64	3.24	5.51	9	0.0
Jun	79.0	57.3	68.1	4.72	3.25	5.63	8	0.0
Jul	82.8	61.5	72.2	3.87	2.47	4.67	6	0.0
Aug	81.2	60.0	70.6	3.79	2.54	4.54	6	0.0
Sep	75.0	51.9	63.4	3.58	1.91	4.37	5	0.0
Oct	61.9	40.0	51.0	3.23	1.95	3.92	6	0.1
Nov	47.1	29.5	38.3	2.02	1.17	2.46	4	1.6
Dec	34.7	19.6	27.1	1.82	1.13	2.20	4	7.0
Annual:					32.98	39.96		
Average	58.0	38.3	48.1	-	-	-	-	-
Total	-	-	-	36.73			68	32.0

GROWING SEASON DATES

Years with missing data:	24 deg = 0	28 deg = 0	32 deg = 0
Years with no occurrence:	24 deg = 0	28 deg = 0	32 deg = 0
Data years used:	24 deg = 30	28 deg = 30	32 deg = 30
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	4/4 to 11/5: 215 days	4/21 to 10/19: 181 days	5/1 to 10/10: 162 days
70 percent *	3/31 to 11/9: 223 days	4/16 to 10/24: 191 days	4/28 to 10/13: 168 days

* Percent chance of the growing season occurring between the Beginning and Ending dates.

STATS TABLE - total precipitation (inches)

Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1948							1.18	0.53	2.37	0.70	1.80	2.91	9.49
1949	3.09	2.49	1.91	2.29	1.56	4.26	M2.70	2.05	2.02	2.03	M0.60	4.11	29.11
1950	3.06	1.94	2.78	5.77	0.91	8.12	3.65	3.14	1.72	M0.00	1.22	3.32	35.63
1951	1.42	2.18	4.14	2.81	3.54	4.60	4.91	M4.11					27.71
1952													
1953													
1954													
1955													
1956													
1957													
1958													
1959													

1960														
1961														
1962														
1963														
1964														
1965														
1966														
1967														
1968														
1969														
1970														
1971														
1972														
1973														
1974														
1975										1. 13	3.35	2.03	6.51	
1976	0.66	1.71	6.29	4.51	3.48	2.33	2.82	1.55	1. 16	2. 46	0.56	0.32	27. 85	
1977	0.35	0.44	3.61	2.27	4.27	3.68	2.35	3.81	2. 82	2. 93	1.27	1.87	29. 67	
1978	1.15	0.24	0.94	3.24	3.18	4.72	5.57	4.83	5. 24	0. 88	2.05	2.08	34. 12	
1979	4.34	0.78	3.73	4.60	1.29	6.18	1.69	7.44	0. 03	1. 59	2.81	1.64	36. 12	
1980	0.72	0.95	0.78	3.61	2.09	5.36	5.35	5.01	7. 36	1. 93	0.87	2.56	36. 59	
1981	0.03	1.91	0.61	2.87	2.61	4.54	3.13	10.00	2. 78	1. 56	1.61	0.70	32. 35	
1982	2.12	0.36	2.77											5.25
1983	0.31			4.54	4.45	2.02	3.82	5.17	2. 73	4. 09	4.27	2.28	33. 68	
1984	0.73	1.49	2.18	3.91	3.66	2.21	2.57	1.29	2. 74	4. 25	2.26	2.54	29. 83	
1985		1.67	2.85	1.28	3.36	2.04	8.43	3.07	1. 76	5. 93	6.32	1.11	37. 82	
1986	0.36	2.29	1.00	1.96	4.46	4.69	5.87	2.40	10. 70	1. 81	0.71	0.73	36. 98	
1987	0.89	0.02	2.22	3.82	3.81	2.12	3.12	10.80	2. 75	0. 95	2.48	4.82	37. 80	
1988	2.16	0.62	1.68	3.04	1.50	0.73	3.34	3.24	1. 87	2. 00	4.64	1.15	25. 97	
1989	0.60	0.50								1. 00	1.47	0.32	3.89	
1990	2.01	2.05				6.03								10. 09
1991														
1992										0. 68	5.12	2.48	8.28	
1993	3.06	0.62	2.37			10.34	4.36	2.01	3. 47	1. 39	1.67	1.01	30. 30	
1994	1.54	3.58	1.06	1.74	0.97	3.00	4.21	4.37	1. 57	1. 38	5.79	1.18	30. 39	
1995	2.75	0.16	1.68	5.06	3.90	1.85	3.24	4.29	1. 89	4. 96	3.33	0.55	33. 66	
1996	1.15	0.79	0.75	2.96	9.50	4.64	5.51	2.67	1. 61	2. 45	0.95	1.64	34. 62	
1997	1.46	3.67	1.45	1.46	4.64	2.50	2.96	4.08	2. 56	1. 56	1.67	0.88	28. 89	
1998	2.33	1.59	2.79	5.57	3.26	6.47	1.77	4.16	2. 86	6. 12	1.73	1.36	40. 01	
1999	3.09	1.16	0.64	6.31	2.17	7.94	2.71	1.94	5. 22	1. 05	0.40	2.03	34. 66	
2000	1.15	1.11	1.45	3.86	6.46	7.91	M3.70	1.85	5. 49	1. 17	3.39	1.58	39. 12	

2001	0.95	2.37	0.00	3.05	4.30	3.39	2.10	3.77	5.98	7.35	1.15	0.98	35.39
2002	0.72	1.30	1.54	3.26	2.90	3.36	0.56	7.19	2.25	2.32	M0.60	M0.77	26.77
2003	0.31	0.12	1.44	1.64	M5.78	1.95	6.66	M0.91	2.04	1.74	5.22	M2.51	30.32
2004	0.60	M0.56	4.39	1.99	10.25	4.95	1.96	3.47	0.92	2.65	3.11	1.44	36.29
2005	3.42	1.79	0.74	1.71	3.20	1.60	1.88	3.11	2.96	0.44	2.91	0.56	24.32
2006	M2.43	M0.78	3.35	2.74	5.02	4.00	3.19	4.38	3.70	4.55	2.41	2.57	39.12
2007	0.67	1.73	2.92	4.10	1.80	5.97	5.00	12.71	1.35	3.31	0.47	3.17	43.20
2008	1.29	3.46	2.47	4.55	2.84	6.07	4.95	1.93	8.55	2.35	0.96	4.59	44.01
2009	0.81	2.18	3.62	4.17	4.94	6.52	1.67	5.75	1.10	6.76	1.38	3.11	42.01
2010	0.83	0.87	1.48	2.70	5.53	7.10	7.15	2.27	3.02	1.49	1.05	M0.70	34.19
2011	0.71	2.28	3.48	4.88	6.60	3.46	8.41	3.72	2.83	2.23	3.11	2.26	43.97
2012	1.20	1.30	2.12	M3.24	3.11	1.23	2.66	1.68	1.95	2.70	0.46	M1.82	23.47
2013	3.80	2.48	1.88	7.25	2.53	9.69	2.03	2.17	2.67	1.90	2.78	1.45	40.63
2014	1.66	1.87	0.91	3.38	3.23	6.82	3.57	7.16	4.68	3.15	M1.23	M0.54	38.20
2015	1.34	0.79	1.03	3.83	4.46	4.79	4.70	2.63	4.83	1.03	5.50	5.36	40.29
2016	M0.56	M0.89	3.53	2.51	4.22	2.45	5.10	3.53	2.55	3.42	2.64	1.55	32.95
2017	2.32	M1.56	4.42	M4.19	M2.79	M6.49	8.31	2.93	0.06	7.26	1.63	M0.48	42.44
2018	M1.66	M3.01	M0.69	M2.22	5.40	8.11	1.16	6.03	7.26	6.05	M3.04	1.82	46.45
2019	M2.38	3.31	M1.47	M3.88	7.48	3.64	5.77	3.17	12.16	5.94	1.41	2.13	52.74
2020	2.76	0.48	4.55	4.71	8.91	3.80	1.95	2.00	5.28	2.96	1.87	2.27	41.54
2021	2.28	0.91	0.96	1.05	1.46	3.04	1.32	6.21	1.55	4.08	0.54	M1.10	24.50
2022	0.62	M1.37	2.78	6.14	5.35	2.87	5.16	3.50	4.55	1.78	0.93	2.07	37.12
2023	2.03	3.65	2.55	2.33	1.21	2.05	4.79	1.66	3.93	3.26	1.26	2.33	31.05
2024	2.91	0.50	3.54	M3.27	5.93	6.99	6.20	2.89	1.66	0.90	3.55	0.98	39.32
2025	0.31	0.99	2.62	1.81	1.91	2.91	4.42	4.21	M0.88				20.06

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2025-09-19

Applicant: McHenry Solar Farm LLC
Contact: Tej Patel
Address: 141 W Jackson BLVD STE 1692
 Chicago, IL 60605

IDNR Project Number: 2609076
Date: 12/29/2025

Project: McHenry Solar Farm
Address: S. Crystal Lake Rd. , Mchenry

Description: McHenry Solar Farm LLC is a solar farm project located on the East side of S. Crystal Lake Rd. McHenry, IL. The project's nameplate capacity is 5mWAC and intended to generate electricity for the purposes of a community solar farm with the ComEd service Utility.

Natural Resource Review Results

Consultation for Endangered Species Protection and Natural Areas Preservation (Part 1075)

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

Blanding's Turtle (*Emydoidea blandingii*)

An IDNR staff member will evaluate this information and contact you to request additional information or to terminate consultation if adverse effects are unlikely.

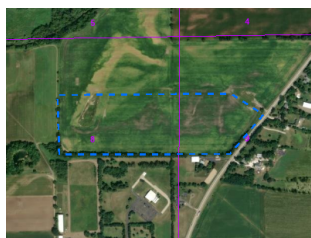
Location

The applicant is responsible for the accuracy of the location submitted for the project.

County: McHenry

Township, Range, Section:

44N, 8E, 8
 44N, 8E, 9



**IL Department of Natural Resources
 Contact**
 Isabella Allyn
 217-785-5500
 Division of Ecosystems & Environment

Government Jurisdiction
 McHenry County Planning and Development
 Department
 Kimberly Scharlow
 667 Ware Rd
 Woodstock, Illinois 60098

Disclaimer

The Illinois Natural Heritage Database cannot provide a conclusive statement on the presence, absence, or condition of natural resources in Illinois. This review reflects the information existing in the Database at the time of this inquiry, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, compliance with applicable statutes and regulations is required.

Terms of Use

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1. The IDNR EcoCAT website was developed so that units of local government, state agencies and the public could request information or begin natural resource consultations on-line for the Illinois Endangered Species Protection Act, Illinois Natural Areas Preservation Act, and Illinois Interagency Wetland Policy Act. EcoCAT uses databases, Geographic Information System mapping, and a set of programmed decision rules to determine if proposed actions are in the vicinity of protected natural resources. By indicating your agreement to the Terms of Use for this application, you warrant that you will not use this web site for any other purpose.

2. Unauthorized attempts to upload, download, or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act.

3. IDNR reserves the right to enhance, modify, alter, or suspend the website at any time without notice, or to terminate or restrict access.

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Unauthorized use, tampering with or modification of this system, including supporting hardware or software, may subject the violator to criminal and civil penalties. In the event of unauthorized intrusion, all relevant information regarding possible violation of law may be provided to law enforcement officials.

Privacy

EcoCAT generates a public record subject to disclosure under the Freedom of Information Act. Otherwise, IDNR uses the information submitted to EcoCAT solely for internal tracking purposes.



EcoCAT Receipt	Project Code 2609076
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APPLICANT	DATE
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McHenry Solar Farm LLC Tej Patel 141 W Jackson BLVD STE 1692 Chicago, IL 60605	12/29/2025
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DESCRIPTION	FEE	CONVENIENCE FEE	TOTAL PAID
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EcoCAT Consultation	\$ 125.00	\$ 2.81	\$ 127.81
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TOTAL PAID	\$ 127.81
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Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
217-785-5500
dnr.ecocat@illinois.gov

McHENRY SOLAR FARM LLC

McHENRY COUNTY, ILLINOIS

SHEET LIST :

E-DEV.01-CP	COVER PAGE
E-DEV.02-EC	EXISTING GENERAL CONDITIONS PLAN
E-DEV.03-EC	EXISTING CONDITIONS
E-DEV.04-SP	SITE PLAN
E-DEV.05-CD	CONSTRUCTION DETAILS
E-DEV.06-FD	FENCE DETAILS
E-DEV.07-ES	EQUIPMENT SPECIFICATIONS

SHEET NOTE

LEGAL DESCRIPTION OF THE PROJECT SITE IN RELATION TO THE DEVELOPMENT PARCEL SUBMITTED TO McHENRY COUNTY OF RECORD.

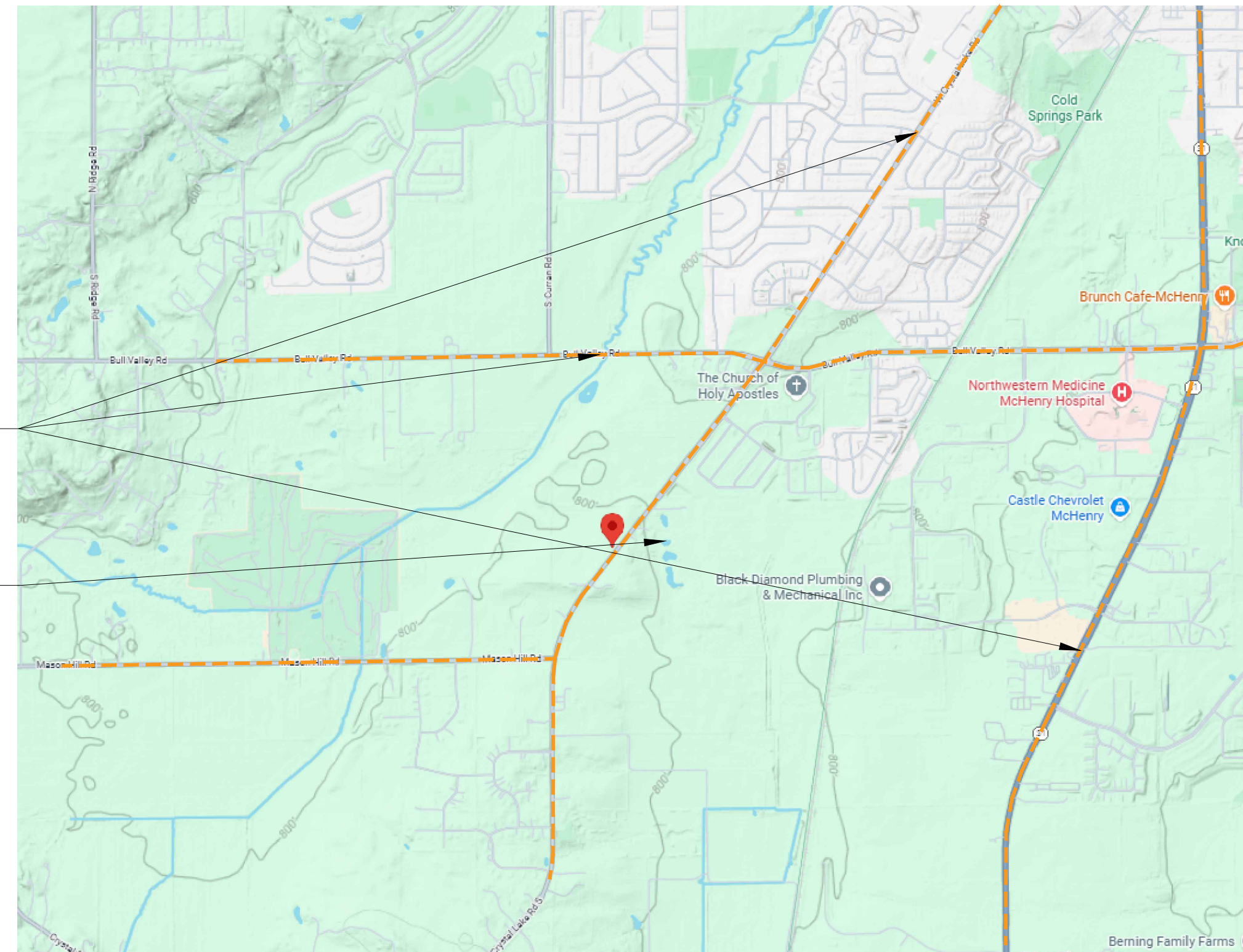
REFER TO DETAIL 1 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: PV MODULE 625 WATT (DC) INFORMATION.

REFER TO DETAIL 2 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: STRING INVERTER 125 KWATT (DC) INFORMATION.

VARIOUS MEANS OF TRANSPORTATION ACCESS (TYP.)

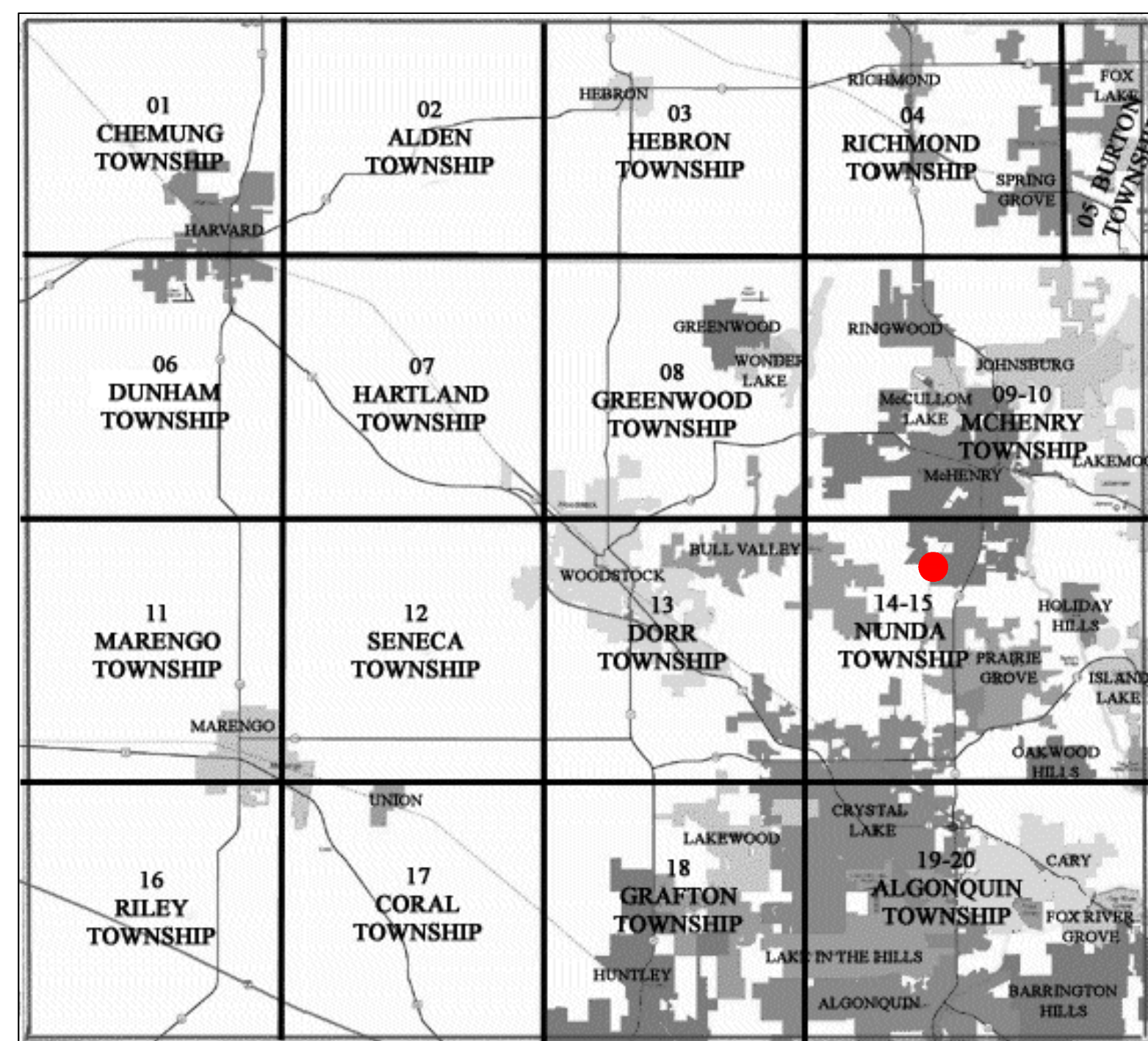
PROJECT ADDRESS PRIMARY CONSTRUCTION LOGISTICS ROUTE

ANY INTERSTATE VIA (IL-31) HEADING WEST TOWARDS TO BULL VALLEY RD. HEADING SOUTH TO CRYSTAL LAKE RD S. PARCEL LOCATED WEST OF CRYSTAL LAKE RD S.

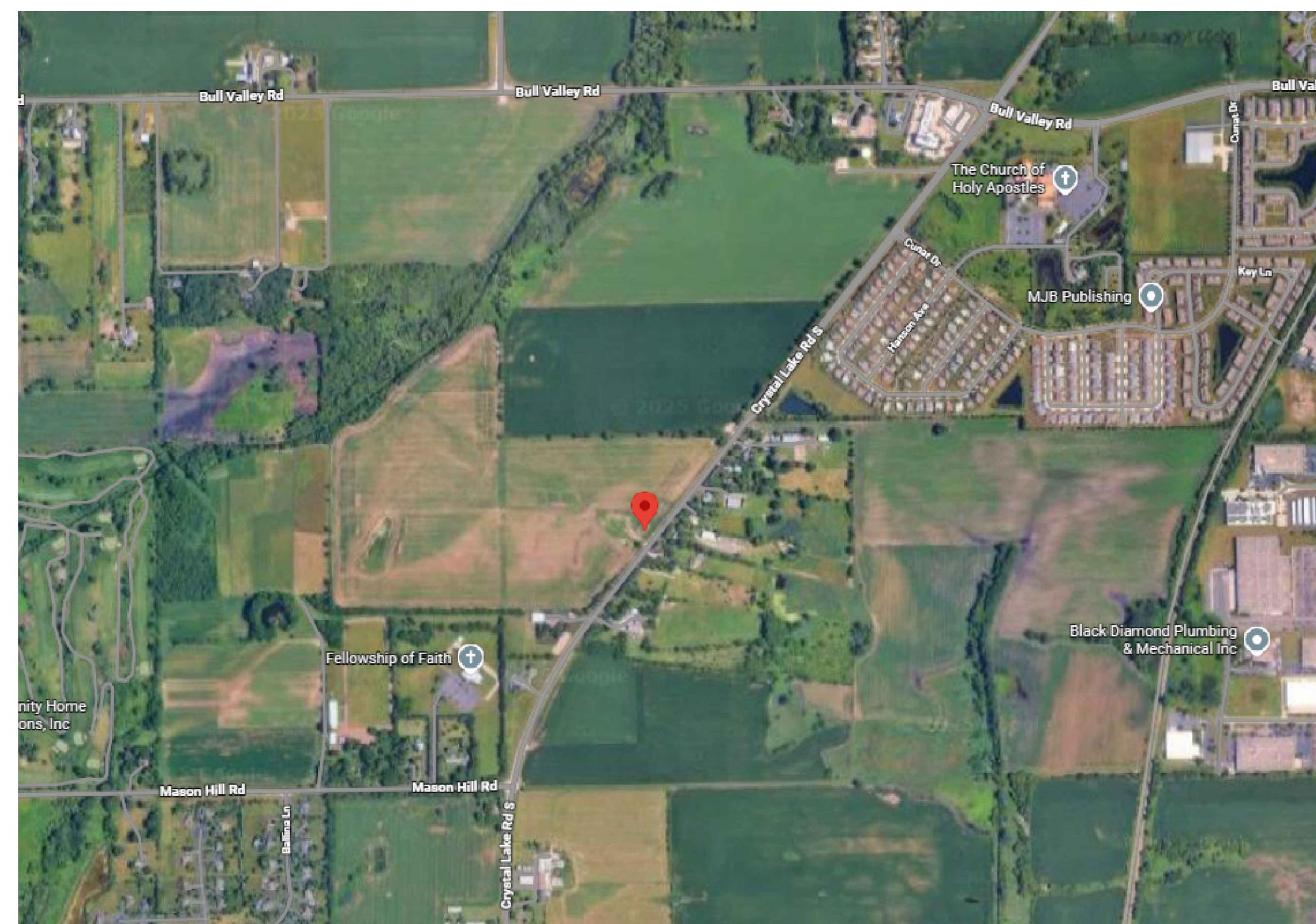


1 IDOT CONSTRUCTION LOGISTICS ROUTE(S)
NOT TO SCALE

2 McHENRY COUNTY, IL
NOT TO SCALE



3 McHENRY COUNTY LOCATION MAP
NOT TO SCALE

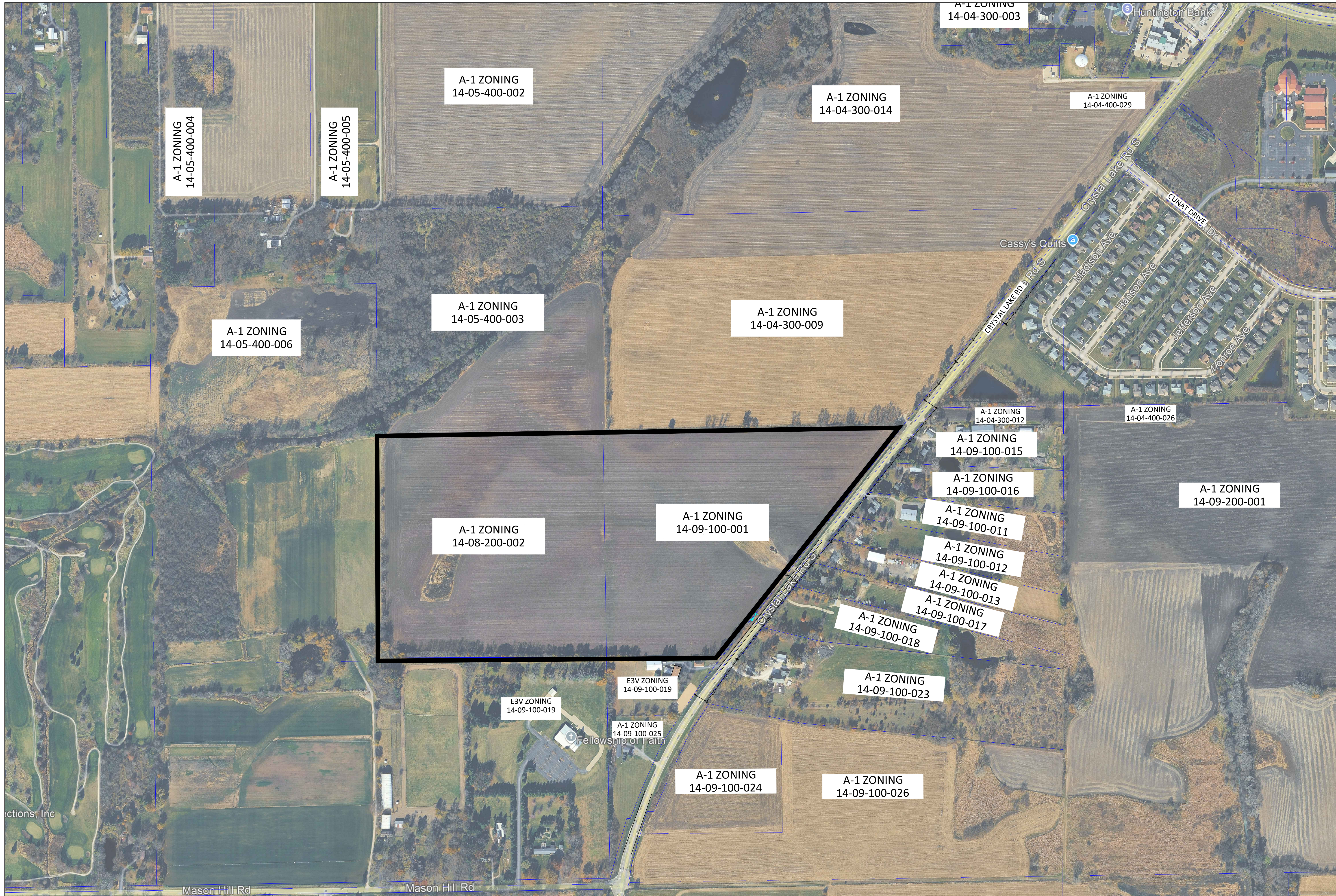


4 VICINITY MAP
NOT TO SCALE

SITE INFORMATION

PARCEL ZONING	: A-1 AGRICULTURE
PROJECT DESCRIPTION	
PROJECT LOCATION	: 1207 Crystal Lake Rd S, McHenry, IL 60050
PROJECT PARCEL	: 36.53 ACRES (LEASED AREA)
P.I.N	: 14-09-100-001 (Partial) 14-09-100-002 (Partial)
UTILITY	
UTILITY	: COMMONWEALTH EDISON
SYSTEM SIZE DC	: 7503.8 KWp
SYSTEM SIZE AC	: 5000 KW
DC/AC RATIO	: 1.50
AZIMUTH	: 180°
TILT	: +/- 52°
GROUND COVERAGE RATIO	: 33.5%
MODULE MAKE & MODEL	
MODULE MAKE & MODEL	: QCELL Q.TRON XL-G2 625
MODULE RATING	: 625 Wp
MECHANICAL SYSTEM	: HORIZONTAL TRACKER
INVERTER MAKE & MODEL	: CPS SCH125KTL-DO/US-600

REV	Date	Revision Details	PM	ENG	CHK
R1	01/24/2026	ISSUE FOR SUP			
R0	01/03/2026	ISSUE FOR REVIEW			
Revision Table					
Engineer					
Developer McHENRY SOLAR FARM LLC 141 W JACKSON BLVD., STE 1692 CHICAGO, IL 60604 WWW.SURYAPOWERED.COM					
Project Name & Address McHENRY SOLAR FARM LLC 1207 CRYSTAL LAKE RD S. McHENRY, IL 60140 McHENRY P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)					
Drawing Title COVER PAGE					
Project No	Drawing No.				
1104	E-DEV.01-CP				
Paper Size	Sheet No.				
36" x 24"	01				



SHEET NOTE

LEGAL DESCRIPTION OF THE PROJECT SITE IN RELATION TO THE DEVELOPMENT PARCEL SUBMITTED TO McHENRY COUNTY OF RECORD.

REFER TO DETAIL 1 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: PV MODULE 625 WATT (DC) INFORMATION.

REFER TO DETAIL 2 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: STRING INVERTER 125 KWATT (DC) INFORMATION.

LEGENDS

— DEVELOPMENT PARCEL

REV	Date	Revision Details	PM	ENG	CHK
R1	01/24/2026	ISSUE FOR SUP			
R0	01/03/2026	ISSUE FOR REVIEW			

Engineer

Developer
McHENRY SOLAR FARM LLC
 141 W JACKSON BLVD, STE 1692
 CHICAGO, IL 60604
 WWW.SURYAPOWERED.COM

Project Name & Address
McHENRY SOLAR FARM LLC
 1207 CRYSTAL LAKE RD S.
 McHENRY, IL 60140
 McHENRY
 P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
EXISTING CONDITIONS
 EXISTING GENERAL CONDITIONS PLAN
 SHOWING ADJACENT LAND PARCELS ZONING
 & PIN NUMBER, ROADS, GEOGRAPHY
 PROPERTIES, SATELLITE VIEW

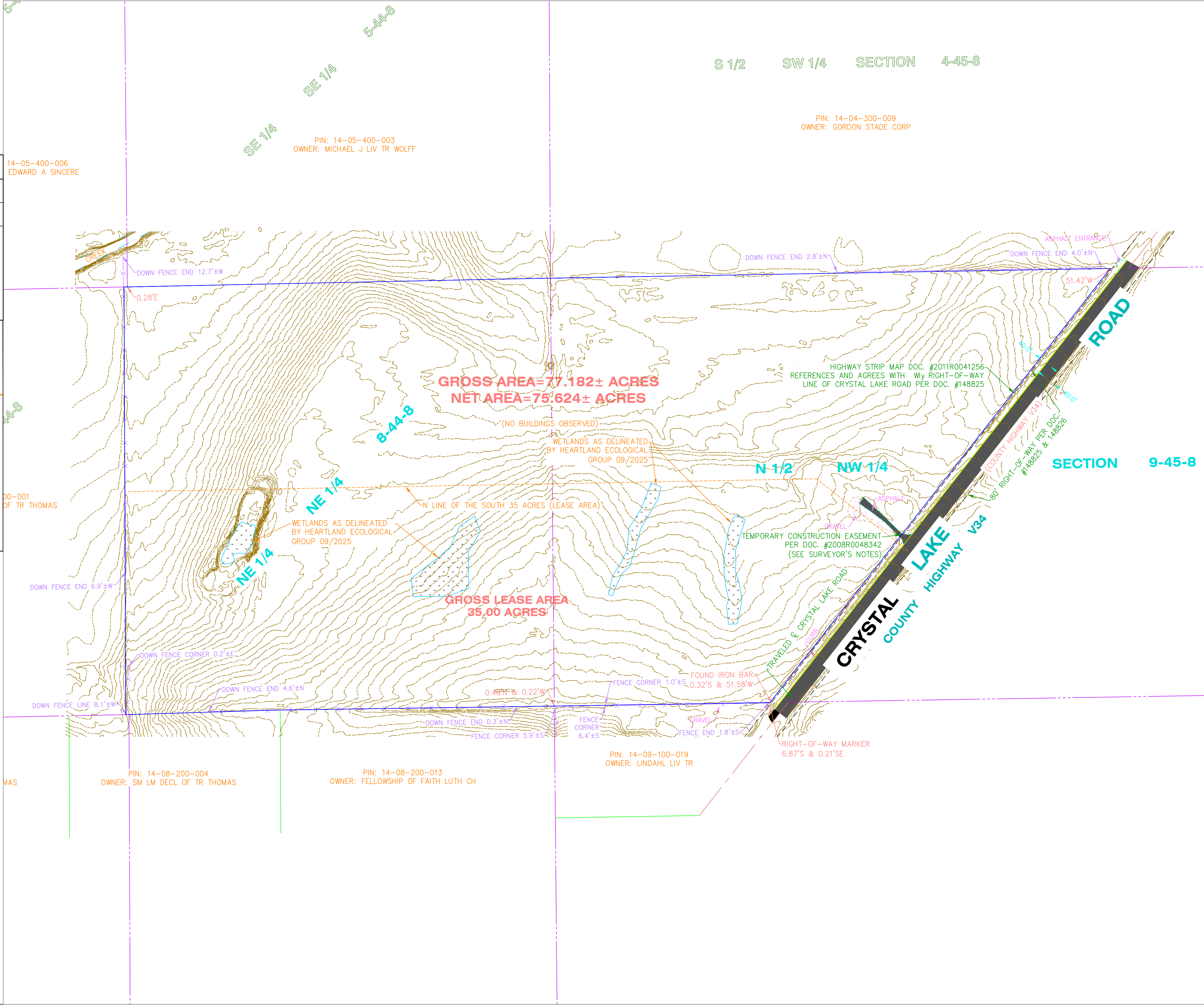
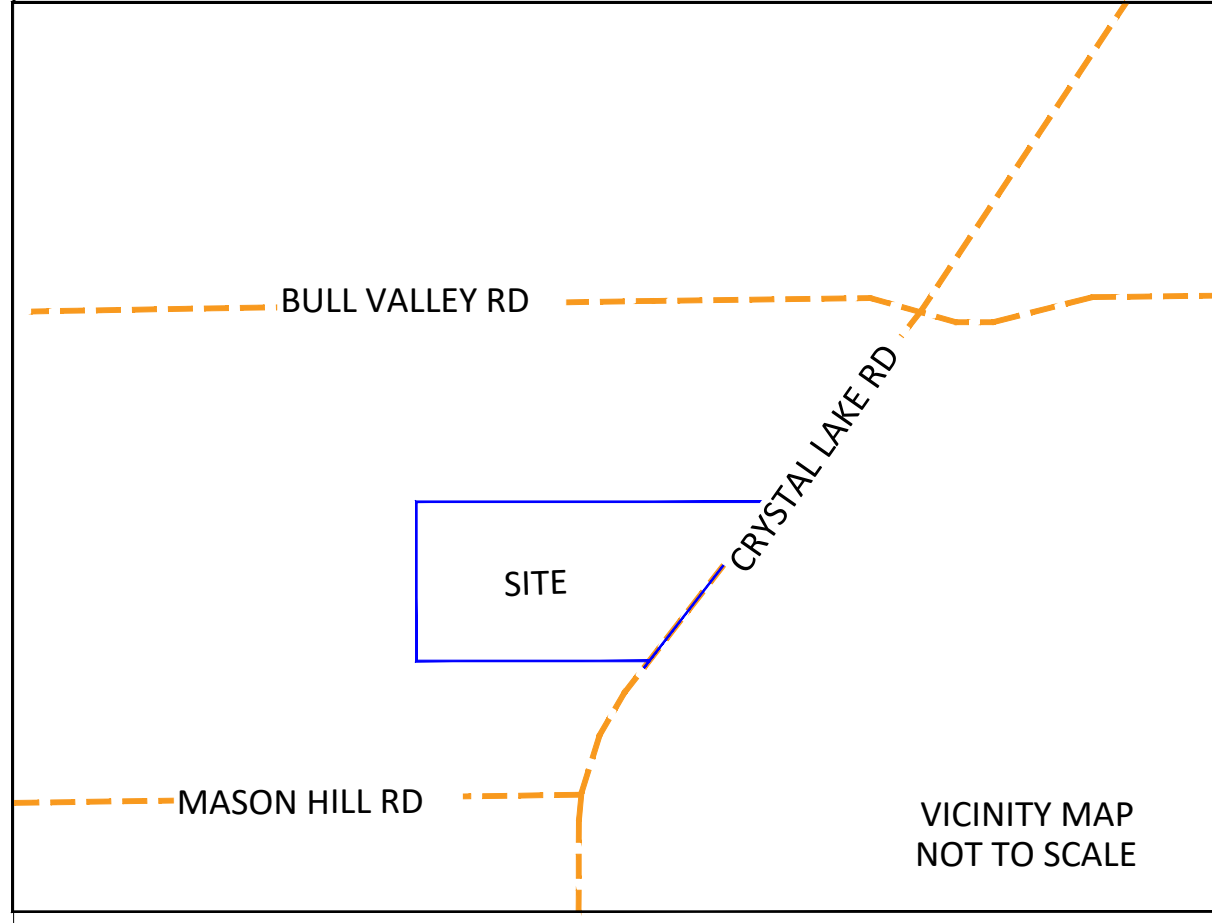
Project No 1104	Drawing No E-DEV.02-EC
Paper Size 36" x 24"	Sheet No. 02

1 EXISTING GENERAL CONDITION PLAN
 SCALE: 1" = 250'

GENERAL NOTE

1. COMPARE ALL DISTANCE AND POINTS IN FIELD AND REPORT ANY DISCREPANCIES TO THE SURVEYOR.
2. UTILITY SHOWN HEREIN ARE BY VISIBLE LOCATION OF ABOVE GROUND STRUCTURES ONLY.
3. CALL 811 ("COMMON GROUND ALLIANCE" NATIONAL UNDERGROUND UTILITY LINES PRIOR TO ANY DIGGING OR CONSTRUCTION.
4. NO DIMENSION ASSUMED BY SCALING.
5. FOR MISSING OR SUBSTANDARD SECTION CORNER MONUMENTS SHOWN ON THIS SURVEY AND/OR CORNERS MISSING A CURRENT & COMPLETE MONUMENT RECORD.
6. ALL RIGHT-OF-WAY WIDTHS SHOWN HEREON ARE APPROXIMATE.

LEGEND	
	PROPERTY LINE
	PARCEL LINE



SHEET NOTE

LEGAL DESCRIPTION OF THE PROJECT SITE IN RELATION TO THE DEVELOPMENT PARCEL SUBMITTED TO McHENRY COUNTY OF RECORD.

REFER TO DETAIL 1 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: PV MODULE 625 WATT (DC) INFORMATION.

REFER TO DETAIL 2 / E-DEV.07-ES FOR EQUIPMENT SPECIFICATION CUTSHEET: STRING INVERTER 125 KWATT (DC) INFORMATION.

LEGENDS	
	EXISTING PROPERTY LINE

REV	Date	Revision Details	PM	ENG	CHK
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Engineer

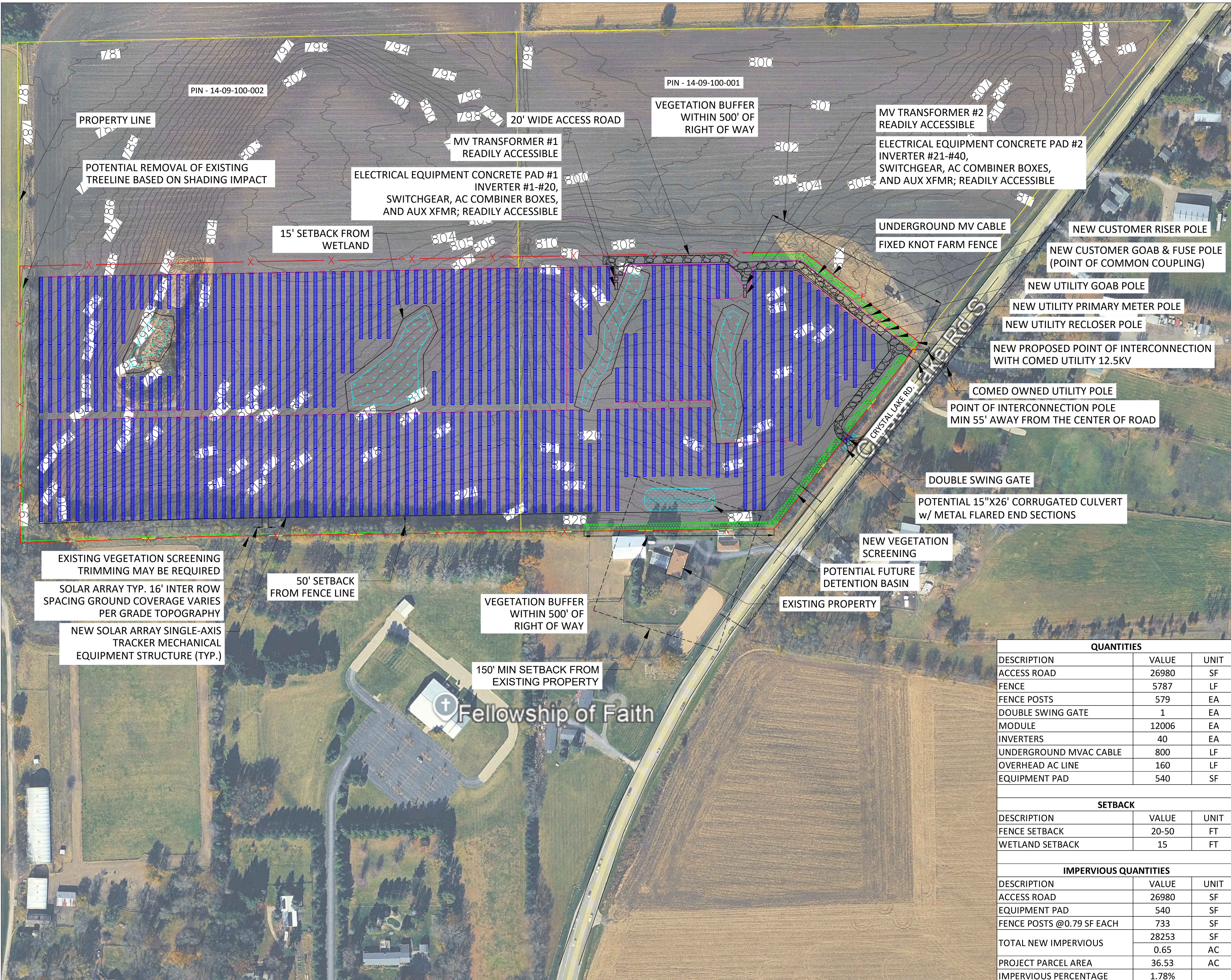
Developer
McHENRY SOLAR FARM LLC
 141 W JACKSON BLVD., STE 1692
 CHICAGO, IL 60604
 WWW.SURVAPOWERED.COM

Project Name & Address
MCHENRY SOLAR FARM LLC
 1207 CRYSTAL LAKE RD S.
 MCHENRY, IL 60140
 MCHENRY
 P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
EXISTING CONDITION
 ALTA AND TOPOGRAPHY SURVEY OF THE SITE

Project No 1104	Drawing No E-DEV.03-EC
Paper Size 36" x 24"	Sheet No. 03

1 EXISTING CONDITION PLAN
 SCALE: 1" = 150'



SYSTEM SUMMARY

SYSTEM SIZE DC	: 7503.8 KWP
SYSTEM SIZE AC	: 5000 KW
DC/AC RATIO	: 1.50
MODULE MAKE & MODEL	: QCELL Q.TRON XL-G2 625
MODULE RATING	: 625 WP
MODULE COUNT	: 12006
INVERTER MAKE & MODEL	: CPS SCH125KTL-DO/US-600
INVERTER RATING	: 125 KW
INVERTER COUNT	: 40
RACKING TYPE	: SINGLE AXIS TRACKER
AZIMUTH	: 180°
TILT	: +/- 52°
GROUND COVERAGE RATIO	: 33.5%
INTER ROW SPACING	: 16 FT
MODULES PER STRING	: 23
INTERCONNECTION UTILITY	: COMED
INTERCONNECTION VOLTAGE	: 12.5 KV

DESIGN CRITERIA

DESIGN TEMPERATURE	: -24°C/ 36°C
WIND SPEED (ASCE 7-10)	: 100 MPH
GROUND SNOW LOAD	: 40 PSF

- GENERAL NOTES**
1. INSTALLATION MUST COMPLY WITH INSTALLATION NOTES AND MANUFACTURER'S INSTRUCTIONS.
 2. SEE SINGLE LINE DIAGRAM FOR EQUIPMENT AND CONDUCTOR SPECIFICATIONS.
 3. CONTRACTOR SHALL NOTIFY DESIGNER OF DISCREPANCIES IN CONDUIT LENGTH THAT MAY INCREASE VOLTAGE DROP.
 4. SEE SUBARRAY LAYOUTS FOR PV SOURCE CIRCUIT LOCATIONS.
 5. UNLESS OTHERWISE STATED, EXISTING OVERHEAD, UNDERGROUND FACILITIES, AND EQUIPMENT LAYOUTS SHOWN ON THE PLANS ARE DIAGRAMMATIC IN NATURE AND FOR INFORMATIONAL PURPOSES ONLY. ACTUAL LOCATIONS SHALL BE FIELD VERIFIED. THE INSTALLATION CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF THE ACCURACY OF THE EXISTING SITE, ALL SYSTEM AS-BUILT DOCUMENTATION USED IN THE WORK, AND SHALL REPORT ANY DISCREPANCIES BETWEEN THESE PLANS AND THE ACTUAL EQUIPMENT AND SITE CONDITIONS TO THE OWNER AND ENGINEER BEFORE COMMENCING WORK.
 6. CIRCUIT RUNS ARE SHOWN DIAGRAMMATICALLY ONLY. THE INSTALLATION CONTRACTOR SHALL COORDINATE ACTUAL ROUTING OF CONDUITS, BUT SHALL NOT EXCEED THE MAXIMUM CONDUCTOR LENGTHS IDENTIFIED IN THE PLAN SET. CHANGES FROM THE SPECIFIED MAXIMUM LENGTH MAY REQUIRE INCREASED CONDUCTOR SIZES AND MUST BE APPROVED BY THE OWNER AND ENGINEER.

SHEET NOTE
 UTILITY POLES ARE SHOWN FOR INDICATING LOCATION ONLY, SPACING BETWEEN POLES, PHYSICAL PROTECTION BARRIER FOR SWITCHBOARDS, ETC. WILL BE ADDED IN THE DRAWINGS PREPARED FOR THE CONSTRUCTION DOCUMENTS.

FENCE LINE WILL BE THE NEW PROPERTY LINE ONCE PARCELS ARE SPLIT FROM THE GREATER PARCELS

INTERCONNECTION TYPE: PRIMARY
 24/7 UNESCORTED KEYLESS ACCESS PROVIDED FOR ALL UTILITY ENERGY EQUIPMENT INCLUDING THE METERS AND AC DISCONNECT.

PROJECT ADDRESS:
 LAT: 42.310870
 LONG: -88.313501

QUANTITIES

DESCRIPTION	VALUE	UNIT
ACCESS ROAD	26980	SF
FENCE	5787	LF
FENCE POSTS	579	EA
DOUBLE SWING GATE	1	EA
MODULE	12006	EA
INVERTERS	40	EA
UNDERGROUND MVAC CABLE	800	LF
OVERHEAD AC LINE	160	LF
EQUIPMENT PAD	540	SF

SETBACK

DESCRIPTION	VALUE	UNIT
FENCE SETBACK	20-50	FT
WETLAND SETBACK	15	FT

IMPERVIOUS QUANTITIES

DESCRIPTION	VALUE	UNIT
ACCESS ROAD	26980	SF
EQUIPMENT PAD	540	SF
FENCE POSTS @0.79 SF EACH	733	SF
TOTAL NEW IMPERVIOUS	28253	SF
	0.65	AC
PROJECT PARCEL AREA	36.53	AC
IMPERVIOUS PERCENTAGE	1.78%	

LEGEND

	PROPERTY LINE
	NEW FIXED FARM KNOT FENCE
	NEW VEGETATION SCREENING
	EXISTING VEGETATION SCREENING TRIMMING MAY BE REQUIRED
	EXISTING UTILITY OVERHEAD LINE (COMED 12.5KV)
	PROPOSED NEW POWER POLE STRUCTURE
	PROPOSED DC CABLE TRENCH
	PROPOSED MV AC CABLE TRENCH
	PROPOSED OVERHEAD AC
	SETBACK
	WETLAND
	ACCESS ROAD (20')
	FUTURE POTENTIAL DETENTION BASIN

REV	Date	Revision Details	PM	ENG	CHK
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Revision Table

Developer
McHENRY SOLAR FARM LLC
 141 W JACKSON BLVD, STE 1692
 CHICAGO, IL 60604
 WWW.SURYAPOWERED.COM

Project Name & Address
McHENRY SOLAR FARM LLC
 1201 CRYSTAL LAKE RD S.
 McHENRY, IL 60140
 McHENRY
 P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

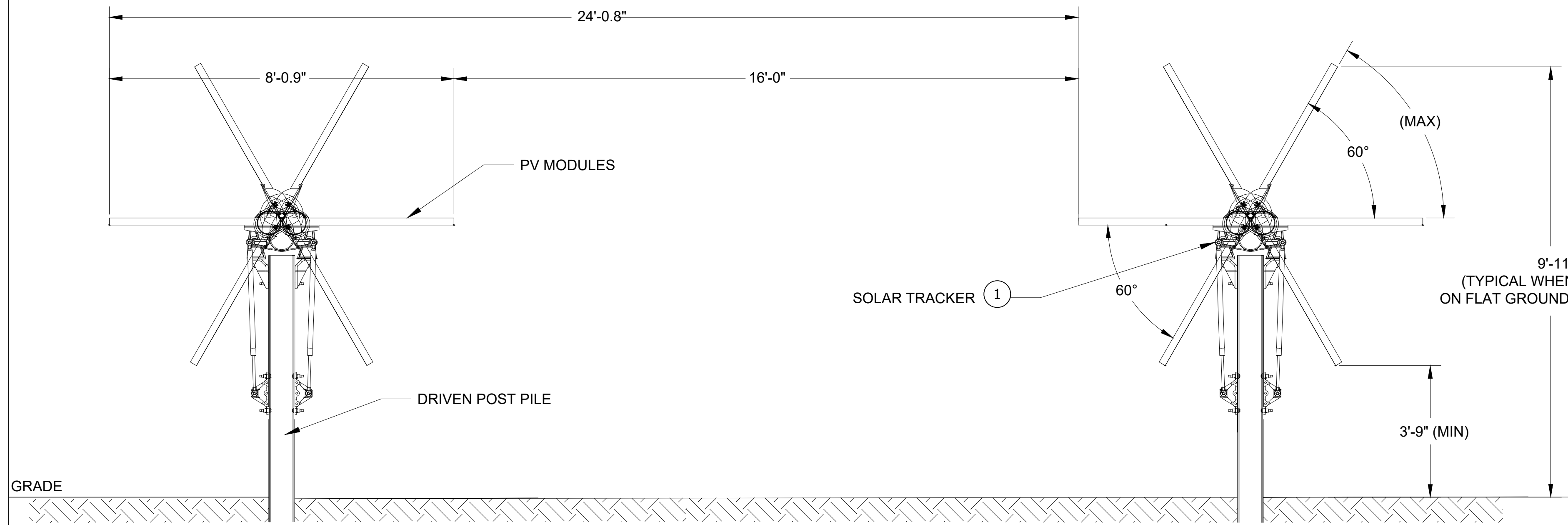
Drawing Title
SITE PLAN
 NEW SITE PLAN LAYOUT OF
 SOLAR FARM EQUIPMENT,
 INTERNAL ROADS
 AND SETBACKS

Project No
1104

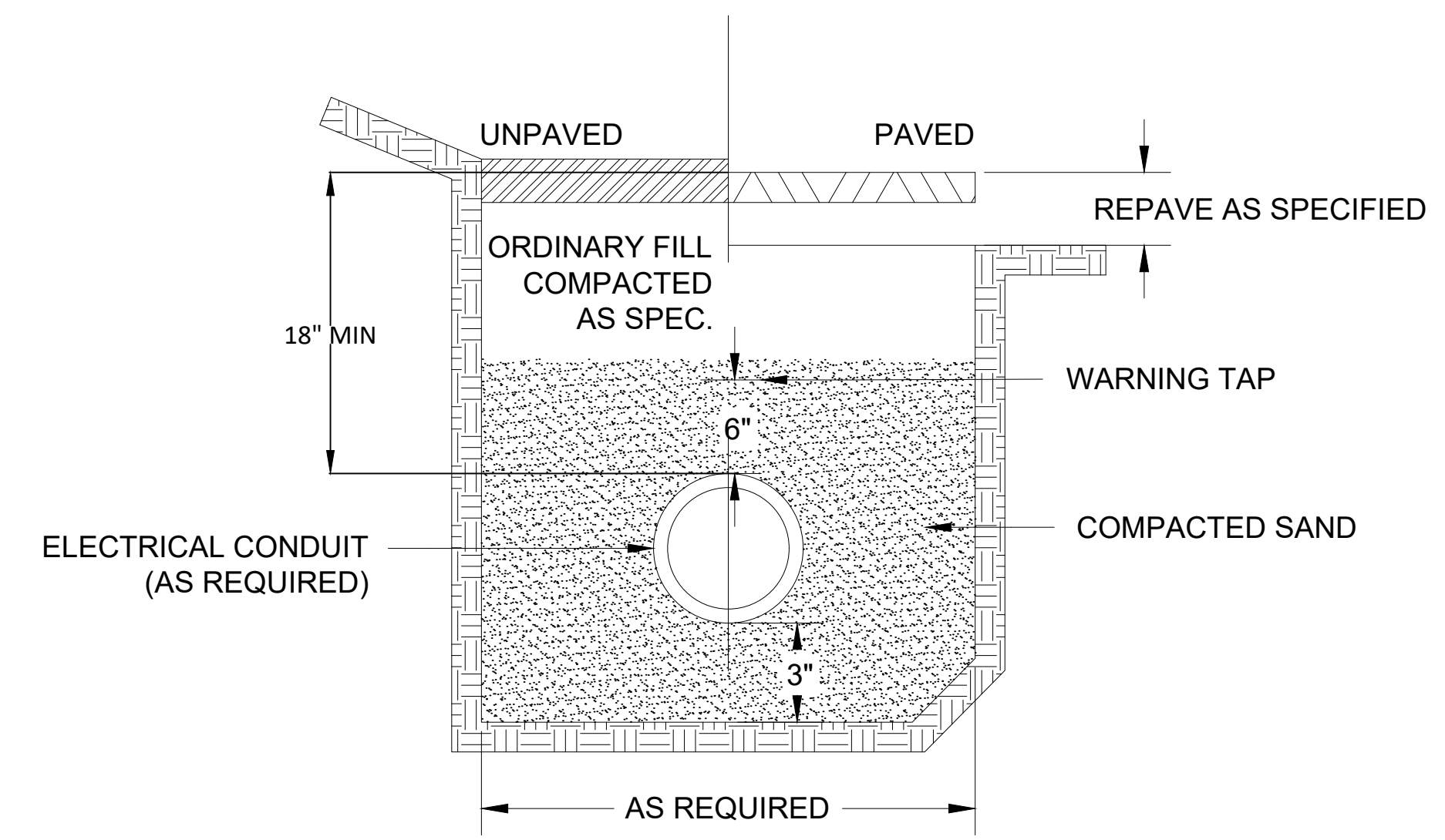
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Drawing No.
E-DEV.04-SP

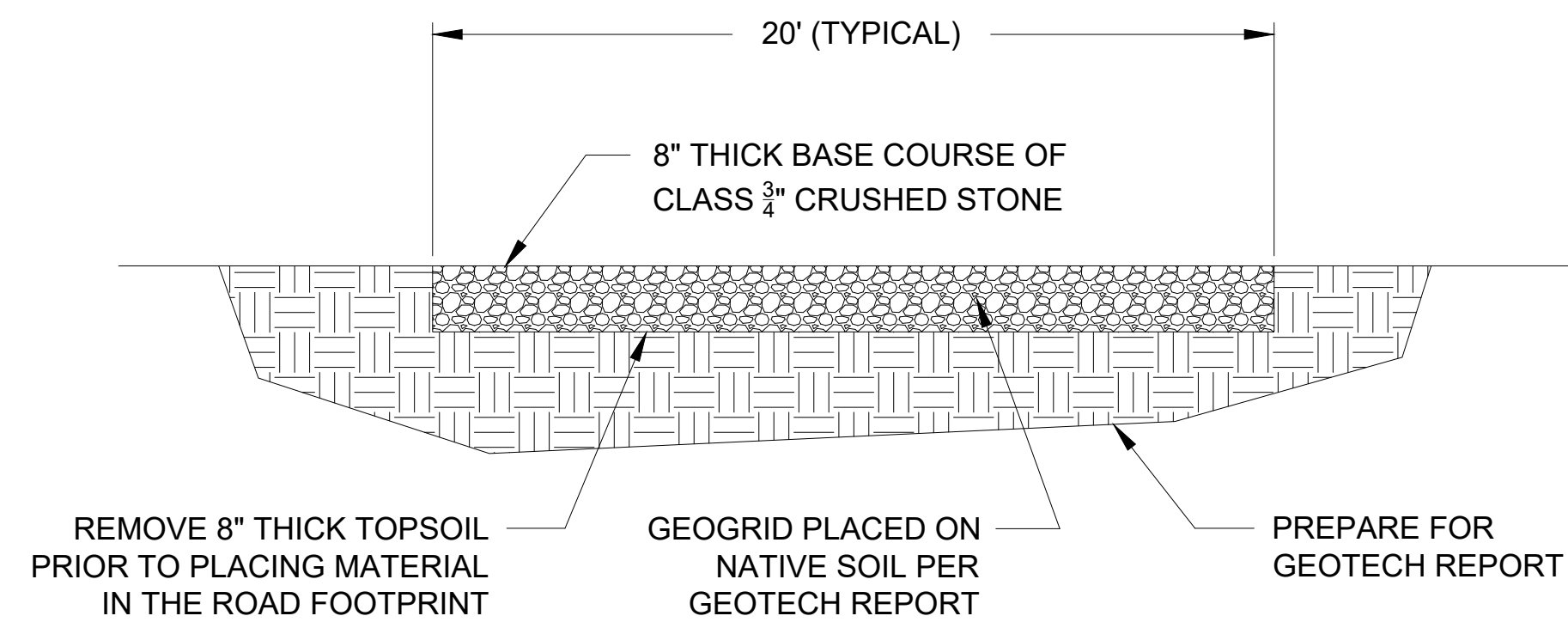
Sheet No.
04



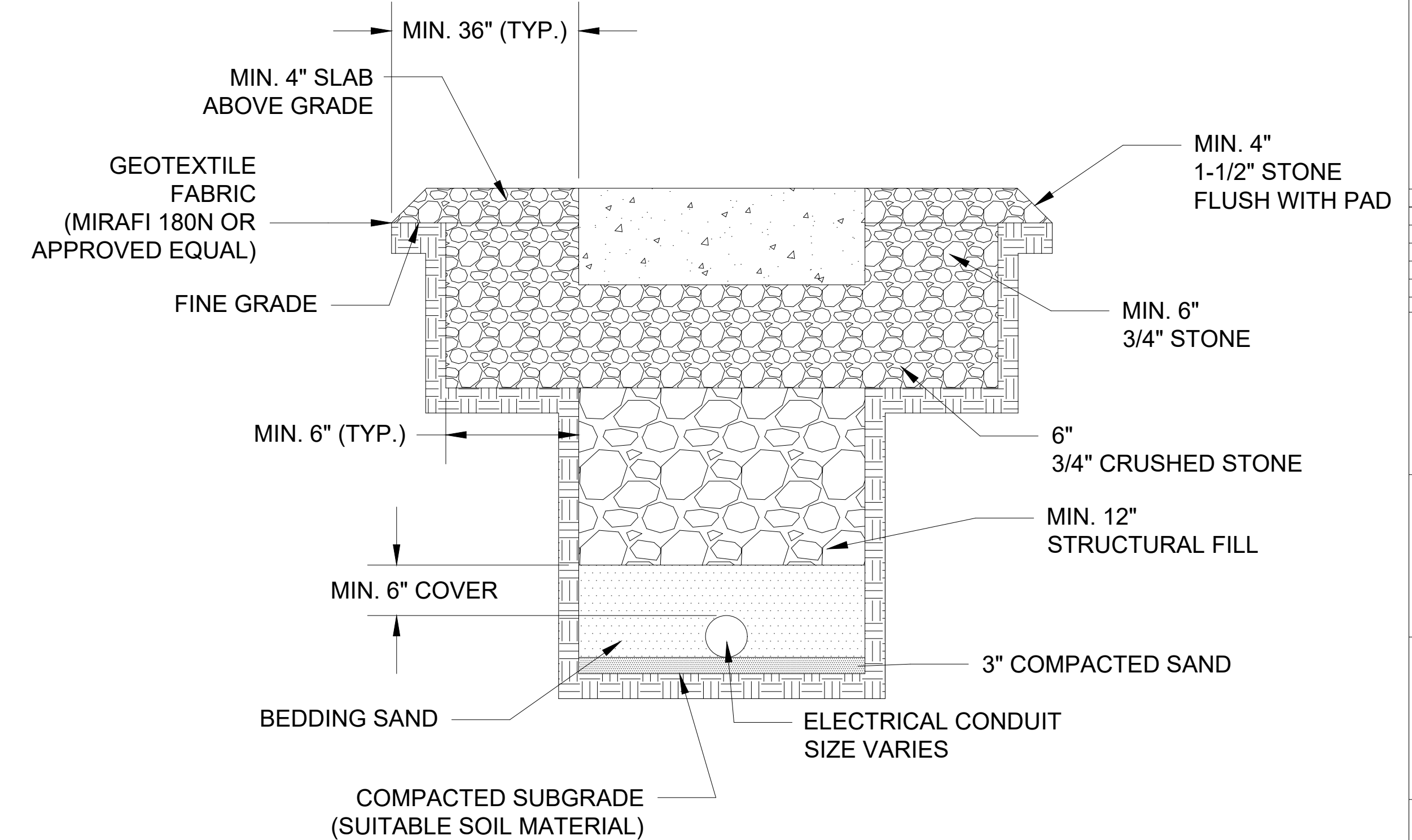
1 MECHANICAL SINGLE AXIS TRACKER RACKING STRUCTURE SYSTEM DETAIL: SCHEMATIC DESIGN
NOT TO SCALE



2 U.G.E. DIRECT BURIED ELECTRICAL CONDUIT TRENCH DETAIL
NOT TO SCALE



3 FIRE DEPARTMENT ACCESS ROAD DETAIL
NOT TO SCALE



5 SUBGRADE EQUIPMENT REINFORCED FOUNDATION DETAIL
NOT TO SCALE

SHEET NOTE

1. SINGLE AXIS TRACKER MECHANICAL RACKING SYSTEM BY AXIAL TRACKER, SEE MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
2. STRUCTURE DIMENSIONS SHOWN ARE TYPICAL FOR FLAT GRADE. DIMENSIONS MAY VARY WHERE SLOPES EXIST.

REV	Date	Revision Details	PM	ENG	CHK
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Revision Table

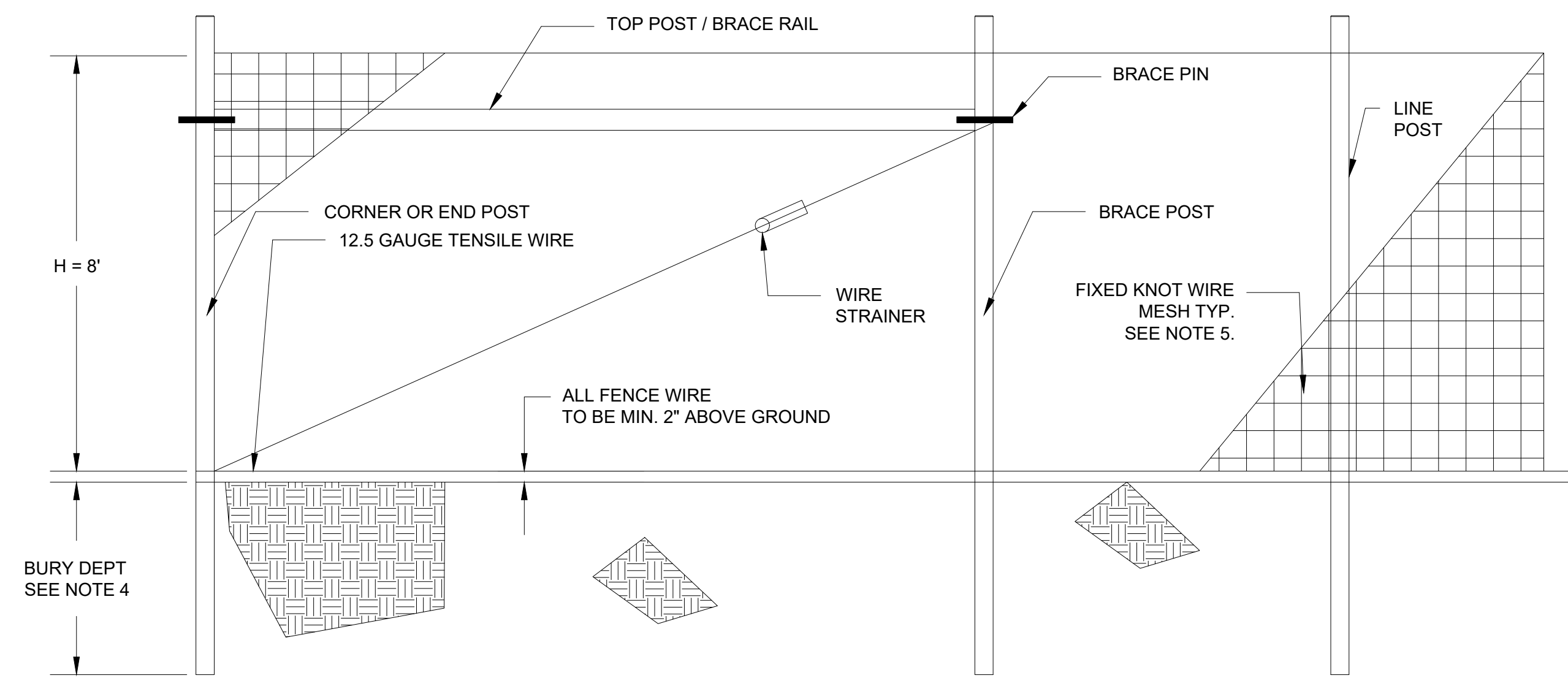
Developer
McHENRY SOLAR FARM LLC
141 W JACKSON BLVD., STE 1692
CHICAGO, IL 60604
WWW.SURYAPOWERED.COM

Project Name & Address
MCHENRY SOLAR FARM LLC
1207 CRYSTAL LAKE RD S.
MCHENRY, IL 60140
MCHENRY
P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
CONSTRUCTION DETAILS
TYPICAL DETAILS, CUT SECTIONS & ELEVATIONS OF FIRE DEPARTMENT ACCESS ROAD, EQUIPMENT FOUNDATIONS, PV MECHANICAL TRACKER RACKING STRUCTURE SYSTEM, U.G.E. CONDUIT TRENCHING

Project No 1104	Drawing No E-DEV.05-CD
Paper Size 36" x 24"	Sheet No. 05

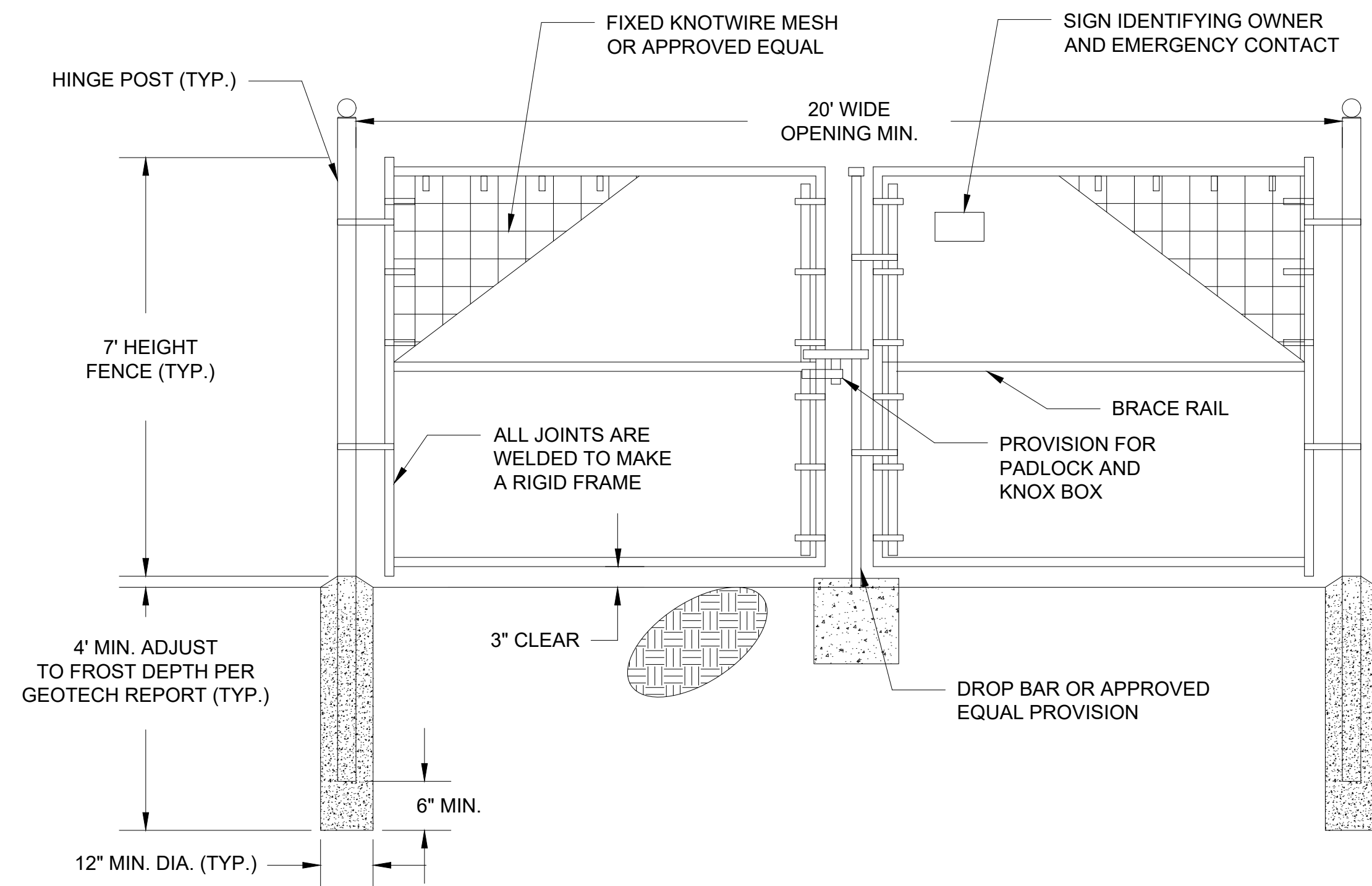
GENERAL NOTES:
 ADDITIONAL FENCING AND GATE DETAILS TO BE FURTHER REVIEWED BY McHENRY COUNTY OF RECORD AUTHORITY HAVING JURISDICTION DURING BUILDING PERMIT APPROVAL. THE FOLLOWING PLAN IS CONCEPTUAL, PRELIMINARY SCHEMATIC DESIGN AND IS SUBJECT TO CHANGE.



1 FIXED KNOT FARM FENCE DETAIL
 NOT TO SCALE

NOTES:

1. INSTALL ALL FENCING COMPONENTS PER MANUFACTURERS SPECIFICATIONS.
2. ALL FENCING AND HARDWARE SHALL BE GALVANIZED, UNLESS OTHERWISE NOTED.
3. ALL SQUARE POSTS TO BE MIN. 5"x5" NOMINAL SIZE OR ROUND POST WITH MIN. 5" OR 6" DIAMETER PRESSURE TREATED WOOD OR APPROVED EQUAL. PREFER POSTS TO HAVE A CHAMFERED TOP.
4. ALL LINE POST TO BE SET TO A MIN. DEPTH OF 4' BELOW GRADE, ALL CORNER, END OR GATE POSTS SHALL BE SET TO A MIN. DEPTH OF 6' BELOW GRADE, UNLESS OTHERWISE NOTES.
5. FIXED KNOT WIRE MESH TO BE BEKAERT SOLID LOCK® PRO, 12.5 GAUGE, CLASS 3 GLAVANIZED, 6" VERTICAL SPACING OR APPROVED EQUAL.
6. BRACING IS REQUIRED AT ALL CORNER, END AND GATE POSTS, DOUBLE BRACING (TWO BRACE ASSEMBLIES IN A ROW) SHOULD BE USED FOR STRAIGHT RUNS OF FENCE THAT EXCEED 1,000 LF. AN ADDITIONAL BRACE ASSEMBLY SHOULD BE INSTALLED MID SPAN FOR STRAIGHT RUNS OF FENCE THAT EXCEED 1,320 LF. ADDITIONAL BRACING MAY BE STILL BE REQUIRED OVER UNEVEN TERRAIN, CONTRACTOR SHALL INSTALL ADDITIONAL BRACING AS NEEDED IF DEFLECTION IS NOTICED DURING TENSIONING.



2 FIXED KNOT FARM FENCE 20' WIDE DOUBLE SWING GATE DETAIL
 NOT TO SCALE

NOTES:

1. INSTALL ALL FENCING COMPONENTS PER MANUFACTURER'S SPECIFICATIONS.
2. ALL FENCING AND HARDWARE SHALL BE GALVANIZED, UNLESS OTHERWISE NOTES.
3. HINGE POSTS MAY BE TIMBER IF CONTRACTOR DESIRES, TIMBER HINGE POSTS DO NOT NEED TO BE SET IN CONCRETE. UTILIZE HINGE THRU BOLTS TO CONNECT TO TIMBER HINGE POSTS OR LAG SCREWS, PER MANUFACTURERS RECOMMENDATIONS.
4. IF CONTRACTOR UTILIZES METAL HINGE POST THAN POSTS SHALL BE SET IN CONCRETE AS SHOWN IN DETAIL.
5. BRACING REQUIRED AT FOR ALL GATES. SEE FIXED KNOT FARM FENCE DETAIL.
6. FIXED KNOT WIRE MESH TO BE BEKAERT SOLIDLOCK® PRO, 12.5 GAUGE, CLASS 3 GLAVANIZED, 6" VERTICAL SPACING OR APPROVED EQUAL.
7. BRACE RAIL SHOWN FOR REFERENCE ADDITIONAL BRACE RAILS MAY BE REQUIRED (NOT SHOWN) OR TRUSS RODS MAY BE REQUIRED PER MANUFACTURER'S RECOMMENDATIONS.

REV	Date	Revision Details	PM	ENG	CHK
R1	01/24/2026	ISSUE FOR SUP			
RD	01/03/2026	ISSUE FOR REVIEW			

Revision Table
 Engineer

Developer
McHENRY SOLAR FARM LLC
 141 W JACKSON BLVD, STE 1692
 CHICAGO, IL 60604
 WWW.SURVAPOWERED.COM

Project Name & Address
McHENRY SOLAR FARM LLC
 1207 CRYSTAL LAKE RD S.
 McHENRY, IL 60140
 McHENRY
 P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Drawing Title
FENCE DETAILS
 TYPICAL DETAILS, GUT SECTIONS & ELEVATION OF FENCING & DOUBLE SWING ACCESS GATE

Project No 1104	Drawing No E-DEV.06-FD
Paper Size 36" x 24"	Sheet No. 06

Q.TRON XL-G2 SERIES

610 - 635 Wp | 156 Cells
22.7% Maximum Module Efficiency



MODEL Q.TRON XL-G2.3/BFG



- High performance Qcells N-type solar cells**
QANTUM NEO Technology with optimized module layout boosts module efficiency up to 22.7%.
- Bifacial energy yield gain of up to 21%**
Bifacial QANTUM NEO solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.
- A reliable investment**
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty¹.
- Enduring high performance**
Long-term yield security with Anti-LatD and Anti-PID Technology², Hot Spot Protect.
- Frame for versatile mounting options**
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (3750 Pf).³
- Innovative all-weather technology**
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

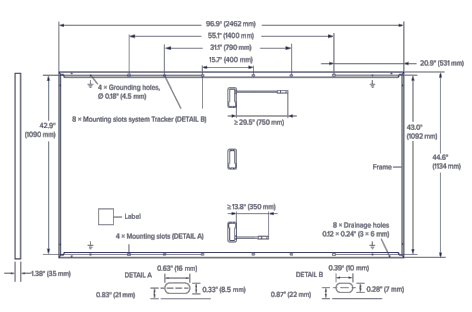
The ideal solution for:
Ground-mounted solar panels



Q.TRON XL-G2 SERIES

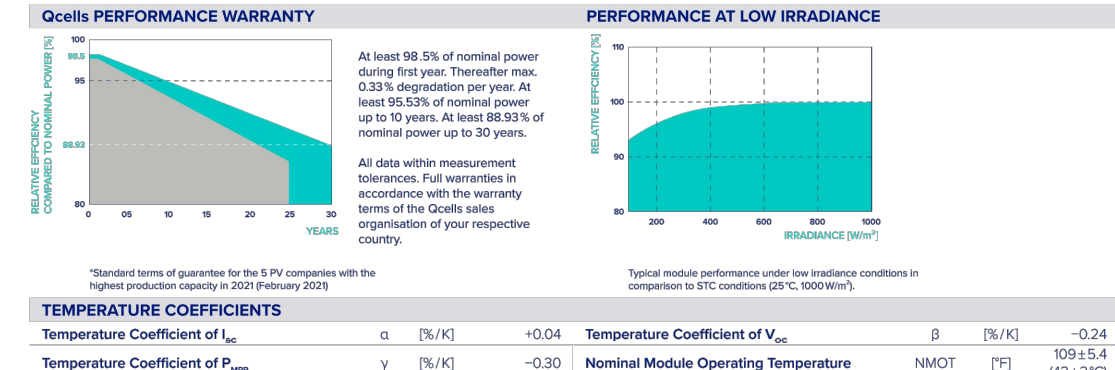
Mechanical Specification

Format	96 in x 44.6 in x 1.38 in (including frame)
Weight	29.62 lb (13.44 kg)
Front Cover	0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	0.08 in (2.0 mm) semi-tempered glass
Frame	Anodized aluminum
Cell	6 x 20 monocrystalline QANTUM NEO solar half cells
Junction box	2.09 x 3.38 x 1.26 x 0.59 x 0.71 in (53.03 mm x 85.90 mm x 32.60 mm x 15.88 mm), Protection class IP67 with typical IP68
Cable	4 mm ² Solar cable, (1 x 225.5 in (5700 mm), (1 x 19.8 in (500 mm))
Connector	Substr. MCA-Evo2, Substr. MCA: IP68



Electrical Characteristics

POWER CLASS	610	615	620	625	630	635
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE ±0.5%/0.5%)						
Power at MPP ¹	610	615	620	625	630	635
Power at MPP	P _{mp} [W]	610	615	620	625	630
Short Circuit Current ²	I _{sc} [A]	13.65	13.71	13.76	13.82	13.88
Open Circuit Voltage ³	V _{oc} [V]	56.78	56.79	56.80	56.81	56.82
Current at MPP	I _{mp} [A]	12.98	13.00	13.02	13.04	13.06
Voltage at MPP	V _{mp} [V]	47.00	47.09	47.18	47.27	47.36
Efficiency ⁴	η [%]	22.8	22.8	22.8	22.8	22.8



Properties for System Design

Maximum System Voltage	V _{max} [V]	1500	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	30	Fuse Rating based on ANSI/UL 6753	TYPE 20 ¹
Max. Pull Load ² , Test/Design	[kN/75]	13 (5400 Pa)/75 (3000 Pa)	Permitted Module Temperature	-40°F up to 185°F
Max. Pull Load ³ , Test/Design	[kN/75]	78 (3750 Pa)/52 (2100 Pa)	at Conditions Daily	-40°F up to 185°F

Qualifications and Certificates

UL 6753-1 & UL 6753-2 CE compliant
Quality Certified PV (QC2) Certified
IEC 61215:2016, IEC 61730:2016
UL 9540:2016, IEC 62109-2:2016

Qcells pursues minimizing paper output in consideration of the global environment.

1 EQUIPMENT SPECIFICATION CUT SHEET DETAIL: PV MODULE 625 WATT (DC)
NOT TO SCALE

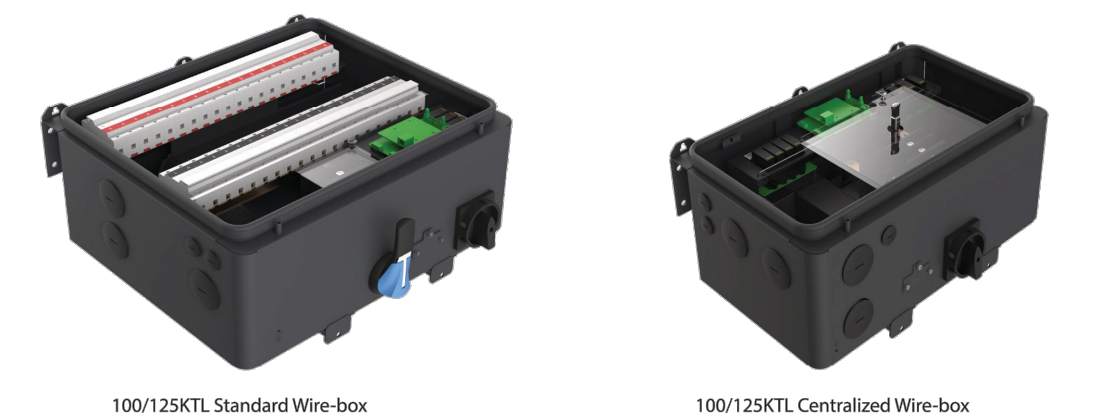
100/125kW, 1500Vdc String Inverters for North America



The 100 & 125kW high power CPS three phase string inverters are designed for ground mount applications. The units are high performance, advanced and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125kW products ship with the Standard or Centralized Wire-box, each fully integrated and separable with AC and DC disconnect switches. The Standard Wire-box includes touch safe fusing for up to 20 strings. The CPS Flex Gateway enables communication, controls and remote product upgrades.

Key Features

- NFPA 70, NEC 2014 and 2017 compliant
- Touch safe DC Fuse holders add convenience and safety
- CPS Flex Gateway enables remote FW upgrades
- Integrated AC & DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper and Aluminum compatible AC connections
- NEMA Type 4X outdoor rated, tough tested enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- KVA Headroom yields 100kW @ 0.9PF and 125kW @ 0.95PF
- Generous 1.87 and 1.5 DC/AC Inverter Load Ratios
- Separable wire-box design for fast service
- Standard 5 year warranty with extensions to 20 years



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Tel: 855-584-7168 Mail: AmericaSales@invt.com Web: www.invt.com
Chert Power Systems America
6800 Kohl Center Parkway, Suite 233 Pleasanton, CA 94566

Technical Data

Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV Power	187.5kW	1500V
Max. DC Input Voltage	1500V	1500V
Operating DC Input Voltage Range	800-1500Vdc	800-1500Vdc
Start-up DC Input Voltage / Power	900V / 250W	900V / 250W
Number of MPPT Trackers	1	1
MPPT Voltage Range ¹	870-1500Vdc	870-1500Vdc
Max. PV Input Current (ac x1.25)	275A	275A
Number of DC Inputs	20 PV source circuits, pos. & neg. fused (Standard Wire-box)	20 PV source circuits, pos. & neg. fused (Standard Wire-box)
DC Surge Protection	1 PV input circuit, 12 disconnects per phase, non-fused (Centralized Wire-box)	1 PV input circuit, 12 disconnects per phase, non-fused (Centralized Wire-box)
DC Disconnection Type	Load-rated DC switch	Load-rated DC switch
DC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (3000s)	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (3000s)
AC Output		
Rated AC Output Power	100kW	125kW
Max. AC Output Power ²	100kVA (111kVA @ PF=0.9)	125kVA (132kVA @ PF=0.95)
Rated Output Voltage	600Vdc	600Vdc
Output Voltage Range ³	528-680Vdc	528-680Vdc
Grid Connection Type ⁴	3Φ / PE / N (Neutral optional)	3Φ / PE / N (Neutral optional)
Max. AC Output Current (600Vdc)	96.2/106.8A	120.3/127.2A
Rated Output Frequency	60Hz	60Hz
Output Frequency Range ⁵	57-63Hz	57-63Hz
Power Factor	+0.99 (±0.8 adjustable)	+0.99 (±0.8 adjustable)
Current THD	<3%	<3%
Max. Fault Current Contribution (1-cycle RMS)	41.47kA	41.47kA
Max. OCPO Rating	150A	175A
AC Disconnection Type	Load-rated AC switch	Load-rated AC switch
AC Surge Protection	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (3000s)	Type II MOV (with indicator/remote signaling), Up=2.5kV, In=20kA (3000s)
System		
Topology	Transformerless	Transformerless
Max. Efficiency	99.1%	99.1%
CEC Efficiency	98.5%	98.5%
Stand-by / Night Consumption	<4W	<4W
Enclosure Protection Degree	NEMA Type 4X	NEMA Type 4X
Coating Method	Variable speed coating line	Variable speed coating line
Operating Temperature Range	-22°F to +147°F / -30°C to +65°C (depending from +113°F / +45°C)	-22°F to +147°F / -30°C to +65°C (depending from +113°F / +45°C)
Non-Operating Temperature Range ⁶	-40°F to +158°F / -40°C to +70°C maximum	-40°F to +158°F / -40°C to +70°C maximum
Operating Humidity	5-100%	5-100%
Operating Altitude	8200ft (2500m) (by derating)	8200ft (2500m) (by derating)
Audible Noise	<65dBA@1m and 25°C	<65dBA@1m and 25°C
Display and Communication		
User Interface and Display	LED Indicators, WiFi + APP	LED Indicators, WiFi + APP
Inverter Mounting	Modbus RS485	Modbus RS485
Site Level Monitoring	CPS Flex Gateway (1 per 20 inverters)	CPS Flex Gateway (1 per 20 inverters)
Module Data Mapping	SunSpec-CPS	SunSpec-CPS
Remote Diagnostics / FW Upgrade Functions	Standard (with Flex Gateway)	Standard (with Flex Gateway)
Mechanical		
Dimensions (WxHxD)	45.28x24.25x6.84in (1150x616x250mm) with Standard Wire-box	45.28x24.25x6.84in (1150x616x250mm) with Standard Wire-box
Weight	39.37x24.25x6.84in (1000x616x250mm) with Centralized Wire-box	39.37x24.25x6.84in (1000x616x250mm) with Centralized Wire-box
Mounting / Installation Angle	Inverter: 12lbs / 55kg; Wire-box: 25lbs / 115kg (Standard Wire-box); 33lbs / 150kg (Centralized Wire-box)	Inverter: 12lbs / 55kg; Wire-box: 25lbs / 115kg (Standard Wire-box); 33lbs / 150kg (Centralized Wire-box)
AD Termination	15 - 90 degrees from horizontal (vertical or angled)	15 - 90 degrees from horizontal (vertical or angled)
DC Termination	M10 Stud Type Terminal Block (34) (Wire range: 10AWG - 500kcmil CU/AL, Lugs not supplied)	M10 Stud Type Terminal Block (34) (Wire range: 10AWG - 500kcmil CU/AL, Lugs not supplied)
Fused String Inputs	Screw Clamp Fuse Holder (Wire range: #12 - #6AWG CU/AL) - Standard Wire-box	Screw Clamp Fuse Holder (Wire range: #12 - #6AWG CU/AL) - Standard Wire-box
Safety	Bussbar, MB PEMterminals (Wire range: #1AWG - 250kcmil CU/AL, Lugs not supplied) - Centralized Wire-box	Bussbar, MB PEMterminals (Wire range: #1AWG - 250kcmil CU/AL, Lugs not supplied) - Centralized Wire-box
Safety and EMC Standard	15A or 20A fuses provided (Determined by product SKU)	15A or 20A fuses provided (Determined by product SKU)
Selectable Grid Standard	UL1741-SA-2016, CSA-C22.2 NO.107.1-01, IEEE 1547a-2014; FCC PART 15	UL1741-SA-2016, CSA-C22.2 NO.107.1-01, IEEE 1547a-2014; FCC PART 15
Smart-Grid Features	IEEE 1547a-2014, CA Rule 21, ISO 15118	IEEE 1547a-2014, CA Rule 21, ISO 15118
Warranty	Volt Ride-Thru, Freq-Ride-Thru, Ramp-Rate, Specified PF, Volt-VAr, Freq-Watt, Volt-Watt	Volt Ride-Thru, Freq-Ride-Thru, Ramp-Rate, Specified PF, Volt-VAr, Freq-Watt, Volt-Watt
Standard / Extended Terms	5 years	10, 15 and 20 years

EQUIPMENT SPECIFICATION
TYPICAL DETAILS, CUT SHEETS & SPECIFICATIONS OF PV MODULE & STRING INVERTER EQUIPMENT

2 EQUIPMENT SPECIFICATION CUT SHEET DETAIL: STRING INVERTER 125 KWATT (DC)
NOT TO SCALE

GENERAL NOTES:

ADDITIONAL FENCING AND GATE DETAILS TO BE FURTHER REVIEWED BY DEKALB COUNTY OF RECORD AUTHORITY HAVING JURISDICTION DURING BUILDING PERMIT APPROVAL. THE FOLLOWING PLAN IS CONCEPTUAL, PRELIMINARY SCHEMATIC DESIGN AND IS SUBJECT TO CHANGE.

REV	01/24/2026	ISSUE FOR SUP		
REV	01/03/2026	ISSUE FOR REVIEW		
REV	Date	Revision Details	PM	ENG
		Revision Table		

Developer:
McHENRY SOLAR FARM LLC
141 W JACKSON BLVD, STE 1692
CHICAGO, IL 60604
WWW.SURVAPOWERED.COM

Project Name & Address:
McHENRY SOLAR FARM LLC
1201 CRYSTAL LAKE RD S,
McHENRY, IL 60140
McHENRY
P.I.N. 14-09-100-001 (PARTIAL) & 14-09-100-002 (PARTIAL)

Project No	1104	Drawing No	E-DEV.07-ES
Paper Size	36" x 24"	Sheet No.	07



January 21, 2026

Tej Patel
141 W Jackson BLVD STE 1692
Chicago, IL 60605

**RE: McHenry Solar Farm
Consultation Program
EcoCAT Review #2609076
McHenry County**

Dear Applicant:

The Department has received your submission for this project for the purposes of consultation pursuant to the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

The proposed action consists of a 5mWAC maximum community solar farm in McHenry County.

The Illinois Natural Heritage Database shows the following protected resources may be in the vicinity of the project location:

State Threatened or Endangered Species
Blanding's Turtle (*Emydoidea blandingii*)

Due to the project scope and proximity to protected resources the Department recommends the following actions be taken to avoid adversely impacting listed species and or protected natural areas in the vicinity of the project:

Blanding's Turtle

EcoCAT has indicated records for the state-listed Blanding's Turtle in vicinity of the project area. The Department recommends:

- Work on the project occurs during the turtle's inactive season from approximately November 1st to March 1st. If work must occur during the active season:
- Educate personnel working on site about the Blanding's Turtle. Post photos of juvenile and adult Blanding's Turtles at a central location. State-listed species may not be handled without the appropriate permits pursuant to the *Illinois Endangered Species Protection Act*.

- Install exclusionary silt fence by the end of March and maintain it through October (if needed) to prevent turtles from entering the construction area. Conduct daily inspections during construction to ensure that exclusionary fencing is properly installed (dug into the ground) and to check if turtles are present.
- Cover trenches at the end of each workday. Before starting each workday, trenches and excavations should be routinely inspected to ensure no turtles (or other amphibians and reptiles) have become trapped within them.
- If Blanding's turtles are encountered, crews should stop work immediately, allow the turtle to move out of the way and contact IDNR at (217) 785-5500.

Given the above recommendations are adopted the Department has determined that impacts to these protected resources are unlikely. The Department has determined impacts to other protected resources in the vicinity of the project location are also unlikely.

In accordance with 17 Ill. Adm. Code 1075.40(h), please notify the Department of your decision regarding these recommendations.

Consultation on the part of the Department is closed, unless the applicant desires additional information or advice related to this proposal. Consultation for Part 1075 is valid for two years unless new information becomes available which was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the action has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal and should not be regarded as a final statement on the project being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are unexpectedly encountered during the project's implementation, the applicant must comply with the applicable statutes and regulations.

This letter does not serve as permission to take any listed or endangered species. As a reminder, no take of an endangered species is permitted without an Incidental Take Authorization or the required permits. Anyone who takes a listed or endangered species without an Incidental Take Authorization or required permit may be subject to criminal and/or civil penalties pursuant to the *Illinois Endangered Species Act*, the *Fish and Aquatic Life Act*, the *Wildlife Code* and other applicable authority.

The Department also offers the following conservation measures be considered to help protect native wildlife and enhance natural areas in the project area:

- The Department strongly recommends that the project proponent establish pollinator-friendly habitat as groundcover wherever feasible. Solar Site Pollinator Establishment Guidelines can be found here:
<https://dnr.illinois.gov/conservation/pollinatorscorecard.html>
- The site should be de-compacted before planting.

- Long term management of the site should be planned for prior to development to ensure successful native pollinator habitat establishment and prevent the spread of invasive species throughout the lifetime of this project. An experienced ecological management consultant should be hired to assist with long-term management.
- If tree clearing is necessary, the Department recommends removing trees between November 1st and March 31st to avoid impacts to the state-listed bats and birds.

If temporary or permanent lighting is required, the Department recommends the following lighting recommendation to minimize adverse effects to wildlife:

- All lighting should be fully shielded fixtures that emit no light upward.
- Only “warm-white” or filtered LEDs (CCT < 3,000 K; S/P ratio < 1.2) should be used to minimize blue emission.
- Only light the exact space with the amount (lumens) needed to meet facility safety requirement.
- If LEDs are to be used, avoid the temptation to over-light based on the higher luminous efficiency of LEDs.

If erosion control blanket is to be used, the Department also recommends that wildlife-friendly plastic-free blanket be used around wetlands and adjacent to natural areas, if not feasible to implement project wide, to prevent the entanglement of native wildlife.

Please contact Isabella Allyn (Isabella.Allyn@illinois.gov) with any questions about this review.

Sincerely,



Bradley Hayes
Manager, Impact Assessment Section
Division of Real Estate Services and Consultation
Office of Realty & Capital Planning
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702
Bradley.Hayes@Illinois.gov
Phone: (217) 782-0031

STANDARD AGRICULTURAL IMPACT MITIGATION AGREEMENT

between
McHenry Solar Farm LLC

and the
ILLINOIS DEPARTMENT OF AGRICULTURE
Pertaining to the Construction of a Commercial Solar Energy Facility
in
McHenry County, Illinois

Pursuant to the Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147), the following standards and policies are required by the Illinois Department of Agriculture (IDOA) to help preserve the integrity of any Agricultural Land that is impacted by the Construction and Deconstruction of a Commercial Solar Energy Facility. They were developed with the cooperation of agricultural agencies, organizations, Landowners, Tenants, drainage contractors, and solar energy companies to comprise this Agricultural Impact Mitigation Agreement (AIMA).

McHenry Solar Farm LLC, hereafter referred to as Commercial Solar Energy Facility Owner, or simply as Facility Owner, plans to develop and/or operate a 5.0 MWac Commercial Solar Energy Facility in McHenry County [GPS Coordinates: 42.311776, -88.307118], which will consist of up to 79 acres that will be covered by solar facility related components, such as solar panel arrays, racking systems, access roads, an onsite underground collection system, inverters and transformers and any affiliated electric transmission lines. This AIMA is made and entered between the Facility Owner and the IDOA.

If Construction does not commence within four years after this AIMA has been fully executed, this AIMA shall be revised, with the Facility Owner's input, to reflect the IDOA's most current Solar Farm Construction and Deconstruction Standards and Policies. This AIMA, and any updated AIMA, shall be filed with the County Board by the Facility Owner prior to the commencement of Construction.

The below prescribed standards and policies are applicable to Construction and Deconstruction activities occurring partially or wholly on privately owned agricultural land.

Conditions of the AIMA

The mitigative actions specified in this AIMA shall be subject to the following conditions:

- A. All Construction or Deconstruction activities may be subject to County or other local requirements. However, the specifications outlined in this AIMA shall be the minimum standards applied to all Construction or Deconstruction activities. IDOA may utilize any legal means to enforce this AIMA.
- B. Except for Section 17. B. through F., all actions set forth in this AIMA are subject to modification through negotiation by Landowners and the Facility Owner, provided such changes are negotiated in advance of the respective Construction or Deconstruction activities.
- C. The Facility Owner may negotiate with Landowners to carry out the actions that Landowners wish to perform themselves. In such instances, the Facility Owner shall offer Landowners the area commercial rate for their machinery and labor costs.

Standard Solar AIMA V.8.19.19

- D. All provisions of this AIMA shall apply to associated future Construction, maintenance, repairs, and Deconstruction of the Facility referenced by this AIMA.
- E. The Facility Owner shall keep the Landowners and Tenants informed of the Facility's Construction and Deconstruction status, and other factors that may have an impact upon their farming operations.
- F. The Facility Owner shall include a statement of its adherence to this AIMA in any environmental assessment and/or environmental impact statement.
- G. Execution of this AIMA shall be made a condition of any Conditional/Special Use Permit. Not less than 30 days prior to the commencement of Construction, a copy of this AIMA shall be provided by the Facility Owner to each Landowner that is party to an Underlying Agreement. In addition, this AIMA shall be incorporated into each Underlying Agreement.
- H. The Facility Owner shall implement all actions to the extent that they do not conflict with the requirements of any applicable federal, state and local rules and regulations and other permits and approvals that are obtained by the Facility Owner for the Facility.
- I. No later than 45 days prior to the Construction and/or Deconstruction of a Facility, the Facility Owner shall provide the Landowner(s) with a telephone number the Landowner can call to alert the Facility Owner should the Landowner(s) have questions or concerns with the work which is being done or has been carried out on his/her property.
- J. If there is a change in ownership of the Facility, the Facility Owner assuming ownership of the Facility shall provide written notice within 90 days of ownership transfer, to the Department, the County, and to Landowners of such change. The Financial Assurance requirements and the other terms of this AIMA shall apply to the new Facility Owner.
- K. The Facility Owner shall comply with all local, state and federal laws and regulations, specifically including the worker protection standards to protect workers from pesticide exposure.
- L. Within 30 days of execution of this AIMA, the Facility Owner shall use Best Efforts to provide the IDOA with a list of all Landowners that are party to an Underlying Agreement and known Tenants of said Landowner who may be affected by the Facility. As the list of Landowners and Tenants is updated, the Facility Owner shall notify the IDOA of any additions or deletions.
- M. If any provision of this AIMA is held to be unenforceable, no other provision shall be affected by that holding, and the remainder of the AIMA shall be interpreted as if it did not contain the unenforceable provision.

Definitions

Abandonment

When Deconstruction has not been completed within 12 months after the Commercial Solar Energy Facility reaches the end of its useful life. For purposes of this definition, a Commercial Solar Energy Facility shall be presumed to have reached the end of its useful life if the Commercial Solar Energy Facility Owner fails, for a period of 6 consecutive months, to pay the Landowner amounts owed in accordance with an Underlying Agreement.

Aboveground Cable	Electrical power lines installed above ground surface to be utilized for conveyance of power from the solar panels to the solar facility inverter and/or point of interconnection to utility grid or customer electric meter.
Agricultural Impact Mitigation Agreement (AIMA)	The Agreement between the Facility Owner and the Illinois Department of Agriculture (IDOA) described herein.
Agricultural Land	Land used for Cropland, hayland, pastureland, managed woodlands, truck gardens, farmsteads, commercial ag-related facilities, feedlots, livestock confinement systems, land on which farm buildings are located, and land in government conservation programs used for purposes as set forth above.
Best Efforts	Diligent, good faith, and commercially reasonable efforts to achieve a given objective or obligation.
Commercial Operation Date	The calendar date of which the Facility Owner notifies the Landowner, County, and IDOA in writing that commercial operation of the facility has commenced. If the Facility Owner fails to provide such notifications, the Commercial Operation Date shall be the execution date of this AIMA plus 6 months.
Commercial Solar Energy Facility (Facility)	A solar energy conversion facility equal to or greater than 500 kilowatts in total nameplate capacity, including a solar energy conversion facility seeking an extension of a permit to construct granted by a county or municipality before June 29, 2018. "Commercial solar energy facility" does not include a solar energy conversion facility: (1) for which a permit to construct has been issued before June 29, 2018; (2) that is located on land owned by the commercial solar energy facility owner; (3) that was constructed before June 29, 2018; or (4) that is located on the customer side of the customer's electric meter and is primarily used to offset that customer's electricity load and is limited in nameplate capacity to less than or equal to 2,000 kilowatts.
Commercial Solar Energy Facility Owner deemed (Facility Owner)	A person or entity that owns a commercial solar energy facility. A Commercial Solar Energy Facility Owner is not nor shall it be to be a public utility as defined in the Public Utilities Act.
County	The County or Counties where the Commercial Solar Energy Facility is located.
Construction	The installation, preparation for installation and/or repair of a Facility.
Cropland	Land used for growing row crops, small grains or hay; includes land which was formerly used as cropland, but is currently enrolled in a government conservation program; also includes pastureland that is classified as Prime Farmland.

Deconstruction	The removal of a Facility from the property of a Landowner and the restoration of that property as provided in the AIMA.
Deconstruction Plan	A plan prepared by a Professional Engineer, at the Facility's expense, that includes: <ol style="list-style-type: none">(1) the estimated Deconstruction cost, in current dollars at the time of filing, for the Facility, considering among other things:<ol style="list-style-type: none">i. the number of solar panels, racking, and related facilities involved;ii. the original Construction costs of the Facility;iii. the size and capacity, in megawatts of the Facility;iv. the salvage value of the facilities (if all interests in salvage value are subordinate to that of the Financial Assurance holder if abandonment occurs);v. the Construction method and techniques for the Facility and for other similar facilities; and(2) a comprehensive detailed description of how the Facility Owner plans to pay for the Deconstruction of the Facility.
Department	The Illinois Department of Agriculture (IDOA).
Financial Assurance	A reclamation or surety bond or other commercially available financial assurance that is acceptable to the County, with the County or Landowner as beneficiary.
Landowner	Any person with an ownership interest in property that is used for agricultural purposes and that is party to an Underlying Agreement.
Prime Farmland	Agricultural Land comprised of soils that are defined by the USDA Natural Resources Conservation Service (NRCS) as "Prime Farmland" (generally considered to be the most productive soils with the least input of nutrients and management).
Professional Engineer	An engineer licensed to practice engineering in the State of Illinois.
Soil and Water Conservation District (SWCD)	A unit of local government that provides technical and financial assistance to eligible Landowners for the conservation of soil and water resources.
Tenant	Any person, apart from the Facility Owner, lawfully residing or leasing/renting land that is subject to an Underlying Agreement.
Topsoil	The uppermost layer of the soil that has the darkest color or the highest content of organic matter; more specifically, it is defined as the "A" horizon.
Underlying Agreement	The written agreement between the Facility Owner and the Landowner(s) including, but not limited to, an easement, option, lease, or license under the terms of which another person has constructed, constructs, or intends to construct a Facility on the property of the Landowner.

Underground Cable	Electrical power lines installed below the ground surface to be utilized for conveyance of power within a Facility or from a Commercial Solar Energy Facility to the electric grid.
USDA Natural Resources Conservation Service (NRCS)	An agency of the United States Department of Agriculture that provides America's farmers with financial and technical assistance to aid with natural resources conservation.

Construction and Deconstruction Standards and Policies

1. Support Structures

- A. Only single pole support structures shall be used for the Construction and operation of the Facility on Agricultural Land. Other types of support structures, such as lattice towers or H-frames, may be used on nonagricultural land.
- B. Where a Facility's Aboveground Cable will be adjacent and parallel to highway and/or railroad right-of-way, but on privately owned property, the support structures shall be placed as close as reasonably practicable and allowable by the applicable County Engineer or other applicable authorities to the highway or railroad right-of-way. The only exceptions may be at jogs or weaves on the highway alignment or along highways or railroads where transmission and distribution lines are already present.
- C. When it is not possible to locate Aboveground Cable next to highway or railroad right-of-way, Best Efforts shall be expended to place all support poles in such a manner to minimize their placement on Cropland (i.e., longer than normal above ground spans shall be utilized when traversing Cropland).

2. Aboveground Facilities

Locations for facilities shall be selected in a manner that is as unobtrusive as reasonably possible to ongoing agricultural activities occurring on the land that contains or is adjacent to the Facility.

3. Guy Wires and Anchors

Best Efforts shall be made to place guy wires and their anchors, if used, out of Cropland, pastureland and hayland, placing them instead along existing utilization lines and on land other than Cropland. Where this is not feasible, Best Efforts shall be made to minimize guy wire impact on Cropland. All guy wires shall be shielded with highly visible guards.

4. Underground Cabling Depth

- A. Underground electrical cables located outside the perimeter of the (fence) of the solar panels shall be buried with:
 1. a minimum of 5 feet of top cover where they cross Cropland.
 2. a minimum of 5 feet of top cover where they cross pastureland or other non-Cropland classified as Prime Farmland.
 3. a minimum of 3 feet of top cover where they cross pastureland and other Agricultural Land not classified as Prime Farmland.

4. a minimum of 3 feet of top cover where they cross wooded/brushy land.
 - B. Provided that the Facility Owner removes the cables during Deconstruction, underground electric cables may be installed to a minimum depth of 18 inches:
 1. Within the fenced perimeter of the Facility; or
 2. When buried under an access road associated with the Facility provided that the location and depth of cabling is clearly marked at the surface.
 - C. If Underground Cables within the fenced perimeter of the solar panels are installed to a minimum depth of 5 feet, they may remain in place after Deconstruction.
- 5. Topsoil Removal and Replacement**
- A. Any excavation shall be performed in a manner to preserve topsoil. Best Efforts shall be made to store the topsoil near the excavation site in such a manner that it will not become intermixed with subsoil materials.
 - B. Best Efforts shall be made to store all disturbed subsoil material near the excavation site and separate from the topsoil.
 - C. When backfilling an excavation site, Best Efforts shall be used to ensure the stockpiled subsoil material will be placed back into the excavation site before replacing the topsoil.
 - D. Refer to Section 7 for procedures pertaining to rock removal from the subsoil and topsoil.
 - E. Refer to Section 8 for procedures pertaining to the repair of compaction and rutting of the topsoil.
 - F. Best Efforts shall be performed to place the topsoil in a manner so that after settling occurs, the topsoil's original depth and contour will be restored as close as reasonably practicable. The same shall apply where excavations are made for road, stream, drainage ditch, or other crossings. In no instance shall the topsoil materials be used for any other purpose unless agreed to explicitly and in writing by the Landowner.
 - G. Based on the mutual agreement of the landowner and Facility Owner, excess soil material resulting from solar facility excavation shall either be removed or stored on the Landowner's property and reseeded per the applicable National Pollution Discharge Elimination System (NPDES) permit/Stormwater Pollution Prevention Plan (SWPPP). After the Facility reaches the end of its Useful Life, the excess subsoil material shall be returned to an excavation site or removed from the Landowner's property, unless otherwise agreed to by Landowner.
- 6. Rerouting and Permanent Repair of Agricultural Drainage Tiles**
- The following standards and policies shall apply to underground drainage tile line(s) directly or indirectly affected by Construction and/or Deconstruction:
- A. Prior to Construction, the Facility Owner shall work with the Landowner to identify drainage tile lines traversing the property subject to the Underlying Agreement to the extent reasonably practicable. All drainage tile lines identified in this manner shall be shown on the Construction and Deconstruction Plans.

B. The location of all drainage tile lines located adjacent to or within the footprint of the Facility shall be recorded using Global Positioning Systems (GPS) technology. Within 60 days after Construction is complete, the Facility Owner shall provide the Landowner, the IDOA, and the respective County Soil and Water Conservation District (SWCD) with "as built" drawings (strip maps) showing the location of all drainage tile lines by survey station encountered in the Construction of the Facility, including any tile line repair location(s), and any underground cable installed as part of the Facility.

C. Maintaining Surrounding Area Subsurface Drainage

If drainage tile lines are damaged by the Facility, the Facility Owner shall repair the lines or install new drainage tile line(s) of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the Facility. If the damaged tile lines cause an unreasonable disruption to the drainage system, as determined by the Landowner, then such repairs shall be made promptly to ensure appropriate drainage. Any new line(s) may be located outside of, but adjacent to the perimeter of the Facility. Disrupted adjacent drainage tile lines shall be attached thereto to provide an adequate outlet for the disrupted adjacent tile lines.

D. Re-establishing Subsurface Drainage Within Facility Footprint

Following Deconstruction and using Best Efforts, if underground drainage tile lines were present within the footprint of the facility and were severed or otherwise damaged during original Construction, facility operation, and/or facility Deconstruction, the Facility Owner shall repair existing drainage tiles or install new drainage tile lines of comparable quality and cost to the original, within the footprint of the Facility with sufficient capacity to restore the underground drainage capacity that existed within the footprint of the Facility prior to Construction. Such installation shall be completed within 12 months after the end of the useful life of the Facility and shall be compliant with Figures 1 and 2 to this Agreement or based on prudent industry standards if agreed to by Landowner.

E. If there is any dispute between the Landowner and the Facility Owner on the method of permanent drainage tile line repair, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

F. During Deconstruction, all additional permanent drainage tile line repairs beyond those included above in Section 6.D. must be made within 30 days of identification or notification of the damage, weather and soil conditions permitting. At other times, such repairs must be made at a time mutually agreed upon by the Facility Owner and the Landowner. If the Facility Owner and Landowner cannot agree upon a reasonable method to complete this restoration, the Facility Owner may implement the recommendations of the appropriate County SWCD and such implementation constitutes compliance with this provision.

G. Following completion of the work required pursuant to this Section, the Facility Owner shall be responsible for correcting all drainage tile line repairs that fail due to Construction and/or Deconstruction for one year following the completion of Construction or Deconstruction, provided those repairs were made by the Facility Owner. The Facility Owner shall not be responsible for drainage tile repairs that the Facility Owner pays the Landowner to perform.

7. Rock Removal

With any excavations, the following rock removal procedures pertain only to rocks found in the uppermost 42 inches of soil, the common freeze zone in Illinois, which emerged or were brought to the site as a result of Construction and/or Deconstruction.

- A. Before replacing any topsoil, Best Efforts shall be taken to remove all rocks greater than 3 inches in any dimension from the surface of exposed subsoil which emerged or were brought to the site as a result of Construction and/or Deconstruction.
- B. If trenching, blasting, or boring operations are required through rocky terrain, precautions shall be taken to minimize the potential for oversized rocks to become interspersed in adjacent soil material.
- C. Rocks and soil containing rocks removed from the subsoil areas, topsoil, or from any excavations, shall be removed from the Landowner's premises or disposed of on the Landowner's premises at a location that is mutually acceptable to the Landowner and the Facility Owner.

8. Repair of Compaction and Rutting

- A. Unless the Landowner opts to do the restoration work on compaction and rutting, after the topsoil has been replaced post-Deconstruction, all areas within the boundaries of the Facility that were traversed by vehicles and Construction and/or Deconstruction equipment that exhibit compaction and rutting shall be restored by the Facility Owner. All prior Cropland shall be ripped at least 18 inches deep or to the extent practicable, and all pasture and woodland shall be ripped at least 12 inches deep or to the extent practicable. The existence of drainage tile lines or underground utilities may necessitate less ripping depth. The disturbed area shall then be disked.
- B. All ripping and disking shall be done at a time when the soil is dry enough for normal tillage operations to occur on Cropland adjacent to the Facility.
- C. The Facility Owner shall restore all rutted land to a condition as close as possible to its original condition upon Deconstruction, unless necessary earlier as determined by the Landowner.
- D. If there is any dispute between the Landowner and the Facility Owner as to what areas need to be ripped/disked or the depth at which compacted areas should be ripped/disked, the appropriate County SWCD's opinion shall be considered by the Facility Owner and the Landowner.

9. Construction During Wet Weather

Except as provided below, construction activities are not allowed on agricultural land during times when normal farming operations, such as plowing, disking, planting or harvesting, cannot take place due to excessively wet soils. With input from the landowner, wet weather conditions may be determined on a field by field basis.

- A. Construction activities on prepared surfaces, surfaces where topsoil and subsoil have been removed, heavily compacted in preparation, or otherwise stabilized (e.g. through cement mixing) may occur at the discretion of the Facility Owner in wet weather conditions.

- B. Construction activities on unprepared surfaces will be done only when work will not result in rutting which may mix subsoil and topsoil. Determination as to the potential of subsoil and topsoil mixing will be made in consultation with the underlying Landowner, or, if approved by the Landowner, his/her designated tenant or designee.

10. Prevention of Soil Erosion

- A. The Facility Owner shall work with Landowners and create and follow a SWPPP to prevent excessive erosion on land that has been disturbed by Construction or Deconstruction of a Facility.
- B. If the Landowner and Facility Owner cannot agree upon a reasonable method to control erosion on the Landowner's property, the Facility Owner shall consider the recommendations of the appropriate County SWCD to resolve the disagreement.
- C. The Facility Owner may, per the requirements of the project SWPPP and in consultation with the Landowner, seed appropriate vegetation around all panels and other facility components to prevent erosion. The Facility Owner must utilize Best Efforts to ensure that all seed mixes will be as free of any noxious weed seeds as possible. The Facility Owner shall consult with the Landowner regarding appropriate varieties to seed.

11. Repair of Damaged Soil Conservation Practices

Consultation with the appropriate County SWCD by the Facility Owner shall be carried out to determine if there are soil conservation practices (such as terraces, grassed waterways, etc.) that will be damaged by the Construction and/or Deconstruction of the Facility. Those conservation practices shall be restored to their preconstruction condition as close as reasonably practicable following Deconstruction in accordance with USDA NRCS technical standards. All repair costs shall be the responsibility of the Facility Owner.

12. Compensation for Damages to Private Property

The Facility Owner shall reasonably compensate Landowners for damages caused by the Facility Owner. Damage to Agricultural Land shall be reimbursed to the Landowner as prescribed in the applicable Underlying Agreement.

13. Clearing of Trees and Brush

- A. If trees are to be removed for the Construction or Deconstruction of a Facility, the Facility Owner shall consult with the Landowner to determine if there are trees of commercial or other value to the Landowner.
- B. If there are trees of commercial or other value to the Landowner, the Facility Owner shall allow the Landowner the right to retain ownership of the trees to be removed and the disposition of the removed trees shall be negotiated prior to the commencement of land clearing.

14. Access Roads

- A. To the extent practicable, access roads shall be designed to not impede surface drainage and shall be built to minimize soil erosion on or near the access roads.

- B. Access roads may be left intact during Construction, operation or Deconstruction through mutual agreement of the Landowner and the Facility Owner unless otherwise restricted by federal, state, or local regulations.
- C. If the access roads are removed, Best Efforts shall be expended to assure that the land shall be restored to equivalent condition(s) as existed prior to their construction, or as otherwise agreed to by the Facility Owner and the Landowner. All access roads that are removed shall be ripped to a depth of 18 inches. All ripping shall be performed consistent with Section 8.

15. Weed/Vegetation Control

- A. The Facility Owner shall provide for weed control in a manner that prevents the spread of weeds. Chemical control, if used, shall be done by an appropriately licensed pesticide applicator.
- B. The Facility Owner shall be responsible for the reimbursement of all reasonable costs incurred by owners of agricultural land where it has been determined by the appropriate state or county entity that weeds have spread from the Facility to their property. Reimbursement is contingent upon written notice to the Facility Owner. Facility Owner shall reimburse the property owner within 45 days after notice is received.
- C. The Facility Owner shall ensure that all vegetation growing within the perimeter of the Facility is properly and appropriately maintained. Maintenance may include, but not be limited to, mowing, trimming, chemical control, or the use of livestock as agreed to by the Landowner.
- D. The Deconstruction plans must include provisions for the removal of all weed control equipment used in the Facility, including weed-control fabrics or other ground covers.

16. Indemnification of Landowners

The Facility Owner shall indemnify all Landowners, their heirs, successors, legal representatives, and assigns from and against all claims, injuries, suits, damages, costs, losses, and reasonable expenses resulting from or arising out of the Commercial Solar Energy Facility, including Construction and Deconstruction thereof, and also including damage to such Facility or any of its appurtenances, except where claims, injuries, suits, damages, costs, losses, and expenses are caused by the negligence or intentional acts, or willful omissions of such Landowners, and/or the Landowners heirs, successors, legal representatives, and assigns.

17. Deconstruction Plans and Financial Assurance of Commercial Solar Energy Facilities

- A. Deconstruction of a Facility shall include the removal/disposition of all solar related equipment/facilities, including the following utilized for operation of the Facility and located on Landowner property:
 - 1. Solar panels, cells and modules;
 - 2. Solar panel mounts and racking, including any helical piles, ground screws, ballasts, or other anchoring systems;
 - 3. Solar panel foundations, if used (to depth of 5 feet);

4. Transformers, inverters, energy storage facilities, or substations, including all components and foundations; however, Underground Cables at a depth of 5 feet or greater may be left in place;
 5. Overhead collection system components;
 6. Operations/maintenance buildings, spare parts buildings and substation/switching gear buildings unless otherwise agreed to by the Landowner;
 7. Access Road(s) unless Landowner requests in writing that the access road is to remain;
 8. Operation/maintenance yard/staging area unless otherwise agreed to by the Landowner; and
 9. Debris and litter generated by Deconstruction and Deconstruction crews.
- B. The Facility Owner shall, at its expense, complete Deconstruction of a Facility within twelve (12) months after the end of the useful life of the Facility.
- C. During the County permit process, or if none, then prior to the commencement of construction, the Facility Owner shall file with the County a Deconstruction Plan. The Facility Owner shall file an updated Deconstruction Plan with the County on or before the end of the tenth year of commercial operation.
- D. The Facility Owner shall provide the County with Financial Assurance to cover the estimated costs of Deconstruction of the Facility. Provision of this Financial Assurance shall be phased in over the first 11 years of the Project's operation as follows:
1. On or before the first anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover ten (10) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
 2. On or before the sixth anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover fifty (50) percent of the estimated costs of Deconstruction of the Facility as determined in the Deconstruction Plan.
 3. On or before the eleventh anniversary of the Commercial Operation Date, the Facility Owner shall provide the County with Financial Assurance to cover one hundred (100) percent of the estimated costs of Deconstruction of the Facility as determined in the updated Deconstruction Plan provided during the tenth year of commercial operation.

The Financial Assurance shall not release the surety from liability until the Financial Assurance is replaced. The salvage value of the Facility may only be used to reduce the estimated costs of Deconstruction if the County agrees that all interests in the salvage value are subordinate or have been subordinated to that of the County if Abandonment occurs.

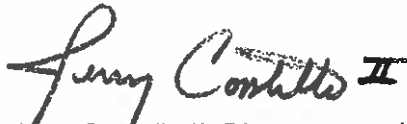
- E. The County may, but is not required to, reevaluate the estimated costs of Deconstruction of any Facility after the tenth anniversary, and every five years thereafter, of the Commercial Operation Date. Based on any reevaluation, the County may require changes in the level of Financial Assurance used to calculate the phased Financial Assurance levels described in Section 17.D. required from the Facility Owner. If the County is unable to its satisfaction to perform the investigations necessary to approve the Deconstruction Plan filed by the Facility Owner, then the County and Facility may mutually agree on the selection of a Professional Engineer independent of the Facility Owner to conduct any necessary investigations. The Facility Owner shall be responsible for the cost of any such investigations.
- F. Upon Abandonment, the County may take all appropriate actions for Deconstruction including drawing upon the Financial Assurance.

Concurrence of the Parties to this AIMA

The Illinois Department of Agriculture and McHenry Solar Farm LLC concur that this AIMA is the complete AIMA governing the mitigation of agricultural impacts that may result from the Construction and Deconstruction of the solar farm project in McHenry County within the State of Illinois.

The effective date of this AIMA commences on the date of execution.

**STATE OF ILLINOIS
DEPARTMENT OF AGRICULTURE**



By: Jerry Costello II, Director 4



By Clay Nordsiek, Deputy General Counsel

801 E. Sangamon Avenue,
State Fairgrounds, POB 19281
Springfield, IL 62794-9281

McHenry Solar Farm LLC

By Robert McNeill

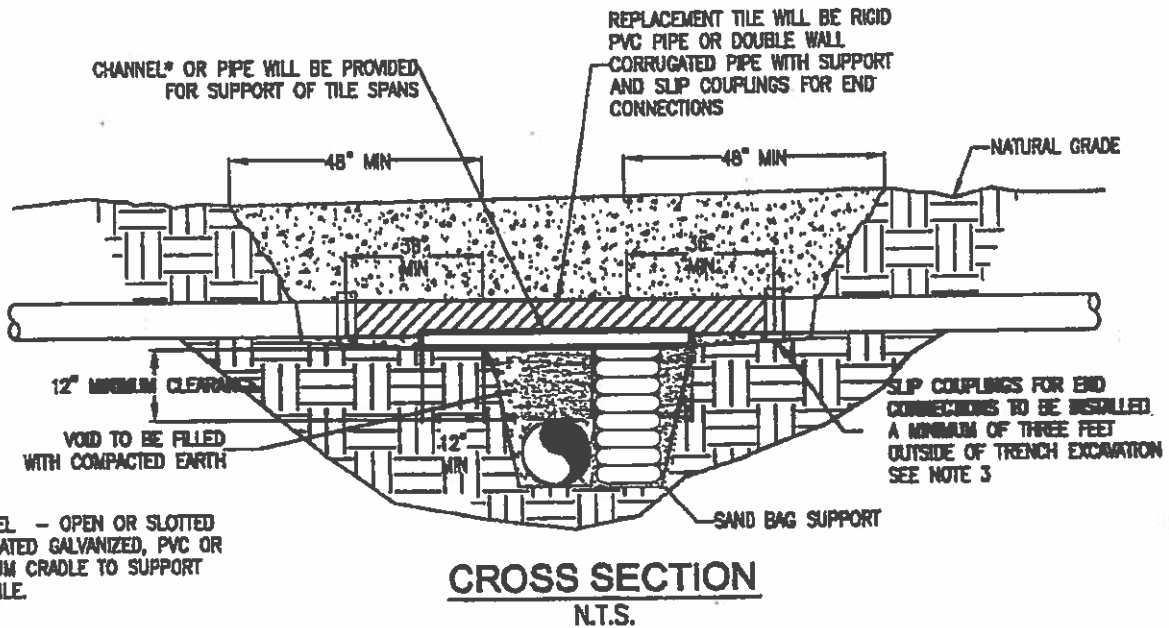
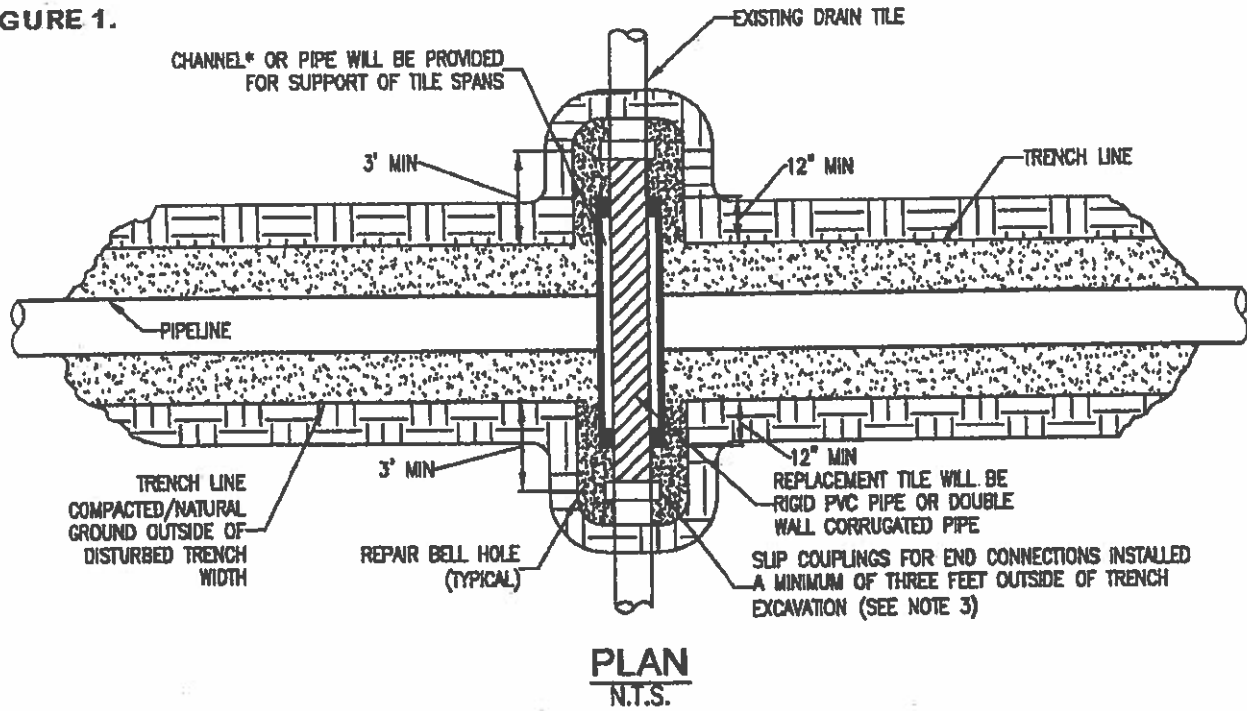
Development Project Manager
McHenry Solar Farm LLC

Address
141 W Jackson Boulevard, Suite 1692
Chicago IL 60504

September 23, 2025

10/2, 2025

FIGURE 1.



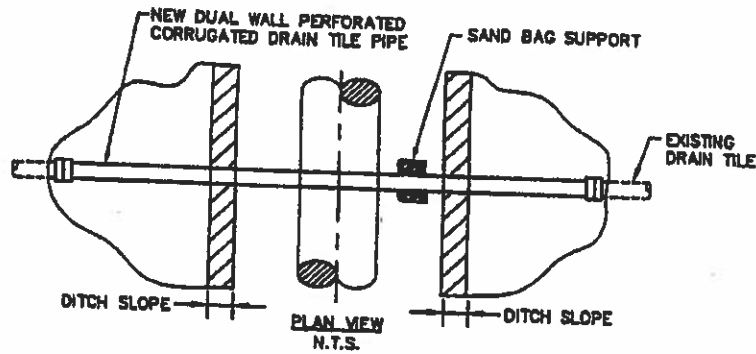
*CHANNEL - OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

NOTE:

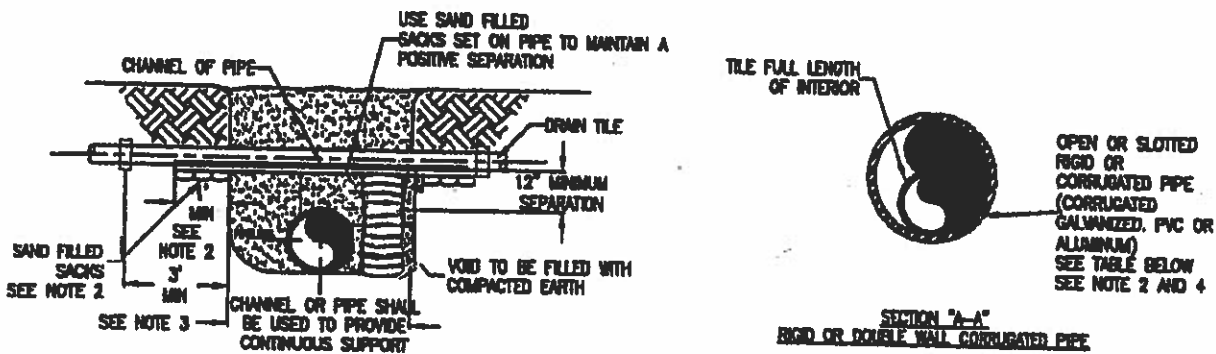
1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE 'NIGHT CAP' SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR

FIGURE 2.



PLAN VIEW



END VIEWS

MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4 W/R	4"	STD. WT.
4"-5"	5" @ 6.7 W/R	6"	STD. WT.
6"-9"	7" @ 8.8 W/R	9"-10"	STD. WT.
10"	10" @ 15.3 W/R	12"	STD. WT.

NOTE

1. TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
2. 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
3. DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
4. DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
5. OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
6. ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
7. PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR

IN THE MATTER OF THE APPLICATION OF)
MCHEHRY SOLAR FARM LLC, APPLICANT)
 FOR AN AMENDMENT OF THE UNIFIED DEVELOPMENT) LEGAL NOTICE OF PUBLIC HEARING
 ORDINANCE OF McHENRY COUNTY, ILLINOIS FOR A) Z26-0010
CONDITIONAL USE)

Notice is hereby given in compliance with the McHenry County Unified Development Ordinance, that a public hearing will be held before the **McHenry County Zoning Board of Appeals**, in connection with this Ordinance, which would result in a **CONDITIONAL USE** for the following described real estate:

Part of the Northeast Quarter of the Northeast Quarter of Section 8 and part of the North Half of the Northwest Quarter of Section 9, that lies Northwesterly of the centerline of Crystal Lake Road (County Highway V34), both in Township 44 North, Range 8 East of the Third Principal Meridian, described as follows: Beginning at the Southeast corner of said Northeast Quarter of the Northeast Quarter; thence South 88 degrees 51 minutes 03 seconds West along the South line thereof, 1308.67 feet to the Southwest corner thereof; thence North 00 degrees 13 minutes 17 seconds West along the West line of said Northeast Quarter of the Northeast Quarter of Section 8, a distance of 726.19 feet; thence North 88 degrees 55 minutes 49 seconds East, 2067.05 feet; thence South 51 degrees 52 minutes 22 seconds East, 420.54 feet to said centerline of Crystal Lake Road; thence South 38 degrees 07 minutes 38 seconds West along said centerline, 594.00 feet to a point on the South line of said North Half of the Northwest Quarter of Section 9; thence South 89 degrees 04 minutes 29 seconds West 719.64 feet along the South line thereof, 719.64 feet to the Place of Beginning in McHenry County, Illinois.

Part of PINs 14-09-100-001 and 14-08-200-002

The subject property is located on the west side of South Crystal Lake Road approximately one-thousand five-hundred (1,500) feet north of the intersection of Mason Hill and South Crystal Lake Roads, **with a common address of 1207 South Crystal Lake Road, McHenry, Illinois, in Nunda Township.**

The subject property is presently zoned **“A-1” Agriculture District** and consists of approximately **37 acres** with **“A-1” Agriculture District zoning to the North and East, “E-3C” Estate District with a Conditional Use Permit and “E-3V” Estate District with Variation zoning to the South, and the Village of Bull Valley to the South and West.**

The Applicant is requesting a **CONDITIONAL USE of the subject property to allow for a commercial solar energy facility.**

The Applicant, McHenry Solar Farm, LLC is wholly owned by Surya Powered, LLC. The managing partners of both LLC’s are Tej Patel and Akshar Patel. They can be reached at 141 W Jackson Boulevard, Suite 1692, Chicago, Illinois 60604. Michael J Wolff, Trustee of the Michael J Wolff Living Trust, property owner, can be reached at 321 Neville Street, Grayslake, Illinois 60050.

A hearing on this Petition will be held on the _____ day of _____ 2026 at 1:30 P.M. in the County Board conference room at the McHenry County Government Center Administration Building 667 Ware Rd, Woodstock, Illinois at which time and place any person desiring to be heard may be present. The McHenry County Government Center Mailing address is 2200 N. Seminary Avenue, Woodstock, Illinois 60098.

DATED THIS _____ DAY OF _____ 2026.

By: Linnea Kooistra, Chair

McHenry County Zoning Board of Appeals
2200 N. Seminary Avenue
Woodstock, IL 60098

*Petitions for all Zoning Board of Appeals hearings can be accessed at the following link:
www.mchenrycountyil.gov/county-government/new-meeting-portal and choosing the “Agenda” link for the specific meeting date.*

*Live audio streams of all Zoning Board of Appeals hearings can be accessed at the following link:
www.mchenrycountyil.gov/county-government/new-meeting-portal and choosing the “Video” link for the specific meeting date.*



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Chicago Ecological Service Field Office
1511 47th Ave
Moline, IL 61265-7022
Phone: (309) 757-5800

In Reply Refer To:

01/15/2026 17:38:54 UTC

Project Code: 2026-0036910

Project Name: McHenry Solar Farm LLC

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Additionally, please note that on March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat (NLEB) as endangered under the Endangered Species Act. The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing

determination for the NLEB by November 2022 (Case 1:15-cv-00477, March 1, 2021). The bat, currently listed as threatened, faces extinction due to the range-wide impacts of white-nose syndrome (WNS), a deadly fungal disease affecting cave-dwelling bats across the continent. The proposed reclassification, if finalized, would remove the current 4(d) rule for the NLEB, as these rules may be applied only to threatened species. Depending on the type of effects a project has on NLEB, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). If your project may result in incidental take of NLEB after the new listing goes into effect this will first need to be addressed in an updated consultation that includes an Incidental Take Statement. If your project may require re-initiation of consultation, please contact our office for additional guidance.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chicago Ecological Service Field Office

1511 47th Ave

Moline, IL 61265-7022

(309) 757-5800

PROJECT SUMMARY

Project Code: 2026-0036910

Project Name: McHenry Solar Farm LLC

Project Type: Power Gen - Solar

Project Description: McHenry Solar Farm LLC plans to build a solar farm along the west side of S. Crystal Lake Road just north of Mason Mill Road in McHenry, Illinois 60050. The proposed project is located in Section 8 and 9, Township 44N, Range 8E. The proposed project site is approximately 37.0 acres. The project will involve installation of solar panels, fixed knot farm fencing, and a 20' wide access road with double gate.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@42.310499050000004,-88.31717219768683,14z>



Counties: McHenry County, Illinois

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Endangered

BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non- Essential

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Rusty Patched Bumble Bee <i>Bombus affinis</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9383	Endangered
Western Regal Fritillary <i>Argynnis idalia occidentalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Baxter and Woodman
Name: Mariah Melone
Address: 17009 Harmony Rd
City: Marengo
State: IL
Zip: 60152
Email: mkrueger@baxterwoodman.com
Phone: 8154443265

Endangered Species Act Review

[← BACK](#) [EXIT REVIEW](#)

- ✓ Request an official species list
- ✓ Evaluate Determination Keys Complete
- 3 Analyze project (optional)
- 4 **Download documentation**

Step 4: Download documentation

Review the guidance below and generate and download documents for your records.

- 1 Request an official species list
Complete

 SPECIES LIST: CHICAGO ECOLOGICAL SERVICE FIELD OFFICE (1)

- 2 Evaluate determination keys
Complete

- Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key

 VIEW TECHNICAL ASSISTANCE LETTER

- Rusty Patched Bumblebee Rangewide Determination Key

 VIEW TECHNICAL ASSISTANCE LETTER

- 3 Analyze Project (optional)

[RETURN TO ANALYSIS STEP](#)



McHenry Solar Farm LLC

Application for Conditional Use Permit

Drain Tile Mitigation Plan

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
County of McHenry, Illinois
January 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

Surya Powered LLC



MSF Project Description

McHenry Solar Farm LLC (MSF) is proposing to construct a **5.0 MWac** community solar facility on an unincorporated parcel of land currently used for agricultural purposes. This type of use typically utilizes drain tiles to control and manage stormwater runoff.

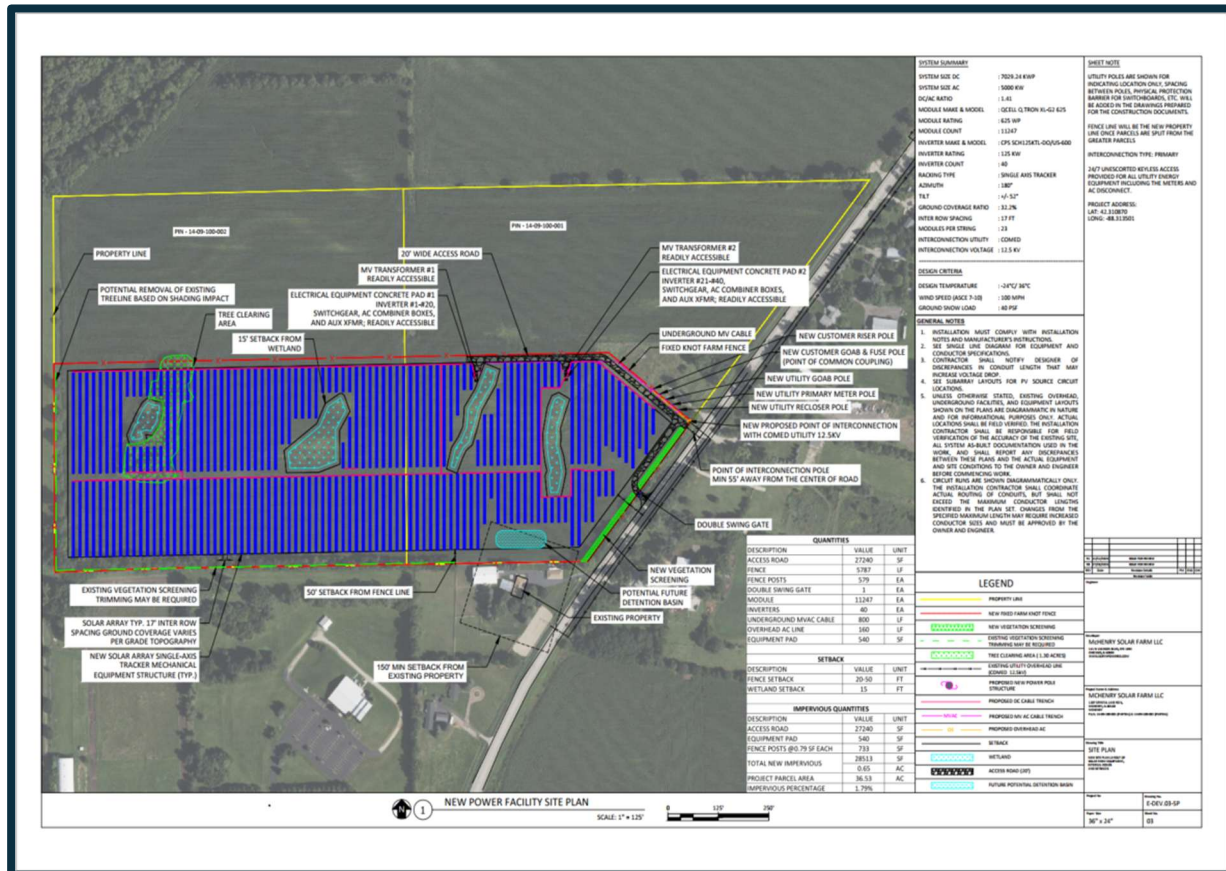


Exhibit A - McHenry Solar Farm LLC Site Plan

MSF Mitigation Efforts

To minimize damage during construction of the facility and enable proper site restoration in the future, MSF is committed to conducting a **complete drain tile survey** of the parcel immediately upon receiving the project’s conditional use permit (CUP) approval issued by McHenry County and prior to the issuance of construction permits.

This survey will compile information obtained from private landowners, McHenry County staff, a review of existing aerial photographs, and visual field observation. Data will then be aggregated into a mapped plan of all known or suspected drain tile systems onsite. The process will be an ongoing effort as any additional information is obtained prior to or during



construction. MSF is also required to restore the site/soil to its pre-development state under the conditions of approval associated with our CUP.

Construction Protocol

For our immediate needs, MSF will follow this **construction protocol** to avoid and/or mitigate drain tile damage:

- To the best of our knowledge, present a project design which **minimizes impacts to known or suspected drain tile systems**. Construction activity and impacts on drainage will be managed through the project's SWPPP, included as part of the construction permit set. Contractors will be held responsible for identifying potential signs of damage through the construction/decommissioning process.
- **Known or suspected drain tiles** will be flagged in the field during construction. Drain tile locations shall be flagged using GPS technology.
- Following **AIMA guidelines**, if drainage tile lines are damaged, following adequate inspection, MSF will either
 - **Temporarily repair** the lines (Figure 1), or
 - **Install new, permanent drain tiles/lines** of comparable quality and cost to the original(s), and of sufficient size and appropriate slope in locations that limit direct impact from the facility, ensuring proper drainage is maintained (Figure 2).
- Should new drain tiles/lines be required, **new tiles/lines may be located outside of, but adjacent to, the perimeter of the facility**. Said repairs should be made **within 30 days of discovery**, or as permitted by weather conditions, and should restore drainage capability onsite prior to MSF development.
- Should damage occur during decommissioning, **repairs and/or installation of new tiles/lines shall be completed within 12 months** of the facility closure date.
- Incorporate all data into a **mapped plan or exhibit** attached as part of the construction permit set, facilitating decommissioning and site restoration.

Complaint Resolution

MSF has established a **complaint resolution protocol** concerning overall operations and maintenance procedures associated with the facility. This protocol is extended to address concerns in a **timely and thorough manner**, regarding drainage solutions associated with repair or maintenance activity of existing or new drain tiles/lines.



AIMA Requirements

MSF has executed an **Agricultural Impact Mitigation Agreement (AIMA)** with the **Illinois Department of Agriculture (IDOA)** to minimize/manage construction impacts associated with the development of our proposed facility.

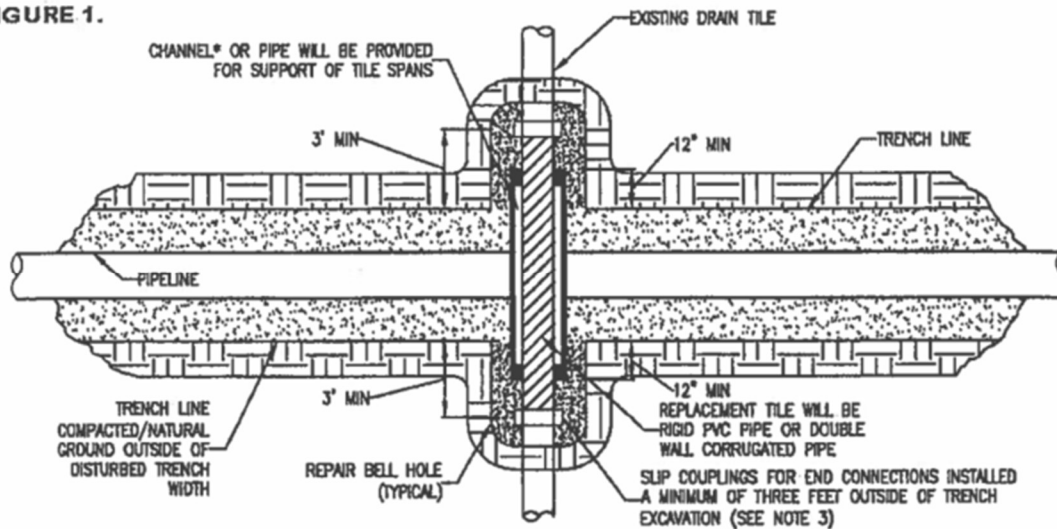
Potential damage could result when installing underground cables. Presuming cables will be removed upon decommissioning, pursuant to the AIMA, excavation for the installation of underground cables is limited to a depth of 18-inches within the facility's fenced perimeter or when traversing beneath an access road provided the cable path is marked at the surface. If cables are left in place, they may be buried to a depth of 5 feet.

The AIMA requires that within 60 days after construction is complete, MSF shall provide the landowner, IDOA, and the **McHenry-Lake Soil and Water Conservation District (MLSWCD)** with "**as built**" drawings (strip maps) showing the location of all drainage tile lines by survey station including any drain tile line repair location(s), and any underground cable installed as part of the MSF facility.

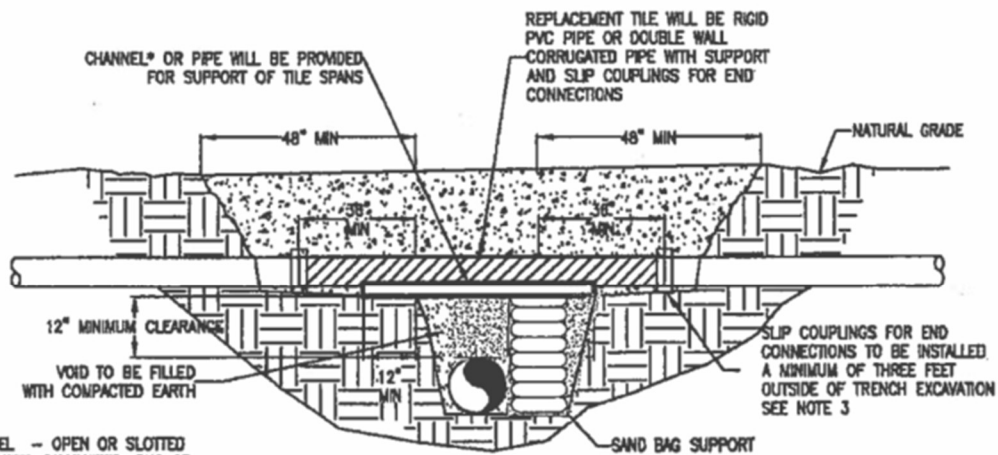
Any development activity on agricultural land inevitably creates potential for damaging existing drain tiles, leading to a problematic situation during the eventual decommissioning of MSF's facility at the end of its projected lifespan.



FIGURE 1.



PLAN
N.T.S.



CROSS SECTION
N.T.S.

*CHANNEL - OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE TO SUPPORT DRAIN TILE.

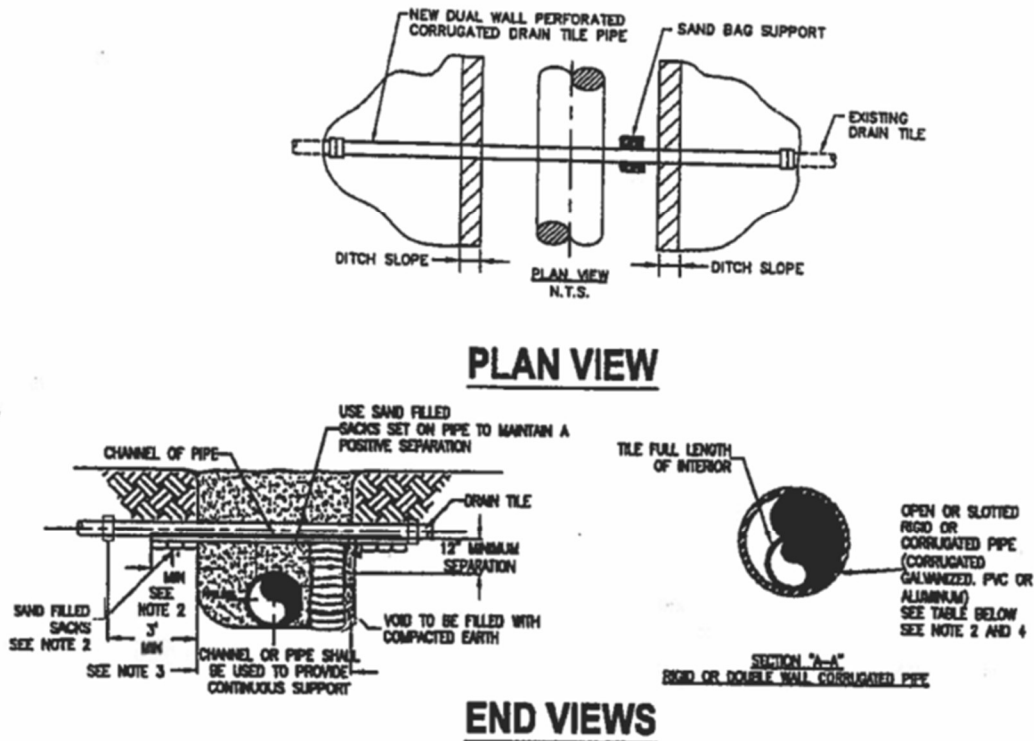
NOTE:

1. IMMEDIATELY REPAIR TILE IF WATER IS FLOWING THROUGH TILE AT TIME OF TRENCHING. IF NO WATER IS FLOWING AND TEMPORARY REPAIR IS DELAYED, OR NOT MADE BY THE END OF THE WORK DAY, A SCREEN OR APPROPRIATE "NIGHT CAP" SHALL BE PLACED ON OPEN ENDS OF TILE TO PREVENT ENTRAPMENT OF ANIMALS ETC.
2. CHANNEL OR PIPE (OPEN OR SLOTTED) MADE OF CORRUGATED GALVANIZED PIPE, PVC OR ALUMINUM WILL BE USED FOR SUPPORT OF DRAIN TILE SPANS.
3. INDUSTRY STANDARDS SHALL BE FOLLOWED TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES.

TEMPORARY DRAIN TILE REPAIR



FIGURE 2.



MINIMUM SUPPORT TABLE			
TILE SIZE	CHANNEL SIZE	PIPE SIZE	
3"	4" @ 5.4 #/ft	4"	STD. WT.
4'-5"	5" @ 6.7 #/ft	6"	STD. WT.
6'-9"	7" @ 9.8 #/ft	8"-10"	STD. WT.
10"	10" @ 15.3 #/ft	12"	STD. WT.

NOTE:

- TILE REPAIR AND REPLACEMENT SHALL MAINTAIN ORIGINAL ALIGNMENT GRADIENT AND WATER FLOW TO THE GREATEST EXTENT POSSIBLE. IF THE TILE NEEDS TO BE RELOCATED, THE INSTALLATION ANGLE MAY VARY DUE TO SITE SPECIFIC CONDITIONS AND LANDOWNER RECOMMENDATIONS.
- 1'-0" MINIMUM LENGTH OF CHANNEL OR RIGID PIPE (OPEN OR SLOTTED CORRUGATED GALVANIZED, PVC OR ALUMINUM CRADLE) SHALL BE SUPPORTED BY UNDISTURBED SOIL, OR IF CROSSING IS NOT AT RIGHT ANGLES TO PIPELINE, EQUIVALENT LENGTH PERPENDICULAR TO TRENCH. SHIM WITH SAND BAGS TO UNDISTURBED SOIL FOR SUPPORT AND DRAINAGE GRADIENT MAINTENANCE (TYPICAL BOTH SIDES).
- DRAIN TILES WILL BE PERMANENTLY CONNECTED TO EXISTING DRAIN TILES A MINIMUM OF THREE FEET OUTSIDE OF EXCAVATED TRENCH LINE USING INDUSTRY STANDARDS TO ENSURE PROPER SEAL OF REPAIRED DRAIN TILES INCLUDING SLIP COUPLINGS.
- DIAMETER OF RIGID PIPE SHALL BE OF ADEQUATE SIZE TO ALLOW FOR THE INSTALLATION OF THE TILE FOR THE FULL LENGTH OF THE RIGID PIPE.
- OTHER METHODS OF SUPPORTING DRAIN TILE MAY BE USED IF ALTERNATE PROPOSED IS EQUIVALENT IN STRENGTH TO THE CHANNEL/PIPE SECTIONS SHOWN AND IF APPROVED BY COMPANY REPRESENTATIVES AND LANDOWNER IN ADVANCE. SITE SPECIFIC ALTERNATE SUPPORT SYSTEM TO BE DEVELOPED BY COMPANY REPRESENTATIVES AND FURNISHED TO CONTRACTOR FOR SPANS IN EXCESS OF 20', TILE GREATER THEN 10" DIAMETER, AND FOR "HEADER" SYSTEMS.
- ALL MATERIAL TO BE FURNISHED BY CONTRACTOR.
- PRIOR TO REPAIRING TILE, CONTRACTOR SHALL PROBE LATERALLY INTO THE EXISTING TILE TO FULL WIDTH OF THE RIGHTS OF WAY TO DETERMINE IF ADDITIONAL DAMAGE HAS OCCURRED. ALL DAMAGED/DISTURBED TILE SHALL BE REPAIRED AS NEAR AS PRACTICABLE TO ITS ORIGINAL OR BETTER CONDITION.

PERMANENT DRAIN TILE REPAIR





McHenry Solar Farm LLC

Application for Conditional Use Permit

Preliminary Stormwater Management Program **Outlining Best Management Practices (BMPs)**

Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
County of McHenry, Illinois
January 2026

Project Company / Applicant

McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035

Developer

Surya Powered LLC



MSF Project Description

McHenry Solar Farm LLC (MSF) is proposing to construct a **5.0 MWac** community solar facility on an unincorporated parcel of land currently used for agricultural purposes. This type of use typically utilizes drain tiles to control and manage stormwater runoff.

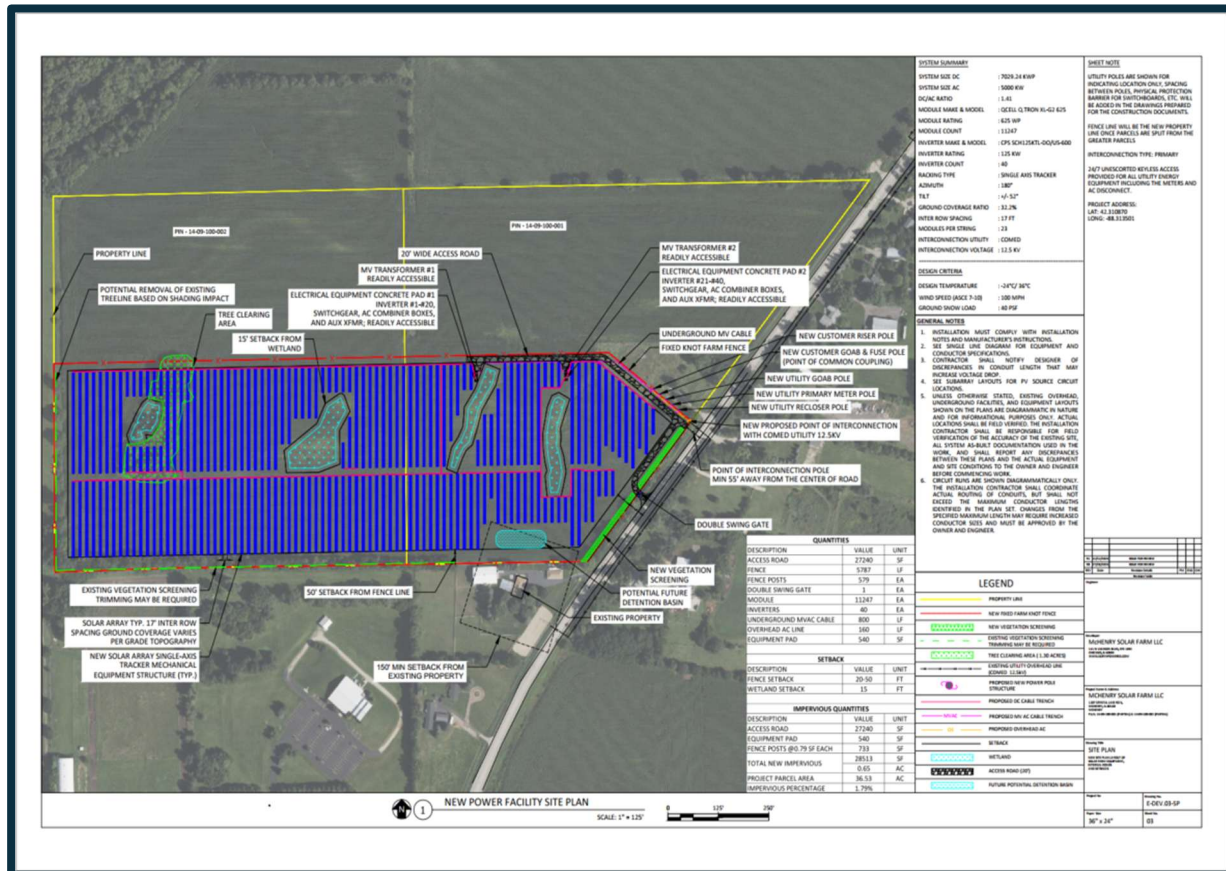


Exhibit A - McHenry Solar Farm LLC Site Plan

MSF Stormwater Management

McHenry Solar Farm LLC is committed to implementing the **best management practices (BMPs)** deemed appropriate and applicable stormwater management practices during the construction of the MSF facility after a thorough review by McHenry County staff as part of the permitting process.

To minimize damage during construction of the facility and enable proper site restoration in the future, MSF is committed to conducting a **complete drain tile survey** of the parcel immediately upon receiving the project's conditional use permit (CUP) approval issued by McHenry County and prior to the issuance of construction permits.



MSF has executed an **Agricultural Impact Mitigation Agreement (AIMA)** with the **Illinois Department of Agriculture (IDOA)** to minimize/manage construction impacts associated with the development of our proposed facility.

MSF staff have also established a **complaint resolution protocol** concerning overall operations and maintenance procedures associated with the facility. This protocol is extended to address concerns in a **timely and thorough manner**, regarding stormwater drainage solutions associated with project development.

MSF Preliminary Stormwater Management

The following items outline our understanding of the stormwater requirements a typical community solar developer may face, both during construction and later, operations. As well as detailing specific efforts MSF staff will undertake to expedite the review process.

- **Stormwater Management, NPDES Permits and grading permits** will be obtained as required by McHenry County.
- **Pre-Construction Base Flood Elevation (BFE)** will be determined.
- **Onsite wetlands and flood plain areas** will be delineated on the preliminary site plan and construction permit sets.
- **Soil mapping** is reflected in the MLSWCD NRI report.
- **Volumetric BMP** will be implemented for all impervious, including, but not limited to pedestals, panels, and access road.
- **A Drain Tile Survey** will be completed after the CUP process is concluded, but prior to the submittal of construction permit plans, identifying existing conditions and needed repairs or replacements.
 - Runoff calculations, release rates and discharges will be calculated at civil permitting.
 - Stormwater conveyance/swales will be sized per McHenry County requirements.
 - No sanitary or drain tile connections are planned.
- **General BMPs** to be implemented
 - The MSF preliminary site plan design is based on existing contours; no significant grading is anticipated.
 - Existing vegetation will be preserved where possible while the onsite seeding program of pollinator-friendly plantings will be pursued after main construction is complete.



- Manage runoff to protect vulnerable areas and storm drains using barriers, wattles, matting, etc.
- **Ongoing Maintenance BMPs**
 - Create an emergency spill response plan.
 - MSF personnel will undergo training regarding operations, equipment and landscaping protocols. MSF staff have prepared a preliminary **Operations and Maintenance Plan (OMP)** outlining these efforts.
 - Involve local fire departments were consulted early in the development process regarding the site plan; a preliminary **Emergency Response Plan (ERP)** has been prepared and will be updated to reflect final design. Training for emergency responders is a key element of the ERP.
- **Water quality factors**
 - A **Storm Water Pollution Prevention Plan (SWPPP)** and a **Temporary Erosion and Sediment Control Plan (TESC)** will be developed for the MSF project; utilizing a combination of silt fences, storm drain inlet barriers, matting, or other mechanisms deemed necessary by McHenry County.
- **Stabilized construction entrance and sediment trap(s)** will be implemented, as required.
- **Access road culvert(s)** will comply with McHenry County design requirements and/or weight limitations associated with construction and/or fire equipment.





McHenry Solar Farm LLC

Application for Conditional Use Permit

Landscape Maintenance & Monitoring Plan

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
County of McHenry, Illinois
January 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

Surya Powered LLC



Purpose & Intent

While energy production is the primary goal of a community solar facility, to assure the health, longevity and effectiveness of landscaping installed as part of the **McHenry Solar Farm LLC (MSF)** project, and to fully comply with the requirements of the **McHenry County Code**, MSF staff are preparing a detailed **Landscape Plan (LP)** and **Landscape Monitoring and Maintenance Plan (LMMP)**.

Taken together, these documents will outline the MSF project's **degree of compliance with code requirements, conditions of approval, and best management practices (BMPs)** traditionally associated with successful landscape installations; serving as a guide for contractors charged with the original installation and ongoing maintenance activity over the project's lifecycle.

Ecological Responsibility

When the extended lifespan of a community solar facility is combined with the amount of acreage utilized, the overall long-term impact on affected ecosystems becomes a primary concern. MSF views this responsibility as an opportunity to minimize impacts related to the facility while enhancing the benefits realized through **improved soil quality**.

Like most solar facilities, MSF is located on relatively flat land, historically used for agricultural purposes. Repeated **cycles of agricultural production** can have a diminishing effect on soil quality. The use of fertilizers and chemical treatments can help restore nutrients in the short term, but even with the use of crop rotation techniques, the impact on soil quality can be damaging. As an interim use, MSF acknowledges an **ecological responsibility** undertaken to enhance soil quality and implement BMPs via the:

- **Selection of plants and seed mixtures.**
- **Physical location of components to natural features.**
- **Measures taken to maintain proper drainage and control runoff.**

MSF Monitoring & Maintenance

Specific plantings and seed mixtures will be chosen and installed in accordance with current guidelines put forth by the McHenry Lake Soil and Water Conservation District, State of Illinois Department of Natural Resources, and McHenry County code.

MSF's seed mixtures have been chosen to maximize soil improvement. Pollinator friendly plantings will support a thriving native habitat while limiting the height of our vegetation, eliminating any conflict with solar panel base heights – typically 36" above grade. The selection of flowering species will attract birds, bees and insects while occupying space which may otherwise be occupied by noxious weeds or invasive species. The practical



benefits are enhanced by the visual aesthetic provided by plantings blooming throughout the annual growing cycle.

Based on common practice within the solar industry, MSF is proposing a **stewardship program** covering the initial five (5) years with maintenance elements continuing through the remainder of the project's lifecycle. The program is intended to be adaptive as the ecological health of the site will likely be subjected to changes over time. The project's overall elements include:

- **Site assessment; selection of seed mixture, trees and shrubs.**
- **Proper installation/establishment of plantings.**
- **Routinely checking on the health of trees and shrubs.**
- **Replacement of dead trees and shrubs.**
- **Regular inspections and maintenance activity.**
- **Monitor ground cover and need for unscheduled maintenance.**
- **Check for noxious weeds and invasive species.**

Site Assessment

- Review site topography, drainage pattern and soil types.
- Select/confirm seed mix intended to provide onsite diversity and soil stabilization through sustained root growth, habitat enhancement and aquifer/groundwater recharge.

Site Preparation & Seeding

- Conduct preliminary land clearance, rock picking and tree removal activity as needed.
- Grade the site prior to seeding or soil preparation activity.
- Remove fescue or broadleaf plantings (if present); allow at least 30 days before disturbing site after removal. Snow/frost seeding optional if schedule allows.
- Disk the solar field site prior to seeding using disk harrows; improving soil texture, aeration and moisture infiltration.
- Seed the site using broadcast spreaders in multiple seeding passes; assuring seed distribution.

Vegetation Management

The selected landscape contractor will coordinate with **local maintenance contractors** to conduct **regular inspections and maintenance activity** during growing seasons, over the project's lifespan. This management plan is intended to be adaptive, evolving strategies and modifying plans to reflect changing circumstances affecting the site's ecology/habitats.



Subject to further ongoing review by our landscape consultants, a **complete site mowing** of the MSF site should be considered, **once every three (3) years**, in the interest of integrated vegetation management, mulching biomass and recycling nutrients into the soil.

MSF's ongoing stewardship of onsite vegetation will focus on an initial **Establishment Phase (Years 1-5)**, followed by a **Development Phase (Years 6-10)**, and continual monitoring through a **Maturation Phase (Years 11 through Decommissioning)**.

Establishment Phase – Year 1	
<i>... typically initiated during the spring of Year 1 after seed installation; if seeded in summer or fall, maintenance and monitoring begins the following year</i>	
Ground Cover	Within ninety (90) days of seed installation (or after the start of the growing season following dormant seeding), approximately ninety percent (90%) of the seeded area, as measured by aerial cover, will be vegetated or otherwise stabilized against erosion. If the minimum is not met, additional seeding is required in those areas lacking coverage
Site Visits	Conducted 1-3 times throughout summer and fall
Species Control	During each visit ... <ul style="list-style-type: none"> • Monitor vegetation height and presence of invasive species • Control invasive species; physical removal or selective herbicide treatment using tractor and/or ATV-mounted sprayers • Herbicides used should be animal-friendly and applied by trained personnel • Monitor tree/shrub health; flag for removal/replacement if needed
Mowing	<ul style="list-style-type: none"> • Using zero-radius mowing equipment • Maximum of 3 times in areas exceeding 16" height • Areas under 16" height may be left for next visit • If any, cut back newly seeded areas to 10" height
Reporting	After each visit, report activities, site conditions, and recommendations to operator

Establishment Phase – Year 2	
Ground Cover	Planted areas should have a minimum of fifty percent (50%) ground cover by species included in the final seed mix (excluding any cover crop or invasive species). If this standard is not met, corrective action should be initiated ASAP.
Site Visits	Conducted 1-3 times beginning in spring



Species Control	<p>During each visit ...</p> <ul style="list-style-type: none"> • Monitor vegetation height and presence of invasive species • Control invasive species; physical removal or selective herbicide treatment using tractor and/or ATV-mounted sprayers • Monitor tree/shrub health; flag for removal/replacement if needed
Mowing	<p>During first visit ...</p> <ul style="list-style-type: none"> • Using zero-radius mowing equipment • Cut back all areas to 10” height, removing dead stalks and seed heads <p>After first visit ...</p> <ul style="list-style-type: none"> • Maximum of 3 times in areas exceeding 16” height • Areas under 16” height may be left for next visit • If any, cut back newly seeded areas to 12” height • Plant additional seed to address areas of poor coverage; increasing plant competition and enhancing biodiversity onsite
Reporting	After each visit, report activities, site conditions, and recommendations to operator

Establishment Phase – Years 3-5

Ground Cover	Planted areas should have a minimum of seventy-five percent (75%) ground cover by species included in the final seed mix (excluding any cover crop or invasive species). If this standard is not met, corrective action should be initiated ASAP.
Site Visits	Conducted seasonally throughout spring, summer and fall
Species Control	<p>During each visit ...</p> <ul style="list-style-type: none"> • Monitor vegetation height and presence of invasive species • Control invasive species; physical removal or selective herbicide treatment using tractor and/or ATV-mounted sprayers • Herbicides used should be animal-friendly and applied by trained personnel • Monitor tree/shrub health; flag for removal/replacement if needed
Mowing	<ul style="list-style-type: none"> • Using zero-radius mowing equipment • Maximum of 3 times maintaining a maximum 16” height • Areas under 16” height may be left for next visit • If any, cut back newly seeded areas to 10” height
Reporting	After each visit, report activities, site conditions, and recommendations to operator



Development Phase – Years 6-10	
Site Visits	Conducted a minimum of twice annually – early spring and late summer/early fall
Species Control	<p>During each visit ...</p> <ul style="list-style-type: none"> • Monitor vegetation height and presence of invasive species • Control invasive species; physical removal or selective herbicide treatment using tractor and/or ATV-mounted sprayers • Herbicides used should be animal-friendly and applied by trained personnel • Monitor tree/shrub health; flag for removal/replacement if needed
Mowing	<ul style="list-style-type: none"> • Using zero-radius mowing equipment • Spring mowing should cut back vegetation to 10” height, removing dead stalks and seed heads • Fall mowing should focus on areas exceeding 24” height • Areas under 24” height may be left for next season
Reporting	After each visit, report activities, site conditions, and recommendations to operator

Maturation Phase – Year 11-Decommissioning	
Site Visits	Conducted a minimum of twice annually – early spring and late summer/early fall
Species Control	<p>During each visit ...</p> <ul style="list-style-type: none"> • Monitor vegetation height and presence of invasive species • Control invasive species; physical removal or selective herbicide treatment using tractor and/or ATV-mounted sprayers • Herbicides used should be animal-friendly and applied by trained personnel • Monitor tree/shrub health; flag for removal/replacement if needed
Mowing	<ul style="list-style-type: none"> • Using zero-radius mowing equipment • Spring mowing should cut back vegetation to 10” height, removing dead stalks and seed heads • Fall mowing should focus on areas exceeding 24” height • Areas under 24” height may be left for next season
Reporting	After each visit, report activities, site conditions, and recommendations to operator





McHenry Solar Farm LLC

Application for Conditional Use Permit

Construction Trip Generation Estimate

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
County of McHenry, Illinois
January 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

Surya Powered LLC



Introduction

The Applicant is proposing an initial draft of the **Construction Trip Generation Estimate (CTGE)** with **estimated trip generation** for consideration during the **Conditional Use Permit** review process. A final CTGE will be prepared once a principal or general contractor is retained and in advance of construction; identify measures to mitigate the impact of vehicles during the construction period in accordance with established practices enforced by **McHenry County**.

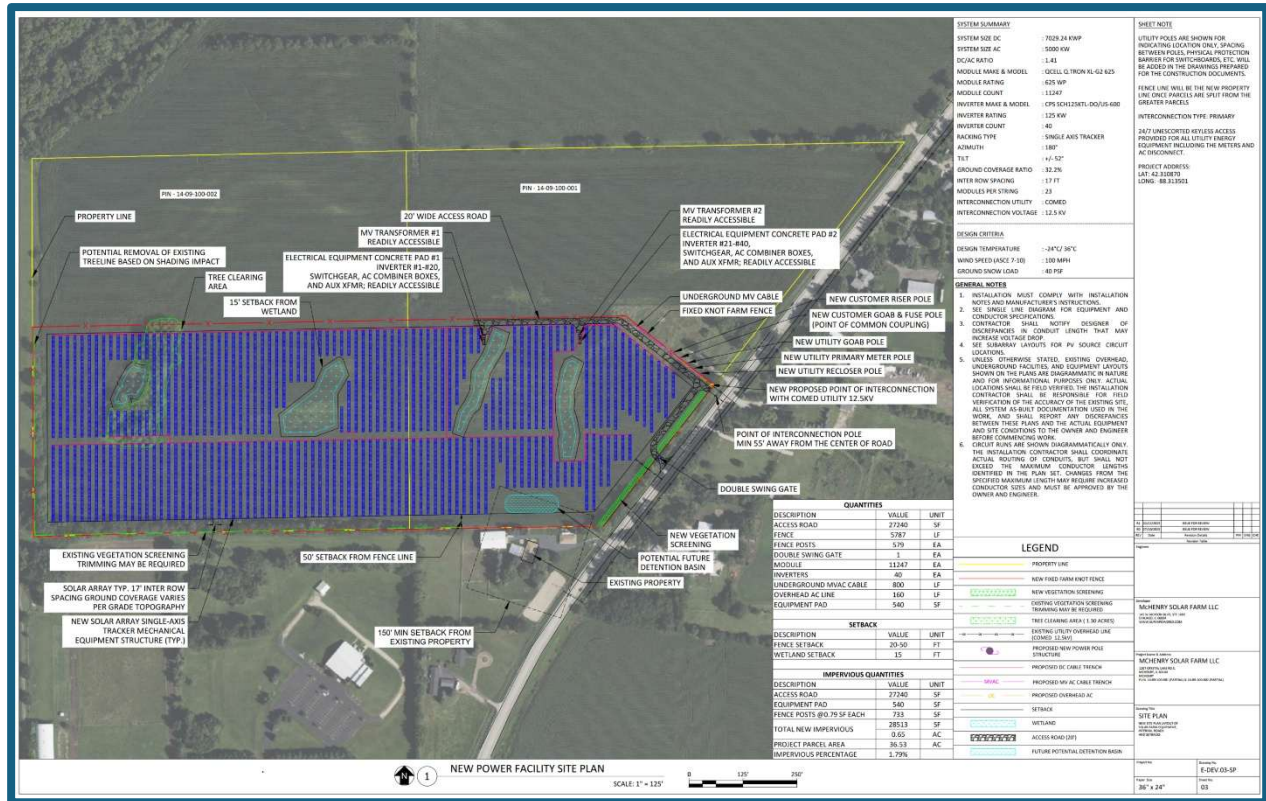


Exhibit A - McHenry Solar Farm LLC Site Plan

Construction Phasing

Construction of the McHenry Solar Farm will be conducted in **three major phases** detailed below: site preparation, installation, and final testing. The Applicant estimates that the **construction of the MSF facility will require a minimum of 4-6 months**; assuming no technical, product supply, or logistical setbacks, and suitable weather conditions prevail. ComEd will upgrade the capacity of nearby infrastructure systems to enable the facility to supply energy directly to the utility grid; a process which may require 8-12 months for overall completion.



➤ **Phase I – Site Preparation**

Site preparation begins with **land clearance** – the removal of trees, vegetation, and current crops from the project area. Clearance enables **preliminary grading and fill activity**, and the implementation of measures outlined in a **Stormwater Pollution Prevention Plan (SWPPP)** for erosion control. A temporary access road is laid out and an area set aside for the storage of construction materials and onsite parking for workers. Debris will be properly disposed of offsite.

➤ **Phase II – Site Installation**

Site installation will start the **excavation** needed for the installation of underground wiring, trenching for foundation poles, and setting up perimeter fencing. **Project components** will be installed - racking systems and modules – followed by connecting the balance of system (BoS) equipment including wiring, combiner boxes, transformers, and inverters.

➤ **Phase III – Final Testing**

Site testing is the final phase, verifying the **operational status** of the project’s utility interconnection, BoS equipment, and monitoring systems. Completion of this phase finalizes the facility prior to the facility’s energization - its **commercial operations date (COD)**.

Construction Trip Generation Estimate			
	Vehicle Trips		
	Daily	AM Peak	PM Peak
Phase 1 – Site Preparation			
Construction Workers (10)	30	4	4
Flatbed Delivery Trucks	4	2	2
Specialty/Panel Trucks	2	1	1
Total	36	7	7
Phase 2 – Equipment Installation			
Construction Workers (40)	120	15	15
Flatbed Delivery Trucks	10	1	1
Specialty/Panel Trucks	4	1	1
Total	134	17	17
Phase 3 – Testing & Inspection			
Construction Workers (20)	70	9	9
Flatbed Delivery Trucks	6	1	1
Specialty/Panel Trucks	2	1	1
Total	78	11	11

Aspects of a construction process vary as the work proceeds. **Heavier equipment** will be used onsite at the beginning of the construction and will likely remain for the duration of their work.

Daily vehicular traffic will primarily consist of **delivery trucks and workers’ vehicles** (passenger cars, SUVs and light trucks). **Flatbed trucks, dump trucks and/or water trucks** will be utilized to deliver equipment and handle any soil import/export work.



Construction Routes

Construction and maintenance routes will originate from the interstate highway system and utilize local state or county highways to directly access the project site. While routes will be finalized based on the suppliers' locations, the Applicant is confident the following segments will be the logical choices as described below.

- ❖ **From the North**
 - Illinois Route 120 to Crystal Lake Road
- ❖ **From the East/West**
 - Bull Valley Road to Crystal Lake Road
- ❖ **From the South**
 - Illinois Route 176 to Walkup Road to Crystal Lake Road

The highest amount of daily traffic will be generated by construction workers traveling to/from the site; most are expected to **arrive at the site before 7:00 AM** and will likely **depart prior to the evening peak travel time (4:00 PM-6:00 PM)**. But we estimate 25% of the trips may arrive or depart within the peak travel times.

At this stage, it is impossible to calculate specific deliveries, types of vehicles onsite, or the number of workers. However, based on previous solar project construction by a number of developers, the estimated trip generation data will prove fairly accurate.

With the use of offsite monitoring of the facility on a 24/7/365 basis, **MSF operations will require significantly fewer trips** than during any construction phase. There will be no personnel onsite during operations. **Landscape maintenance** will be required an estimated 6-8 times per year, as will **equipment maintenance and/or replacement activity** which will occur on an as-needed basis. Please refer to the appropriate planning documentation prepared by MSF staff for further details on operations, maintenance and/or emergency response protocols.

While guidelines vary by jurisdiction, MSF believes **the projected number of peak trips generated by this project does *not* dictate a traffic impact study**. With a high of 17 peak trips the likelihood of any significant impact on the **level of service (LOS)** at nearby intersections is clearly minimal

Traffic Control Measures

The general contractor may employ several **sub-contractors** on the Site, and all will fall under the umbrella of a **traffic control plan (TCP)** and will have an obligation to adhere to the extent possible.



The final TCP will confirm the construction schedule and the agreed construction routes to the site, with TCP management entrusted to the **Site Superintendent** - responsibilities including managing traffic, onsite loading/unloading, material and equipment storage, workers' parking and associated environmental effects, including, but not limited to, the following:

➤ **Administration**

The Site Superintendent will ensure that all construction personnel are made aware of the TCP and its provisions, as well as the content/protocols of the **MSF Emergency Response Plan**.

A **list of stakeholder/emergency contacts** shall be compiled and maintained by the Site Superintendent for use in the event of an emergency, including the location of the nearest hospital, fire assembly points and inclement weather procedures.

➤ **Employee Parking**

Workforce parking will be provided entirely within the confines of the site and will not be permitted on the adjacent roads.

➤ **Signage**

Temporary construction signage will be erected in the vicinity of the project to warn people of construction activity and vehicle turning movements at the access drive. The exact nature and location of signage will be confirmed with **McHenry County Department of Transportation**.

➤ **Delivery Coordination**

Schedule deliveries to avoid morning (7:00 AM-9:00 AM) and evening (4:00 AM-6:00 PM) peak travel times to the extent possible; minimizing potential traffic congestion.

➤ **Route Control**

Direct deliveries to **identified construction routes**; enabling an accurate assessment of construction impacts on roadways and preventing traffic on non-designated construction routes.

➤ **Waste Control, Dust and Debris Management**

Apply a **reduce-recycle-reuse philosophy** where possible throughout construction supporting sustainability and cost controls. Locations will be designated onsite for the **temporary storage of debris** during the construction and decommissioning phases.

To reduce dust and debris deposited onto the **local road network**, a wheel cleaning facility may be installed. If required, a road sweeper may also be deployed to ensure Crystal Lake Road is kept free of dust and dirt.





McHenry Solar Farm LLC

Application for Conditional Use Permit

Operations & Maintenance Plan (OMP) & Guidelines

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Facility
County of McHenry, Illinois
January 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

Surya Powered LLC



Purpose & Intent of the OMP

The management team for **McHenry Solar Farm LLC (MSF)** is establishing an **Operations & Maintenance Plan and Guidelines (OMP)** to provide guidance in the project's development and operation over the lifespan of the MSF project.

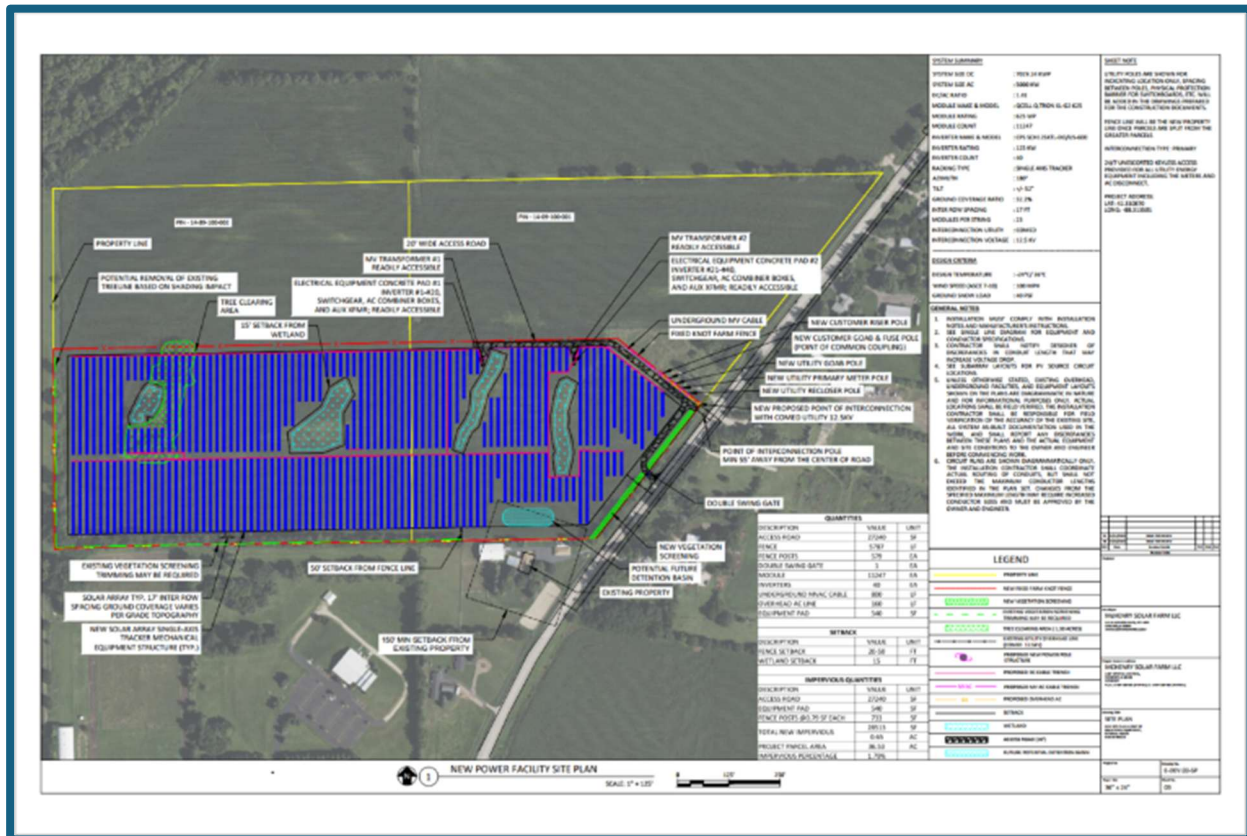


Exhibit A - McHenry Solar Farm LLC Site Plan

With an established OMP continually implemented, the McHenry Solar Farm LLC will become not only a successful investment but also a reliable element in Illinois' utility grid, producing the following results:

- **Ensuring public safety, mitigating the risk of a hazardous event**
- **Maintaining the aesthetics provided for in the project's site plan**
- **Increasing the system's efficiency and energy delivery (MWh/MW)**
- **Decreasing downtime due to equipment issues (Hours/Year)**
- **Guaranteeing the life of the solar installation (25-40 Years)**
- **Reducing the total cost of operations and maintenance (\$/kW/Year)**
- **Qualifying the need for financing and warranty support**



Commissioning the MSF System

Solar farm operators must adhere to a range of reporting requirements – from generation data and environmental impact metrics to equipment maintenance and regulatory filings. Specific documentation and testing are required to have the system initially commissioned for operation. When taken together, these elements form the foundation of the MSF OMP; including the following:

- **Applicable System Standard** > IEC 62446 Grid Connected PV Systems ... detailing minimum requirements for system documentation, commissioning tests and inspections.
- **MSF OMP manuals, documentation and equipment datasheets.**
- **PV System Inspection Report** ... documenting MSF project compliance with codes and standards.
- **PV Array Test Report** ... providing details of the MSF PV array and the results of polarity, insulation, grounding, voltage and current tests.
 - Testing Standards > IEC 61724 using measurement standards Part 1 (Methodology), Part 2 Capacity) and Part 3 (Energy). Examples of these tests include, but are not limited to:
 - Fuses ... Inverters/Combiner Boxes
 - Operating Voltage/Current
 - Open Circuit Voltage
 - Short Circuit Current
 - Continuity of Grounding System
 - Integrity of Insulation in Power Circuitry
- **System Performance Test** ... comparing performance ratio – actual vs predicted – using an estimate based on environmental conditions.
- **System Verification Certificate** ... certifies MSF commissioning process was conducted according to standard; documentation typically needed to keep the project bankable and audit ready.

Proposed Scope of the MSF OMP

The scope of operations and maintenance activities consists of four parts:

- **Administration**
- **Monitoring**
- **Preventative Maintenance**
- **Corrective Maintenance.**

Administrative

Administrative operations focus on **billing and accounting processes**, including handling **warranty claims** resulting in component replacement. Administrative operations should consider the long-term staffing, budget, and training required for continued support - minimizing MSF downtime.



Having documented instructions to outline procedures and contacts makes a big difference in the effectiveness of your maintenance strategy. MSF staff will create a location-based qualified list of trades available if an event occurs. With the remote monitoring associated with community solar installations such as MSF, responsibilities for overseeing the system and communicating operational needs must be clearly defined.

Monitoring

Remote monitoring – 24/7/365 - of solar production is the critical element in implementation of the OMP. Responding to alarm triggers, **detecting underperformance** early and having the ability to **diagnose problems in real-time** is but the first step in problem resolution and maintaining energy output over time. System production trends can be useful in planning for future maintenance when the system's efficiency degrades over time.

Monitoring involves measuring the system's performance and simultaneously identifying irregular trends and triggering alerts when production levels are impacted. Alerts provide insight into the specific components creating the issue and a quick response by MSF staff will limit the side effects of downtime. Onsite inspections may also be required to spot any structural hazards. Analysis of **daily/weekly reports** can often highlight performance trends in advance of impacts on the system.

Preventative Maintenance

Preventative maintenance for solar assets is **a proactive strategy** that reduces the chance of failure resulting in unplanned downtime. A preventative strategy can include scheduled cleaning, component replacements, and/or system repairs - increasing the operational performance of the system and its components. Preventative maintenance can be scheduled in advance and is typically recorded as both long and short-term expenses.

For example, while solar panels do not necessarily require any cleaning in our climate, as the structural incline combined with precipitation may clean it naturally. Unfortunately, streaks, algae, and/or dust can occasionally build up and decrease production. Without routine maintenance, there is an increasing chance for broader issues to occur that can negatively impact energy production and user safety. After a period of operation, the need for cleaning MSF panels can be more accurately assessed and subsequent measures taken to prevent system impacts.

Routine inspection, testing electrical connections, and checking structural integrity for rust and corrosion are all elements of an effective OMP. Manufacturing guidelines provide a starting point for inspections which can provide directions for cleaning, maintenance documentation, and vegetation maintenance around the panel racking.

Corrective Maintenance

Additional budget is programmed for corrective maintenance to account for unplanned events. To minimize loss of revenue, an immediate response is the best strategy. The **most likely problems are equipment-related** - a failed inverter or loss of an individual panel string due to faulty wiring.



While predicting these events is impossible, MSF staff are provided with a checklist - detailing a simple process to address them, including which stakeholders to call, safety considerations, tools and equipment needed. A series of spare parts may be reserved onsite to hasten deployment in the event of an emergency. The service frequency list below is simplified but should be regularly checked and revised as needed.

McHenry Solar Farm LLC OMP Service Frequency	
Visual Site Inspection & Report	Semi-Annual (Spring & Fall)
System Performance Analysis & Reports	Quarterly
Remote Monitoring (24/7/365)	Ongoing
Site Access Road/Gate	Ongoing (Minimum Spring & Fall)
Vegetation Management	Ongoing (Minimum Spring & Fall)
MV Equipment: Preventive Maintenance	Ongoing (Minimum Spring & Fall)
IV Curve Tracing	As Needed
String-Level Open Circuits: Voltage & Operating Current	Annually (Spring)
Inverters: Preventive Maintenance	Annually (Spring)
Thermal Imaging: Combiners, Inverters, Disconnects	Annually (Spring)
Stormwater Management System	Ongoing (Minimum Spring & Fall)
Warranty Enforcement	Ongoing

Monitoring: Site Visits & Service Reports

- **Service Reports:**
 - Include details of preventative maintenance work, such as electrical measurements,
 - meter readings, thermal images, system testing results, and storm water management system maintenance. Include non-conformance reports to identify potential short-term and long-term power production issues.
- **Performance Reports:**
 - Provide analysis of monthly system/inverter performance against weather adjusted
 - performance metrics. Identify/document any known production loss issues.
- **Inverter Preventative Maintenance**
 - Conduct preventative maintenance in accordance with manufacturer specifications
 - Clean and vacuum enclosure, vents and heat sink / remove any identifiable debris and clean any accumulation of dust



- Change air filters according to manufacturer specifications
- Check fuses and switchboards (visually inspect for signs of corrosion/thermal issues)
- Check wiring (visually inspect for breaks, deterioration or signs of corrosion/thermal issues)
- **Transformer, MV Switchgear Maintenance**
 - Transformer – Oil and gas analysis, infrared image connections, positive nitrogen charge, record oil temp, level, PSI, visually inspect terminations
 - MV Switchgear - Trip test protection devices, verify electrical controls, download relay event files, operate disconnects, visual inspection of Terminations, verify meter operation
- **Tracker Maintenance (if applicable)**
 - Conduct preventative maintenance in accordance with manufacturer specifications
- **Warranty Enforcement**
 - Make and coordinate claims for reimbursement and/or replacement under any available warranty from manufacturers, installers or other similar entities relating to the System
- **String level Voc, DC operating current**
 - Perform testing to measure the open circuit voltage (Voc) and operating current of each string in the system.
 - Analyze and document any anomalies that effect system performance and propose correct actions if necessary
- **Thermal Imaging Combiners, Inverters and Disconnects**
 - Thermal imaging of combiners, inverters and disconnects by a trained thermographer
 - Analyze and document all images taken, identify any potential hot spots and propose correct actions if necessary
- **String Level IV Curve Tracing (as necessary)**
 - Perform string level IV Curve tracing with a minimum of 400 w/m2 irradiance
 - Analyze and document any anomalies that effect system performance and propose correct actions if necessary
- **System Performance Monitoring:**
 - Using the DAS, monitor on a daily basis, the day-to-day system output and performance
 - Nonconformance – Identify and analyze performance departures; dispatch per contract scope or upon notice from Owner or the DAS that the system is not performing in accordance with the specifications as set forth in the Agreement/SOW.



Site Inspection Activities

- **PV Panel Condition**
 - Inspect for cleanliness, cracked/chipped/scratched/ shattered panels, fading or discoloration, burn marks, seal condition, frame damage or rust
 - Inspect mounts and mounting structures (loose panels, loose rack/clips missing hardware, rusted bolts, flashing issues, ballast condition, rack anchor condition)
 - Inspect conditions under panels, remove of any large debris or pests; visual check to ensure maximum ventilation under panels
 - Visual inspection of grounds and vegetation, identify issues related to mud, water pooling, soil erosion

- **Overall System Inspection**
 - Inspect conduit runs (separated/cracked conduits, misaligned wire runs)
 - Inspect panel interconnectivity and string lines (wire/cable wear, wire fading, chewed wire due to pests, identify loose/detached wires)
 - Inspect junction/combiner enclosure(s) condition (seals, rust, damage, locks)
 - Inspect electrical equipment enclosure(s) (seals, rust, damage, door condition, locks, equipment pads)

- **Inverters**
 - Inspect inverter structure(s) and enclosure(s) (seals, rust, damage, door condition, switch/handle condition, locks)
 - Inspect inverter equipment pad(s) (cracks, base damage, soil erosion)

- **Data Acquisition System (DAS)**
 - Weather stations condition (alignment of irradiance sensor, condition of wind and temperature meters)
 - DAS device condition (screen, seals, rust, damage)

- **Vegetation Management**
 - Visual inspection to identify any shading issues, preventive care if shading caused by nearby vegetation)
 - Vegetation management (inspection for vegetation issues or tree branches or other plants/trees blocking panels/system, recommend corrective actions)
 - Vegetation maintenance, including trimming overgrowth, removal of alien vegetation, inspection and maintenance of perimeter trees as applicable, and replanting or reseeding in accordance with the applicable permit(s) and Storm Water Pollution Prevention Plan (SWPPP) vegetation and screening requirements
 - All vegetation will be maintained as described in the landscaping plan including the types of vegetation across the site and how it was established
 - The native species ground cover takes multiple seasons to establish, so additional attention to the removal of alien species is required during the first few years of growth, with particular attention during the spring and summer seasons



- Pest Control (review for insects, bird nests, squirrels, spider nests, etc.; recommend corrective actions if necessary)
- **System Security**
 - Visually inspect fence line or confinement structures for wear, damage, breach, vandalism, or other problems
 - Visually inspect any electronic surveillance equipment (cameras, alarms, etc.) and identify if operating
 - Check condition of any locks, chains or other protection measures preventing unauthorized access to the system
- **Solar Field & Site Access**
 - Damage to site access road or gate will be reported once Operator becomes aware of any deficiencies that require repair which will be completed as soon as practicable
 - Waste/debris noticed on access road and/or solar field will be removed as soon as practicable
 - Access driveway will be plowed after significant snowfall to ensure utility equipment remains accessible in accordance with the Interconnection Agreement
- **Storm Water Management**
 - Inspection and maintenance of storm water management system (including sediment filtration pond, culverts, outlets, check dams etc.) will occur in accordance with the SWPPP with particular attention after a significant rainfall event to ensure outflows to adjacent watershed is in accordance with applicable regulations
 - Maintenance staff will be familiar with the storm water management system, including design, function, location, and maintenance requirements as detailed on the landscaping plan
 - Maintenance staff will complete the storm water management system maintenance checklist at intervals indicated on the checklist in order to ensure adequate inspection and maintenance intervals and keep the completed forms on site for inspection by County staff in accordance with the SWPPP
 - Vegetation seeding in erosion prone areas as required by SWPPP
- **Drainage Tile**
 - Inspection of drainage tile system in accordance with the applicable permit(s), including visual inspection of the tile outlets and any poor drainage of water on the site, outside of the sediment filtration ponds.
 - Should damage to the drainage tile system be discovered, repairs will be made in consultation with the landowner and County staff as required



Getting Started

Several protocols must be considered when planning or creating an OMP - many specific to the system and its location. Organizing these tasks in advance and having them on record will go a long way in protecting your renewable investments. While establishing an OMP is a natural first step, the next step is typically more detailed, setting performance goals for the system including a benchmark to understand when action must be taken. Develop a criterion that includes:

- **Process to Qualify a Service Provider**
- **Response Time of Service Technicians**
- **Testing Frequency**
- **Cleaning Schedule (if needed)**
- **Safety Training**
- **Onsite Stock/Reserve Components (if needed)**
- **Documentation plan and frequency at which it will be updated**
- **Record Location and Backup Plan (if digital)**

In the event of a breakdown, who will handle the repairs? Who should be informed about these decisions? Providing a checklist for service providers will outline directions, points of interest, and frequency of when to operate. Administering a training schedule will ensure that the team is up to date on proper safety procedures and how to maintain a clean system. For example, using solvents or brushes on a solar panel can damage the panel surface and opening combiner boxes without adequate protection can be hazardous.

Establishing a responsibility matrix that delegates tasks to appointed decision-makers will streamline the process. Codes and standards such as IEC 62446 will assist in developing a plan. MSF staff will coordinate the preparation of a final OMP, in consultation with the **McHenry Township Fire Protection District** and the **McHenry County Emergency Management** team, as needed. This coordination includes the specific training deemed necessary to protect MSF staff and first responders. For more specific aspects of emergency management please refer to the **MSF Emergency Response Plan (ERP)** accompanying this submittal.





McHenry Solar Farm LLC

Application for Conditional Use Permit

Emergency Response Plan (ERP)

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Facility
County of McHenry, Illinois
January 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

Surya Powered LLC



Project Description

McHenry Solar Farm LLC (MSF) is proposing to construct and operate a 5 MWac community solar facility in unincorporated McHenry County, Illinois. The project will use approximately 37 acres within the 79 total acres between two (2) parcels. Detailed equipment schedules can be found on the construction permit plans, but to briefly summarize, **MSF project components** include, but are not limited to, the following:

- Photovoltaic (PV) Solar Panels
- Access Road with Gated Entry
- Underground Electrical Cables
- Overhead Electrical Distribution (as necessary)
- Construction Staging/Storage/Parking Areas
- Equipment Pads ... locations for inverters, transformers, etc.

Project construction is expected to begin in **2026** and is expected to take 4-6 months to complete. The targeted **commercial operation date (COD)** for MSF is **2027**. McHenry Solar Farm LLC expects the facility to operate for approximately thirty (30) years before being decommissioned.

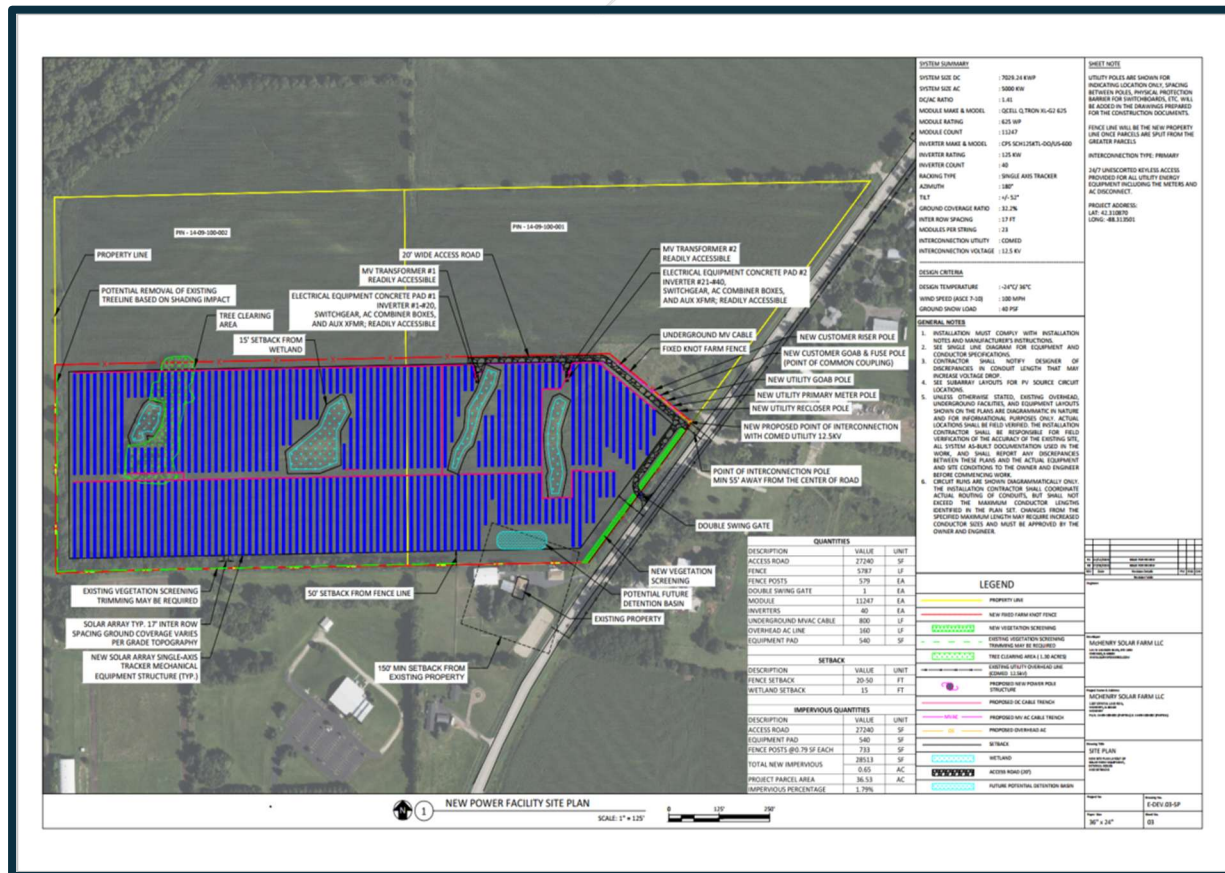


Exhibit A - McHenry Solar Farm LLC Site Plan



Project Description

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- **Access Road with Gated Entry**
- **Underground Electrical Cables**
- **Overhead Electrical Distribution (as necessary)**
- **Construction Staging/Storage/Parking Areas**
- **Equipment Pads ... locations for inverters, transformers, etc.**

Project construction is expected to begin in 2026 and is expected to take 4-6 months to complete. The targeted commercial operation date for MSF is 2027. McHenry Solar Farm LLC expects the facility to operate for approximately thirty (30) years before being decommissioned.

Purpose of the Emergency Response Plan

McHenry Solar Farm LLC has developed a preliminary **Emergency Response Plan (ERP)** to provide an initial focus for discussion of **emergency response protocols and AHJ training requirements** associated with operation of the MSF facility. The purpose of an ERP is to assist employees, sub-contractors, contractors, suppliers, management, and of course, first responders in making quality decisions during times of crisis.

Emergencies are a consequence of inappropriately managed risk - produced through a combination of hazards and vulnerability, either natural or equipment-related. For community solar facilities to prevent losses and downtime from an emergency, an effective ERP must be developed, implemented, and regularly revised through cooperative review. To accomplish this, MSF is proposing a phased approach, utilizing:

- 1) This **Preliminary ERP** being made available during the Conditional Use Permit process, for review prior to the commencement of construction by the selected contractor, and,
- 2) A **Comprehensive Operation and Maintenance ERP** to be finalized post-construction, but prior to the **commercial operation date (COD)**.

MSF staff will determine the final format and content of the ERPs based on consultation with the appropriate jurisdiction(s) and/or codes. Both plans will contain guidance and recommendations in determining the appropriate actions to be undertaken to prevent injury and property loss, minimize hazards to human health and safety and to the



environment from fire, explosion, or any unexpected release of hazardous materials to the air, soil, surface and/or groundwater from natural or human disasters.

As a guide, every possible version of every scenario can never be captured in a usable document. The steps described may not be realized as imagined, but this ERP provides baseline directions on the most common steps necessary to address each situation listed.

In ongoing cooperation with the **McHenry Township Fire Protection District**, copies of the ERP will be available for review and necessary revisions will be made, as dictated by either McHenry County or the McHenry Township Fire Protection District. MSF staff will continue to provide both jurisdictions with copies of updated ERPs for the life of the MSF project.

This ERP will serve as the baseline plan for employees and visitors in the event of an emergency. In situations where this plan may be in parallel with another entity's plan (for example, a contractor, project manager, or utility) the plans shall be evaluated to determine if gaps exist, and MSF project management will be responsible for coordinating future review, ensuring effectiveness in the event of an emergency.

Failure to comply with this plan may result in disciplinary action up to and including termination. This plan will be reviewed at least annually by MSF management and may be revised based on changes to federal, state, and/or local regulations and requirements.

Roles And Responsibilities

While MSF staff can cooperatively develop appropriate procedures to follow in the event of an emergency, it is the responsibility of every employee, contractors and/or subcontractor to become acquainted with the ERP and respond accordingly when faced with an emergency of any kind and of any origin.

Employees

Every MSF employee, contractor and/or subcontractor shall take reasonable care to protect the health and safety of themselves and of others and promptly inform their manager of potential hazards present on site.

Contractors, Subcontractors and Visitors

The contractor or other entity makes available the skilled labor and equipment required during emergencies and collaborates with the SM or designee for a prompt and effective response. All contractors and subcontractors must sign the Contractor Orientation acknowledgement before working on site, or after a major update of the document.



Site Superintendent

During construction or maintenance activities, the designated management staff shall serve as site superintendent for the purposes of this ERP, ensuring that:

- **Employees, contractors or subcontractors onsite are accounted for and safe in the event of an incident, by conducting a roll call.**
- **All employees are informed about the risks related to their job.**
- **All employees have read and understand the site ERP.**
- **All rescue equipment is available and in good condition.**
- **The ERP is complete, up to date and distributed to the proper parties.**
- **The ERP is used correctly and that emergency operations comply with current regulations (federal, state, local, and corporate).**
- **Material, financial and personnel resources are sufficient to develop and implement the ERP and the ongoing implementation of the training program.**
- **Action plans are executed to correct any non-compliance and to implement the recommendations of post-incident reviews.**

Training

Training is the most critical element of the ERP. On an as-needed basis, training should be continuous and on a regular basis for employees and first responders to maintain their ability to use the emergency equipment and act appropriately in an emergency. To ensure the instructions contained within the ERP are properly followed during site/facility emergencies, a **comprehensive training program** is to be developed, and training provided to all MSF employees, contractors and first responders.

If needed, training may include **exercises appropriate to the project site** that simulate the potential emergencies identified in the ERP. The effectiveness of the training sessions and the training program in general should be evaluated and documented. The critique shall evaluate what areas of the training need improvement, what should be sustained, and what can be done differently to improve the overall efficacy of the training. When the MSF site becomes operational, it is recommended a **full drill – *including emergency services*** – be scheduled, documenting response to a real-time emergency event. Emphasis should be placed on the following:

- **Evacuation and Accountability of Personnel.**
- **Proper Functioning of Alarm System (if applicable), Radios and/or Phones.**
- **Special Procedures for Evacuation of Personnel with Impairments.**
- **Response Time of Emergency Response Personnel.**
- **Adherence to ERP Procedures.**
- **Changes Needed to the ERP.**



Emergency Procedures

The contingencies noted in the table below require further details on the emergency procedures that will be employed as required.

Potential Contingencies		
Electrical Emergency	Downed Power Lines	Call 911 ... Notify Utility
	Swaying Power Lines	
	Electric Shock	
Fire	Grass/Brush/Forest Fire	Call 911 ... Notify Utility
	Fire at Facility/Components	
	Fire at Equipment	
	Electrical Fire	
Medical Emergency	Personal Injury/Accident	Call 911
Explosion or Criminal Behavior	Sabotage/Suspicious Activity	Call 911 ... Notify Utility
	Active Shooter/Bomb/Third Party Threats	
	Situation with Employee/Contractor/Visitor	
Chemical Spills	Noxious Odors	Call 911
Severe Weather	Excessive Winds	Call 911 ... Notify Utility
	Lightning	
	Flash Flooding/Erosion	
	Winter Storms/Ice/Hail	
	Tornado/Earthquake	

MSF will be remotely monitored through a **control center (MSFCC – specific location TBD)**. MSFCC staff or contractors onsite will call 911 as necessary; local emergency responders and others in the community will be notified through the system or protocols detailed in this ERP.



Electrical Emergency

Given the nature of the facility, an electrical issue is a likely candidate requiring an emergency response. MSF will locate much of its electrical cabling underground, but the overhead lines associated with the interconnection point near Crystal Lake Road are the most visible components.

Should an overhead power line appear to be swaying or falling to the ground, it should be treated as a live wire. All personnel should stay well away – a minimum of 30-50 feet. Emergency responders should be called immediately. Should an individual receive an electric shock, work shall cease immediately, and the MSFCC shall be notified, and remote isolation of the equipment shall be requested, completed, and confirmed.

No one should attempt a rescue unless their own safety is guaranteed – and if so, contact should not be made with the affected individual and only utilizing elements which will not conduct electricity, such as wood. Personal protective equipment (PPE) should be worn when attempting a rescue.

In coordination with Commonwealth Edison staff and first responders, MSFCC personnel will be responsible for accounting for all personnel and filing an incident report.

Fire

If detected by onsite personnel, the MSF personnel onsite should notify the MSFCC immediately. Access to the immediate vicinity of the fire should be prohibited. The response to a fire emergency will be dictated by the nature of the fire itself. MSFCC personnel will notify the first responders as required.

Only MSF employees trained to fight fires may do so and only under the direction of first responders. Should an equipment fire be contained in a small location onsite, MSF onsite staff may extinguish the fire using an extinguisher – but only if they're trained in its use. All employees, contractors and visitors shall assemble at the MSF gated entry and remain clear of all equipment and structures until given the “all-clear” by first responders.

In coordination with first responders, MSFCC personnel will be responsible for accounting for all personnel and filing an incident report.

Medical Emergency

In the event of an injury/illness requiring medical treatment – stop work, place equipment in a safe condition and alert first responders (911), the MSFCC and others onsite. The affected individual should not be moved except by trained medical personnel. Should hazardous materials be involved, the MSFCC should notify first responders and provide them with background information (MSDS) on the nature of the materials involved. In coordination with first responders, MSFCC personnel will be responsible for accounting for all personnel and filing an incident report.



Explosion or Criminal Behavior

By nature of their employment and/or being provided access to the site, all MSF employees, contractors, and visitors shall assume the responsibility to immediately notify the MSFCC of any suspicious activity, vandalism, sabotage or potential sabotage onsite. Reasonable attempts to converse with suspicious individuals may be required to ascertain their connection to the site, but at no time should an inquiry escalate into confrontation.

Any confrontational situation with individuals involving threats, harassment, obscene acts or language shall be reported immediately to the MSFCC and to local police via 911. Do not confront or attempt to detain trespassers or suspicious individuals or otherwise intervene with suspicious activities. Work should cease and personnel evacuated until given the “all-clear” by first responders.

In the most extreme situations – an active shooter or a bomb threat, evacuation of the site is the priority, with concurrent notification to local authorities via 911 ASAP. Should evacuation be impractical, shelter in place until given instructions by local police. If practical, shut down equipment during evacuation. Follow all instructions given by first responders. In coordination with first responders, MSFCC personnel will be responsible for accounting for all personnel and filing an incident report.

Chemical/Hazardous Material Spill

For the purposes of the ERP, a spill is defined as an unintentional release of any chemical or substance in excess of fifteen (15) gallons, regardless of location, hazard rating or surrounding circumstances.

All work should cease immediately, any affected equipment shut off, and the MSFCC and local authorities notified ASAP. If possible, confine the spill to prevent the substance from spreading into the site’s drainage system. Priority should be given to shutting down any affected pumps, valves or hoses. If appropriate, add neutralizing agents and/or absorbents. The MSFCC should notify first responders and provide them with background information (MSDS) on the nature of the materials involved as necessary. In coordination with first responders, MSFCC personnel will be responsible for accounting for all personnel and filing an incident report.

Severe Weather

With multiple types of weather-related emergencies potentially affecting the MSF location, the actions/response of MSF personnel, contractors, and/or visitors may be slightly different depending on circumstance. However, some responses will need to be consistently applied in every instance.

- MSF personnel, contractors, and/or visitors should be aware of potentially severe weather conditions. The MSFCC shall notify all individuals onsite via radio, cell phone or alarm of adverse weather conditions affecting the site.



- All onsite work shall cease immediately and the MSFCC notified of the potential shutdown as well as emergency responders via 911.
- Electrical equipment/systems should be shut down by the MSFCC.
- All vehicles and portable equipment should be secured to the extent possible. If evacuation of the facility is dictated, all MSF personnel, contractors, and/or visitors shall assemble at the gated entry at Crystal Lake Rd, a roll call taken (if time permits), and the facility secured.
- In coordination with first responders, MSFCC personnel will be responsible for accounting for all personnel and filing an incident report.

Emergency Contact List

The following table provides general contact information for MSF ownership, operations, local emergency responders, regional agencies at the state and federal levels, local agencies, and public utilities. It is the responsibility of MSF management to update this list annually.

Contact	Phone Number	Notes
General Emergency Contacts		
Local Emergency Contact Number	911	
McHenry Township Fire Protection District	815-363-2100	
City of McHenry Police Department	815-363-2200	
McHenry County Sheriff	815-338-2144	
McHenry County Emergency Services Disaster Agency (ESDA)	815-899-0725	
Illinois State Police, Troop 3	911	Patrols NE Illinois
Hospitals & Medical Facilities		
Northwestern Medicine: McHenry Hospital	815-344-5000	
Northwestern Medicine: Woodstock Hospital	815-338-2500	
Municipal Outreach		
City of McHenry	815-363-2108	General City Contact
Public Utilities		
Commonwealth Edison		
NICOR	888-642-6748	24 Hour Emergency Hotline
McHenry Solar Farm Management		
McHenry Solar Farm LLC	224-222-0035	Main Office, Chicago IL
McHenry Solar Farm LLC Control Center		



Qcells SOLAR PV MODULES ARE ARTICLES AS DEFINED BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION HAZARD COMMUNICATION STANDARD (HCS), 29 C.F.R. § 1910.1200 AND ARE EXEMPT FROM THE LABELING AND SAFETY DATA SHEETS (SDS) REQUIREMENTS OF THE STANDARD.

Qcells provides this product safety data sheet only for convenience of interested parties in the United States of America who are used to the format of safety data sheets in order to assess the product safety. This product safety data sheet does not replace any other documents provided by Qcells such as Safety Information, Installation and Operation Manual, Packaging and Transport Information, Product Data Sheet as well as Warranty Terms of the respective product.

1. SECTION: IDENTIFICATION

Solar PV modules convert light into electricity. Light-sensitive cells are electrically interconnected in series and sealed between glass and plastic foils for this purpose. This product safety data sheet is applicable to the following solar PV modules of the Qcells brand made by Hanwha Qcells America Inc.:

- Q.PEAK DUO L-G6.3/BFG, Q.PEAK DUO L-G6.3/BGT,
- Q.PEAK DUO L-G8.3/BFG, Q.PEAK DUO L-G8.3/BGT,
- Q.PEAK DUO XL-G10.3/BFG, Q.PEAK DUO XL-G10.3/BGT,
- Q.PEAK DUO XL-G10.d/BFG, Q.PEAK DUO XL-G10.d/BGT
- Q.PEAK DUO XL-G11.3/BFG
- Q.PEAK DUO XL-G11S.3/BFG
- Q.PEAK DUO ML-G12S.3/BFG
- Q.TRON XL-G2.3/BFG

Variants with additional suffixes “/TAA” and/or “+” are covered by this product safety data sheet. This is also true for B-grade modules, which have minor optical imperfections. Product names of these replace “Q.” with “B.LINE”. B-grade modules of Q.PEAK DUO L-G6.3/BFG are named B.LINE PEAK DUO L-G6.3/BFG for example.

Responsible Party as Importer:

Name: Hanwha Q CELLS America Inc.

Address: 300 Spectrum Center Drive, Suite 500, Irvine, CA 92618, USA

Phone: +1 949 748 5996

2. SECTION: IDENTIFICATION OF SAFETY RISKS (HAZARDS IDENTIFICATION)

Qcells solar PV modules do not pose any risk of hazardous chemicals. Hazard symbols and precautionary hazard statements for hazardous chemicals are not applicable. No symptoms or effects – neither acute nor delayed – have to be expected when Qcells solar PV modules are handled as stipulated in the Installation and Operation Manual. Qcells provides a Safety Information sheet with all modules shipments. This document contains detailed risk statements and recommendations for installation and operation. Before installing the module, read the Installation and Operation Manual for Qcells modules carefully. You can obtain the complete Installation and Operation Manual from your retailer.

Attention: Only qualified and authorized specialists may install modules and put them into operation. Keep children and unauthorized persons away from the modules.

Risks:

- Risk of death from electrocution! Solar modules generate electricity and are energized as soon as they are exposed to light.
- In rare cases, solar PV modules – as any other electrical device – can cause fire due to worn electrical contacts which result in electrical arcing.
- Solar PV modules can reach high temperatures which can cause skin burns.
- Sharp edges, corners and broken glass can cause injuries.
- Solar PV modules can cause Injuries due to their weight.
 - Falling solar PV modules can cause injuries.
 - Lifting solar PV modules can cause injuries.

For precautionary statements, please refer to the Installation and Operations Manual of the respective product.

PROPERTY DAMAGE. THIS INCLUDES IMPROPER INSTALLATION OR CONFIGURATION, IMPROPER MAINTENANCE, UNINTENDED USE, AND UNAUTHORIZED MODIFICATION.

3. SECTION: COMPOSITION/INFORMATION ON INGREDIENTS

Safety data sheets are only required for hazardous chemicals covered by the Hazard Communication Standard (HCS). Solar PV modules made by Qcells are not covered by HCS. The following table provides an overview of materials solar PV modules by Qcells are made of. The values given for the share of weight are targets and can vary for the products covered by this Product Safety Data Sheet.

Component	Material	Total Share	Remark
Frame	Aluminum	6% – 14%	not hazardous
	Silicone	<2%	not hazardous, see section 8
Laminate	Glass	65% – 85%	not hazardous
	Plastics (EVA, PET, PE, PPE, PC)	5% – 15%	no hazards known
	Silicon	2% – 4%	not hazardous
	Metals (Aluminum, Copper, Tin)	<2%	not hazardous
	Lead	<0,1%	hazardous
	Silver	<0,05%	not hazardous

4. SECTION: FIRST-AID MEASURES

In case of electrocution:

- Always protect yourself by taking all necessary safety precautions before rescuing persons injured.
- **Attention:** Stay away from sources of high voltage and leave the rescue to qualified personnel with appropriate personal protection equipment!
- Call emergency rescue services.
- Do not touch live parts. Qualified personnel should shut down the PV system as far as possible – e.g. disconnect the modules at the inverter before uncovering any live electrical parts. Be sure to observe the specified time intervals after switching off the inverter. High voltage components need time to discharge. Follow OSHA requirements for control of hazardous energy at 29 C.F.R. § 1910.147.
- In the event a person is electrocuted or affected by electrical energy of the solar PV module, CALL 911. Before attempting rescue, SHUTDOWN THE POWER SOURCE.
- Remove the victim from the power source using only insulated tools ONLY IF CONTACT WITH LIVE ELECTRICAL COMPONENTS CAN BE PREVENTED.
- Carefully move the injured from the zone of danger.
- After moving to a safe location, check heartbeat, respiration and consciousness of the injured person.
- Apply appropriate life-saving measures (CPR) accordingly before taking care of minor injuries.
- Consult a medical professional even if there are no visible injuries.
 - Flush thermal skin burns caused by touching hot surfaces of solar PV modules with cool water. Consult a medical professional.
 - Injuries due to sharp edges, corners and broken glass need to be appropriately treated. Consult a medical professional.
 - Other types of injuries need to be treated appropriately as well. Consult a medical professional.

5. SECTION: FIRE-FIGHTING MEASURES

- Qcells solar PV modules are fire rated as Class C according to IEC and UL 1703/UL 61730 as well as Type 1, Type 2 and Type29 according to UL 1703/UL 61730.

- Qcells solar PV modules are extensively tested at the factory to ensure electrical safety of the product before shipment.
- In rare cases, solar PV modules – as any other electrical device – can cause fire due to worn electrical contacts which result in electrical arcing.
- In case solar PV modules which are not part of an array are on fire, USE FIRE EXTINGUISHERS RATED FOR ELECTRICAL EQUIPMENT, Class C.
- IN CASE A SOLAR PV MODULE ARRAY IS PRESENT, ANY FIRE SHOULD ONLY BE FOUGHT BY PROFESSIONAL FIREFIGHTERS. FIREFIGHTERS NEED TO TAKE PRECAUTIONS FOR ELECTRICAL VOLTAGES UP TO 1,500 VOLTS (DC).
- Some components of the modules can burn. Potential combustion products include oxides of carbon, nitrogen and silicon.
- In case of prolonged fire, solar PV modules may lose their structural integrity.

General recommendations from the below-mentioned reports:

- Fire service personnel should follow their normal tactics and strategies at structure fires involving solar power systems, but do so with awareness and understanding of exposure to energized electrical equipment. Emergency response personnel should operate normally, and approach this subject area with awareness, caution, and understanding to assure that conditions are maintained as safely as possible.
- Care must be exercised during all operations, both interior and exterior.
- Responding personnel must stay back from the roofline in the event modules or sections of an array may slide off the roof.
- Contacting a local professional PV installation company should be considered to mitigate potential hazards.
- Turning off an array is not as simple as opening a disconnect switch. As long as the array is illuminated, parts of the system will remain energized.
- When illuminated by artificial light sources such as fire department light trucks or an exposure fire, PV systems are capable of producing electrical power sufficient to cause inability to let go from electricity as a result of stimulation of muscle tissue, also known as lock-on hazard.
- Firefighting foam should not be relied upon to block light.
- The electric shock hazard due to application of water is dependent on voltage, water conductivity, distance and spray pattern.
- It is recommendable to fight fire with water instead of foam if a PV system is present. Salt water should not be used.
- Firefighter's gloves and boots afford limited protection against electrical shock provided the insulating surface is intact and dry. They should not be considered equivalent to electrical personal protection equipment.

Readers interested in more details may refer to the following reports:

- National Fire Protection Association, Fire Protection Research Foundation report "Fire Fighter Safety and Emergency Response for Solar Power Systems" issued May 2010, revised October 2013
- Important recommendations from a report called "Firefighter Safety and Photovoltaic Installations Research Project" issued by Underwriters Laboratories on November 29, 2011

6. SECTION: ACCIDENTAL RELEASE MEASURES

This section is not applicable.

7. SECTION: HANDLING AND STORAGE

Before installing the module, read the Installation and Operation Manual for Qcells modules carefully. Noncompliance with the instructions may result in damage and physical injury or death. Only qualified and authorized specialists may install modules and put them into operation. You can obtain the complete installation manual from your retailer. Details about transport and storage of palletized Qcells solar PV modules can be found in the Packaging and Transport Information of the respective module type.

Storage, transport and unpacking:

- Store the module dry, well-ventilated and properly secured. The original packaging is not weatherproof.
- Always transport the module in its original packaging.

- Do not stack the modules. This prevents damage of the junction box.
- The module is made of glass. Take great care when unpacking, storing and transporting it.
- Do not subject the module glass to any mechanical stress (e.g. through torsion or deflection). Do not step on the module or place any objects onto the module.
- Protect both sides of the module against scratching and other damage.
- Carry the module by holding the edges with both hands, or use a glass suction lifter.
- Never lift or carry the module using the module junction box or wiring. Avoid pulling on the wiring at all costs.

8. SECTION: EXPOSURE CONTROLS/PERSONAL PROTECTION

Before installing the module, read the Installation and Operation Manual carefully. Noncompliance with the instructions may result in damage and physical injury. Only qualified and authorized specialists may install modules and put them into operation. You can obtain the complete installation manual from your retailer.

- Please follow the valid national regulations and safety guidelines for the installation of electrical devices and systems.
- Please make sure to take all necessary safety precautions.
- Ensure that all personnel are aware of and adhere to accident-prevention and safety regulations.
- For handling of modules wear suitable protective gloves.
- Do not install damaged modules. Ensure that all electrical components are in a proper, dry, and safe condition.
- Do not modify the module (e.g. do not drill any additional holes). Never open the junction box.
- Ensure that modules and tools are not subject to moisture or rain at any time during installation. Only use dry, insulated tools for electrical work.
- Only connect cables with plugs. Ensure for a tight connection between the plugs. Plugs click together audibly.
- Cover the modules with an opaque material during installation. Cover the modules to be disconnected.

Silicones used in manufacturing release methanol during curing. Once cured, no additional methanol is released during use. Small amounts of these chemicals may be present in shipping cartons. Upon receipt, open container in a well-ventilated location and allow to stand for 5 minutes before removing units from cartons. Exposures above recommended limits for methanol of 200 ppm eight-hour time-weighted-average (TWA) will not occur.

9. SECTION: PHYSICAL AND CHEMICAL PROPERTIES

- Physical state: solid
- Voltage: refer to data sheet (below 50 volts for a single module)

Attention: Voltage of single modules add up when modules are electrically connected in series. Qcells solar PV modules are designed and certified for voltages up to 1,000 volts or even up to 1,500 volts. Connection of modules in series is only permitted up to the maximum system voltage as listed in the applicable data sheet.

- Weight: refer to data sheet
- Solubility in water: insoluble in water

10. SECTION: STABILITY AND REACTIVITY

Under normal operating conditions as specified in the Product Data Sheet, Qcells solar PV modules are chemically stable.

- Qcells solar PV modules are tested for salt spray and ammonia resistance according to IEC 61701 and IEC 62716, respectively.
- Qcells solar PV modules support ambient operating temperatures from -40°C to $+85^{\circ}\text{C}$ (-40°F to $+185^{\circ}\text{F}$).

- Do not install modules above 13.120ft (4000 m) altitude above sea level.
- Some components of the modules can burn. Potential combustion products include oxides of carbon, nitrogen and silicon.
- Do not scratch off dirt. Use a soft cellulose cloth or sponge to carefully wipe off stubborn dirt. Do not use micro fleece wool or cotton cloths.
- Rinse dirt off with lukewarm water (dust, leaves, etc.)
- Use an alcohol based glass cleaner. Do not use abrasive detergents or tensides.
- Isopropyl alcohol (IPA) can be used selectively to remove stubborn dirt and stains within one hour after it appeared.
- Follow the safety guidelines provided by the IPA manufacturer.
- Do not let IPA run down between the module and the frame or into the module edges.

11. SECTION: TOXICOLOGICAL INFORMATION

Small amounts of methanol may be present inside shipping cartons. Open cartons and allow to vent before removing units. No exposure to hazardous chemicals will occur when the units are in use.

12. SECTION: ECOLOGICAL INFORMATION

Qcells solar PV modules are designed to withstand outdoor operating conditions for 25 years. Biodegradation is not expected due to high chemical stability of the components.

13. SECTION: DISPOSAL CONSIDERATIONS

Qcells solar PV modules should be recycled rather than dumped in a landfill. Raw materials of the product can be recovered by recycling companies. Disposal must be in accordance with national and local laws and regulations for electric/electronic waste.

14. SECTION: TRANSPORT INFORMATION

Qcells solar PV modules can be shipped via standardized container freight. Regulations for hazardous goods do not apply. For further details, please refer to the Packaging and Transport Information which can be provided as a separate document by Qcells.

15. SECTION: REGULATORY INFORMATION

- Qcells solar PV modules are tested according to international standards IEC 61215, IEC 61730 as well as US standards UL 1703/UL 61730.
- Please refer to the Installation and Operation Manual and Product Data Sheet of the respective Qcells solar PV module.

16. SECTION: OTHER INFORMATION

- Date of initial creation of this product safety data sheet: July 1, 2016
- Date of last revision: January 1, 2025

100/125 kW, 1500 Vdc String Inverters for North America

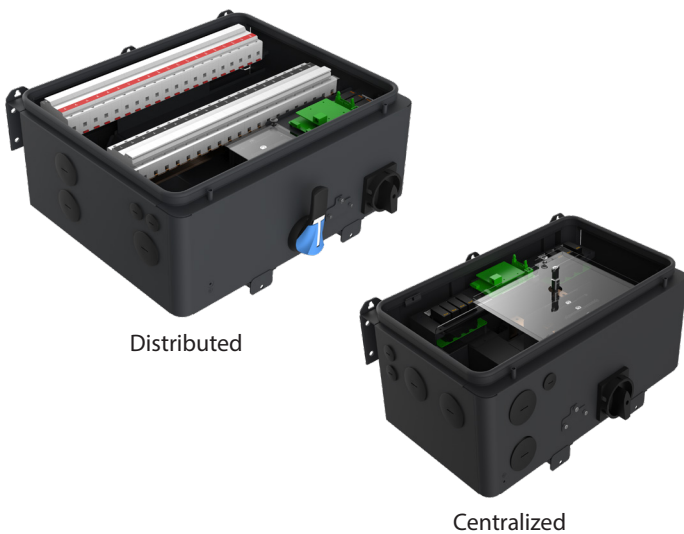


CPS SCH100/125KTL-DO/US-600

The 100 and 125 kW high power CPS three-phase string inverters are designed for ground mount applications. The units are high performance, advanced, and reliable inverters designed specifically for the North American environment and grid. High efficiency at 99.1% peak and 98.5% CEC, wide operating voltages, broad temperature ranges, and a NEMA Type 4X enclosure enable this inverter platform to operate at high performance across many applications. The CPS 100/125 kW products ship with the Distributed or Centralized Wire Box, each fully integrated and separable with AC and DC disconnect switches. Enhanced DC Wire Boxes are available to allow DC disconnection under short circuit conditions. The CPS FlexOM Gateway enables communication, controls, and remote product upgrades.

Key Features

- NFPA 70 and NEC compliant
- Touch-safe DC Fuse holders add convenience and safety
- CPS FlexOM Gateway enables remote firmware upgrades
- Integrated AC and DC disconnect switches
- 1 MPPT with 20 fused inputs for maximum flexibility
- Copper- and aluminum-compatible AC connections
- NEMA Type 4X outdoor rated enclosure
- Advanced Smart-Grid features (CA Rule 21 certified)
- kVA headroom yields 100 kW @ 0.9 PF and 125 kW @ 0.95 PF
- Generous 1.87 (100 kW) and 1.5 (125 kW) DC/AC inverter load ratios
- Separable wire box design for fast service
- Enhanced DC wire boxes available



Standard Wire Boxes



Enhanced DC Wire Boxes



Model Name	CPS SCH100KTL-DO/US-600	CPS SCH125KTL-DO/US-600
DC Input		
Max. PV power	187.5 kW	
Max. DC input voltage	1500 V	
Operating DC input voltage range	860-1450 Vdc	
Start-up DC input voltage / power	900 V / 250 W	
Number of MPP trackers	1	
MPPT voltage range ¹	870-1300 Vdc	
Max. PV input current (Isc x1.25)	275 A	
Number of DC inputs	Distributed Wire Box: 20 PV source circuits, positive and negative fused Centralized Wire Box: 1 input circuit, 1-2 terminations per pole, non-fused	
DC disconnection type	Load-rated DC switch	
DC surge protection	Type II MOV (with indicator/remote signaling)	
AC Output		
Rated AC output power ²	100 kW	125 kW
Max. AC apparent power (selectable)	100 kVA (111 kVA @ PF > 0.9)	125 kVA (132 kVA @ PF > 0.95)
Rated output voltage	600 Vac	
Output voltage range ³	528-660 Vac	
Grid connection type ⁴	3Φ / PE / N (neutral optional)	
Max. AC output current @ 600 Vac	96.2 / 106.8 A	120.3 / 127.0 A
Rated output frequency	60 Hz	
Output frequency range ³	57-63 Hz	
Power factor	>0.99 (±0.8 adjustable)	
Current THD	< 3%	
Max. fault current contribution (1 cycle RMS)	41.47 A	
Max. OCPD rating	200 A	
AC disconnection type	Load-rated AC switch	
AC surge protection	Type II MOV (with indicator/remote signaling)	
System		
Topology	Transformerless	
Max. efficiency	99.1%	
CEC efficiency	98.5%	
Standby / night consumption	< 4 W	
Environment		
Enclosure protection degree	NEMA Type 4X	
Cooling method	Variable speed cooling fans	
Operating temperature range ²	-22°F to 140°F / -30°C to 60°C	
Non-operating temperature range ⁵	-40°F to 158°F / -40°C to 70°C	
Operating humidity	0-100%	
Operating altitude	8202 ft / 2500 m (no derating)	
Audible noise	< 65 dBA @ 1 m and 77°F (25°C)	
Display and Communication		
User interface and display	LED indicators, Wi-Fi and app	
Inverter monitoring	Modbus RS485	
Site-level monitoring	CPS FlexOM Gateway (1 per 32 inverters)	
Modbus data mapping	SunSpec / CPS	
Remote diagnostics / firmware upgrade functions	Standard / (with FlexOM Gateway)	
Mechanical		
Dimensions (W × H × D)	Distributed Wire Box: 45.28 × 24.25 × 9.84 in (1150 × 616 × 250 mm) Centralized Wire Box: 39.37 × 24.25 × 9.84 in (1000 × 616 × 250 mm)	
Weight	Inverter: 121 lbs (55 kg) Distributed Wire Box: 55 lbs (25 kg) Centralized Wire Box: 33 lbs (15 kg)	
Mounting / installation angle	15-90 degrees from horizontal (vertical or angled)	
AC termination	M10 stud type terminal [3Φ] (wire range: 1/0 AWG-500 kcmil CU/AL; lugs not supplied) Screw clamp terminal block [N] (#12-1/0 AWG CU/AL)	
DC termination	Distributed Wire Box: Screw clamp fuse holder (wire range: #12-#6 AWG CU) Centralized Wire Box: Busbar, M10 bolts (wire range: #1 AWG-500 kcmil CU/AL [1 termination per pole], #1 AWG-300 kcmil CU/AL [2 terminations per pole]; lugs not supplied)	
Fused string inputs	Standard/Distributed Wire Boxes: 25 A fuses provided (fuse values up to 30 A acceptable) Enhanced DC Wire Boxes: 20 A fuses provided (fuse values up to 30 A acceptable)	
Safety		
Certifications and standards	UL 1741-SA/SB Ed. 3, CSA-C22.2 NO.107.1-01, IEEE 1547-2018, FCC PART15	
Selectable grid standard	IEEE 1547a-2014, IEEE 1547-2018 ⁶ , CA Rule 21, ISO-NE	
Smart-grid features	Volt-RideThru, Freq-RideThru, Ramp-Rate, Specified-PF, Volt-VAR, Freq-Watt, Vol-Watt	
Warranty		
Standard	5 years	
Extended terms	10, 15, and 20 years	

1) See user manual for further information regarding MPPT voltage range when operating at non-unity PF.

2) 100 kW active power derating begins at 113°F (45°C) when MPPT ≥ Vmin; 125 kW active power derating begins at 107.6°F (42°C) when PF = ±0.95 and MPPT ≥ Vmin, and at 113°F (45°C) when PF=1 and MPPT ≥ Vmin.

3) The "output voltage range" and "output frequency range" may differ according to the specific grid standard.

4) Delta configurations must not be corner-grounded.

5) See user manual for further requirements regarding non-operating conditions.

6) Firmware version 12.0 or later required.



McHenry Solar Farm LLC

Application for Conditional Use Permit

Preliminary Decommissioning Plan & Cost Projection

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
County of McHenry, Illinois
January 2026**

Project Company / Applicant

**McHenry Solar Farm LLC
141 West Jackson Boulevard, Suite 1692
Chicago IL 60604
(224) 222-0035**

Developer

Surya Powered LLC



Defining Decommissioning

When developing a new community solar energy system, questions are often asked about what happens to the system when the project reaches the end of its functional lifespan, a process known as **decommissioning**. While specifics are dictated by the system design and its components, the simplest definition is the most accurate:

Decommissioning is defined as the complete removal and/or recycling of all system components and the restoration of the site to its original state, prior to development. To achieve a successful decommissioning, a plan is formulated to outline a series of steps to reverse the construction process – complete with projected cost estimates – while adhering to the requirements of federal, state and local jurisdictions as applicable.

Community solar is unique in the renewable energy industry in that their scale and location allow developed sites to be easily and effectively **repurposed to their original land use** – usually agricultural – or they may be redeveloped to meet the community’s current land use needs as outlined under existing zoning and comprehensive plan documents. All work associated with the decommissioning of the MSF facility will be conducted in accordance with applicable professional engineering and solar industry standards.

A Basic Decommissioning Process

The **McHenry Solar Farm LLC (MSF)** team is providing this **Preliminary Decommissioning Plan** to inform **McHenry County** staff of projected costs involved in decommissioning the MSF system. Developing this plan early in the conditional use approval process allows MSF staff to work with local jurisdictions and if necessary, **Commonwealth Edison**, to provide a clear picture of the process itself, necessary permits and inspections and estimated costs.

The final MSF Decommissioning Plan will provide more details for each of the following components while providing a timeline and reporting protocol for decommissioning activities including removal of components, site stabilization/revegetation and waste disposal and recycling.

➤ System Shutdown

- Obtain necessary demolition permits
- Mobilize onsite personnel
- Deenergize system components



➤ **Component Removal**

- Disconnect solar modules; remove from racking structures
- Remove mounting/anchoring system; racking and foundations; backfill as necessary
- Remove inverters, transformers and electrical connection systems

➤ **Recycling & Disposal**

- Establish protocol for all disposal and material management during the decommissioning process
- Establish onsite collection areas for recycled components and debris; coordinating storage and transport to increase efficiency and minimize traffic congestion
- Inspect/evaluate/categorize components and materials by category
 - Recondition/Reuse (steel, aluminum, glass, copper, plastics, etc.)
 - Salvage
 - Recycling
 - Disposal

➤ **Infrastructure Removal**

- Remove above-ground structures and foundations
- Remove access road and fencing

➤ **Site Restoration**

- Grading of site as necessary; includes leveling, terracing, mulching, etc. to prevent erosion and ensure establishment of replacement vegetation – unless site is to be redeveloped
- Restoration of topsoil and tilling (if needed)
- Plant native vegetation/seeding (if site not to be used as cropland)

➤ **Final Inspection**

- Verify compliance with decommissioning plan
- Conduct final inspection with AHJ staff



Guaranteeing the Costs of Decommissioning

While this preliminary plan will provide parameters, the most unknown variable remains the **projected cost of decommissioning** and how to **guarantee funds will be available** in thirty years to fully cover the costs. Estimates prepared by registered civil and/or structural engineers provide the actual numbers while financial instruments and/or guarantees dictated by code will ensure adequate funds will be available when needed – including related transportation and restoration costs, adjusted to accommodate salvage value. Our MSF estimate is based on the **2025 Wonderlake Solar Farm LLC Decommissioning Plan**.

MSF 2027 Projected Decommissioning Cost & Salvage Estimate

WLSF Engineer's Category	Wonder Lake (WLSF) 2025 Engineer's Estimate	McHenry MSF 2027 Staff Projection (+5% Increase)
Erosion Control / Contractor Fees	171,340.00	179,907.00
Site Demolition	4,602.80	4,832.94
Racking and Module Removal	219,741.08	230,728.13
Electrical Wiring Removal	160,572.08	168,600.68
Power Conditioning Equipment Removal	26,800.00	28,140.00
Equipment Pad Removal	8,500.00	8,925.00
Transportation	25,200.00	26,640.00
Decommissioning Cost (Present Value)	\$ 626,755.96	\$ 647,773.75
Decommissioning Cost (Future Value)	\$ 838,227.64	\$ 880,139.02
WLSF Engineer's Salvage Category	Wonder Lake (WLSF) 2025 Engineer's Estimate	McHenry MSF 2027 Staff Projection (+5% Increase)
Modules Available for Recycling	363,055.00	381,207.75
Cost of Recycling Modules (Qcells)	0.00	0.00
Inverter Scrap Value (CPS SCH125KPL)	1,400.00	1,470.00
Transformer Scrap Value	5,000.00	5,250.00
DC Cable Scrap Value	14,058.45	14,761.37
MV AC Cable Scrap Value	600.00	630.00
Scrap Steel	3,800.00	3,990.00
SCADA Equipment	1,000.00	1,050.00
Underground Cables & Conduit	12,050.10	12,652.50
Combiner Boxes	640.00	672.00
Other Electrical Equipment	4,000.00	4,200.00
Gravel	18,000.00	18,900.00
Salvage Total (Present Value)	\$ 423,603.55	\$ 444,783.62
Salvage Total (Future Value)	\$ 566,530.25	\$ 594,856.76
Net Decommissioning Cost (Future Value)	\$ 271,697.39	\$ 285,282.26

2025 WLSF Future Value calculations based on 2.95% inflation over 10 years





McHenry Solar Farm LLC

Application for Conditional Use Permit

Unanticipated Discoveries Plan

**Proposed 5.0 -Megawatt AC (MWac)
Ground-Mounted Community Solar Energy System
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Project Company / Applicant

**McHenry Solar Farm LLC
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Developer

Surya Powered LLC



Purpose, Contacts & Definitions

In Illinois, the responsibility for the protection of cultural resources lies with the **Illinois State Historic Preservation Office (SHPO)**, a division of the **Illinois Department of Natural Resources (IDNR)**. For the purposes of this plan, immediately following notification of the **Project Manager** and **Site Superintendent**, these officials may serve as the **primary contacts** for the Project Manager to initiate necessary action to preserve cultural resources identified during construction:

<p>Carol J Wallace Cultural Resources Coordinator (217) 785-5027 carol.wallace@illinois.gov</p>	<p>Steve Dasovich Cultural Resources Manager (217) 782-7441 steve.dasovich@illinois.gov</p>	<p>Jeff Kruchten Principal Archaeologist (217) 785-1279 jeff.kruchten@illinois.gov</p>
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This document outlines protocols to prepare for and address the **unanticipated discovery of historic properties or human remains**. It provides direction regarding the **proper procedures** to follow if **unanticipated cultural materials or human remains** are encountered during construction. An unanticipated discovery can result when previously undocumented or unknown historic properties are discovered during the course of projects.



Historic structures or buildings are defined as districts, sites, buildings, structures, or objects significant in American history, architecture, engineering, archaeology, or culture at the national, state, or local level. Sometimes elements of historic buildings or structures may be hidden by recent additions or alterations. For example, siding may obscure the historic character of a historic home or log cabin.



Cultural materials include human-made objects (both pre-contact and historic period) and features (e.g., foundation walls, hearths, middens, or other remnants of cultural activity) that are part of an archaeological site. Examples of cultural materials include:

- Any accumulation of shell, burned rocks, or other food related materials.
- An area of charcoal or very dark stained soil with artifacts.
- Stone tools or waste flakes (i.e., an arrowhead, or stone chips).
- Clusters of tin cans or bottles.
- Logging or agricultural equipment that appears to be older than 50 years.
- Buried railroad tracks, decking, or other industrial materials.



Human remains are defined as physical remains of a human body or bodies, including, but not limited to, bones, teeth, hair, ashes, and preserved soft tissues (mummified or otherwise preserved) of an individual. Remains may be articulated or disarticulated bones or teeth. Any human skeletal remains, regardless of antiquity or ethnic origin, will always be treated with dignity and respect.



Protocol: Historic Structures & Buildings or Archaeological Discoveries

1) STOP WORK.



If any employee, contractor, or subcontractor believes that he or she has uncovered cultural materials relating to an archaeological site or historic structure or building at any point in the project, all work at and adjacent to the discovery must stop. The discovery location should be secured at all times. Minimize movement of vehicles and equipment in area immediately surrounding the discovery.

2) CONTACT.

If the discovery does not appear to be human remains, the Site Superintendent will notify the Project Manager who will inform the SHPO of the discovery and the possible actions within 24 hours of discovery if the discovery occurs Monday through Friday. If the discovery occurs during a weekend or Federal holiday, the Project Manager will notify the SHPO on the first working day after the weekend and/or holiday. The SHPO should respond within 48 hours of the notification or on the first working day if preceded by a weekend or holiday. SHPO will formulate initial recommendations and advise the Project Manager and/or Site Superintendent to carry out appropriate and specific actions.

3) EVALUATE.

Historic buildings and structures will be identified and evaluated by qualified professionals who shall meet, at a minimum, the **Secretary of Interior's Professional Qualification Standards (44 FR 44738-9)** in History or Architectural History.

- a) If the SHPO historian determines that the discovery is not a cultural resource, they will immediately advise SHPO of their findings as well as the Project Manager.
- b) If the SHPO historian determines that the discovery is a cultural resource, they will immediately advise SHPO of their findings as well as the Project Manager; initiating complete **Architectural Properties Identification Forms** for each newly identified cultural resource.
 - I. If the resource is not significant, the SHPO historian will document the discovery in a report (including photographs of the discovery site). The



report must also include completed identification forms, and an explanation of why the resource is not significant. The SHPO historian will formally request permission from SHPO to inform the Project Manager when construction may resume.

- II. SHPO and identified tribal representatives will be invited to observe the implementation of any proposed work.
- III. If the resource is believed to be significant, the SHPO historian will document the discovery in a report (including photographs of the discovery site). The report must also include completed identification forms, and an explanation of why the resource is deemed significant. The SHPO historian will formally request permission from SHPO to inform the Project Manager of the extent to which construction may be impacted, an explanation of why the resource is significant and a proposal for mitigation or data recovery. Based on this information, SHPO will then begin to review mitigation efforts.

Archaeological discoveries will be identified and evaluated by a qualified professional who shall meet, at a minimum, the **Secretary of Interior's Professional Qualification Standards (44 FR 44738-9)** for archeologists. The professional archaeologist will examine the location of the discovery. All work to evaluate significance and project effects will be confined to the Project's potential area of impact. The costs of such professional services will generally be the responsibility of the Applicant/Developer.

- a) If the archaeologist determines that the discovery is not a cultural resource, the archaeologist will immediately advise SHPO and the Project Manager in writing and will notify them of related findings.
- b) If the archaeologist determines that the discovery is a cultural resource, the archaeologist will immediately advise SHPO and the Project Manager in writing and will notify them of related findings. The SHPO will assign an **Archaeological Site Number** to the discovery.
- IV. If the resource is not significant, the archaeologist will document the discovery in a report (including photographs of the discovery site). The report must also include completed identification forms, and an explanation of why the resource is not significant. The archaeologist will formally request permission from SHPO to inform the Project Manager when construction may resume.
- V. SHPO and identified tribal representatives will be invited to observe the implementation of any proposed work.



- VI. If the resource is believed to be significant, the archaeologist will document the discovery in a report (including photographs of the discovery site). The report must also include a completed site form for the discovery, and an explanation of why the resource is significant and a proposal for mitigation or data recovery. Based on this information, SHPO will then begin to review mitigation efforts.

4) MITIGATE.

For resources that are deemed significant, the Applicant/Project Manager will consult with the SHPO on measures to avoid further impacts to the discovery. If the SHPO does not object to the consensus recommendation(s), SHPO will require the Applicant to modify the project design plans to implement any recommendation(s).

If either party objects to the recommendations, further consultation will be required to resolve the objection through actions including, but not limited to, identifying project alternatives that may result in the undertaking having no adverse effect on historic properties. The costs of such recovery and recordation will generally be the responsibility of the Applicant/Developer.

- a) When an Applicant's project cannot be modified and will have adverse effects on an archaeological property, SHPO may treat the adverse effect by providing for the recovery of significant information through archaeological data recovery or other scientific means. To accomplish this objective, SHPO will follow the **"Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites"** published in the Federal Register (64 FR 27085, May 18, 1999); and consult with the other consulting parties to prepare a **data recovery plan**, including material and record curation provisions. A report of data recovery efforts must be completed and submitted to the SHPO for review.
- b) For sites where SHPO determines other treatment measures are appropriate, SHPO will consult further with the other consulting parties to develop an appropriate approach to resolving the adverse effects.

Protocol:

Discovery of Human Skeletal Materials & Associated Funerary Items

1) STOP WORK.



If any employee, contractor, or subcontractor believes that he or she has uncovered skeletal remains at any point in the project, **all work at and adjacent to the discovery must stop**. The discovery location should be secured at all times. Minimize movement of vehicles and equipment in area immediately surrounding the discovery.



2) CONTACT.

The Site Superintendent shall notify the Project Manager and the appropriate local law enforcement agency immediately. The Project Manager shall notify the SHPO as soon as possible. Law enforcement will then determine if the remains are human, and whether the discovery constitutes a crime scene.

- a) If the police determine that human remains represent evidence of a crime or missing person, they will complete their investigation and determine if/when construction may resume.
- b) If skeletal remains are determined to be non-human and no archaeological association has been identified, then the Project Manager will notify the SHPO and upon receiving written confirmation, construction may proceed.
- c) If the police determine that human remains do not represent evidence of a crime or missing person, but an archaeological burial site, then the Project Manager will notify the SHPO and consult SHPO staff to develop a recovery plan. In most cases, it is preferred that burial sites be preserved, adequately documented, and maintained in place.

If this is not possible, the remains and any associated materials would need to be moved for their protection. The following sequence of steps will be employed if it is not possible to preserve and maintain an inadvertently discovered burial in place.

3) DOCUMENT:

A qualified archaeologist experienced in human remains recovery shall document and recover the remains and any related materials that may be present. Archaeological expertise is important in documenting the discovery context and evaluating whether the remains are isolated or if additional remains may be immediately present. Archaeological recovery may be done under the auspices of law enforcement. If law enforcement chooses not to be involved, a permit for disinterment must be obtained from the local Department of Public Health, or through a court order.

- a. Documentation and recovery shall be respectful and, to the extent possible, conducted out of public view.
- b. As soon as possible, the remains shall be examined by a physical anthropologist using standard non-invasive methods and procedures to create a basic biological profile and estimate ethnicity. Known or suspected Native American Ancestors or other materials subject to **Native American Graves Protection & Repatriation Act (NAGPRA)** will not be moved, touched, or further disturbed after discovery until completion of Tribal consultation or emergent circumstances arise.
- c. If it can be determined immediately that a discovery is, or has the potential to be, a Native American Ancestor and/or other materials subject to NAGPRA (i.e., associated or unassociated funerary objects, sacred objects, and objects of



cultural patrimony), the appropriate tribal officials will be notified within 48 hours of discovery and potential identification. Tribal notification and consultation will be coordinated by the SHPO.

- d. After notification and initial consultation, consulting Tribes may request that all federally recognized Tribes considered likely to be culturally affiliated with the discovery, be notified in writing by mail or email and further consultation initiated regarding the cultural affiliation, care, handling, excavation (if necessary), and/or disposition per NAGPRA.
- e. Accommodation will be made for traditional or ceremonial practices in association with discoveries. Consulting Tribes will be afforded opportunities to employ proper traditional cultural practices and treatments during periods of non-Tribal holding of discoveries.
- f. Photographs shall not be taken, except when necessary for identification and documentation. Tribes may request that any photographs of Native American Ancestors or other materials subject to NAGPRA be destroyed or repatriated at the end of the project.
- g. The permanent care of Native American Ancestors and materials subject to NAGPRA will be determined by the appropriate Tribe or Tribes in consultation with the SHPO.
- h. Pending consultations, documentation of the discovery will include a written description, mapping and sketching, and precise GPS coordinates. This documentation will be curated with other project records and not be published or made publicly available in any way.
- i. To ensure the protection, preservation, and proper respectful treatment of any discovered materials, pursuant to applicable law, the nature and location of any discovery shall remain confidential as best as reasonably possible given the circumstances and location.

Only those persons and entities identified in this plan shall be notified of the discovery or given information about the discovery. **The Applicant/Developer, Project Manager, Site Superintendent, and related contractors shall ensure all staff and consulting personnel are appropriately trained for their respective roles in implementing this plan.**

4) REPORTING:

Draft and final archaeological reports, with related physical anthropological reports and law enforcement case documentation appended, will be submitted to SHPO, and consulting **Tribal Historic Preservation Officers (THPOs)**.





**All Appropriate Inquiry (AAI)
Phase I Environmental Site Assessment
Per EPA 40 CFR Part 312 & ASTM E1527-21**

Project #
2025282

Performed At:

+/- 35 Acres West of S. Crystal Lake Road
Portion of P.I.N. 14-09-100-001 & 14-08-200-002
McHenry, Illinois 60050

Performed For:

Mr. Tej Patel
McHenry Solar Farm LLC
141 W. Jackson Boulevard, Suite 1692
Chicago, Illinois 60604

Performed By:

Stateline Environmental Consulting Services, Inc.

Completed On:

January 21, 2026

Completed By:

Ms. Alexandra Cook
Environmental Geologist
Stateline Environmental Consulting Services, Inc.



Subject Property

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ABBREVIATIONS AND ACRONYMS:

AAI	All Appropriate Inquiry	NFA / NFR	No Further Action / No Further Remediation
ACM	Asbestos-Containing Material	OSFM	Office of the State Fire Marshal
AST	Above Ground Storage Tank	OSHA	Occupational Safety and Health Administration
ASTM	American Society for Testing and Materials	PACM	Possible Asbestos Containing Material
BGS	Below Grade Surface	PCBs	Polychlorinated Biphenyls
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes	PCE, PERC	Perchloroethylene, Tetrachloroethylene, Tetrachloroethene
CAP	Corrective Action Plan	PID	Photo-Ionization Detector
CDPH	City of Chicago Department of Public Health	PNA / PAH	Polynuclear Aromatic Hydrocarbons
CERCLA	Comprehensive Environmental Response Compensation and Liability Act	RAP	Remedial Action Plan
CESQGs	Conditionally Exempt Small Quantity Generators	RCRA	Resource Conservation and Recovery Act
CREC	Controlled Recognized Environmental Condition	REC	Recognized Environmental Condition
ERIS	Environmental Risk Information Services	RSRA	Records Search with Environmental Risk Assessment
ESA	Environmental Site Assessment	SQG	Small Quantity Generator
FOIA	Freedom of Information Act	SVOCs	Semi-Volatile Organic Compounds
GIS	Geographic Information System	TACO	Tiered Approach to Corrective Action Objectives
GPR	Ground-Penetrating Radar	TCE	Trichloroethylene, Trichloroethene
HREC	Historical Recognized Environmental Condition	TPH	Total Petroleum Hydrocarbons
HVAC	Heating, Ventilation and Air Conditioning	TSA	Transaction Screen Environmental Site Assessment
IEMA	Illinois Emergency Management Agency	USDA	United States Department of Agriculture
IEPA	Illinois Environmental Protection Agency	USEPA	United States Environmental Protection Agency
ISGS	Illinois State Geological Survey	USGS	United States Geological Survey
LQG	Large Quantity Generator	UST	Underground Storage Tank
LUST	Leaking Underground Storage Tank	VCP / SRP	Voluntary Cleanup Program / Site Remediation Program
MSDS	Material Safety Data Sheet	VOCs	Volatile Organic Compounds
MTBE	Methyl Tertiary Butyl Ether	VSQG	Very Small Quantity Generator
NESHAP	National Emission Standards for Hazardous Air Pollutants		

UNITS

µg/L	Micrograms per Liter	pCi/L	PicoCuries per Liter
mg/kg	Milligrams per Kilogram	ppb	Parts per Billion
mg/L	Milligrams per Liter	ppm	Parts Per Million

1.0 Executive Summary:

As requested by Mr. Tej Patel of McHenry Solar Farm LLC, Chicago, Illinois, Stateline Environmental Consulting Services, Inc. (Stateline) performed an All Appropriate Inquiry (AAI) Phase I Environmental Site Assessment (ESA) at:

+/- 35 Acres West of S. Crystal Lake Road
Portion of P.I.N. 14-09-100-001 & 14-08-200-002
McHenry, Illinois 60050

This AAI ESA was performed in accordance with EPA 40 CFR Part 312 and ASTM E1527-21 in order to identify the potential for hazardous substances or petroleum products, which would be considered a “Recognized Environmental Condition.”

Mr. Adam K. Zakroczymski III, E.P., President of Stateline, and Ms. Alexandra Cook, Environmental Geologist of Stateline, conducted a visual site inspection of the subject property on January 15, 2026. Stateline personnel were unescorted throughout the subject property.

General Property & Building Characteristics	
Property Size:	+/- 35 Acres within a 79 Acre Plot of Land Across Two (2) Parcels
Building Size:	Not Applicable
Stories:	Not Applicable
Construction:	Not Applicable
Year Built:	Not Applicable
Use:	Unimproved Agricultural Land / Vacant Land
Occupant:	Not Applicable
Climate Control:	Not Applicable
Remaining Areas:	Agricultural Land, Low-Lying Rock & Dirt Deposit Area Near the West Property Boundary and a Tree Line Along the South Property Boundary
Staining:	None

Visual Observations: Stateline personnel did not identify any RECs during the visual property inspection.

Regulatory Database: The subject property is not listed on any of the local, state or federal databases researched by Stateline as part of this AAI Phase I ESA.

Historical Observations: Based on a review of information dating back to 1939, the subject property originally consisted of unimproved agricultural land. Between 1939 and 1954, an area of land near the west property boundary became comprised of low-lying vegetation. The subject property has historically been used for unimproved land / agricultural purposes with no evidence of past structures. The subject property remains unimproved agricultural land with an area of low-lying vegetation near the west property boundary through present day. No evidence of prior structures such as foundations or building materials were noted. No indications of historical manufacturing, fuel storage, vehicle servicing or repair were noted. No RECs were noted as a result of the Historical Observations for the subject property.

Executive Summary Continued on Next Page:

Executive Summary Continued:

1.1 Conclusions:

Topic	De Minimis	REC	CREC	HREC	Other
Visual Observations:	No	No	No	No	No
Historical Observations:	No	No	No	No	No
Database Review:	No	No	No	No	No
Adjacent Properties:	No	No	No	No	No
Significant Data Gaps:	No	No	No	No	No
Recommendations:	No	No	No	No	No

After a review of available record sources, a visual inspection of the subject property and interviews with individuals with knowledge of the property, **NO “RECOGNIZED ENVIRONMENTAL CONDITIONS” ARE PRESENT** in conjunction with the subject property or immediately adjacent properties. Therefore, no additional environmental investigation is warranted at the present time.

2.0 Introduction:

This report outlines the findings, opinions and conclusions of the AAI ESA performed at +/- 35 Acres West of S. Crystal Lake Road, Portion of P.I.N. 14-09-100-001 & 14-08-200-002, McHenry (McHenry County), Illinois 60050 as requested by Mr. Tej Patel of McHenry Solar Farm LLC, Chicago, Illinois under Project No. 2025282.

Property Index Numbers: 14-09-100-001 & 14-08-200-002

Abbreviated Legal Descriptions: The Abbreviated Legal Descriptions for the subject property are included within the McHenry County Assessor's Office Property Information Sheets, which are included in the Appendices section of this report.

Current Use of Subject Property: At the time of the visual property inspection, the subject property was unimproved agricultural land.

2.1 Purpose:

The purpose of this AAI ESA was to identify any potential "Recognized Environmental Conditions" at the subject property, or surrounding properties, which may have an adverse impact to the subject property. Typically, the ESA is required as documentation for financial purposes.

2.2 Scope of Services:

This ESA was conducted in accordance with EPA 40 CFR Part 312 and ASTM E1527-21, which are considered the common standard practices for ESAs. This ESA was contracted through a signed agreement between Stateline and its client on November 6, 2025 as Project No. 2025282.

The scope of services included in this assessment are:

Site Reconnaissance: Includes general building / property configurations (interior and exterior), building materials, current uses, etc., which identify the possibility of ASTs / USTs, hazardous substances / wastes and or petroleum products / wastes, wells, pits, buckets, containers, drums, air emissions, water sources and discharges and storm water discharges. The site reconnaissance section also includes descriptions of adjacent properties and observations of environmental significance associated with adjacent properties.

Records Review: Includes a review of physical setting sources (review of topographic, soil, wetland and other applicable reasonably ascertainable geologic maps), standard governmental environmental record resources (comprised of standard regulatory databases including local, state, federal and tribal listings for the subject property and adjoining sites), additional governmental record sources, historical use information regarding the subject property and adjacent properties. Includes previous ownership, usage and configurations from sources including, but not limited to; aerial photographs, Fire Insurance Maps, Assessor records, local building and fire department records, City Directories and personal interviews. An overview of the historical use of the subject property and adjoining properties will be provided within this section.

Interviews: Provides a summary of interviews conducted with present owners, operators and occupants, as well as key site manager(s) and persons with first-hand knowledge regarding the subject property. This section also includes interviews with state and / or local government officials.

Non-Scope Considerations: Provides information including, but not limited to; PACM, mold, Lead-based paint, PCB-containing building materials (interior fluorescent light ballasts, paint and caulk), Radon and wetlands. Other non-scope considerations such as biological agents, health and safety topics, Lead in drinking water and regulatory compliance are only included if requested by the user of this report.

Findings and Opinions / Conclusions: Documents the findings and opinions of this Phase I ESA. Stateline will also provide a discussion relating to Non-Scope Considerations, Significant Data Gaps, Business Environmental Risks and any deletions. Conclusions will be outline to include any applicable recommendations related to the findings and opinions of the Phase I ESA. The E.P.'s statement will also be included within this section along with a listing of applicable references used during the completion of the report.

Appendices: The Appendices section includes all supporting documentation used during the completion of this Phase I ESA, as well as the qualifications of all staff, including the E.P., who completed the site reconnaissance, interviews and report. This documentation includes a site drawing, a site setting map, aerial photographs, geologic maps, Fire Insurance Maps (as available) and any additional maps or documentation used during the course of this Phase I ESA such as City Directories, building permits / records, fire department permits / records, assessor's information, county G.I.S. information, etc.

2.3 Significant Assumptions:

Stateline has prepared this assessment in accordance with EPA 40 CFR Part 312 and ASTM E1527-21, as well as generally accepted industry methods. The format of this report follows the general recommended report format by ASTM with minor alterations to conform to our client's requirements. Stateline uses trained and knowledgeable Environmental Professionals using practical industry methods to identify potential environmental adversities, which would constitute a "Recognized Environmental Condition." The opinions and conclusions outlined in this AAI ESA are based off the visual inspection of the property and adjoining properties, readily available historical sources, interviews and any other records or information supplied to / or researched by Stateline during the course of this ESA.

2.4 Limitations, Exceptions & Deviations:

This AAI ESA is not limited to Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and may be used by those who have no CERCLA liability and may or may not be seeking Landowner Liability Protections (LLPs). This ESA is considered to be site specific. Any additional services within this ESA are outlined in the appropriate section of this report. No physical sampling is included as part of this ESA unless agreed upon by Stateline and its client. No ESA can completely eliminate the uncertainty of “Recognized Environmental Conditions” in connection with the subject property. AAI does not mean an exhaustive ESA of a subject property. Typically, the ESA includes information obtained within the cost and timeframe required to reduce uncertainties in connection with the subject property. The level of investigation and research varies based on the property, current usage and historical usage. Stateline determines the level of inquiry based on the characteristics of each individual site.

Stateline does not warrant that the past, current or future operations at the subject property are in full accordance with local, state, federal and tribal laws, regulations or codes. Furthermore, Stateline does not warrant any changes to the property after the completion of this ESA. Stateline will not be responsible for consequences based on factors that were withheld (either by the user of this ESA, property owners, managers, occupants or prospective purchasers) during the completion of this ESA. Additional limiting conditions may include safety concerns, weather, snow cover, flooding, vegetation, structures, asphalt, bodies of water, vehicles and / or equipment that may inhibit identifying potential “Recognized Environmental Conditions.” Stateline will not be held responsible for such limiting conditions that may be out of its control.

Stateline uses an independent third-party company to provide the database / regulatory report illustrated in this ESA. All information included in this regulatory report was assumed to be accurate unless otherwise noted by Stateline throughout the duration of this ESA. Similarly, Stateline obtains historical information from third-party record sources including, but not limited to; county G.I.S. websites, independent mapping websites, corporate websites, local governmental departments (village, city, county, etc.) and persons with specific knowledge of a property or industry. All information gathered by Stateline is assumed accurate unless otherwise noted by Stateline. Stateline cannot be held liable for errors in information obtained from any third-party sources.

Any title information within this ESA is considered to be for historical use information only. Stateline is not a professional title company and any title information should not be relied upon as such.

Stateline Environmental Consulting Services, Inc. has performed this All Appropriate Inquiry (AAI) Phase I Environmental Site Assessment in accordance with EPA 40 CFR Part 312 and ASTM E1527-21. Stateline is not aware of any deviations from the referenced standards.

2.5 Special Terms, Conditions & User Reliance:

This AAI ESA has been performed for the exclusive use of McHenry Solar Farm LLC and its affiliates. Any other uses of this assessment outside of Stateline and its contracted client must be agreed upon in writing by Stateline and its client. All users of this ESA understand that the subject property may change at any time and that Stateline cannot be held responsible for environmental issues that were withheld or hidden at the time this ESA was completed.

3.0 User Provided Information:

3.1 Title Records / Environmental Liens:

McHenry Solar Farm LLC did not provide Stateline with any title records and / or environmental liens for use and / or consideration for this ESA. Stateline was not contracted to perform a Chain of Title search for the subject property, however, no evidence of title records of negative environmental consequence or environmental liens were revealed during the course of this ESA.

3.2 Activity & Land Use Limitations:

McHenry Solar Farm LLC did not provide any information regarding environmental liens or activity and use limitations to Stateline for use or consideration in this ESA.

3.3 Specialized Knowledge or Experience of the User:

McHenry Solar Farm LLC did not provide any specialized knowledge regarding the subject site to Stateline for use or consideration in this ESA. Stateline personnel conducted interviews with persons who have knowledge of the subject property. These interviews are outlined in Section 6 of this report.

3.4 Actual Knowledge of the User:

McHenry Solar Farm LLC did not provide any actual knowledge of any environmental lien or activity and use limitations encumbering the subject property or in connection with the subject property.

3.5 Reason for Significantly Lower Purchase Price (Valuation Reduction):

McHenry Solar Farm LLC indicated that the purchase price or refinance amount being paid for the subject property reasonably reflects the fair market value of the property. Based on the nature of this property, transaction and reason for performing this ESA, Stateline does not believe Valuation Reduction poses a concern regarding environmental issues.

3.6 Commonly Known or Reasonably Ascertainable Information:

McHenry Solar Farm LLC did not provide any additional Commonly Known or Reasonably Ascertainable Information pertaining to environmental concerns at the subject property.

3.7 Degree of Obviousness (Obvious Releases from / to Subject Property):

McHenry Solar Farm LLC did not indicate that any obvious releases have occurred from and / or to the subject property.

3.8 Other Information:

This AAI ESA was performed to adhere to the internal policies of McHenry Solar Farm LLC for real estate transactions. This assessment may also be required for financial and business documentation and this assessment will satisfy the requirements under the innocent landowner defense to Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability if necessary.

McHenry Solar Farm LLC provided Stateline with the general size, usage and overview of the subject property. Stateline personnel were informed that Mr. Michael Wolff is the representative for the property owner and that the subject property has historically been used as agricultural land.

McHenry Solar Farm LLC completed the ASTM E1527-21 User Questionnaire for this ESA. No information of environmental concern was noted on the User Questionnaire.

A copy of the ASTM E1527-21 User Questionnaire is included within the Appendices section of this report.

4.0 Site Reconnaissance:

Mr. Adam K. Zakroczymski III, E.P., President of Stateline, and Ms. Alexandra Cook, Environmental Geologist of Stateline, conducted a visual site inspection of the subject property on January 15, 2026. Stateline personnel were unescorted throughout the subject property. The weather was approximately 25 degrees Fahrenheit and partly cloudy.

4.1 Methodology & Limiting Conditions:

The site reconnaissance consists of a visual property inspection of any and all available portions of the property, buildings and improvements, which can be safely accessed through normal means of entry. Any unimproved areas are visually inspected in a perimeter and / or grid pattern of safely accessible areas. Stateline’s visual inspection outlines general property characteristics and improvements including general building construction / materials, potential above ground storage tanks and underground storage tanks, potential hazardous wastes / materials and petroleum wastes / materials, possible asbestos containing materials, lead-based paint, air emissions, waste water discharges, business operations and / or processes, PCBs, ponds, pits, lagoons, wells and septic systems.

4.2 General Site Setting:

General Property & Building Characteristics	
Property Size:	+/- 35 Acres within a 79 Acre Plot of Land Across Two (2) Parcels
Building Size:	Not Applicable
Stories:	Not Applicable
Construction:	Not Applicable
Year Built:	Not Applicable
Use:	Unimproved Agricultural Land / Vacant Land
Occupant:	Not Applicable
Climate Control:	Not Applicable
Remaining Areas:	Agricultural Land, Low-Lying Rock & Dirt Deposit Area Near the West Property Boundary and a Tree Line Along the South Property Boundary
Staining:	None

Stateline personnel did not observe any signs of subsurface soil staining and / or stressed vegetation at the subject property during the visual property inspection. Stateline did not observe any evidence of former structures during the visual property inspection.

A Site Drawing for the subject property is included in the Appendices section of this report.

4.3 Current Uses of Adjoining Properties:

Stateline conducted a visual assessment of the surrounding properties to investigate any potential environmental adversities that may impact the subject property.

NORTH	Unimproved agricultural land.
SOUTH	Farmsteads and single-family residential homes (1315 & 1409 Crystal Lake Road & 6212 & 6220 Mason Hill Road) and a church (Fellowship of Faith, 6120 Mason Hill Road), beyond which is Mason Hill Road.
EAST	Crystal Lake Road, beyond which are a single-family residential home (1214 Crystal Lake Road) and a farmstead (1308 Crystal Lake Road).
WEST	Unimproved agricultural land.

After a visual inspection of the surrounding properties, Stateline does not believe there to be any environmental concerns, which may impact the subject site.

4.4 Above Ground & Underground Storage Tanks:

Visual Site Inspection Observations: Stateline personnel did not observe any signs of current and / or previous UST emplacements and / or removals at the subject property.

Historical Records Review: Stateline did not reveal any historical evidence of previous or current underground storage tank emplacements, removals or usage at the subject property.

4.5 Hazardous Wastes & Materials / Petroleum Wastes & Materials:

Hazardous Wastes & Materials: Stateline did not observe any evidence, storage, usage or disposal of hazardous wastes and / or materials at the subject property.

Petroleum Wastes & Materials: Stateline did not observe any evidence, storage, usage or disposal of petroleum wastes and / or materials at the subject property.

4.6 Unidentified Substance Containers:

Stateline personnel did not observe any unidentified substance containers at the subject property.

4.7 Odors:

Stateline personnel did not note any strong, pungent or noxious odors at the subject property during the visual property inspection.

4.8 Stains and Corrosion on Floors, Walls or Ceilings:

The subject property was unimproved agricultural land at the time of the visual property inspection. No stains or corrosion were noted.

4.9 Stained Soil and / or Pavement and Stressed Vegetation:

Stateline personnel did not observe any signs of surface soil / pavement staining and / or stressed vegetation at the subject property during the visual property inspection.

4.10 Pools of Liquid, Ponds, Pits, Lagoons, Sumps & Wells:

Stateline did not observe any signs of pools of liquid, ponds, pits, lagoons, sumps or wells during the visual property inspection.

4.11 Polychlorinated Biphenyls (PCBs):

Stateline did not observe any possible PCB containing transformers, lifts or equipment at the subject property. Therefore, PCBs do not pose an environmental concern at this time.

4.12 Solid Waste:

At the time of the visual property inspection, the subject property was completely unimproved. Therefore, no solid waste is generated at the subject property.

4.13 Water Sources, Waste Water Discharges & Storm Water Discharges:

Water Sources: Upon development, water for the subject property will be obtained from an onsite potable water well. No assumptions as to water quality can be made without proper laboratory analysis.

Waste Water Discharges: Upon development, it is assumed that mainly sanitary sewer wastes will be generated from the subject property. Wastewater will flow to an onsite septic system.

Stateline does not believe there to be any adverse impacts to the subject site as a result of the water sources and waste water discharges. No assumptions as to water quality can be made without proper laboratory analysis.

Storm Water Discharges: Based on observations made during the visual site inspection, storm water discharges do not appear to pose a concern at the present time and no permitting appears to be necessary. A storm water discharge permit may be required should any processes, discharges, construction or reconstruction be implemented at the subject property.

4.14 Air Emissions / Heating & Cooling:

Air emissions concerns may be present in instances where spray paint booths, certain chemical burn offs are utilized and for furnaces, boilers or heaters with high BTU outputs. State and Federal laws regulate the usage and permitting of such devices.

Visual Property Inspection: At the time of the visual property inspection, the subject property consisted of unimproved land and no air emissions sources were present. Therefore, no air emissions concerns or violations appear to be present in conjunction with the subject property.

4.15 Vapor Migration Screening:

Migration refers to the movement of hazardous substances or petroleum products in any form, including solid and liquid at the surface or subsurface, and vapor in the subsurface. Contaminants of concern usually associated with Vapor Migration concerns include, but are not limited to, Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs), which are known to have a negative impact on human health. Vapors may travel in the path of least resistance; originating from a source of contamination (soil or groundwater) and follow natural and / or manmade pathways thus impacting indoor air quality at concentrations known to be detrimental to occupants.

Stateline did not note any sites within the minimum search distance that would pose a Vapor Encroachment Condition / Vapor Migration concern to the subject property.

4.16 Per- and Polyfluoroalkyl (PFAS) Screening:

The U.S. EPA recently classified perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) as hazardous substances under CERCLA/ Superfund. PFOA and PFOS are the most studied PFAS and have been used in a variety of manufacturing processes and products such as surface protectants for fabrics such as clothing, leather and carpets, paper and cardboard coating, nonstick cooking coatings, electric wire casings, tubing and aqueous film forming foam (AFFF). PFAs can also be found in hydraulic fluids, lubricants, grease, paints, varnishes, inks and adhesives. PFAS are known as “forever” chemicals that are highly resistant to degradation and stay present in the environment for extended periods of time. PFAS can also be present in wastewater discharges, stormwater discharges or air emissions.

Stateline personnel did not identify any potential operations at the subject property that would have directly used, handled or generated products or materials containing PFAs. It should be noted that PFAs have shown to be anthropogenically present in many environments, however, based on research and observations conducted during the course of this ESA, PFAs do not represent a REC at the present time.

5.0 Records Review:

5.1 Physical Setting Sources:

Soil Description:

The U.S. Department of Agriculture-Natural Resource Conservation Service (USDA-NRCS) classifies the subject property as being in the Proctor silt loam (148A), the Brenton silt loam (149A), the Warsaw loam (290C2), the Ringwood silt loam (297B), the Griswold loam (363C2) and the Orthents, loamy, undulating (802B) soil series.

The Proctor silt loam is a well drained soil formed on outwash plains and stream terraces. This soil consists of silt loam to a depth of 11 inches BGS, silty clay loam to a depth of 27 inches BGS, clay loam to a depth of 38 inches BGS and stratified loam to sand to a depth of 73 inches BGS. This soil is not prone to frequent ponding or frequent flooding.

The Brenton silt loam is a somewhat poorly drained soil formed on outwash plains and stream terraces. This soil consists of silt loam to a depth of 13 inches BGS, silty clay loam to a depth of 35 inches BGS, loam to a depth of 43 inches BGS and stratified loamy sand to silt loam to a depth of 60 inches BGS. This soil is not prone to frequent flooding or frequent ponding.

The Warsaw loam is a well drained soil formed on outwash plains and outwash terraces. This soil consists of loam to a depth of 26 inches BGS, gravelly clay loam to a depth of 35 inches BGS and very gravelly sand to a depth of 60 inches BGS. This soil is not prone to frequent flooding or frequent ponding.

The Ringwood silt loam is a well drained soil formed on ground moraines and end moraines. This soil consists of silt loam to a depth of 12 inches BGS, silty clay loam to a depth of 36 inches BGS and sandy loam to a depth of 60 inches BGS. This soil is not prone to frequent flooding or frequent ponding.

The Griswold loam is a well drained soil formed on ground moraines and end moraines. This soil consists of loam to a depth of 10 inches BGS, clay loam to a depth of 24 inches BGS sandy loam to a depth of 27 inches BGS and gravelly sandy loam to a depth of 60 inches BGS. This soil is not prone to frequent flooding or frequent ponding.

The Orthents, loamy, undulating soil series is a well drained soil consisting of earthy fill. This soil consists of loam to a depth of six (6) inches BGS and clay loam to a depth of 60 inches BGS. This soil is not to prone frequent flooding or frequent ponding.

Stateline personnel did not observe any signs of surface soil staining and / or stressed vegetation at the subject property during the visual property inspection.

Physical Setting Sources Continued on Next Page:

Physical Setting Sources Continued:

Topographic Information:

According to the McHenry County Topographic Map and the USGS Topographic Map provided within the ERIS Database Report, the subject property is at an approximate elevation of 785-825 feet above mean sea level with the highest point in elevation at the southeast corner of the property and the lowest point in elevation at the northwest corner of the property. A slight to moderate down-gradient slope is present from the southeast corner / south property boundary near the southeast corner toward the north. A moderate to significant down-gradient slope is present from the eastern edge of the low-lying vegetation rock and dirt deposit area toward the west. Stateline's observations during the visual property inspection parallel the observations made on the McHenry County Topographic Map and the USGS Topographic Map.

Groundwater, Bedrock and / or Surficial Geology Information:

Based on information deduced from available topographic maps, combined with regional geological characteristics, assumed groundwater flow is to the north and west toward Boone Creek. Actual groundwater flow direction may be different based on hydrogeologic conditions within the area of the subject property.

According to the Illinois Bedrock Geology of Illinois Map obtained from Illinois State Geological Survey (ISGS), the subject property is illustrated as being on Ordovician-dated bedrock. The Ordovician System undivided includes the Scales Shale, Fort Atkinson Limestone, Brainard Shale and the Neda Formation.

Copies of the above-mentioned available maps are included in the Appendices of this report.

5.2 Historical Records Review:

5.2.1 Aerial Photograph Review:

Aerial photographs from 1939 to 2024 were reviewed by Stateline for the subject site and surrounding area(s). Stateline reviewed aerials obtained from Google Earth, the USGS Earth Explorer website and the ISGS Geospatial Clearinghouse website. The following observations were made:

1939 Aerial	
Property	Unimproved agricultural land.
North	Unimproved agricultural land and an apparent farmstead.
South	Unimproved agricultural land and an apparent farmstead, beyond which is Mason Hill Road.
East	Crystal Lake Road, beyond which are unimproved agricultural land and an apparent farmstead.
West	Unimproved agricultural land.

1954 & 1961 Aerials	
Property	Unimproved agricultural land with an area of low-lying vegetation near the west property boundary.
North	Unimproved agricultural land and an apparent farmstead.
South	Unimproved agricultural land and an apparent farmstead, beyond which is Mason Hill Road.
East	Crystal Lake Road, beyond which are unimproved agricultural land and an apparent farmstead.
West	Unimproved agricultural land.

1967 Aerial	
Property	Unimproved agricultural land with an area of low-lying vegetation near the west property boundary.
North	Unimproved agricultural land and an apparent farmstead.
South	Unimproved agricultural land, an apparent farmstead and apparent single-family residential homes, beyond which is Mason Hill Road.
East	Crystal Lake Road, beyond which are unimproved agricultural land and an apparent farmstead.
West	Unimproved agricultural land.

1980, 1988, 1999 & 2002 Aerials	
Property	Unimproved agricultural land with an area of low-lying vegetation near the west property boundary.
North	Unimproved agricultural land and an apparent farmstead.
South	Unimproved agricultural land, an apparent farmstead and apparent single-family residential homes, beyond which is Mason Hill Road.
East	Crystal Lake Road, beyond which are apparent single-family residential homes and an apparent farmstead.
West	Unimproved agricultural land.

Aerial Photograph Review Continued on Next Page:

Aerial Photograph Review Continued:

2005, 2009, 2014 & 2018 Aerials	
Property	Unimproved agricultural land with an area of low-lying vegetation near the west property boundary.
North	Unimproved agricultural land and an apparent farmstead.
South	Unimproved agricultural land, an apparent farmstead, an apparent commercial building and apparent single-family residential homes, beyond which is Mason Hill Road.
East	Crystal Lake Road, beyond which are apparent single-family residential homes and an apparent farmstead.
West	Unimproved agricultural land.

2022 & 2025 Aerials	
Property	Unimproved agricultural land with an area of low-lying vegetation near the west property boundary.
North	Unimproved agricultural land and unimproved land comprised of low-lying vegetation with the remnants of an apparent driveway.
South	Unimproved agricultural land, an apparent farmstead, an apparent commercial building and apparent single-family residential homes, beyond which is Mason Hill Road.
East	Crystal Lake Road, beyond which are apparent single-family residential homes and an apparent farmstead.
West	Unimproved agricultural land.

No RECs associated with the subject property or immediately adjacent properties were revealed as a result of the review of aerial photographs.

Copies of the above referenced aerial photographs are included within the Appendices section of this report.

5.2.2 Fire Insurance Maps Review:

Stateline requested Fire Insurance Maps from Environmental Risk Information System, Inc. (ERIS). Stateline received a Fire Insurance Maps Research Results Letter indicating that there are no Fire Insurance Maps available for the subject property and / or surrounding area. Therefore, Fire Insurance Maps are considered not reasonably ascertainable.

A copy of the Fire Insurance Maps Research Results Letter is included within the Appendices section of this report.

5.2.3 Assessor Records:

McHenry County Assessor's Office / Nunda Township Assessor's Office Websites: Stateline personnel accessed the McHenry County Assessor's Office website and the Nunda Township Assessor's Office website in an effort to obtain information relating to the subject property. The following information was reviewed by Stateline:

P.I.N. 14-09-100-001:

- Address: 1207 S. Crystal Lake Road, McHenry, IL 60050
- Township: Nunda
- Owner: Michael J Wolff LIV TR
- Classification: Farmland without Buildings
- Property Size: 39.00 Acres

P.I.N. 14-08-200-002:

- Address: Not Listed
- Township: Nunda
- Owner: Michael J Wolff LIV TR
- Classification: Farmland without Buildings
- Property Size: 40.00 Acres

NOTE: The subject property consists of the southern half / portion of both parcels and totals approximately 35 acres.

Copies of the Property Information Sheets obtained from the McHenry County Assessor's Office website and the Property Information Sheets obtained from the Nunda Township Assessor's Office website are included within the Appendices section of this report.

5.2.4 Building / Fire Department Records:

McHenry County Planning & Development Department: Stateline personnel submitted a FOIA Request to the McHenry County Planning & Development Department requesting any records relating to construction, renovations and / or alterations, as well as certificated of occupancy and violations for the subject property. Stateline were provided with a response from the McHenry County Planning & Development Department containing a permit for the demolition of a single-family residential home dated 11/6/2006. According to aerial photographs, no structures have ever been present on the subject property. The subject property is the southern half of two (2) parcels. This permit likely pertains to the residential structure that was historically located to the north of the subject property. No additional records available pertinent to our request.

McHenry County Health Department: Stateline personnel submitted a FOIA Request to the McHenry County Health Department requesting any records relating to the installation or abandonment of potable water wells, septic systems and any other information of environmental consequence for the subject property. Stateline were provided with a response from the McHenry County Health Department containing a Correction Notice for permit number 06-0642 for the sealing of a well and the abandonment of a septic system. According to aerial photographs, no structures have ever been present on the subject property. The subject property is the southern half of two (2) parcels. This permit likely pertains to the residential structure that was historically located to the north of the subject property. No additional records available pertinent to our request.

McHenry Township Fire Protection District: Stateline personnel submitted a FOIA Request to the McHenry Township Fire Protection District requesting any records relating to UST emplacements and / or removals, storage of hazardous materials, information of environmental consequence, as well as any violations for the subject property. Stateline were provided with a response from the McHenry Township Fire Protection District stating that there were no records available pertinent to our request.

Copies of the FOIA Requests submitted to the McHenry County Planning & Development Department, the McHenry County Health Department and the McHenry Township Fire Protection District and their applicable responses are included within the Appendices section of this report.

5.2.5 City Directories:

Based on a review of other reasonably ascertainable records sources, which adequately documented the historical use of the subject property and adjoining sites, no City Directories were researched, nor deemed necessary for inclusion within this report.

5.2.6 Other Historical Sources:

No other historical sources were researched or deemed necessary for research for this ESA.

5.3 Standard Environmental Record Sources (Database Review):

Stateline contracted Environmental Risk Information Services (ERIS) to provide the regulatory database search for this All Appropriate Inquiry Environmental Site Assessment. ERIS utilizes an updated listing of local, state, federal and tribal databases, which outline the reported releases of hazardous substances and / or petroleum products at the subject site and surrounding properties. This database report was reviewed and interpreted by Stateline and revealed the following information:

Leaking Underground Storage Tank (LUST) – Illinois Environmental Protection Agency (IEPA) – Updated August 6, 2025 – **No sites** within a half-mile radius.

Leaking Underground Storage Tank Document (LUST DOCUMENT) – Illinois Environmental Protection Agency (IEPA) – Updated June 20, 2025 – **No sites** within a half-mile radius.

Underground Storage Tank Fund Payment Priority List (LUST TRUST) – Illinois Environmental Protection Agency – Updated November 1, 2016 – **No sites** within a half-mile radius.

Delisted Leaking Underground Storage Tank Sites (DELISTED LUST) – Illinois Environmental Protection Agency – Updated August 6, 2025 – **No sites** within a half-mile radius.

Underground Storage Tank (UST) – Office of the State Fire Marshal (OSFM) – Updated June 18, 2025 – **No sites** within a quarter-mile radius.

Aboveground Storage Tank (AST) – Office of the State Fire Marshal (OSFM) – Updated June 30, 2025 – **One (1) site** within a quarter-mile radius. **One site (1)** within an eighth-mile radius.

Property	Address	Distance	Elevation
¹ Verizon Wireless	1207 Crystal Lake Rd.	0.03 mile ENE	- 8

¹Verizon Wireless, addressed as 1207 Crystal Lake Road, is listed as an AST site. It is assumed that this AST is in conjunction with a cellular tower. This site shares an address with the east parcel of the subject property. The cellular tower is located approximately 3,221 feet (0.61 miles) north of the northeast corner of the subject property. Based on the actual distance from the subject property, Stateline would not consider this listing to represent a REC to the subject property.

Resource Conservation and Recovery Act Generators (RCRA GEN) – Environmental Protection Agency (EPA) – Updated September 1, 2025 – **No sites** within a quarter-mile radius. VSQG = Very Small Quantity Generator; LQG = Large Quantity Generator; SQG = Small Quantity Generator.

Resource Conservation and Recovery Act NonGen (RCRA NonGen / NLR) – Environmental Protection Agency (EPA) – Updated September 1, 2025 – **No sites** within a quarter-mile radius.

RCRA Corrective Action (RCRA COR ACT) – Environmental Protection Agency (EPA) – Updated September 1, 2025 – **No sites** within a one-mile radius.

RCRA Treatment, Storage and Disposal (RCRA TSD) – Environmental Protection Agency (EPA) – Updated September 1, 2025 – **No sites** within a half-mile radius.

National Priorities List (NPL) – Environmental Protection Agency (EPA) – Updated September 6, 2025 – **No sites** within a one-mile radius.

Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) – Environmental Protection Agency (EPA) – Updated October 25, 2013 – **No sites** within a half-mile radius.

CERCLIS No Further Remediation Action Plan (NFRAP) – Environmental Protection Agency (EPA) – Updated October 25, 2013 – **No sites** within a half-mile radius.

Federal Brownfields – Environmental Protection Agency (EPA) Brownfield Management System (BMS) – Updated September 8, 2025 – **No sites** within a half-mile radius.

Brownfields Redevelopment Assessment Database (BROWNFIELDS) – Illinois Environmental Protection Agency (IEPA) – Updated June 30, 2025 – **No sites** within a half-mile radius.

Emergency Response Notification System (ERNS) – Environmental Protection Agency (EPA) – Updated September 7, 2025 – **No listings for the subject property.**

State / Tribal Engineering Site Remediation Programs (VCP / SRP) – Illinois Environmental Protection Agency (IEPA) – Updated October 9, 2025 – **No sites** within a half-mile radius.

State / Tribal Engineering and Institutional Controls (EC/IC) – Illinois Environmental Protection Agency (IEPA) – Updated October 9, 2025 – **No sites** within a half-mile radius.

Document Explorer Remediation and Assessment (REM ASSESS) – Illinois Environmental Protection Agency (IEPA) – Updated June 20, 2025 – **No sites** within a half-mile radius.

State / Tribal Solid Waste Landfills (SWL) – Illinois Environmental Protection Agency (IEPA) – Updated June 24, 2024 – **No sites** within a half-mile radius.

State / Tribal Spills (Spills) – Illinois Emergency Management Agency (IEMA) – Updated June 20, 2025 – **No sites** within an eighth-mile radius.

Emergency Response Releases & Spills Database (SPILLS OER) – Office of Emergency Response (OER) – Updated July 10, 2025 – **No sites** within an eighth-mile radius.

Federal Dry Cleaners (FED DRYCLEANERS) – United States Environmental Protection Agency (USEPA) Licensed Dry Cleaners – Updated July 19, 2025 – **No sites** within a quarter-mile radius.

Delisted Federal Dry Cleaners (DELISTED FED DRY) – United States Environmental Protection Agency (USEPA) Licensed Dry Cleaners – Updated July 19, 2025 – **No sites** within a quarter-mile radius.

Dry Cleaners (DRYCLEANERS) – Drycleaner Environmental Response Trust Fund of Illinois – Updated July 7, 2025 – **No sites** within a quarter-mile radius.

Delisted Drycleaners (DELISTED DRYCLEANERS) – Drycleaner Environmental Response Trust Fund of Illinois – Updated July 7, 2025 – **No sites** within a quarter-mile radius.

Facility Index System / Facility Registry System (FINDS) – Environmental Protection Agency (EPA) – Updated October 10, 2025 – **No sites** within an eighth-mile radius.

Toxic Release Inventory Program (TRIS) – USEPA Toxics Release Inventory (TRI) – Updated September 20, 2023 – **The subject property is not listed.**

Integrated Compliance Information System (ICIS) – Integrated Compliance Information System and Federal Enforcement and Compliance – Updated May 3, 2025 – **The subject property is not listed.**

Northeastern Illinois Planning Commission Historical Inventory of Solid Waste Disposal Sites in Northeastern Illinois (NIPC) – Updated December of 1987 – **No sites** within a half-mile radius.

Alternative Fueling Stations (ALT FUELS) – US Department of Energy’s Office of Energy Efficiency & Renewable Energy – Updated August 1, 2025 – **No sites** within a quarter-mile radius.

Material Licensing Tracking System (MLTS) – Nuclear Regulatory Commission (NRC) – Updated May 11, 2021 – **No sites** within an eighth-mile radius.

Historical Material Licensing Tracking System (MLTS) – Nuclear Regulatory Commission (NRC) – Updated January 31, 2010 – **No sites** within an eighth-mile radius.

State Response Action Program Database (SSU) – Illinois Environmental Protection Agency (IEPA) – Updated January 16, 2025 – **No sites** within a one-mile radius.

Delisted State Response Action Program (DELISTED SSU) – Illinois Environmental Protection Agency (IEPA) – Updated January 16, 2025 – **No sites** within a one-mile radius.

SEMS List 8R Archive Sites (SEMS ARCHIVE) – United States Environmental Protection Agency (EPA) – Updated June 26, 2025 – **No sites** within a half-mile radius.

SEMS List 8R Active Sites (SEMS) – United States Environmental Protection Agency (EPA) – Updated June 26, 2025 – **No sites** within a half-mile radius.

Polychlorinated Biphenyl (PCB) Notifiers – United States Environmental Protection Agency (USEPA) – Updated May 23, 2024 – **No sites** within a half-mile radius.

Tier 2 Report (TIER2) – Illinois Emergency Management Agency (IEMA) – Updated May 10, 2023 – **No sites** within an eighth-mile radius.

Air Permits (AIR PERMITS) – Illinois Emergency Management Agency (IEMA) – Updated June 20, 2025 – **No sites** within a quarter-mile radius.

Air Facility System (AFS) – United States Environmental Protection Agency (USEPA) – Updated October 17, 2014 – **No sites** within an eighth-mile radius.

IEPA Document Explorer (IEPA DOCS) – Illinois Environmental Protection Agency (IEPA) – Updated March 17, 2025 – **No sites** within an eighth-mile radius.

PFAS Industry Sectors (PFAS IND) – United States Environmental Protection Agency (USEPA)
– Updated September 1, 2025 – **No sites** within a half-mile radius.

NOTE: Stateline also reviewed the ERIS Report for Unplottable Sites. No unplottable records were found that may be relevant for the search criteria.

A copy of the ERIS Report is included in the Appendices section of this report.

5.3.1 Additional Environmental Records Sources:

No additional environmental records sources were researched or deemed necessary during the completion of this environmental site assessment.

6.0 Interviews:

6.1 Interview with Owner:

Stateline personnel were informed that Mr. Michael Wolff is the owner of the subject property. Stateline conducted an interview with Mr. Wolff who provided the following information:

- Mr. Wolff stated that he has owned the subject property for 4-5 years.
- Mr. Wolff stated that the subject property has always been farmland.
- Mr. Wolff stated that the buildings associated with the property to the north were razed prior to his purchase.
- Mr. Wolff stated that there may have been dumped farm garbage in the middle of the field.
- Mr. Wolff stated that he believes that the low-lying area on the west of the property is comprised of rock and dirt from farming practices. He is unsure of the exact contents.
- Mr. Wolff has no knowledge of any fly dumping on the subject property.
- Mr. Wolff has no knowledge of any additional current or historical usage of hazardous materials at the subject property.
- Mr. Wolff has no knowledge of any UST and / or AST emplacements and / or removals at the subject property.

6.2 Interview with Key Site Manager:

Mr. Wolff, the representative for the owner of the subject property, is also considered the Key Site Manager. Therefore, no interviews with a different Key Site Manager were completed or deemed necessary.

6.3 Interview with Occupants:

At the time of the completion of the visual property inspection, the subject property was unoccupied and vacant land. Therefore, no interviews with occupants could be performed.

6.4 Interview with State and / or Local Government Officials:

Stateline contacted the McHenry Township Fire Protection District, the McHenry County Planning & Development Department, the McHenry County Health Department, the McHenry County Assessor's Office and the Nunda Township Assessor's Office to inquire about any information these departments may have on file for the subject property. A review of the information made available to Stateline can be found in sections 5.2.3 and 5.2.4 of this report.

6.5 Interviews with Past Owners, Operators and / or Occupants:

No past owners, operators or occupants were available to interview during the completion of this Phase I ESA.

6.6 Interview(s) with Others:

No additional interviews with other persons such as past owners, operators and / or occupants who may have knowledge of the subject property were conducted or deemed necessary.

7.0 Non-Scope Considerations:

The following observations made during the visual property inspection are considered “Non-Scope Considerations” and the presence of any such considerations do not represent “Recognized Environmental Conditions;” however have been included due to potential health and safety concerns. Items noted below, were limited to only those areas visually accessible to Stateline during the visual property inspection or based on mapping applications researched during the completion of this report.

7.1 Possible Asbestos Containing Materials (PACM):

At the time of the visual property inspection, the subject property was entirely unimproved. No PACM materials were observed at the subject property. Additionally, no PACM fill materials were observed during the visual property inspection.

7.2 Mold:

At the time of the visual property inspection, the subject property was entirely unimproved. Therefore, no mold was observed at the subject property.

7.3 Lead-Based Paint:

At the time of the visual property inspection, the subject property was entirely unimproved. Therefore, no lead-based paint was observed at the subject property.

7.4 Radon:

According to the IEMA Public Radon Dashboard website, the average indoor radon level within the zip code of the subject property is 4.1 pCi/L and the average indoor radon level within McHenry County is 4.2 pCi/L. The national average is 1.3 pCi/L. According to the EPA Map of Illinois Radon Zones, McHenry County is in a Zone 2 area, which is considered a moderate potential for radon with averages between 2 pCi/L and 4 pCi/L. Based on information reviewed, Stateline would consider health risks relating to radon to be minimal. A radon test is beyond the scope of this report.

7.5 PCB-Containing Building Materials:

At the time of the visual property inspection, the subject property was entirely unimproved. Therefore, no PCB-containing building materials were observed at the subject property.

7.6 Wetlands:

Visual Property Inspection: Stateline personnel did not observe any signs of wetlands and / or wetland vegetation at the subject property during the visual property inspection.

McHenry County G.I.S. Wetland Inventory Map: A review of the McHenry County G.I.S. Wetland Inventory Map did not illustrate any wetland areas being present at the subject property.

U.S. Fish & Wildlife Service Wetland Inventory Map: A review of the U.S. Fish & Wildlife Service Wetland Inventory Map did not illustrate any wetland areas being present at the subject property.

Copies of the above applicable maps are included in the Appendices of this report.

8.0 Findings and Opinions:

This section outlines findings, which may or may not constitute “Recognized Environmental Conditions.” Stateline bases all findings on the visual site inspection, historical records review, database review, interviews and any other pertinent information obtained during the duration of this ESA. The opinions, conclusions and recommendations in this report are based on the severity and potential environmental (or health) impacts that may be present.

+/- 35 Acres West of S. Crystal Lake Road
Portion of P.I.N. 14-09-100-001 & 14-08-200-002
McHenry, Illinois 60050

Stateline Project No. 2025282

8.1 Data Gaps:

Aerial photographs were not available in 5 to 10-year intervals. This represents a Data Gap, however, based on information obtained from other sources during the completion of this ESA, combined with the historical use of this property as unimproved land, this Data Gap does not represent a “Recognized Environmental Condition.”

Stateline did not encounter any additional significant Data Gaps, which would alter the outcome of the Findings, Opinions and Conclusions of this report during the course of this ESA.

8.2 Opinions:

It is the opinion of Adam K. Zakroczymski, III, E.P., President of Stateline Environmental Consulting Services, Inc. that **NO “RECOGNIZED ENVIRONMENTAL CONDITIONS” ARE PRESENT AT THE SUBJECT PROPERTY.** This opinion has been based on information and documentation obtained during the visual site inspection, historical records review, interviews, database review and other readily available sources relating to the subject property. Therefore, no additional environmental investigation is warranted at the present time.

Stateline personnel did not reveal any *De Minimis* Conditions, Business Environmental Risks or Non-Scope Considerations that would require additional investigation during the completion of this Phase I ESA.

9.0 Conclusions:

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of +/- 35 Acres West of S. Crystal Lake Road, Portion of P.I.N. 14-09-100-001 & 14-08-200-002, McHenry (McHenry County), Illinois 60050, the subject property. Any exceptions to, or deletions from this practice are described in Section 2.4 of this report. **This assessment has revealed No Recognized Environmental Conditions, Controlled Recognized Environmental Conditions, Historical Recognized Environmental Conditions or Significant Data Gaps in connection with the property.**

DEFINITION OF "RECOGNIZED ENVIRONMENTAL CONDITIONS:" (1) The presence of *hazardous substances or petroleum products* in, on, or at the *subject property* due to a *release to the environment*; (2) The likely presence of *hazardous substances or petroleum products* in, on or at the *subject property* due to a *release or likely release to the environment* or: (3) The presence of *hazardous substances or petroleum products* in, on or at the *subject property* under conditions that pose a *material threat* of a future *release to the environment*.

10.0 Additional Services:

The nature of this scope of work may exceed the referenced standards, however, no additional services to the generally accepted methods and practices have been outlined in this ESA.

11.0 References:

Stateline consulted the following references / sources for completion of this AAI Phase I ESA:

- ASTM E1527-21 Standard Practice
- Environmental Risk Information Service (ERIS)
- McHenry County G.I.S. Website
- McHenry County Assessor's Office
- McHenry County Planning & Development Department
- McHenry County Health Department
- McHenry Township Fire Protection District
- Nunda Township Assessor's Office
- Google Earth™
- Bing™ Maps
- USDA-NRCS (Soil Map)
- U.S. Fish & Wildlife Service (Wetland Maps)
- Illinois Emergency Management Agency (IEMA)
- Illinois State Geological Survey (ISGS)
- Personal Interviews

12.0 Signatures of Environmental Professionals:

As requested by Mr. Tej Patel of McHenry Solar Farm LLC, Chicago, Illinois, Stateline Environmental Consulting Services, Inc. (Stateline) performed an All Appropriate Inquiry (AAI) Phase I Environmental Site Assessment (ESA) at:

+/- 35 Acres West of S. Crystal Lake Road
Portion of P.I.N. # 14-09-100-001 & 14-08-200-002
McHenry, Illinois 60050

This AAI ESA was performed in accordance with EPA 40 CFR Part 312 and ASTM E1527-21 in order to identify the potential for hazardous substances or petroleum products, which would be considered a "Recognized Environmental Condition." I / we do certify that this All Appropriate Inquiry (AAI) Phase I ESA was performed in accordance with EPA 40 CFR Part 312 and ASTM E1527-21 and generally accepted industry methods.

"I / We declare that to the best of my / our professional knowledge and belief, I / we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312. I / We have the specific qualifications based on education, training and experience to assess a property of the nature, history, and setting of the subject property. I / we have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."



Adam K. Zakroczymski III, E.P.
President
Stateline Environmental Consulting Services, Inc.

January 21, 2026
Date

13.0 Qualifications of Environmental Professionals:

Adam K. Zakroczymski III, Environmental Professional (EP) – President

Mr. Zakroczymski (Zak) has 26 years of experience in the environmental consulting field managing projects as a technician, senior environmental specialist and supervisor of environmental site assessments. In the industry, Mr. Zak has performed hundreds of environmental site inspections and been responsible for drawing conclusions regarding potential “Recognized Environmental Conditions” (REC’s), as well as developing a course of action to investigate and remediate contaminated properties. Additionally, Mr. Zak was responsible for training new employees and educating them about the laws and standards governing the industry. Mr. Zak has attended many seminars and independently studied the EPA 40 Part 312, ASTM E1527-13 and ASTM E1527-21 standards. From there, Mr. Zak conducted many training seminars to clients and potential clients regarding changes within the industry, as well as new standards and practices. Mr. Zak has experience in Phase II Subsurface Investigations, UST Removals, Remedial Activities, as well as hours logged in Asbestos Demolition Inspections.

Education:

- Carmel High School – Mundelein, Illinois
- College of Lake County – Grayslake, Illinois – General undergraduate studies with honors
- Trinity International University – Deerfield, Illinois – General undergraduate studies
- Columbia College – Chicago, Illinois – Graduated with a Bachelor’s of Arts with honors

Additional Training:

- OSHA 40 Hour Hazardous Material Training
- 8 Hour HAZWOPER Refresher Training
- American Petroleum Institute (API) WorkSafe Safety Key Certified

Sandi E. Zakroczymski – Vice President, Secretary

Mrs. Zakroczymski (Zak) has over 12 years of experience in the environmental consulting field managing projects as an environmental technician and relations manager. Mrs. Zak has performed hundreds of onsite inspections and was responsible for composing various environmental site assessment reports. Mrs. Zak is well educated regarding the processes as it relates to various types of Phase I Environmental Site Assessments. Additionally, Mrs. Zak spent over two years as a relations manager in the environmental consulting industry keeping close contact with clients and educating them about new laws, standards and scopes of work.

Education:

- Carmel High School – Mundelein, Illinois
- College of Lake County – Grayslake, Illinois – General undergraduate studies
- Trinity International University – Deerfield, Illinois – General undergraduate studies

Additional Training:

- Cawley Chicago Seminar on Property Tax Incentives and Assessments

Alexandra Cook – Environmental Geologist

Ms. Cook has nine (9) years of experience in the environmental consulting field managing projects as an Environmental Technician. In the industry, Ms. Cook has performed numerous Phase I Environmental Site Inspections, as well as completed various Records Search with Environmental Risk Assessment (RSRA) Reports, Transaction Screen Environmental Site Assessment Reports and AAI Phase I ESAs. Ms. Cook has attended many seminars and independently studied the EPA 40 Part 312, ASTM E1527-13 and ASTM E1527-21 standards. Ms. Cook has experience in Phase II Subsurface Investigations, UST Removals, Remedial Activities, as well as hours logged in Asbestos Demolition Inspections.

Education:

- Antioch Community High School – Antioch, Illinois
- University of Wisconsin Eau Claire – Eau Claire, Wisconsin – Graduated with a Bachelor’s of Science

Additional Training:

- MSHA 40 Hour Training
- NELAC Ethics Training

14.0 Appendices:

APPENDIX A – Figure of Subject Property and Adjacent Sites

APPENDIX B – Subject Property Setting Map

APPENDIX C – Photographs of Subject Property

APPENDIX D – Aerial Photography (1939, 1954, 1961, 1967, 1980, 1988, 1999, 2002
2005, 2009, 2014, 2018, 2022 & 2025)

APPENDIX E – Fire Insurance Maps Research Results – No Maps Available Notification

APPENDIX F – McHenry County G.I.S. Maps (Soil, Topographic & Wetland Maps)

APPENDIX G – USDA-NRCS Soil Survey Map

APPENDIX H – U.S. Fish & Wildlife Service Wetland Inventory Map

APPENDIX I – ISGS Bedrock of Illinois Map & Key

APPENDIX J – IEMA Radon Map

APPENDIX K – McHenry County Assessor's Office Property Information Sheets

APPENDIX L – Nunda Township Assessor's Office Property Information Sheets

APPENDIX M – FOIA Requests:

- McHenry Township Fire Protection District
- McHenry County Planning & Development Department
- McHenry County Health Department

APPENDIX N – FOIA Responses:

- McHenry Township Fire Protection District
- McHenry County Planning & Development Department
- McHenry County Health Department

APPENDIX O – ERIS Database Report



Appendix A

Figure of Subject Property and Adjacent Sites

Figure of Subject Property and Adjacent Sites – Not to Scale



AAI Phase I Environmental Site Assessment
 Performed at:
 +/- 35 Acres West of S. Crystal Lake Road
 Portions of P.I.N.s 14-09-100-001 & 14-08-200-002
 McHenry, Illinois 60050

Performed For:
 Mr. Tej Patel
 McHenry Solar Farm LLC
 141 W. Jackson Boulevard, Suite 1692
 Chicago, Illinois 60604

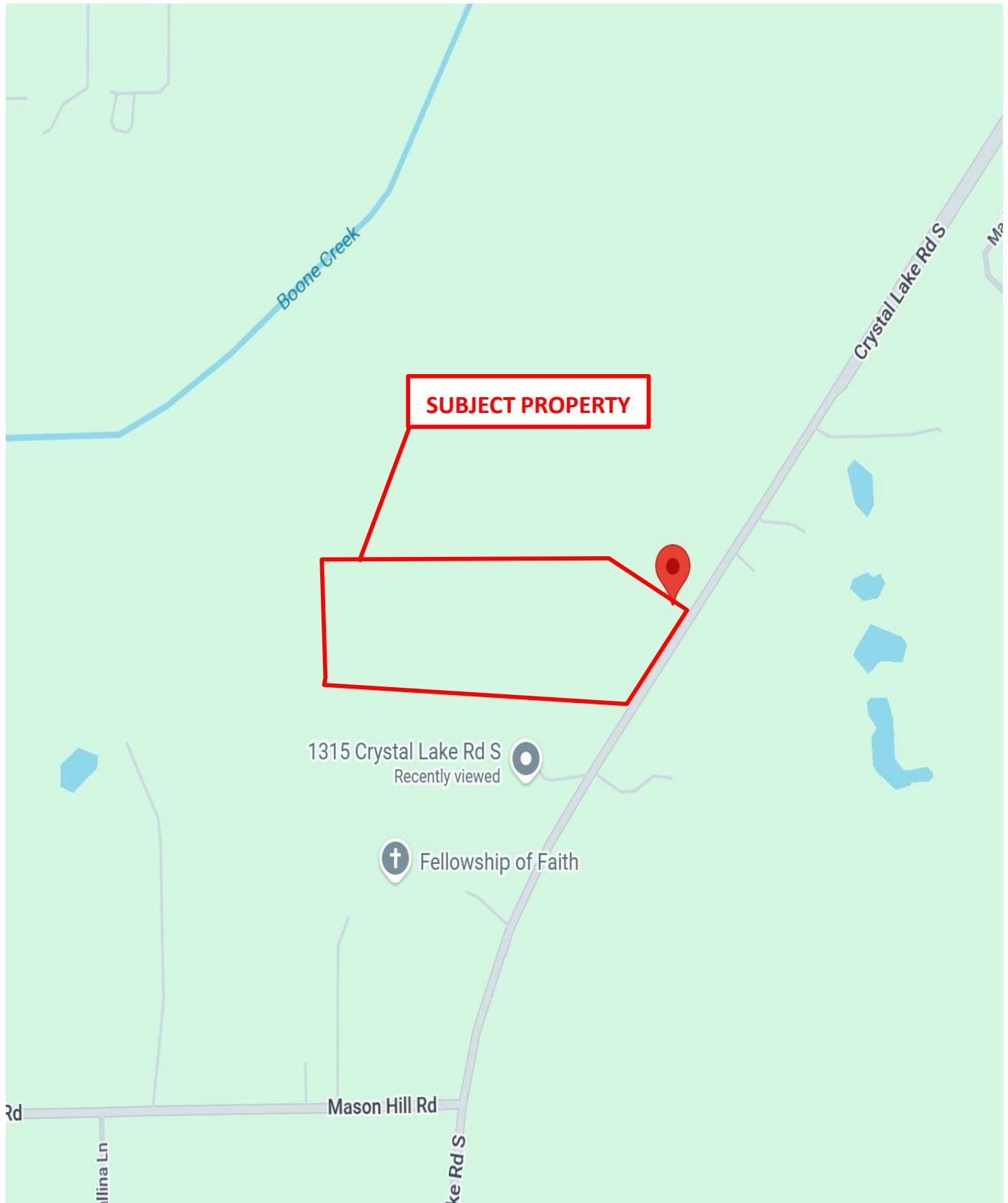
Project # 2025282
 Date: January 21, 2026
 Drafted by: Alexandra Cook



Appendix B

Subject Property Setting Map

Subject Property Setting Map



AAI Phase I Environmental Site Assessment Performed At:

+/- 35 Acres West of S. Crystal Lake Road
Portion of P.I.N.s 14-09-100-001 & 14-08-200-002
McHenry, IL 60050

Stateline Project # 2025282





Appendix C

Photographs of Subject Property

Appendix C – Photographs of Subject Property:



View of Property Facing South from the Access Driveway



View of Property Facing West from the Access Driveway



View of Property Facing East from Near the West-Central Property Boundary of Parcel 001



View of Property Facing South from Near the West-Central Property Boundary of Parcel 001



View of Property Facing West from Near the West-Central Property Boundary of Parcel 001



View of Low-Lying Rock & Dirt Deposit Area

Appendix C – Photographs of Subject Property:



View of Low-Lying Dirt & Rock Deposit Area



View of Low-Lying Dirt & Rock Deposit Area



View of Low-Lying Dirt & Rock Deposit Area



View of Low-Lying Dirt & Rock Deposit Area



View of Property Facing West from the West Side of the Low-Lying Area



View of Property Facing East from the Northwest Corner

Appendix C – Photographs of Subject Property:



View of Property Facing Southeast from the Northwest Corner



View of Property Facing Northeast from the Southwest Corner



View of Property Facing North from the Southwest Corner



View of Property Facing North / Northeast from the Southwest Corner



View of Property Facing North from the South-Central Property Boundary



View of Property Facing West from the Southeast Corner

Appendix C – Photographs of Subject Property:



View of Property Facing Northwest from the Southeast Corner



View of Property Facing North from the Southeast Corner



Appendix D

Aerial Photography:

1939

1954

1961

1967

1980

1988

1999

2002

2005

2009

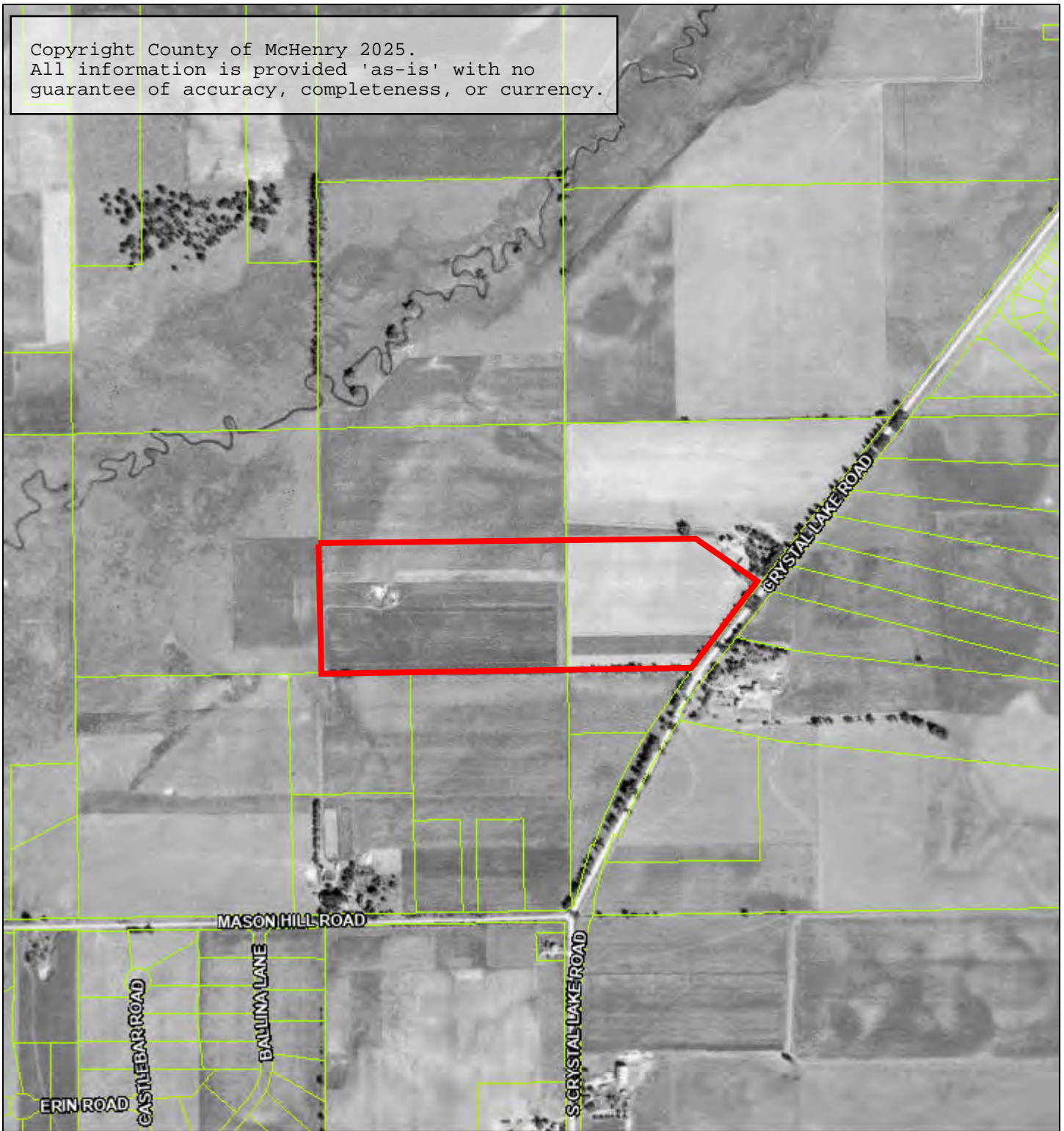
2014

2018

2022

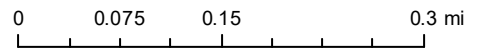
2025

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guarantee of accuracy, completeness, or currency.

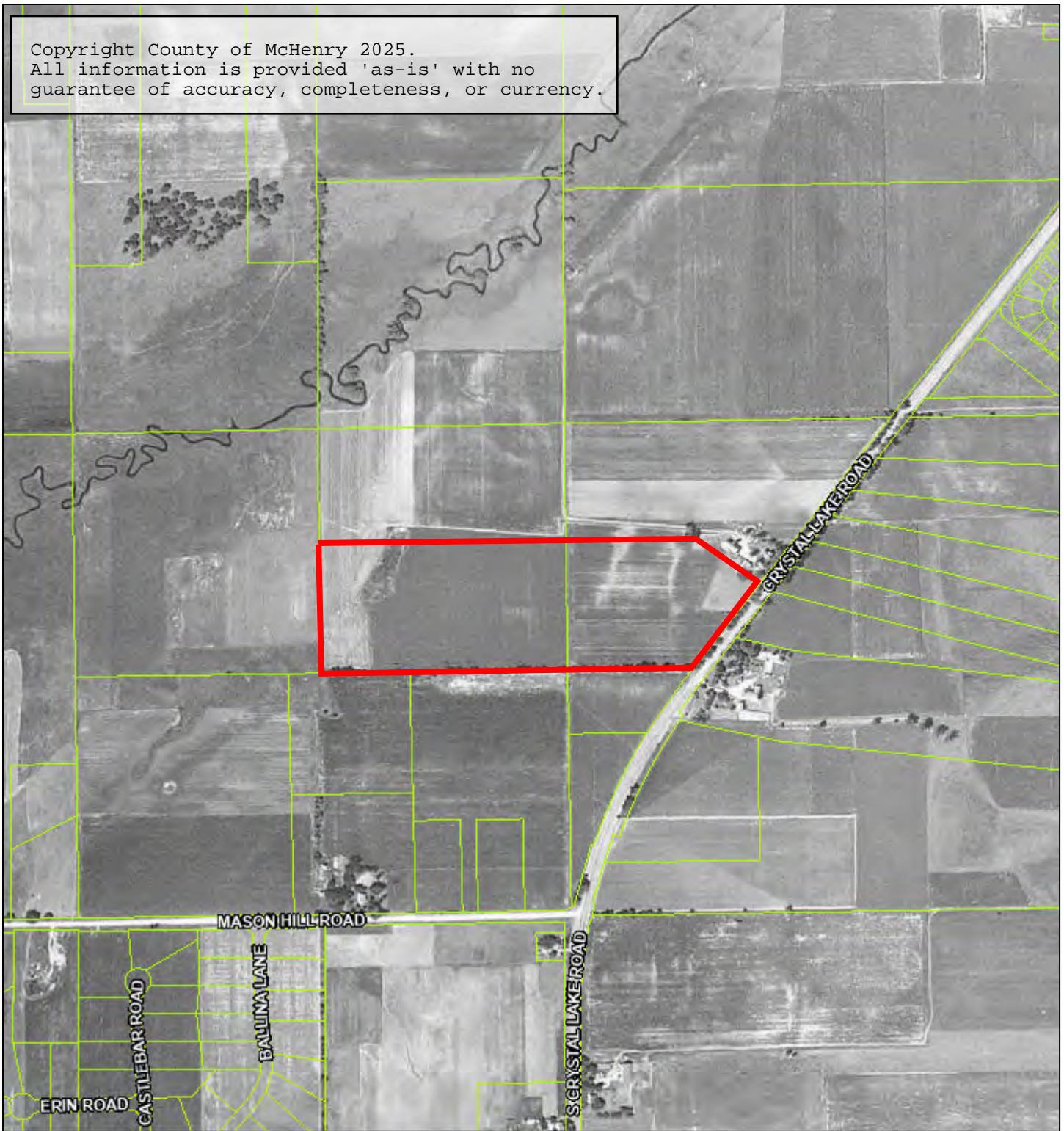


November 10, 2025

1 in = 752 ft

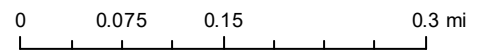


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November 10, 2025

1 in = 752 ft



1961 Aerial Photograph



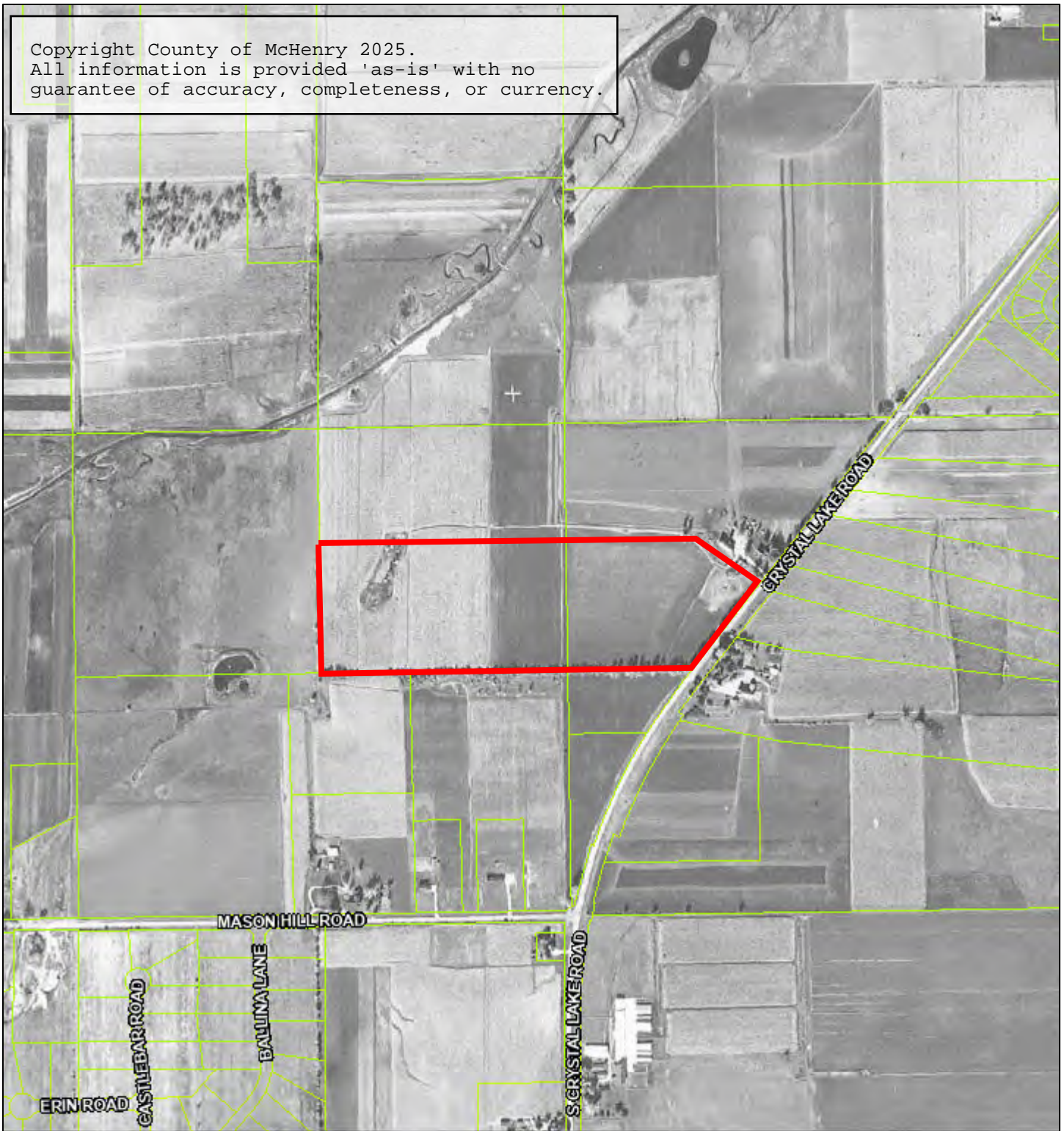
Source: ISGS Geospatial Clearinghouse Website

Note: Parcel Boundary is Approximate



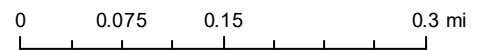
1967

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November 10, 2025

1 in = 752 ft

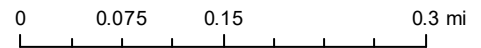


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guarantee of accuracy, completeness, or currency.



November 10, 2025

1 in = 752 ft



1988 Aerial Photograph



Source: Google Earth

Note: Site Boundaries are Approximate



2002 Aerial Photograph



Source: Google Earth

Note: Parcel Boundary is Approximate



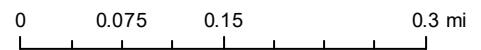
2005

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November 10, 2025

1 in = 752 ft

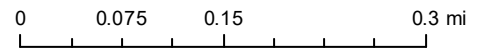


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November 10, 2025

1 in = 752 ft

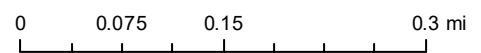


Copyright County of McHenry 2025.
All information is provided 'as-is' with no
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November 10, 2025

1 in = 752 ft

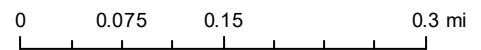


Copyright County of McHenry 2025.
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guarantee of accuracy, completeness, or currency.

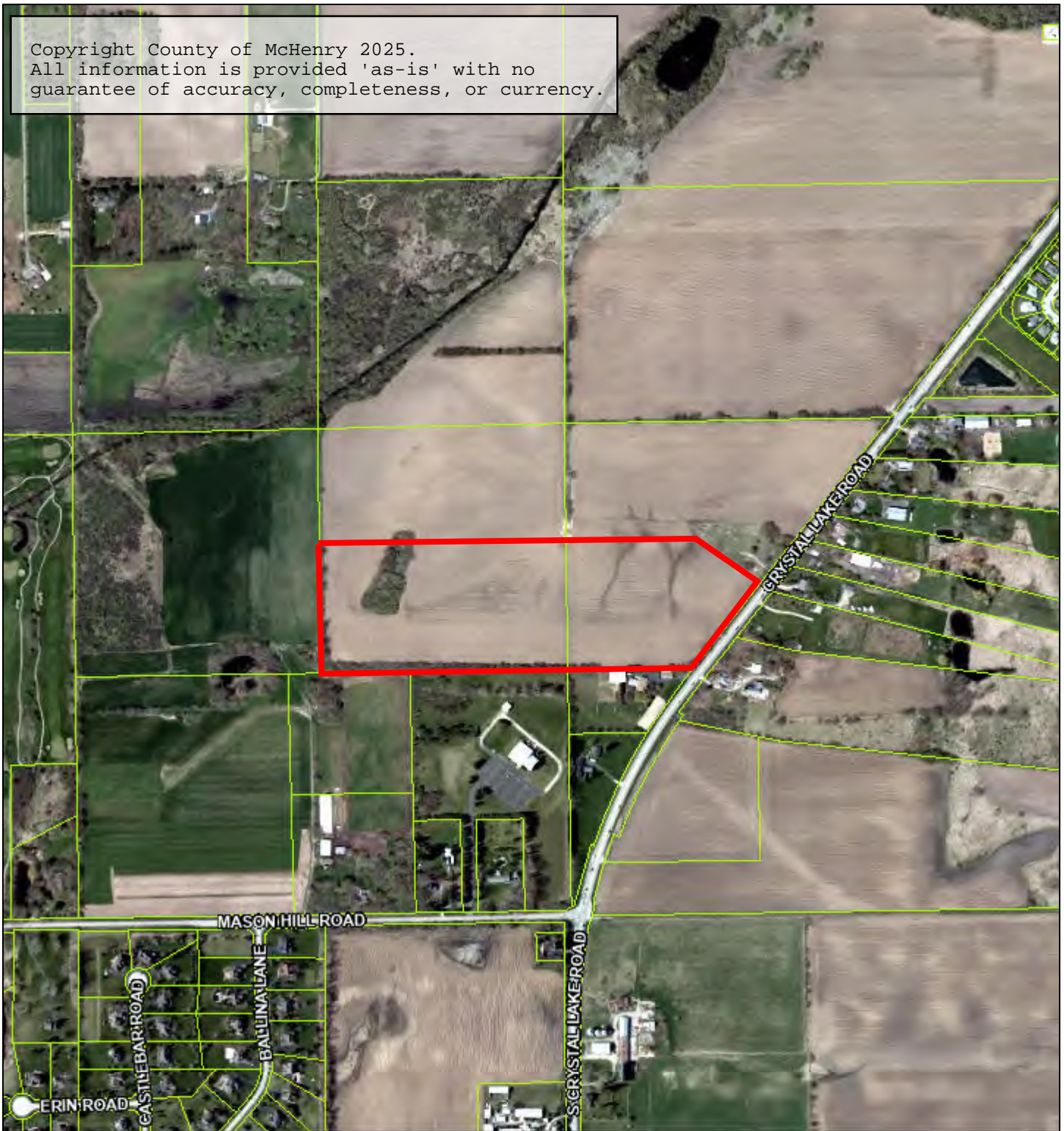


November 10, 2025

1 in = 752 ft

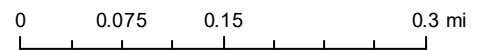


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November 10, 2025

1 in = 752 ft

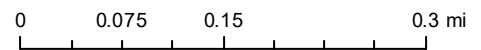


Copyright County of McHenry 2025.
All information is provided 'as-is' with no
guarantee of accuracy, completeness, or currency.



November 10, 2025

1 in = 752 ft





Appendix E

Fire Insurance Maps Research Results – No Maps Available Notification



—
FIRE
INSURANCE
MAPS

Project Property: 2025282

+/- 35 Acres West of S. Crystal Lake Road McHenry IL 60050

Project No: 2025282

Requested By: Stateline Environmental Consulting Services, Inc.

Order No: 25110700194

Date Completed: November 08, 2025

Please note that no information was found for your site or adjacent properties.

Environmental Risk Information Services

A division of Glacier Media Inc.

1.866.517.5204 | info@erisinfo.com | erisinfo.com

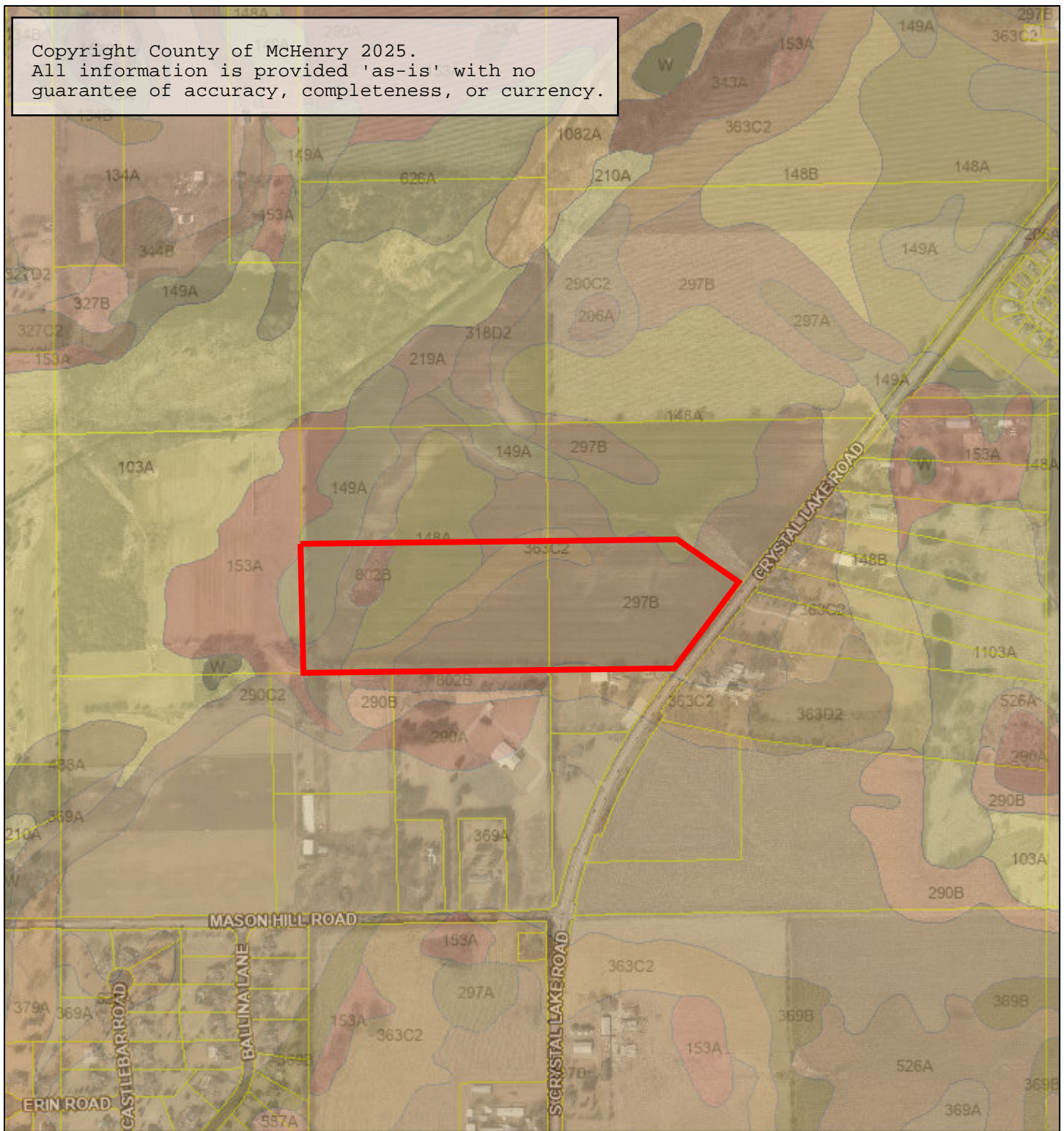


Appendix F

McHenry County G.I.S. Maps (Soil, Topographic & Wetland Maps)

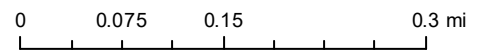
McHenry County Soil Survey Map

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November 10, 2025

1 in = 752 ft



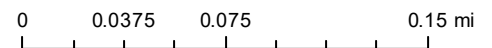
McHenry Topographic Map

Copyright County of McHenry 2026.
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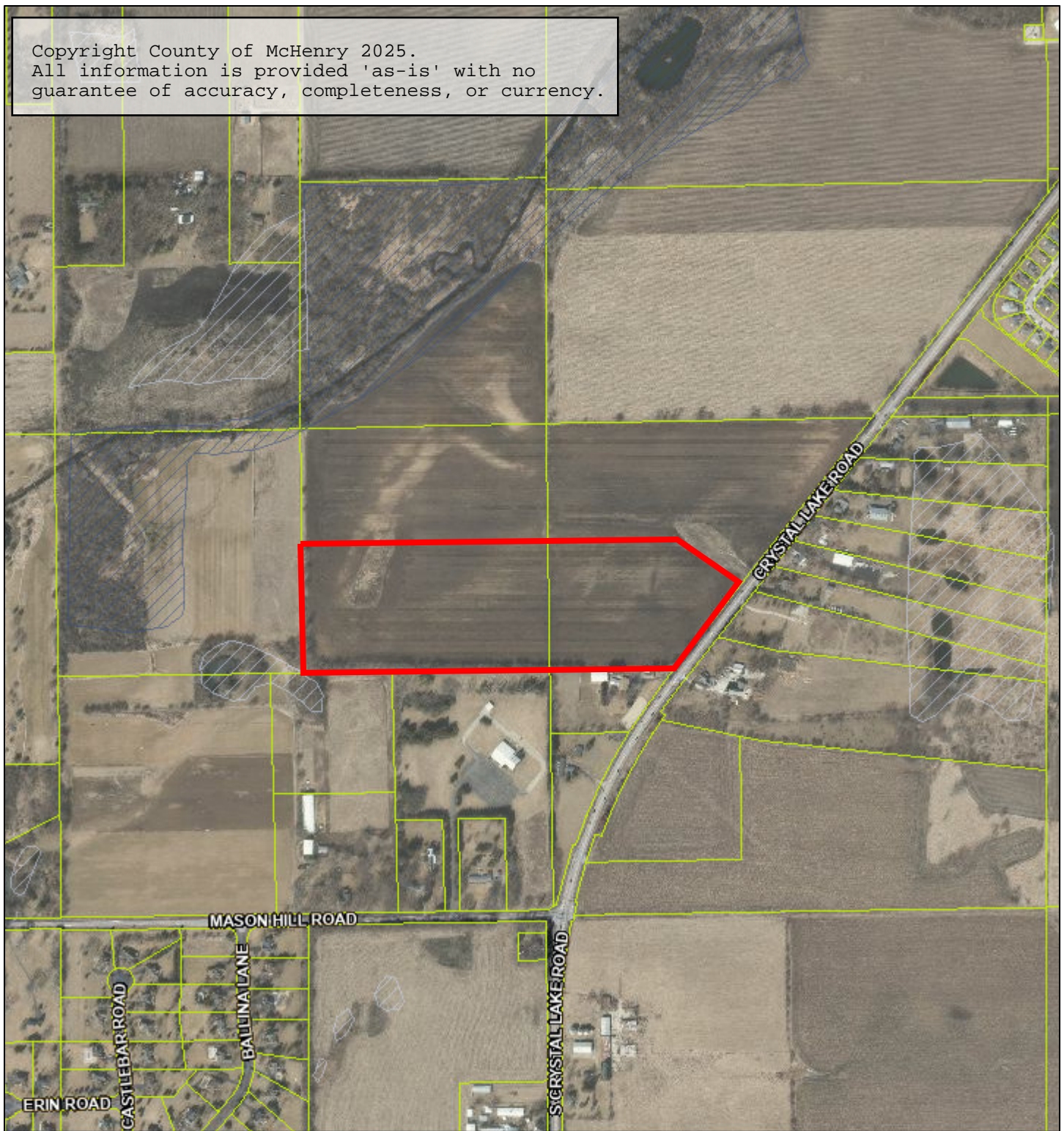
January 20, 2026

1 in = 376 ft



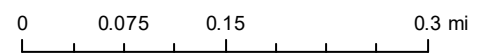
McHenry County Wetland Inventory Map

Copyright County of McHenry 2025.
All information is provided 'as-is' with no
guarantee of accuracy, completeness, or currency.



November 10, 2025

1 in = 752 ft

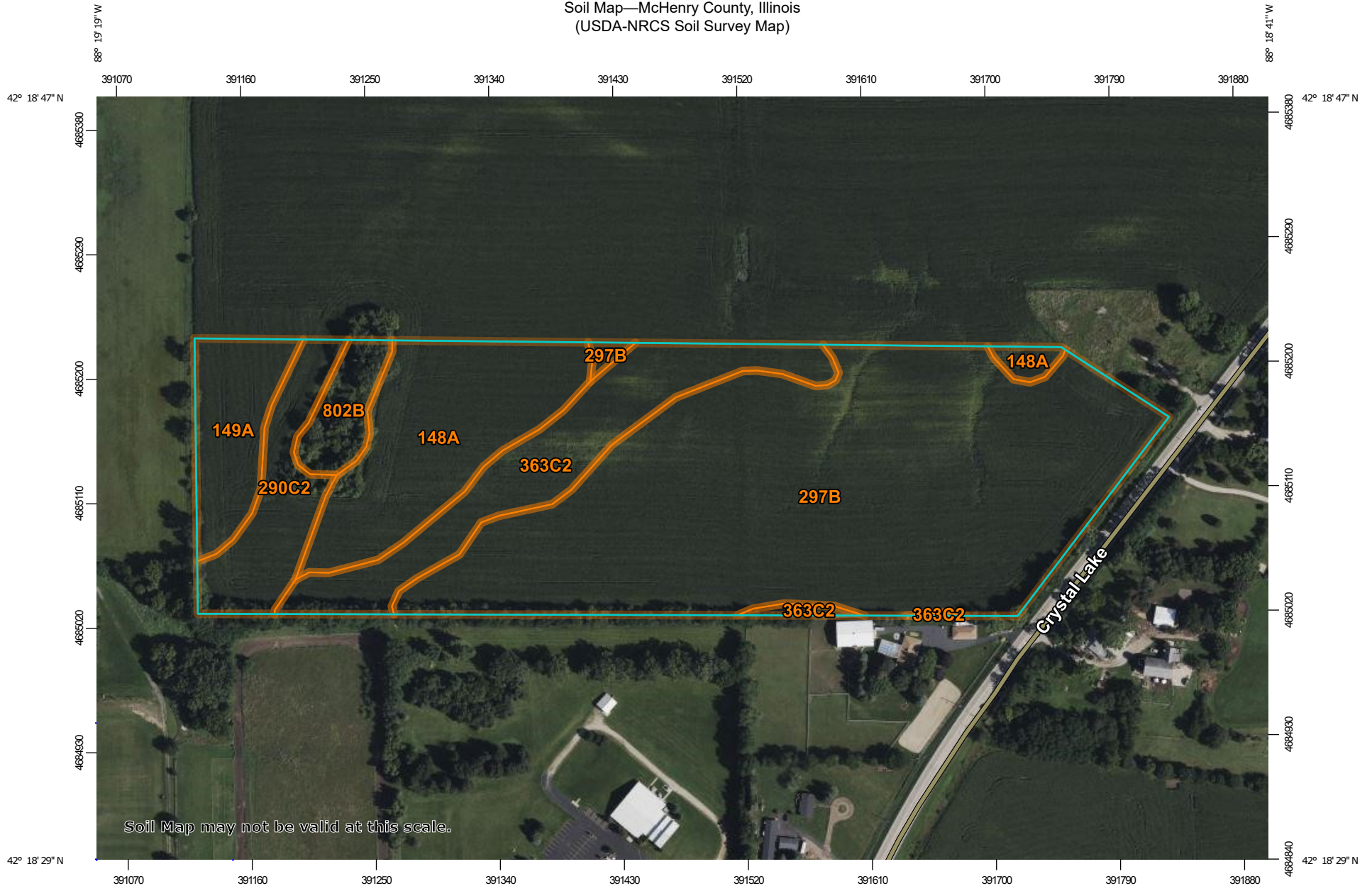




Appendix G

USDA-NRCS Soil Survey Map

Soil Map—McHenry County, Illinois
(USDA-NRCS Soil Survey Map)



Soil Map may not be valid at this scale.

Map Scale: 1:3,890 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



Natural Resources
Conservation Service

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

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

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

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: McHenry County, Illinois

Survey Area Data: Version 21, Aug 31, 2025

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

Date(s) aerial images were photographed: Aug 19, 2022—Sep 30, 2022

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

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
148A	Proctor silt loam, 0 to 2 percent slopes	4.7	14.8%
149A	Brenton silt loam, 0 to 2 percent slopes	2.0	6.1%
290C2	Warsaw loam, 4 to 6 percent slopes, eroded	2.2	6.9%
297B	Ringwood silt loam, 2 to 4 percent slopes	18.1	56.5%
363C2	Griswold loam, 4 to 6 percent slopes, eroded	4.1	12.7%
802B	Orthents, loamy, undulating	1.0	3.0%
Totals for Area of Interest		32.0	100.0%



Appendix H

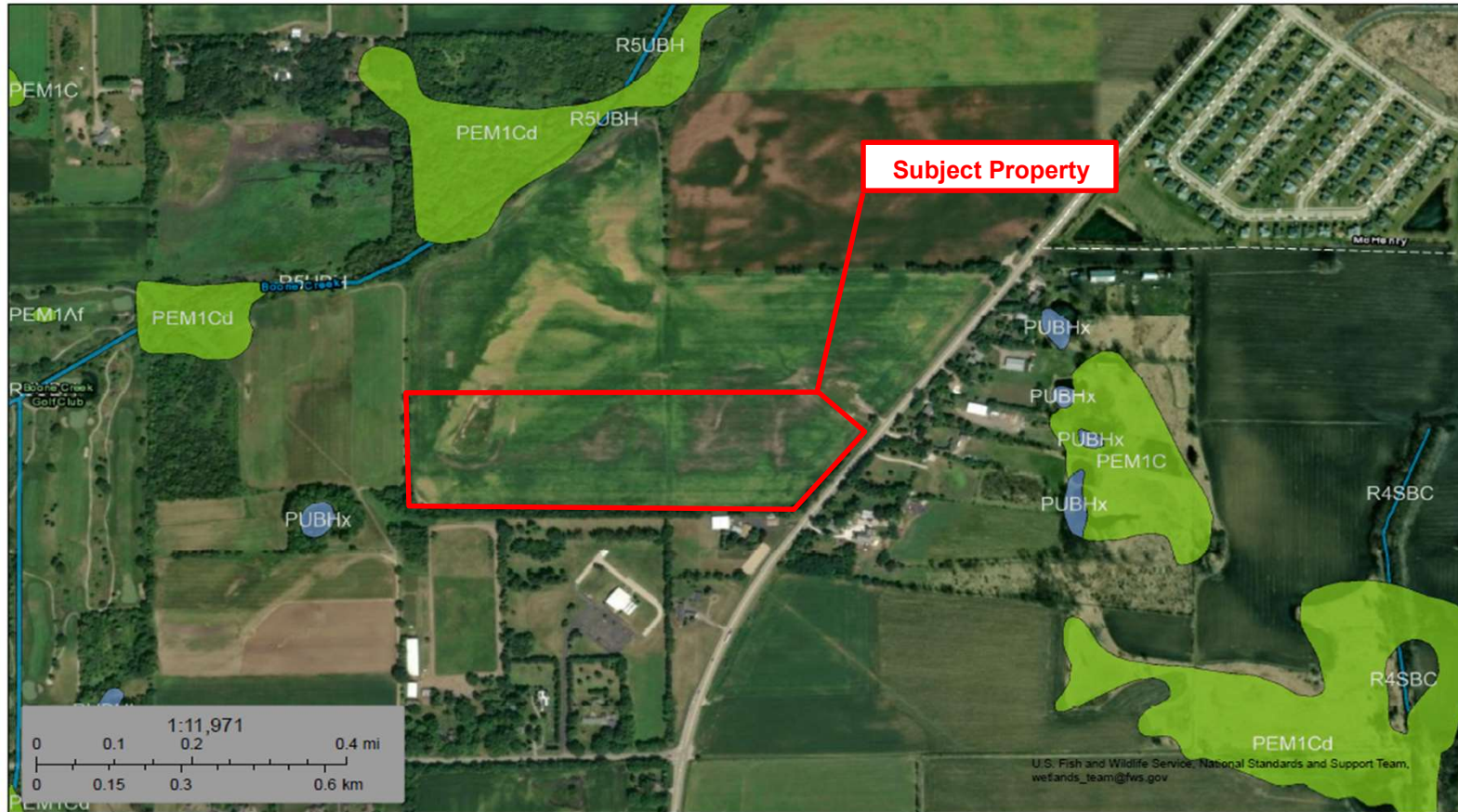
U.S. Fish & Wildlife Service Wetland Inventory Map

U.S. Fish & Wildlife Service Wetland Inventory Map



U.S. Fish and Wildlife Service
National Wetlands Inventory

USFW Wetland Inventory Map



Legend

North

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

November 19, 2025

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

AAI Phase I Environmental Site Assessment
Performed at:
+/- 35 Acres West of S. Crystal Lake Road,
Portion of P.I.N.s 14-09-100-001 & 14-08-200-002,
McHenry, Illinois 60050

Performed For:
Mr. Tej Patel
McHenry Solar Farm LLC
141 W. Jackson Boulevard, Suite 1692
Chicago, Illinois 60604

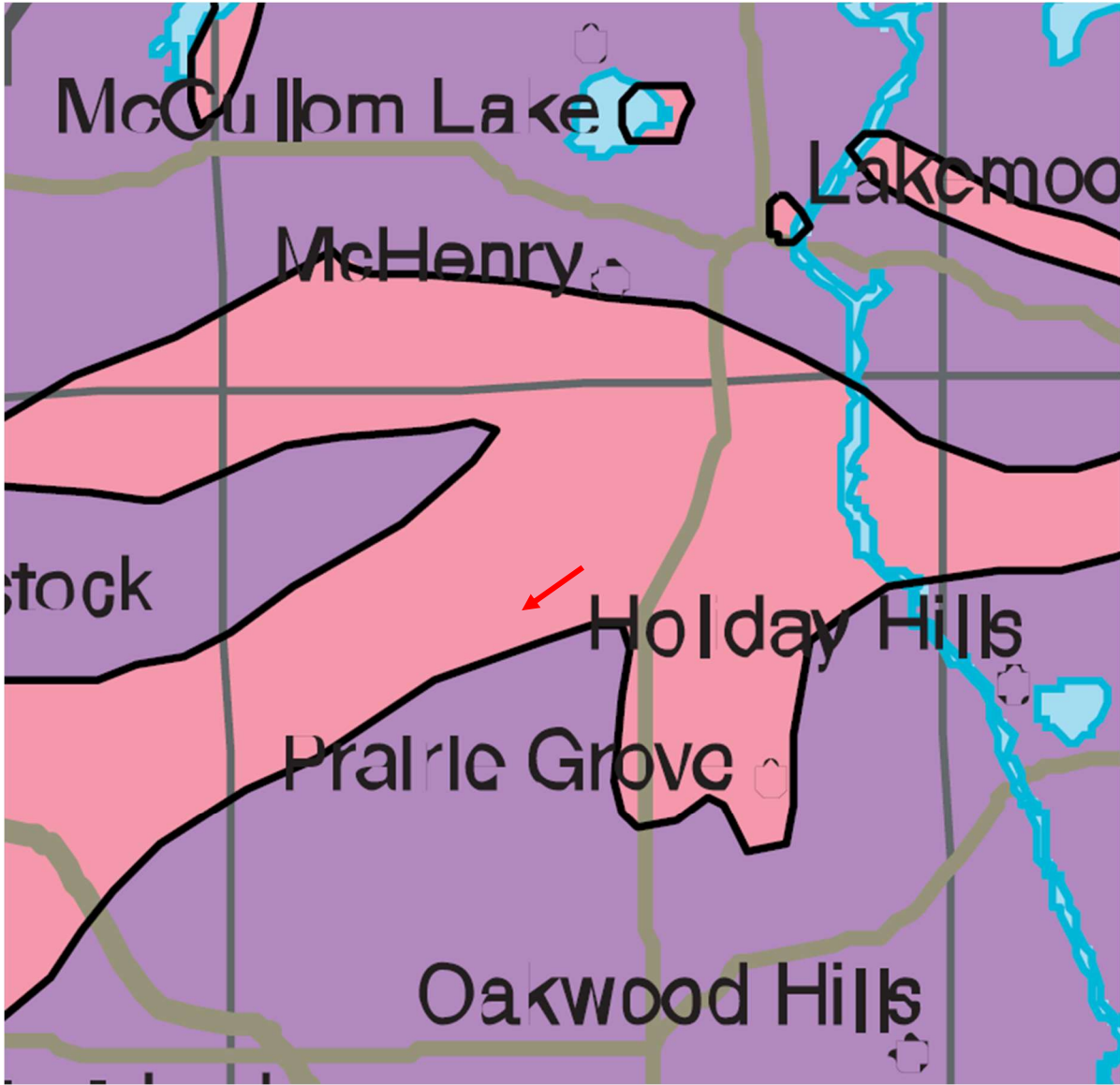
Project # 2025282
Date: November 25, 2025
Drafted by: Alexandra Cook



Appendix I

ISGS Bedrock of Illinois Map & Key

ISGS Bedrock of Illinois Map



Source: ISGS Website

Note: Site Location is Approximate



ISGS Bedrock of Illinois Map Key



Om

Ordovician

Maquoketa Formation or Group, includes Cape Limestone, Cape La Croix Shale, Thebes Sandstone, Orchard Creek Shale, Girardeau Limestone, and Leemon Formation in southern Illinois; includes Scales Shale, Fort Atkinson Limestone, Brainard Shale, and Neda Formation in northern Illinois; includes Noix Oolite in western Illinois

Source: ISGS Website

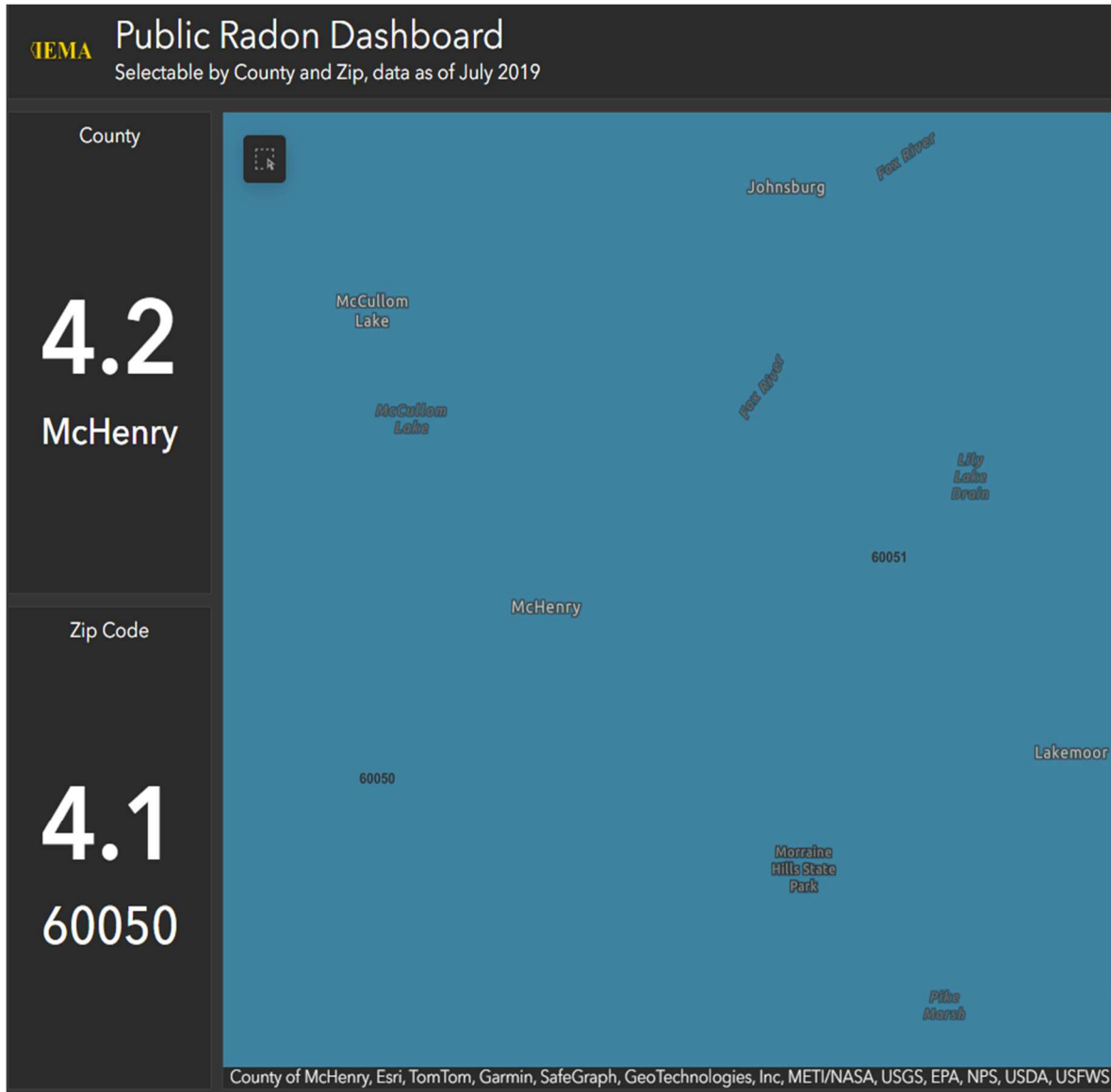




Appendix J

IEMA Radon Map

IEMA Radon Map



Source: IEMA Public Radon Dashboard Website





Appendix K

McHenry County Assessor's Office Property Information Sheets



McHENRY COUNTY

ILLINOIS

INFORMATION FOR 2024 PROPERTY TAXES PAYABLE IN 2025

Welcome McHenry County Taxpayer,

As you know, this is a great tool to obtain a duplicate tax bill and obtain other useful information about your property taxes, as well as to make payments. To access your property tax bill simply search by your PIN/ Parcel Number or Name or Address. Also, keep in mind that you will receive your property tax bill via mail in Mid-May. The mailed bill provides the same taxation data, along with more explanation and information.

Property Information		
Parcel Number 14-09-100-001	Site Address 1207 S CRYSTAL LAKE RD MCHENRY, IL 60050	Owner Name & Address WOLFF, MICHAEL J LIV TR 321 NEVILLE DR GRAYSLAKE, IL, 60030
Tax Year 2024 (Payable 2025) ▼		
Sale Status None		
Property Class 0021 - Farmland	Tax Code 14002 -	Tax Status Taxable
Net Taxable Value 19,245	Tax Rate 7.955868	Total Tax \$1,531.12 <input type="button" value="Pay Taxes"/> <input type="button" value="Tax Bill"/>
Township NUNDA	Acres 39.0000	Mailing Address WOLFF, MICHAEL J LIV TR 321 NEVILLE DR GRAYSLAKE, IL, 60030
Legal Description DOC 2021R0049210 N1/2 NW1/4 LYING WLY CEN HWY MEMO: STRIP OF CRYSTAL LAKE ROAD DEDICATED PER DOC 148825		

Assessments							
Level	Homesite	Dwelling	Farm Land	Farm Building	Mineral	Total	Partial Building
DOR Equalized	0	0	19,245	0	0	19,245	No
Department of Revenue	0	0	19,245	0	0	19,245	No
Board of Review Equalized	0	0	19,245	0	0	19,245	No
Board of Review	0	0	19,245	0	0	19,245	No
S/A Equalized	0	0	19,245	0	0	19,245	No
Supervisor of Assessments	0	0	19,245	0	0	19,245	No
Township Assessor	0	0	17,665	0	0	17,665	No
Prior Year Equalized	0	0	17,665	0	0	17,665	No

There are 8 levels of assessment in an assessment year. The assessed value is not final for the year until all levels of assessment are complete. The assessment year is complete when the DOR Equalized line appears at the top of the list shown above.

Billing									
Installment	Date Due	Tax Billed	Penalty Billed	Cost Billed	Drainage Billed	Total Billed	Amount Paid	Date Paid	Total Unpaid
1	06/10/2025	\$765.56	\$0.00	\$0.00	\$0.00	\$765.56	\$765.56	6/10/2025	\$0.00
2	09/10/2025	\$765.56	\$0.00	\$0.00	\$0.00	\$765.56	\$765.56	6/10/2025	\$0.00
Total		\$1,531.12	\$0.00	\$0.00	\$0.00	\$1,531.12	\$1,531.12		\$0.00

No Drainage / Special District Information

No Exemptions

Farmland		
Land Type	Acres	EAV
CROPLAND	32.9600	18,803
OTHER FARMLAND	4.7700	442
RIGHT OF WAY	1.2700	0
Totals	39.0000	19,245

Toggle Farmland Details

No Forfeiture Information

No Genealogy Information

Owner Names		
Name	Tax Bill	Address
MICHAEL J LIV TR WOLFF	Y	321 NEVILLE DR GRAYSLAKE, IL, 60030

No Redemptions

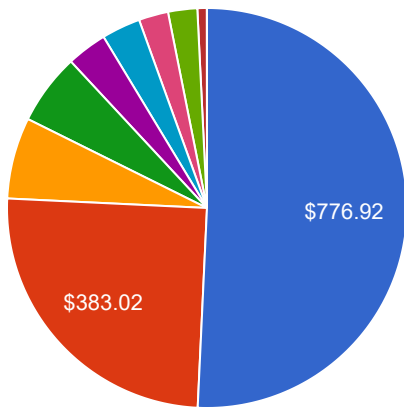
Sales History								
Year	Document #	Sale Type	Sale Date	Sold By	Sold To	Gross Price	Personal Property	Net Price
2021	2021R0049210	Farm Parcel	6/22/2021	OF THE JOHN G SCHULZ AND KATHRYN D. SCHULZ REVOCAB JOHN G. SCHULZ AND KATHRYN D. SCHULZ, CO TRUSTEES JOHN E. DALY RUST DATED FEBRUARY 12, 1996 DENNIS P. DALY, AS TRUSTEE OF THE DENNIS P. DALY T MARY M. GUSTAFSON	F LIVING TRUST DATED MAY 15, 2000 MICHAEL J WOLFF, AS TRUSTEE OF THE MICHAEL J. WOLF	\$870,000.00	\$0.00	\$870,000.00

Payment History			
Tax Year	Total Billed	Total Paid	Amount Unpaid
2024	\$1,531.12	\$1,531.12	\$0.00
2023	\$1,534.94	\$1,534.94	\$0.00
2022	\$1,448.00	\$1,448.00	\$0.00
2021	\$1,367.46	\$1,367.46	\$0.00
2020	\$1,289.46	\$1,289.46	\$0.00

[Show 26 More \(26\)](#)

Taxing Bodies

District	Tax Rate	Extension
SCHOOL DIST 15	4.036988	\$776.92
SCHOOL DIST 156	1.990230	\$383.02
MCHENRY COUNTY	0.523087	\$100.67
MCHENRY FIRE DIST	0.457204	\$87.99
COLLEGE DISTRICT 528 MCC	0.259651	\$49.97
MCHENRY LIBRARY	0.249819	\$48.08
NUNDA TWP RD & BR	0.189780	\$36.52
MCHENRY CO CONSV	0.187611	\$36.11
NUNDA TOWNSHIP	0.060097	\$11.57
NUNDA TWP CEMETERY	0.001401	\$0.27
TOTAL	7.955868	\$1,531.12



- SCHOOL DIST 15
- SCHOOL DIST 156
- MCHENRY COUNTY
- MCHENRY FIRE DIST
- COLLEGE DISTRICT 528 MCC
- MCHENRY LIBRARY
- NUNDA TWP RD & BR
- MCHENRY CO CONSV
- NUNDA TOWNSHIP
- Other

Permits

For permit information and documents visit the [SmartGov Permit Portal](#).

© 2025 DEVNET, Inc

Data updated: 2025-11-19 07:50:00

wEdge Version: 5.1.9365.17653

Assembly Date: 2025/08/22



McHENRY COUNTY

ILLINOIS

INFORMATION FOR 2024 PROPERTY TAXES PAYABLE IN 2025

Welcome McHenry County Taxpayer,

As you know, this is a great tool to obtain a duplicate tax bill and obtain other useful information about your property taxes, as well as to make payments. To access your property tax bill simply search by your PIN/ Parcel Number or Name or Address. Also, keep in mind that you will receive your property tax bill via mail in Mid-May. The mailed bill provides the same taxation data, along with more explanation and information.

Property Information		
Parcel Number 14-08-200-002	Site Address NA IL	Owner Name & Address WOLFF, MICHAEL J LIV TR 321 NEVILLE DR GRAYSLAKE, IL, 60030
Tax Year 2024 (Payable 2025) ▼		
Sale Status None		
Property Class 0021 - Farmland	Tax Code 14002 -	Tax Status Taxable
Net Taxable Value 20,951	Tax Rate 7.955868	Total Tax \$1,666.84 <input type="button" value="Pay Taxes"/> <input type="button" value="Tax Bill"/>
Township NUNDA	Acres 40.0000	Mailing Address WOLFF, MICHAEL J LIV TR 321 NEVILLE DR GRAYSLAKE, IL, 60030
Legal Description DOC 2021R0049210 NE1/4 NE1/4		

Assessments							
Level	Homesite	Dwelling	Farm Land	Farm Building	Mineral	Total	Partial Building
DOR Equalized	0	0	20,951	0	0	20,951	No
Department of Revenue	0	0	20,951	0	0	20,951	No
Board of Review Equalized	0	0	20,951	0	0	20,951	No
Board of Review	0	0	20,951	0	0	20,951	No
S/A Equalized	0	0	20,951	0	0	20,951	No
Supervisor of Assessments	0	0	20,951	0	0	20,951	No
Township Assessor	0	0	19,260	0	0	19,260	No
Prior Year Equalized	0	0	19,260	0	0	19,260	No

There are 8 levels of assessment in an assessment year. The assessed value is not final for the year until all levels of assessment are complete. The assessment year is complete when the DOR Equalized line appears at the top of the list shown above.

Billing									
Installment	Date Due	Tax Billed	Penalty Billed	Cost Billed	Drainage Billed	Total Billed	Amount Paid	Date Paid	Total Unpaid
1	06/10/2025	\$833.42	\$0.00	\$0.00	\$0.00	\$833.42	\$833.42	6/10/2025	\$0.00
2	09/10/2025	\$833.42	\$0.00	\$0.00	\$0.00	\$833.42	\$833.42	6/10/2025	\$0.00
Total		\$1,666.84	\$0.00	\$0.00	\$0.00	\$1,666.84	\$1,666.84		\$0.00

No Drainage / Special District Information

No Exemptions

Farmland		
Land Type	Acres	EAV
CROPLAND	35.2700	20,544
OTHER FARMLAND	4.7300	407
Totals	40.0000	20,951

Toggle Farmland Details ▾

No Forfeiture Information

No Genealogy Information

Owner Names		
Name	Tax Bill	Address
MICHAEL J LIV TR WOLFF	Y	321 NEVILLE DR GRAYSLAKE, IL, 60030

No Redemptions

Sales History

Year	Document #	Sale Type	Sale Date	Sold By	Sold To	Gross Price	Personal Property	Net Price
2021	2021R0049210	Farm Parcel	6/22/2021	OF THE JOHN G SCHULZ AND KATHRYN D. SCHULZ REVOCAB JOHN G. SCHULZ AND KATHRYN D. SCHULZ, CO TRUSTEES JOHN E. DALY RUST DATED FEBRUARY 12, 1996 DENNIS P. DALY, AS TRUSTEE OF THE DENNIS P. DALY T MARY M. GUSTAFSON	F LIVING TRUST DATED MAY 15, 2000 MICHAEL J WOLFF, AS TRUSTEE OF THE MICHAEL J. WOLF	\$870,000.00	\$0.00	\$870,000.00

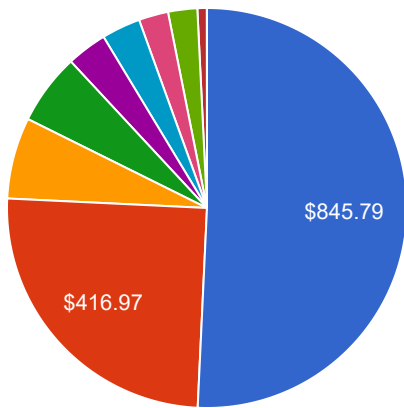
Payment History

Tax Year	Total Billed	Total Paid	Amount Unpaid
2024	\$1,666.84	\$1,666.84	\$0.00
2023	\$1,673.54	\$1,673.54	\$0.00
2022	\$1,581.58	\$1,581.58	\$0.00
2021	\$1,496.70	\$1,496.70	\$0.00
2020	\$1,413.88	\$1,413.88	\$0.00

Show 26 More (26)

Taxing Bodies

District	Tax Rate	Extension
SCHOOL DIST 15	4.036988	\$845.79
SCHOOL DIST 156	1.990230	\$416.97
MCHENRY COUNTY	0.523087	\$109.60
MCHENRY FIRE DIST	0.457204	\$95.79
COLLEGE DISTRICT 528 MCC	0.259651	\$54.40
MCHENRY LIBRARY	0.249819	\$52.34
NUNDA TWP RD & BR	0.189780	\$39.76
MCHENRY CO CONSV	0.187611	\$39.31
NUNDA TOWNSHIP	0.060097	\$12.59
NUNDA TWP CEMETERY	0.001401	\$0.29
TOTAL	7.955868	\$1,666.84



- SCHOOL DIST 15
- SCHOOL DIST 156
- MCHENRY COUNTY
- MCHENRY FIRE DIST
- COLLEGE DISTRICT 528 MCC
- MCHENRY LIBRARY
- NUNDA TWP RD & BR
- MCHENRY CO CONSV
- NUNDA TOWNSHIP
- Other

Permits

For permit information and documents visit the [SmartGov Permit Portal](#).

© 2025 DEVNET, Inc

Data updated: 2025-11-19 07:50:00

wEdge Version: 5.1.9365.17653

Assembly Date: 2025/08/22



Appendix L

Nunda Township Assessor's Office Property Information Sheets

Property Record Card (Web Edition)

Parcel #: 14-09-100-001

Property Information

Address: 1207 CRYSTAL LAKE ROAD
City: MCHENRY, IL 60050
Subdivision: None

Owner Information

Name: WOLFF MICHAEL J LIVING TRUST
Address: 321 NEVILLE DR
City: GRAYSLAKE, IL 60030



Legal Description

Legal Description: NONE ; W OF HWY N1/2 NW1/4; SEC 09 TWP44N RANGE 8 E; Also owns 14-05-400-003 & 14-08-200-002

Lot Acres: 39.00

Property Class: 0021 Farm Land without Buildings

No Building Information Available

Sales Information

Sale Date	Amount	Doc #	Deed Type
06/22/2021	\$870,000	2021R0049210	Warranty Deed

Assessment Information

Year	Type	U/Land	I/Land	O/Bldgs	Bldgs	Total
2025	Normal	20,989	0	0	0	20,989
2024	Normal	19,245	0	0	0	19,245

Our property information database is continually being updated. We cannot guarantee the accuracy or completeness of the information presented above.

Property Record Card (Web Edition)

Parcel #: 14-08-200-002

Property Information

Address:

City: MCHENRY, IL 60050

Subdivision: None

Owner Information

Name: WOLFF MICHAEL J LIVING TRUST

Address: 321 NEVILLE DR

City: GRAYSLAKE, IL 60030



Legal Description

Legal Description: NONE ; NE1/4 NE1/4; SEC 08 TWP44N RANGE 8 E; Also owns 14-05-400-003 & 14-09-100-001

Lot Acres: 40.00

Property Class: 0021 Farm Land without Buildings

No Building Information Available

Sales Information

Sale Date	Amount	Doc #	Deed Type
06/22/2021	\$870,000	2021R0049210	Warranty Deed

Assessment Information

Year	Type	U/Land	I/Land	O/Bldgs	Bldgs	Total
2025	Normal	22,811	0	0	0	22,811
2024	Normal	20,951	0	0	0	20,951

Our property information database is continually being updated. We cannot guarantee the accuracy or completeness of the information presented above.



Appendix M

FOIA Requests:

- McHenry Township Fire Protection District***
- McHenry County Planning & Development Department***
- McHenry County Health Department***

McHenry Township FIRE PROTECTION DISTRICT

Search

Freedom of Information Act (FOIA) Requests

McHenry Township Fire Protection District

3610 W Elm Street

McHenry, IL 60050

Phone: (815) 385-0075

Email: FOIA@fire.mtffd.org



INSTRUCTIONS

To request records, complete this form and submit to McHenry Township Fire Protection District.

If you prefer to submit a Printable Request, please download the file in the supporting documents section.

Requests made for commercial purposes will be disclosed within 21 days, and within five business days for all other requests, unless the applicable response period is extended as provided by law or the request is denied.

The requester may seek review of a denial by the Public Access Counselor of the Office of the the Illinois Attorney General. Judicial review is available under Section 11 of the Illinois Freedom of Information Act, 51LCS 140/1 et seq.

Requested items will be delivered electronically unless a different method is requested (copy or certification fees may apply).

Please do not use this form to solicit products or services. Thank you.

Supporting Documents



Printable FOIA Request Form

240.67 KB

Requester Name

Alexandra Cook

Organization or Business Name

Address P.O. Box 495

City, State ZIP Antioch

Daytime Phone Number

8473664828

Email Address

allie@statelineenvironmental.com

Is this request for records for Commercial Purposes?

No



"Commercial purpose" means the use of any part of a public record or records, or information derived from public records, in any form for sale, resale, or solicitation or advertisement for sales or services.

Description of Records Requested

Please be specific, include approximate date range, record type, etc.

Any records relating to underground storage tanks, hazardous materials storage, as well as any historical violations for +/- 35 acres West of S. Crystal Lake Rd., McHenry, Illinois 60050 (PIN 14-09-100-001 & 14-08-200-002).

File Upload

If you have a file that supports your request, feel free to upload it here.

No file chosen

One file only.

5 MB limit.

Allowed types: gif jpg jpeg png pdf doc doc xls xlsx.

This site is protected by reCAPTCHA and the Google [Privacy Policy](#) and [Terms of Service](#) apply.

About Us

Contact Information



Phone Number

(815) 385-0075

Address

McHenry Township Fire Protection District
3610 W Elm Street
McHenry, IL 60050

[Staff Login](#) [Accessibility](#)

3610 W. Elm St. | McHenry, IL 60050 | Ph: (815) 385-0075 | Fax: 815-385-9419

Government Websites by CivicPlus®



***NEW SUBMISSION* Planning & Development FOIA**

McHenry County, IL Website <webmaster@mchenrycountyil.gov>

Mon, Nov 10, 2025 at 1:44 PM

To: allie@statelineenvironmental.com

Planning & Development FOIA

Submission #: 4448487
IP Address: 73.22.220.117
Submission Date: 11/10/2025 1:44 PM
Survey Time: 3 minutes, 37 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and can be viewed after you login.

Full Name:

Alexandra Cook

Mailing Address:

P.O. Box 495
Antioch, Illinois 60002-1423

Email Address:

allie@statelineenvironmental.com

Phone Number (will be used if clarification of this request is needed):

(847) 366-4828

Desired Response Type:

Email

Records Requested:

Any permits for construction, alterations or renovations, as well as certificates of occupancy and historical violations for +/- 35 acres West of South [Crystal Lake Road, McHenry, Illinois 60050](#) (PIN 14-09-100-001 & 14-08-200-002).

Read-Only Content

Is this request for a commercial purpose?

No

Read-Only Content

Thank you,
McHenry County, IL



***NEW SUBMISSION* Health FOIA**

1 message

McHenry County, IL Website <webmaster@mchenrycountyil.gov>
To: allie@statelineenvironmental.com

Mon, Nov 10, 2025 at 1:47 PM

Health FOIA

Submission #: 4448505
IP Address: 73.22.220.117
Submission Date: 11/10/2025 1:47 PM
Survey Time: 2 minutes, 10 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and can be viewed after you login.

Full Name:

Alexandra Cook

Mailing Address:

P.O. Box 495
Antioch, Illinois 60002

Email Address:

allie@statelineenvironmental.com

Phone Number (will be used if clarification of this request is needed):

(847) 366-4828

Desired Response Type:

Email

To which division of the Department of Health would you like to send your request?

Environmental Health

Records Requested:

Any information relating to the installation or abandonment of potable water wells, septic systems and any other information of environmental consequence for +/- 35 acres West of S. [Crystal Lake Rd., McHenry, Illinois 60050](#) (PIN 14-09-100-001 & 14-08-200-002).

Read-Only Content

Is this request for a commercial purpose?

No

Read-Only Content

Thank you,
McHenry County, IL

This is an automated message generated by Granicus. Please do not reply directly to this email.



Appendix N

FOIA Responses:

- McHenry Township Fire Protection District***
- McHenry County Planning & Development Department***
- McHenry County Health Department***



MCHENRY TOWNSHIP FIRE PROTECTION DISTRICT

FIRE AND RESCUE SERVICES

3610 West Elm Street • McHenry, Illinois 60050

(815) 385-0075 • FAX (815) 385-9419

www.mtfdpd.org

Trustees

Allen R. Miller, President
Robert J. Meyer, Secretary
Christopher J. Bennett, Treasurer
Joseph Doherty, Trustee
Kurt Rodewald, Trustee

Commissioners

Anthony T. Huemann, Chairman
Francis 'Jack' Stanaszek, Secretary
Ron Waytula

Chief

Rudy Horist

Station One

3610 W. Elm Street
McHenry, IL 60050

Station Two

3710 N. Johnsburg Road
Johnsburg, IL 60051

Station Three

809 Rand Road
Lakemoor, IL 60051

Station Four

6300 Dartmoor Drive
McHenry, IL 60050

Station Five

3705 Ringwood Road
Ringwood, IL 60072

November 13, 2025

Via: email

allie@statelineenvironmental.com

Stateline Environmental

Alexandra Cook

P.O. Box 495

Antioch, IL 60002

Dear Alexandra,

The McHenry Township Fire Protection District has received your request for information pursuant to the Illinois Freedom of Information Act regarding the properties located west of Crystal Lake Road., McHenry, Illinois 60050, PIN 14-08-200-002 and 14-09-100-001.

We have no records related to underground storage tanks, hazardous materials storage, or any historical violations for these parcels.

The only record on file for these parcels is the presence of a Verizon cell tower at parcel 14-09-100-001.

Sincerely,

A handwritten signature in black ink, appearing to read "Rudy Horist", written over a light blue horizontal line.

Rudy Horist
Fire Chief



[EXTERNAL] *NEW SUBMISSION* Planning & Development FOIA Response

Shannon Jackson <SAJackson@mchenrycountyil.gov>
To: "allie@statelineenvironmental.com" <allie@statelineenvironmental.com>
Cc: Plandev <Plandev@mchenrycountyil.gov>

Wed, Nov 12, 2025 at 1:56 PM

Thank you for contacting **McHenry County Planning and Development** with your request for information pursuant to the **Illinois Freedom of Information Act, 5 ILCS 140/1 et seq.**

On November 10, 2025, you requested **information concerning Parcel #'s: 14-09-100-001 & 14-08-200-002: Any permits for construction, alterations or renovations, as well as certificates of occupancy and historical violations.**

The McHenry County Planning and Development Department partially grants your request and has attached one building permit. The remainder of the request is denied as there are no records responsive to your request.

You have a right to seek a review of this response by the Public Access Counselor (PAC) at the Office of the Illinois Attorney General. You can file your request for your review with the PAC within 60 Calendar days of the date of this letter by writing to:

Public Access Counselor

Office of the Attorney General

500 South 2nd Street

Springfield, IL 62706

Telephone: (877)299-3642

Email: Publicaccess@atg.state.il.us

You also have a right to seek judicial review of this response under **5ILCS 140/11.**

Please let me know if I can assist with anything further.



Shannon Jackson

Administrative Specialist II

Department of Planning and Development
2200 N. Seminary Ave, Woodstock, IL 60098

Direct: (815) 334-4213

Email: sajackson@mchenrycountyil.gov



McHenry County is *always* [hiring!](#) #Work4McH

NOTE: All McHenry County permits are now ONLINE. This includes Building, Stormwater, and Zoning Applications. Go to <https://co-mchenry-il.smartgovcommunity.com/Public/Home>

From: McHenry County, IL Website <webmaster@mchenrycountyil.gov>
Sent: Monday, November 10, 2025 1:44 PM
To: Plandev <Plandev@mchenrycountyil.gov>
Subject: [EXTERNAL] *NEW SUBMISSION* Planning & Development FOIA

Planning & Development FOIA

Submission #: 4448487
IP Address: 73.22.220.117
Submission Date: 11/10/2025 1:44
Survey Time: 3 minutes, 37 seconds

You have a new online form submission.
Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Full Name:

Alexandra Cook

Mailing Address:

P.O. Box 495
Antioch, Illinois 60002-1423

Email Address:

allie@statelineenvironmental.com

Phone Number (will be used if clarification of this request is needed):

(847) 366-4828

Desired Response Type:

Email

Records Requested:

Any permits for construction, alterations or renovations, as well as certificates of occupancy and historical violations for +/- 35 acres West of South [Crystal Lake Road, McHenry, Illinois 60050](#) (PIN 14-09-100-001 & 14-08-200-002).

Read-Only Content

Is this request for a commercial purpose?

No

Read-Only Content

Thank you,
McHenry County, IL

This is an automated message generated by Granicus. Please do not reply directly to this email.

CAUTION: This email originated from outside of the County network. Do not click links or open attachments unless you recognize the sender and know the content is safe.

While mismatches between the actual SENDER field and the FROM field are common. It is also a common spoofing tactic. For additional reference, this email was actually sent from 0101019a6f4cbfee-9a4bf09b-dbae-49bd-8cf3-abf22259fd54-000000@us-west-2.amazonses.com

If you have any questions about the legitimacy of this email, please call the helpdesk at extension 4828.

 [I7337 - 645 - 1207 S CRYSTAL LAKE RD - DENNIS DALEY - 10-31-2006 - PD-Building Permits-Application.pdf](#)
298K

McHenry County Planning and Development Building Permit

I7337

(815) 334-4560

Owner Name: DANNIS DALEY

Address: PO BOX 241

City: GURNEE IL 60031

Phone: (847) 336-0080

Contractor Name: CORNERSTONE MATERIAL RECOVERY

Address: 4172 BULL VALLEY

City: MCHENRY IL 60050

Phone: (815) 344-8777

Parcel Location:

Address: 1207 S CRYSTAL LAKE RD

City: MCHENRY IL 60050

Phone:

Parcel Number: 14-09-100-001

Legal Description

Application Date: 10/31/2006 **Zoning:** A1

Township: NUNDA

Sec 09 Twp 44 Range: 08

Subdivision:

Mail Permit To: PICKUP

Category #: 645 - SINGLE-FAMILY HOUSES (WRECKING)

Const Type: Alteration

Stories: 0

Electrical Wire: N

Wall Type:

Building Type: Residential

Rooms: 0

Type of Heat: None

Chimney:

Public/Private: PRI

Bedrooms: 0

Central Air: N

Basement: N

Bathrooms: 0

Heat Accessories: 0

Garage: None 0

Plumbing Fixtures: 0

Itemized Plumbing:

New Roof: N

Fencing Fee: N

Wrecking: Y

Flood / Stormwater: Y

Siding Fee: N

Pool Type: None

Red Tag: N

Health Review: N

New Foundation: N

Amps of Panel:

Ag Exempt: N

Roofer:

Architect:

Electrician:

Engineer:

Plumber:

Concrete Contractor:

Plumber License:

Stormwater Engineer:

Plumber Registration:

HVAC Contractor:

Septic/Well Installer:

Excavator:

Water Supply:

Water Supply Desc:

Sewage Type: N/A

Sewage Disposal:

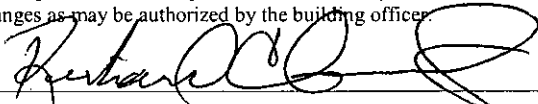
Sq Feet: 0

Garage Sq.Ft.: 0

Deck Sq Ft.: 0

On consideration of this application and attached forms being made a part thereof, and the issuance of permits, I/we will conform to the regulations set forth in the McHenry County Building Ordinance. I/we also agree that all work performed under said permit will be in accordance with the plans and plot diagram which accompanied this application, except for such changes as may be authorized by the building officer.

(Signature of Owner or Authorized Agent)



Permit Fee: \$114.00

Penalty Fee: \$0.00

Service Fee: \$0.00

Misc Fee: \$0.00

Health Fee: \$0.00

Permit Total: \$114.00


Fee Paid: \$114.00

Balance Due: \$0.00

Approx Value of Work Covered By Permit: \$15,850.00

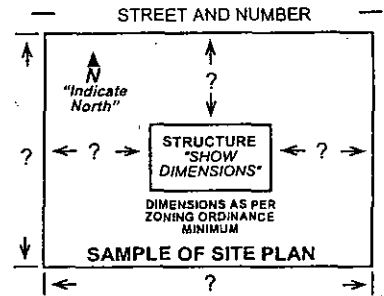
Misc Fee Explanation:

Date Issued: 11-6-06

Building Officer: 

SITE PLAN

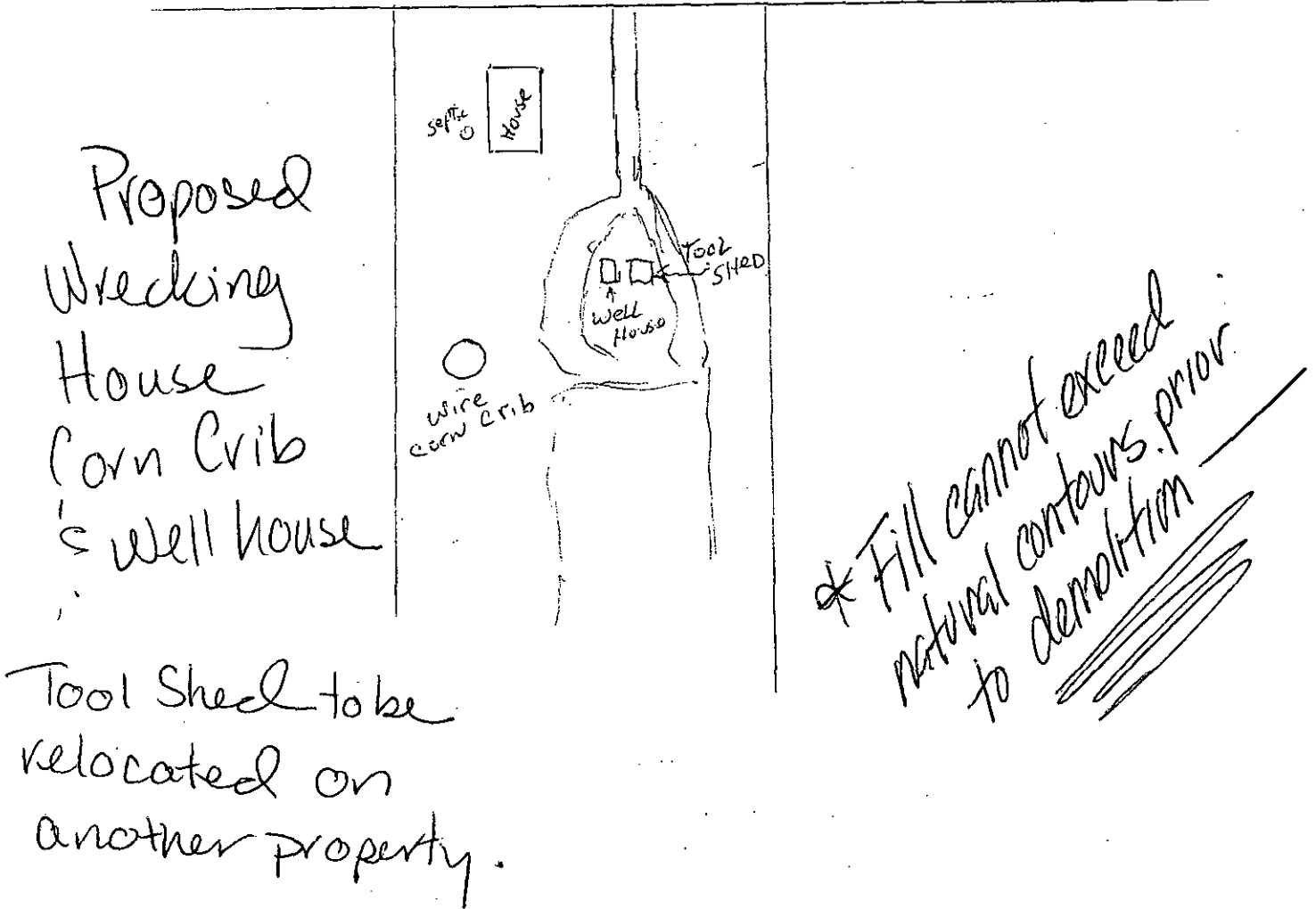
- Parcel stakes *must* be visible
- Show *all* structures existing on parcel at present time (incl. well & septic)
- Note if your facility is *existing* or *proposed*
- Note parcel size and building location
- Indicate *north* direction
- Indicate *all* adjacent roads/streets (both improved & unimproved)



ALL SETBACKS ARE MEASURED FROM THE OVERHANG TO THE PROPERTY LINE!

SKETCH YOUR SITE PLAN BELOW - SUPPLY COMPLETE INFORMATION
LOCATE BUILDINGS ON PARCEL BY DIMENSIONS TO PARCEL LINES - NOTE ABOVE SKETCH

1207 S CRYSTAL LAKE RD.



NOTE: FRAUDULANT MISREPRESENTATIONS ON THE SITE PLAN MAY RESULT IN FORFEITURE OF ANY PERMIT ISSUED BY MCHENRY COUNTY PURSUANT TO A REVIEW OF THE APPLICATION.

NO INSPECTIONS UNTIL CULVERT IS INSTALLED AND ACCESS TO SITE IS AVAILABLE

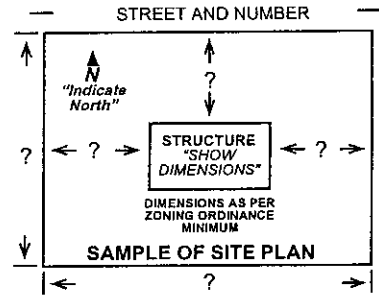
P.I.N. 14-09-100-001 PERMIT # I7337 DATE ISSUED 11-6-06

LOT/S # _____ BLOCK # _____ SUBDIVISION _____ UNIT # _____

ADDRESS 1207 S CRYSTAL LAKE ROAD McHENRY IL 60050

SITE PLAN

- Parcel stakes *must* be visible
- Show *all* structures existing on parcel at present time (incl. well & septic)
- Note if your facility is *existing* or *proposed*
- Note parcel size and building location
- Indicate *north* direction
- Indicate *all* adjacent roads/streets (both improved & unimproved)

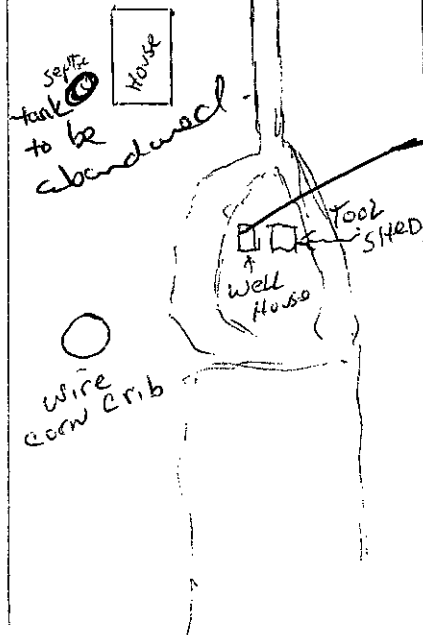


ALL SETBACKS ARE MEASURED FROM THE OVERHANG TO THE PROPERTY LINE!

SKETCH YOUR SITE PLAN BELOW - SUPPLY COMPLETE INFORMATION
LOCATE BUILDINGS ON PARCEL BY DIMENSIONS TO PARCEL LINES - NOTE ABOVE SKETCH

1207 S CRYSTAL LAKE RD.

PUMP, CRACK AND FILL
OR PUMP AND REMOVE
EXISTING TREATMENT UNIT(S)



~~Well house to be removed + well to meet current code requirements.~~
Well to be abandoned.

APPROVED
McHenry County Dept. of Health
Staff: _____
Date: 10-30-06
Permit #: 06-0642
Comp. #: 3008.170

NOTE: FRAUDULANT MISREPRESENTATIONS ON THE SITE PLAN MAY RESULT IN FORFEITURE OF ANY PERMIT ISSUED BY MCHENRY COUNTY PURSUANT TO A REVIEW OF THE APPLICATION.

NO INSPECTIONS UNTIL CULVERT IS INSTALLED AND ACCESS TO SITE IS AVAILABLE

P.I.N. _____ PERMIT # _____ DATE ISSUED _____
 LOT/S # _____ BLOCK # _____ SUBDIVISION _____ UNIT # _____
 ADDRESS _____

McHenry County Department of Planning & Development

McHenry County Government Center - Administrative Building

2200 North Seminary Avenue

Woodstock, IL 60098

815-334-4560 fax 815-337-3720

Date 10/31/06

Received of (Name and Address) Cornerstone Material Rec.
4172 Burr Valley Rd
Mathers, IL

Owner (Name and Address) 1207 S Crystal Lake Rd
Mathers, IL

Check # 23683

Cash 114.00 Check Amount

Description Wrecking

Permit # F-7337 Parcel # 14 09 100-001

ABOVE AMOUNT INCLUDES:

- Building Fee
- Review Fee
- Added Fee
- Re-Inspection Fee
- Flood Plain
- Red Tag
- Postage
- Site Evaluation
- ZBA Fee
- Publication
- Motel License
- Motel Insp. Fee
- Gravel Pit Fee
- Sign Permit
- Admin. Variance
- Copies
- Miscellaneous
- Subdivision Fee

09924

By: [Signature]

Permit Date
10/31/2006

McHenry County Planning and Development Building Permit
(815) 334-4560

I7337

Owner: DONNIS DALEY
Phone: (847) 336-0080

Parcel Numbe 14-09-100-001
Prop Address 1207 S CRYSTAL LAKE RD
MCHENRY
645 - SINGLE-FAMILY HOUSES (WRECKING)

1. Erosion Control Inspect	
2. Footing Inspection	
3. Backfill Inspection	
4. Service Inspection	
5. Slab Plumbing Inspection	
6. Rough Plumbing Inspection	
7. Rough Framing Inspection	
8. Rough Electric Inspection	
9. Rough HVAC Inspection	
10. Final Bld. Inspection	OK 1-11-08
11. Final Site Eng. Inspect	

Septic System Inspection
Well Inspection
Culvert Requirements

Please contact the Health Department for all
septic and well inspections.
815-334-4582

Culvert Approved: _____

"Let nothing
be wasted."
John 6:12



CORNERSTONE

MATERIAL RECOVERY, INC.

4172 BULL VALLEY ROAD McHENRY, IL 60050
PH: 815-344-8777 • FAX 815-344-7772

10/27/06

Re: 1207 S. Crystal Lake Rd.
McHenry, IL.

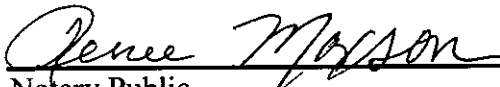
To Whom It May Concern:

The gas and electric have been safely disconnected at 1207 S. Crystal Lake Rd.
Illinois.

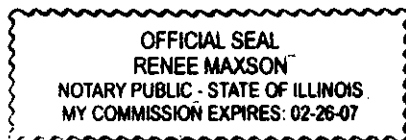
Thank you,

Richard Clements
V.P. Cornerstone Material Recovery, Inc.

Signed and sworn before me on this 27th day of October, 2006



Notary Public



McHenry County Department of Health
Division of Environmental Health
2200 N. Seminary Ave
Woodstock, IL 60098
815-334-4585

PERMIT #: 06-0642

PROJECT: Abandon well/septic

LOCATION: 1207 S Crystal Lake Rd

DATE ISSUED: 10-30-06

PERMIT EXPIRES: 10-30-08

Septic System Inspection
Date Approved: _____
Health Dept. Staff: _____
Well Installation Inspection
Date Approved: _____
Health Dept. Staff: _____

PERMIT MUST BE CONSPICUOUSLY DISPLAYED ON PROJECT SITE

24 HOUR ADVANCE NOTICE REQUIRED FOR INSPECTION

Use of a septic system prior to installation approval is prohibited.

McHenry County Department of Planning and Development

Permit #

17337

STORMWATER MANAGEMENT PERMIT APPLICATION

Owner: DANNIS DALEY
PO BOX 241
GURNEE IL 60031
8473360080

Permit Date 10/31/2006
Township NUNDA
Property: 1207 S CRYSTAL LAKE RD
MCHENRY IL 60050

Contractor CORNERSTONE MATERIAL RECOV
4172 BULL VALLEY
MCHENRY IL 60050
8153448777

Parcel Number 14-09-100-001
Legal

APPLICANT'S SIGNATURE

[Handwritten Signature]

DATE 10-31-06

OFFICE USE ONLY

Community Status

Unincorporated
Certified

Stormwater Management Fee

[Box]

Payment Amt

[Box]

Date:

[Box]

DEVELOPMENT CLASSIFICATION

Minor Intermediate Major Special Flood Hazard

Public Road No Stormwater Management Permit Required

REGULATED DEVELOPMENT

SFHA 5000 SF Impervious 5000 SF Hydrologic Disturbance
Runoff Direction Change 500 SF Disturbance Witin 25' of Body Water
100 CY of Cut And/Or Fill Wetland Impact No SMO Received

FLOOD HAZARD CHECK

Firm# 170732-0225 USGS HA Map 255 Wetland Map Nunda

Out of SFHA/Wetlands Portion of Property in SFHA or Wetlands
Entire Property in SFHA or Wetlands Additional Data Required (See Comments)

ADDITIONAL PERMITS

DNR/OWR Permit Required USACE Permit Required
Local/State/Federal Permit Required Other Description:

Comments

Wrecking

Date Received 10/31/06 Date Completed/Forwarded 11/2/06 By DL

ReCheck Date [Box] Comments: [Box]

CERTIFICATE OF COMPLETION

FOR NON-HABITABLE OR OCCUPIABLE STRUCTURES

COUNTY OF McHENRY
DEPARTMENT OF PLANNING AND DEVELOPMENT
Division of Permitting, Inspection & Enforcement

Name of Owner Dennis Daley Permit No. I 7337

Address 1207 S. Crystal Lake Rd
McHenry 60050

Lot _____ Block _____ Subdivision _____

Construction Project Wrecking

Permanent Parcel Index No. (PPI) 14-09-100-003

This is to certify that the construction project listed above has been inspected and completed in accordance with the current ordinances and building codes of McHenry County.

Date 1-11-08 By Jem Johnson

Page 434 of 505 Enforcement Officer (Deputy)

McHENRY COUNTY
DEPARTMENT OF HEALTH
Division of Environmental Health
McHenry County Government Center
2200 N. Seminary Ave. - Rt. 47 N
Woodstock, Illinois 60098
815/334-4585

CORRECTION NOTICE

Building Permit No. 06-0642

An inspector has this day inspected this system. The following items must be corrected prior to approval of the installation.

- OK TO BACKFILL
- DO NOT BACKFILL
- CONNECT TANK INLET
- MORTAR TANK, DISTRIBUTION BOX
- INSTALL PUMP IN LIFT STATION
- PROVIDE PUMP MAKE, MODEL NUMBER
- INSTALL HIGH WATER ALARM
- STAKE OUT PROPERTY LINES
- STAKE OUT WATER SERVICE/MAIN
- ENGINEER MUST VERIFY ELEVATIONS
- REVISED PRINTS REQUIRED
- ABANDON EXISTING SEPTIC SYSTEM COMPONENTS
- SUBMIT WELL LOG
- SUBMIT SATISFACTORY WATER SAMPLE
- SUBMIT WELL SEALING FORM
- CALL FOR REINSPECTION

Septic Abandon as per
plan of

You are hereby notified that the above items must be corrected by _____. When corrections have been made, call for inspection and mention permit number.

Date/Inspector 2/11/09 C. Jones

DO NOT REMOVE THIS TAG

McHENRY COUNTY
DEPARTMENT OF HEALTH
Division of Environmental Health
McHenry County Government Center
2200 N. Seminary Ave. - Rt. 47 N
Woodstock, Illinois 60098
815/334-4585

CORRECTION NOTICE

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- SUBMIT WELL LOG
- SUBMIT SATISFACTORY WATER SAMPLE
- SUBMIT WELL SEALING FORM
- CALL FOR REINSPECTION

Well abandoned as per plan

You are hereby notified that the above items must be corrected by _____. When corrections have been made, call for inspection and mention permit number.

Date/Inspector 5/15/07 [Signature]

DO NOT REMOVE THIS TAG

McHENRY COUNTY DEPARTMENT OF HEALTH
McHENRY COUNTY GOVERNMENT CENTER
 2200 N. SEMINARY AVENUE - ROUTE 47 N.
 WOODSTOCK, ILLINOIS 60098
 TELEPHONE 815-334-4510
 FAX 815-334-4637
 www.mcdh.info

N/S

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 McHenry, Illinois

Virginia Peschke
 Woodstock, Illinois

Public Health Administrator
 Patrick J. McNulty

PERMIT# 06-0642

SETUP DATE FOR INSPECTION/REINSPECTION: Aband (w) 5/14/07 (Abw + Abs)
2/10/09 (Abs)

SEPTIC INSTALLER: _____

SEPTIC INSTALLER'S STATE LICENSE NUMBER _____

WELL DRILLER: Snelton, Corey
Draig

1. SEWAGE DISPOSAL SYSTEM INSPECTION:

Septic abandon per
plan of 2/10/09

2. WELL INSTALLATION INSPECTION:

Well abandon ment as
per plan per MS
on 5/15/07 of
2/10/09 SB Abandonment
APP.

WELL INFORMATION-DATE RECEIVED:	
1A) SATISFACTORY WATER SAMPLE	_____
1B) SATISFACTORY WATER SAMPLE	_____
IF VARIATION IS GRANTED	
2) WELL SEALING FORM	<u>12/1/06</u>
3) WELL DRILLER'S LOG	_____
VARIANCE INFORMATION	_____

REMARKS/NOTES: 2/9/09 Called for abandon septic status. Left
message for Richard Clements (EV) called Rita 12:10 PM, 2/9/09 -
Richard will ck records for pumping receipt. SIV Insp.
though,

O:env123/sewage/swinspec



06-0642

McHenry County Department of Health - Division of Environmental Health
2200 North Seminary Ave Woodstock, IL 60098
815-334-4585

Permit Information

Environmental Permit Number

Onbase Permit Number

Parcel Pin Number

Owner / Applicant

Parcel Street Address

Parcel City, State, Zip , IL

Inc. City/Village:

New Well	<input type="text" value="NO"/>	New Septic	<input type="text" value="NO"/>
Replace Well	<input type="text" value="NO"/>	Replace Septic	<input type="text" value="NO"/>
Repair Well	<input type="text" value="NO"/>	Repair Septic	<input type="text" value="NO"/>
Abandon Well	<input type="text" value="YES"/>	Abandon Septic	<input type="text" value="YES"/>
Acc. Structure / Addition		<input type="text" value="NO"/>	

PLAN REVIEW

REVIEW	DATE RECEIVED	DATE REVIEWED	RESULT
INITIAL REVIEW	<input type="text" value="10/10/06"/>	<input type="text" value="10/24/06"/>	<input type="text" value="N"/>
REVISION 1	<input type="text" value="10/27/06"/>	<input type="text" value="10/30/06"/>	<input type="text" value="A"/>
REVISION 2	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVISION 3	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVISION 4	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVISION 5	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVISION 6	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVISION 7	<input type="text"/>	<input type="text"/>	<input type="text"/>
REVISION 8	<input type="text"/>	<input type="text"/>	<input type="text"/>

INSPECTION REQUESTED

INSPECTION	DATE	TYPE	RESULT	INSPECTED BY
1	<input type="text" value="12/06/06"/>	<input type="text" value="W"/>	<input type="text" value="N"/>	<input type="text" value="MS"/>
2	<input type="text" value="5/15/07"/>	<input type="text" value="W"/>	<input type="text" value="N"/>	<input type="text" value="MS"/>
3	<input type="text" value="2/10/09"/>	<input type="text" value="S"/>	<input type="text" value="A"/>	<input type="text" value="CJ"/>
4	<input type="text" value="2/20/09"/>	<input type="text" value="W"/>	<input type="text" value="A"/>	<input type="text" value="SB"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

COMMENTS:

Plan Review Status	<input type="text" value=""/>	Plan Review Initial Approval Date	<input type="text" value=""/>	Plan Review Initial Approval Staff	<input type="text" value=""/>
Initial Septic Inspection Date	<input type="text" value=""/>	Initial Well Inspection Date	<input type="text" value=""/>		
Inspection Bring up Date	<input type="text" value=""/>				
Septic Installation Approval Date	<input type="text" value=""/>	Well Installation Approval Date	<input type="text" value=""/>		
Permit Inspection Status	<input type="text" value=""/>				
Septic Installation Approval Staff	<input type="text" value=""/>	Well Installation Approval Staff	<input type="text" value=""/>		

Private Water Well/Septic System Inspection Report
 McHenry County Department of Health

Address: 1207 S. Crystal Lake Rd. Well Inspection Date: 5/15/07
 Permit#: 06-0642 Septic Inspection Date: 2/11/09
 Well Driller: _____ Well Log Submitted: _____
 Abandoned well on site: (Y)N Properly Sealed? (Y)N Sealing letter sent: yes
 Well Type: Domestic Semi-Public Irrigation Geothermal

Well abandonment ok per MS on 5/15/07

Location _____
 Distance From: _____ ft. Direction _____
 Permit Holders Septic Field _____ ft. Direction _____
 Neighboring Septic Field _____ ft. Direction _____
 _____ ft. Direction _____
 _____ ft. Direction _____
 Other Contamination Sources _____ ft. Direction _____
 Property lines or Right of Way _____ ft. Direction _____

Subject to Flooding? _____ Constructed Distance from nearest Overhang _____
 Construction: Well type Drilled _____ Rig Type: Rotary _____
 Driven _____ Cable Tool _____
 Dug _____ Other _____

Casing: ASTM Plast " Steel " Terminates " above grade
 #F480-81/NSF #14-1980 ASTM #A-53-81A, A-120-82, A5589-8
 Approximate Well Head Elevation _____ Well Grouted Y/N _____ Annulus Sealed/Backfilled Y/N _____
 Casing: Welded: _____ Threaded: _____ Glued _____
 Pitless Adapter: Installed _____ Welded _____ Threaded _____
 Clamped _____
 Casing Properly Vented Y/N _____ Approved Well Cap _____

Septic Tank Abandonment
 _____ Inspect Inlet Connection To Tank/Grouted _____ Verify Tank Size
 _____ Verify Riser if Required/Grouted _____ Inspect Tank Outlet Connection

- Septic Field
- _____ Measure Distance Residence to Tank, Residence to Field
 - _____ Verify Field is located in area shown on design
 - _____ Measure Distance property lines to field
 - _____ Measure lineal footage of septic trenches, center to center
 - _____ Measure length of solid headers
 - _____ Verify field not located in septic restricted area/easement
 - _____ Verify depth of stone in trenches/depth of sand if required
 - _____ Verify size of stone, washed condition
 - _____ Verify building paper or filter fabric used
 - _____ Verify trench width for appropriate system
 - _____ Verify lift station; size, alarm, prevention from freezing
 - _____ Verify aerobic unit; size, type, hookup complete, alarm
 - _____ Blue Tag Date. no blue tag left on site (cf)
 - _____ Reinspection Dates. 2/11/09

Sanitarian cf Septic Approval Date: _____

Water Sample Results: Positive Negative
 Well Approval Date: _____
 Sanitarian _____

inspect/excel/efmw123/sewage/5/07

Well and Septic Permit Application

Remember - Use the Tab Key and the Application Date is Required!

06-0642

Environmental Permit Number

Onbase Permit Number

Application Date

New Well

Owner / Applicant

Replace Well

Parcel Street Address

Repair Well *was NO*

Parcel City

Abandon Well *YES*

Parcel Pin Number

New Septic

Lot

Replace Septic

Subdivision

Repair Septic

Septic Installer Name

Abandon Septic

Septic Engineer

Accessory Structure

Well Driller

FEE \$

Zoning

Inc. City/Village

Residential or Commercial

Variance

Save

Reset

McHenry County Department of Health
WELL AND/OR SEPTIC PERMIT APPLICATION

Phone: 815-334-4585

Fax: 815-334-4637



Owner/Applicant: Dennis Daly / Richard Clements

CORNESTONE MATERIAL RECOVERY, 4172 BULL VALLEY RD -

Owner/Applicant Mailing Address: P.O. Box

McHenry, IL 60050

Office Use Only:

Permit Number: 06-0643

Staff Initials: RP

Fee Collected: 200-

Application Date: 10/10/06

Owner City: P.O. Box 241 Gurnee

Project Site Address: 1207 S Crystal Lake Rd

Owner State & Zip: IL 60031

Project Site City & Zip: McHenry, IL 60050

Phone Number: ~~815-334-4585~~
815-378-8188 cell

Parcel Pin Number: _____

Fax Number: 815-344-7772

Subdivision: _____

Lot Number: _____

Circle One: Incorporated Unincorporated

Circle One: Residential Property Non-Residential Property

PERMIT CATEGORY *
(Circle All That Apply)

New Well

New Septic

Replacement Well

Replacement Septic

Repair Well

Repair Septic

Abandon Well

Abandon Septic

Accessory Structure

Variance

Well Driller: Snetton + Sons Well Drilling

Septic Contractor Name: Ray Craft Septic

Septic Designer: _____

* Fee Schedule on Back

Circle One: Permit to be - Picked Up or Mailed

Applicant Signature: Richard Clements v.b.

Date: 10-10-06

WATER WELL SEALING FORM

McHenry County Health Department
Division of Environmental Health
2200 N. Seminary Avenue
Woodstock, IL 60098
(815) 334-4585

Permit # 06-0642

111-0642-06

This form shall be submitted to the McHenry County Health Department at the time of sealing potable wells, irrigation, boring or monitoring wells. Such wells are to be sealed no more than thirty (30) days after they are abandoned in accordance with the sealing requirements of the Illinois Water Well Construction Code. Note: Prior to the sealing of an abandoned well, twenty-four (24) hour notice must be given to the Department.

- Owner of Property DALY LTD. PARTNERSHIP PO BOX 341 GURNEE, IL.
name address phone #
- Well Location 1207 S. CRYSTAL LAKE RD. MCHENRY MCHENRY
street city county
- General Description: Section 9, Township 44N, Range 8E, P.I.N. # 14-09-100-001
- Drilling Permit No. (and date, if known) _____
- Type of Well: Drilled , Driven _____, Dug _____, Other _____
N 42° 18.699'
W 088° 18.758'
- Total Depth 160' Static Level 42' Diameter (inches) 5"-STEEL
- Reason for Abandonment? municipal water, vacant property, etc.
VACANT PROPERTY DEMOLITION
- Formation clear of obstruction? yes no _____ Depth 160' NE 1/4 NW 1/4 NW 1/4
- Details of Plugging:
From 160' to 3' feet
Kind of Plug BENTONITE
From 3' to 0' feet
Kind of Plug CLAY BACKFILL
From _____ to _____ feet
Kind of Plug _____
- Casing Record:
Type of Casing: PVC _____, Steel
Upper three (3) feet of casing removed? yes no _____
Is well in pit? yes no _____ Well pit abandoned? yes _____ no
If well casing consists of brick, stone, concrete blocks, porous tile or other porous material, casing was removed to a depth of ten (10) feet below the surface?
yes _____ no _____
- Date well was sealed: 11 / 21 / 06
month / day / year
- Licensed water well driller or other person approved by the Department performing well sealing:
Greg Snelter name (print) Jeffrey A. Snelter signature
25000 S. OLD RAND RD. WAUCONDA, IL. 60084
address city state zip
092-006972
license number

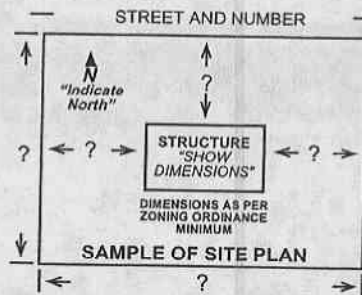
Sealing was observed by

[Signature]
signature

McHenry County Health Department
Environmental Health Division

SITE PLAN

- Parcel stakes *must* be visible
- Show *all* structures existing on parcel at present time (incl. well & septic)
- Note if your facility is *existing* or *proposed*
- Note parcel size and building location
- Indicate *north* direction
- Indicate *all* adjacent roads/streets (both improved & unimproved)

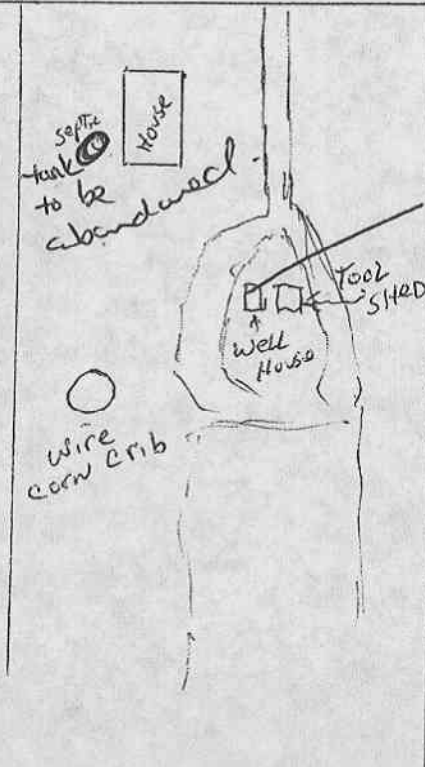


ALL SETBACKS ARE MEASURED FROM THE OVERHANG TO THE PROPERTY LINE!

SKETCH YOUR SITE PLAN BELOW - SUPPLY COMPLETE INFORMATION
LOCATE BUILDINGS ON PARCEL BY DIMENSIONS TO PARCEL LINES - NOTE ABOVE SKETCH

1267 S Crystal Lake Rd.

PUMP, CRACK AND FILL
OR PUMP AND REMOVE
EXISTING TREATMENT UNIT(S)



Well house to be
Removed + well
to meet current code
Requirements.

APPROVED
McHenry County Board of Health

Staff: _____
Date: 10-30-06
Permit #: 06-0042
Comp. #: 300870

HEALTH INSPECTION COPY

NOTE: FRAUDULANT MISREPRESENTATIONS ON THE SITE PLAN MAY RESULT IN FORFEITURE OF ANY PERMIT ISSUED BY MCHENRY COUNTY PURSUANT TO A REVIEW OF THE APPLICATION.

NO INSPECTIONS UNTIL CULVERT IS INSTALLED AND ACCESS TO SITE IS AVAILABLE

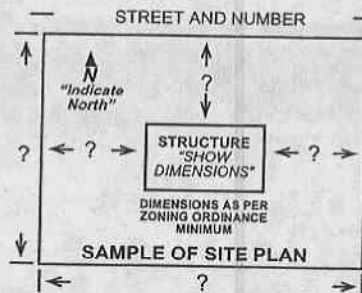
P.I.N. _____ PERMIT # _____ DATE ISSUED _____

LOT/S # _____ BLOCK # _____ SUBDIVISION _____ UNIT # _____

ADDRESS _____

SITE PLAN

- Parcel stakes *must* be visible
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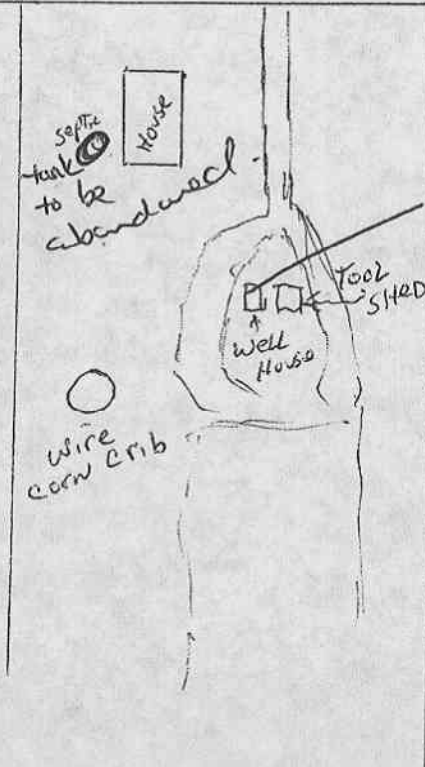


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LOCATE BUILDINGS ON PARCEL BY DIMENSIONS TO PARCEL LINES - NOTE ABOVE SKETCH

1267 S Crystal Lake Rd.

PUMP, CRACK AND FILL
OR PUMP AND REMOVE
EXISTING TREATMENT UNIT(S)



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McHenry County Dept. of Health

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P.I.N. _____ PERMIT # _____ DATE ISSUED _____

LOT/S # _____ BLOCK # _____ SUBDIVISION _____ UNIT # _____

ADDRESS _____

Well and Septic Permit Application

Remember - Use the **Tab Key** and the **Application Date is Required!**

Environmental Permit Number

Onbase Permit Number

Application Date

New Well

Owner / Applicant

Replace Well

Parcel Street Address

Repair Well

Parcel City

Abandon Well

Parcel Pin Number

New Septic

Lot

Replace Septic

Subdivision

Repair Septic

Septic Installer Name

Abandon Septic

Septic Engineer

Accessory Structure

Well Driller

FEE \$

Zoning

Inc. City/Village

Residential or Commercial

Variance

Well and Septic Permit Application

Remember - Use the Tab Key and the Application Date is Required!

Environmental Permit Number

Onbase Permit Number

Application Date

New Well

Owner / Applicant

Replace Well

Parcel Street Address

Repair Well *was NO*

Parcel City

Abandon Well *YES*

Parcel Pin Number

New Septic

Lot

Replace Septic

Subdivision

Repair Septic

Septic Installer Name

Abandon Septic

Septic Engineer

Accessory Structure

Well Driller

FEE \$

Zoning

Inc. City/Village

Residential or Commercial

Variance

McHENRY COUNTY DEPARTMENT OF HEALTH
McHENRY COUNTY GOVERNMENT CENTER
2200 N SEMINARY AVENUE – ROUTE 47 N.
WOODSTOCK IL 60098
TELEPHONE 815-334-4510
FAX 815-338-7661
www.mcdh.info

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Algonquin, IL

Virginia Peschke
Woodstock, Illinois

Public Health Administrator
Patrick J. McNulty

October 30, 2006

RICHARD CLEMENTS
4172 BULLVALLEY RD
MCHENRY IL 60050

RE: Permit #06-0642, 1207 S Crystal Lake Rd, McHenry, IL

Dear Owner:

The permit for a well repair and septic abandonment has just been approved by the McHenry County Department of Health. This permit is good for a period of one (1) year from date of issuance.

The well must be repaired by a Licensed Water Well Driller. Also a representative from our Department must go onsite to do an inspection of the well once it is completed. The Department also requires a satisfactory water sample prior to sign off on the permit.

The septic tank must be pumped out by a licensed septic pumper. A wall and base of the tank must be collapsed then filled in with porous granular material or pea gravel. If the tank is removed from the ground, the excavation shall be filled with soil. An inspection must be made from this Department to verify that the tank has been filled in.

Any questions, please feel free to contact me at this Department.

Regards,



Daniel E. Guif
Water Well Specialist

MCDH

McHenry County Department of Health
WELL AND/OR SEPTIC PERMIT APPLICATION

Phone: 815-334-4585

Fax: 815-334-4637



Owner/Applicant: Dennis Daly / RICHARD Clements

CONCRETE MATERIAL Recovery, 4172 BULLVALLEY RD -

Owner/Applicant Mailing Address: P.O. BOX
McHenry, IL 60050

Office Use Only:	
Permit Number:	<u>06-0642</u>
Staff Initials:	<u>RD</u>
Fee Collected:	<u>200-</u>
Application Date:	<u>10/10/06</u>

Owner City: P.O. BOX 241 Gurnee

Project Site Address: 1207 S Crystal Lake Rd

Owner State & Zip: IL 60031

Project Site City & Zip: McHenry, IL Gurnee

Phone Number: ~~815-334-4585~~
815-376-2188 CA

Parcel Pin Number: _____

Fax Number: 815-344-7772

Subdivision: _____

Lot Number: _____

Circle One: Incorporated Unincorporated

Circle One: Residential Property Non-Residential Property

PERMIT CATEGORY *
(Circle All That Apply)

<input type="checkbox"/> New Well	<input type="checkbox"/> New Septic
<input type="checkbox"/> Replacement Well	<input type="checkbox"/> Replacement Septic
<input checked="" type="checkbox"/> <u>Repair Well</u>	<input type="checkbox"/> Repair Septic
<input type="checkbox"/> Abandon Well	<input checked="" type="checkbox"/> <u>Abandon Septic</u>
<input type="checkbox"/> Accessory Structure	<input type="checkbox"/> Variance

Well Driller: Snatch & Sons Well Drilling

Septic Contractor Name: Raycraft Septic

Septic Designer: _____

* Fee Schedule on Back

Circle One: Permit to be - Picked Up or Mailed

Applicant Signature: Richard Clements

Date: 10-10-06



APPLICATION FOR PERMIT TO CONSTRUCT, MODIFY OR ABANDON A WATER WELL

DO NOT SEND CASH

PERMIT FEE: \$ 100

Local Health Department <u>MCHENRY COUNTY DEPT. OF HEALTH</u>	FOR OFFICIAL USE ONLY TYPE OR PLACE LABEL WITH NEEDED INFORMATION
Address <u>2200 N. SEMINARY AVE.</u>	
City/State/Zip Code <u>WOODSTOCK, IL. 60098</u>	
Phone Number _____ Fax Number _____	

If this box is checked, the permitting authority plans to complete a comprehensive inspection and shall be notified of any scheduling changes.

Owner <u>DALY LTD. PARTNERSHIP</u>	Owner Phone Number _____
Mailing Address <u>P.O. BOX 341</u>	Owner Fax Number _____
City <u>GURNEE</u> State <u>IL.</u> Zip Code <u>60031</u>	

Well Site: Property Address 1207 S. CRYSTAL LAKE RD. Township Name NUNDA

City MCHENRY Zip Code 60050 County Property Identification # 14-09-100-001

County MCHENRY Subdivision ACRES & BOUNDS Lot # _____

Township 44N Range 8E Section 9 NE 1/4 of the NW 1/4 of the NW 1/4

Directions to the Site SOUTH OF BULL VALLEY RD ON WEST SIDE OF CRYSTAL LAKE RD.

WATER WELL INFORMATION

Permit To: Construct Deepen Repair Seal well type: Dug Driven Bored Drilled

for a: A. Private Well B. Semi-Private Well C. Non-Community Well D. Non-Potable Well

use: Residential Commercial Livestock Irrigation Other _____

Complete if B or C checked: Number of people served _____ Type of facility _____

(If C is checked, an application For Permit to Construct, Alter or Extend a Non-Community Public Water Supply must be submitted.)

Check if anticipated pumping capacity is greater than 100,000 gallons per day.

WELL CONSTRUCTION OR ABANDONMENT INFORMATION

1. If well log is available, attach the log to this form.
2. If well log is not available, well must be sealed from bottom to top.

Borehole: Size (in/ft) _____ depth (ft) _____ Size (in/ft) _____ depth (ft) _____

Aquifer: Sand & Gravel Limestone Sandstone Other _____

Casing: Type _____ Size (in/ft) _____ Estimated Amount (ft) _____

Liner: Type _____ Size (in/ft) _____ Estimated Amount (ft) _____

Top of Liner (ft) _____ Type Seal _____ Bottom of Liner (ft) _____ Type Seal _____

Existing water well on property? Yes No Will it be used? Yes No Is it to Code? Yes No

Existing well to be sealed: Well in building Well in pit Pit retained Pit eliminated by: Contractor Owner

Is well free of obstruction? Yes No If No, at what depth is obstruction? _____ ft

FOR OFFICIAL USE ONLY		Construction Permit Number	
Approved by <u>(Signature)</u>	Date <u>10-30-06</u>	FIPS Code <u>11</u>	Number <u>0642</u> Year <u>06</u>
		Sealing Permit Number	
		FIPS Code _____	Number _____ Year _____



APPLICATION FOR PERMIT TO CONSTRUCT, MODIFY OR ABANDON A WATER WELL

ATTACH A SHEET WITH DIAGRAM OF WELL SITE SHOWING DIMENSIONS

Furnish septic system plot or draw the proposed construction site with dimensions showing the water well, direction of slope, distances to buildings and property lines, sewer lines, all septic system components including septic tanks and seepage fields, and other sources of contamination, e.g., abandoned wells, storm water dry wells and underground storage tanks. Indicate distance to community water supply, if available. If there is an existing well on the property, indicate location and status.

WATER WELL PUMP INFORMATION

Pump Type _____ Capacity _____ gpm Storage/Pump Cycle _____ gallons

WORK SCHEDULE*

Estimated scheduled date to start work on water well (MM/DD/YR): ASAP

*NOTE:

Illinois Water Well Construction Code, Section 920.130 g) Notification. Any person who contracts or deepens a water well for which a permit has been issued under this Part, shall notify the Department, or approved local health department, or approved unit of local government by telephone or in writing at least two days prior to commencement of the work.

LICENSED CONTRACTOR CERTIFICATION

I certify that the attached information is complete and correct and that the work will conform to the current Illinois Water Well Construction Code and to the current Illinois Water Well Pump Installation Code.

Licensed Water Well Contractor

JEFF SNETEN _____ 102-004256 _____
Print Name of Licensed Water Well Contractor License Number
25000 S. OLD RAND RD. _____ WAUCONDA, IL. 60084 _____
Address City, State, Zip Code
847-526-3500 _____ 847-381-0048 _____
Office Phone Number Fax Number
Jeffrey A. Sneten _____
Signature Licensed Water Well Contractor / Property Owner
10-27-06 _____
Date

Licensed Water Well Pump Installation Contractor

JEFF SNETEN _____ 102-004256 _____
Print Name of Licensed Water Well Pump Installation Contractor License Number
25000 S. OLD RAND RD. _____ WAUCONDA, IL. 60084 _____
Address City, State, Zip Code
847-526-3500 _____
Office Phone Number Fax Number
Jeffrey A. Sneten _____
Signature Licensed Water Well Pump Installation Contractor / Property Owner
10-27-06 _____
Date

COPIES

THREE COPIES ARE RETURNED TO THE LOCAL HEALTH DEPARTMENT WHERE THE PERMIT IS ISSUED
One copy is retained by the health department where the permit is issued
One copy of the approved application is sent to Illinois State Water Survey
One copy is sent to the water well contractor

IMPORTANT NOTICE

This state agency is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Public Act 85-0863. Disclosure of the information is mandatory. This form has been approved by the Forms Management Center

**MCHENRY COUNTY HEALTH DEPARTMENT - ENVIRONMENTAL DIVISION
2200 NORTH SEMINARY - NORTH ROUTE 47
WOODSTOCK, IL 60098 - 815-334-4585 FAX# 815-338-7661**

MEMORANDUM

RE: PERMIT 06-0642 **DATE:** October 24, 2006
FROM: Danel E. Guif, Field Staff Supervisor
SUBJECT: Permit To Abandon Septic
LOCATION: 1207 S Crystal Lake Rd., McHenry, IL.

TO: **CORNERSTONE MATERIAL RECOVERY
4172 BULL VALLEY RD
MCHENRY IL 60050**

THE DEPARTMENT HAS REVIEWED THE ABOVE REFERENCED FILE FOR COMPLIANCE WITH ARTICLES IX AND X OF THE PUBLIC HEALTH ORDINANCE FOR MCHENRY COUNTY. THE FOLLOWING ITEMS MUST BE ADDRESSED:

The well will be allowed to remain once the following items are addressed:

1. Apply for permit to repair well.
2. Contract with a Licensed Water Well Driller to bring well into current standards. (Install an approved well cap, demolish well house, install a yard hydrant or buried tank that meets code requirements, raised casing to a minimum of 8 inches above grade, remove surface lines running next to well, if there is a well pit that must be abandoned).

RICHARD CLEMENTS
CORNERSTONE MATERIAL Recovery, Inc.
4172 BULLVALLEY RD.
McHENRY, IL. 60050

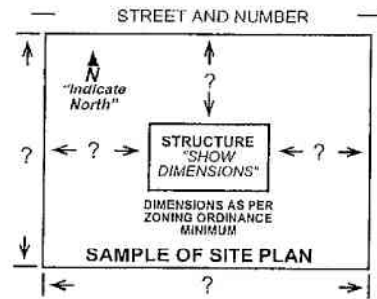
We are requesting that the well at 3208 Franklinville Rd.
& 1207 S. Crystal Lake Rd. be left in tact. Dennis Harms
(Harms) uses site to store farm equipment + keep plants and requested
the well be kept to water plants. The Franklinville
Rd well is only 10 years old and we are trying to get a
buyer for lots to rebuild. We should know by the time
we begin to demolish building if sale will work out.
we have to apply for a variance for set back.

thank you,

Richard Clements

SITE PLAN

- Parcel stakes *must* be visible
- Show *all* structures existing on parcel at present time (incl. well & septic)
- Note if your facility is *existing* or *proposed*
- Note parcel size and building location
- Indicate *north* direction
- Indicate *all* adjacent roads/streets (both improved & unimproved)

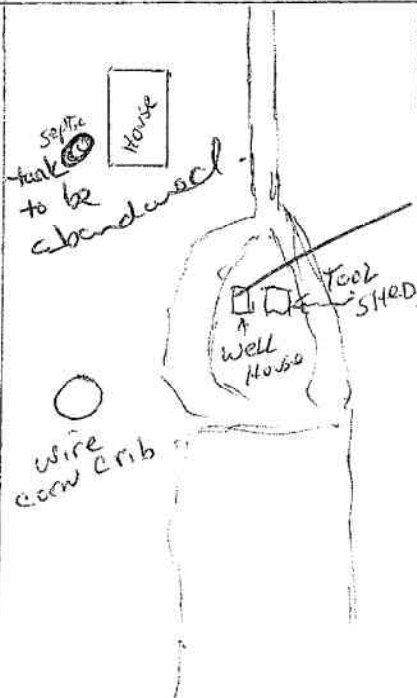


ALL SETBACKS ARE MEASURED FROM THE OVERHANG TO THE PROPERTY LINE!

SKETCH YOUR SITE PLAN BELOW - SUPPLY COMPLETE INFORMATION
LOCATE BUILDINGS ON PARCEL BY DIMENSIONS TO PARCEL LINES - NOTE ABOVE SKETCH

1207 S CRYSTAL LAKE RD.

PUMP, CRACK AND FILL
OR PUMP AND REMOVE
EXISTING TREATMENT UNIT(S)



Well house to be
Removed + well
to meet current code
requirements

APPROVED

McHenry County Dept. of Health:

Staff: _____

Date: _____

Permit #: _____

Comp. #: _____

10-30-06
06-0042
3008170

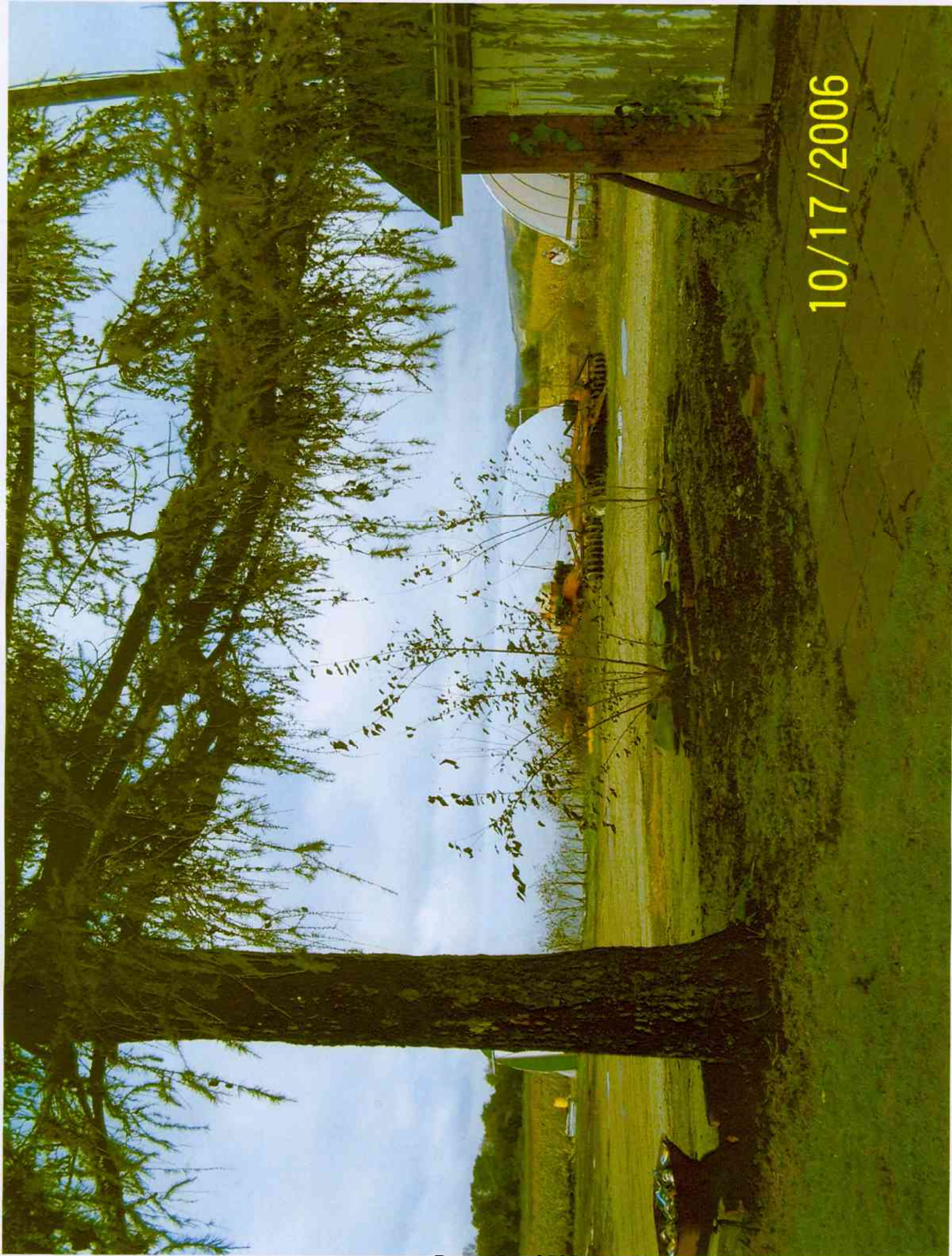
NOTE: FRAUDULANT MISREPRESENTATIONS ON THE SITE PLAN MAY RESULT IN FORFEITURE OF ANY PERMIT ISSUED BY MCHENRY COUNTY PURSUANT TO A REVIEW OF THE APPLICATION.

NO INSPECTIONS UNTIL CULVERT IS INSTALLED AND ACCESS TO SITE IS AVAILABLE

P.I.N. _____ PERMIT # _____ DATE ISSUED _____

LOT/S # _____ BLOCK # _____ SUBDIVISION _____ UNIT # _____

ADDRESS _____



10/17/2006



10/17/2006

AI-1642 100172



10/17/2006



10/17/2006



10/17/2006



10/17/2006



10/17/2006



Appendix O

ERIS Database Report



DATABASE REPORT

Project Property: 2025282
+/- 35 Acres West of S. Crystal Lake Road
McHenry IL 60050

Project No: 2025282

Report Type: Database Report

Order No: 25110700194

Requested by: Stateline Environmental Consulting
Services, Inc.

Date Completed: November 11, 2025

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Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY

Reliance on information in Report: This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as database review of environmental records.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

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Executive Summary

Property Information:

Project Property: 2025282
+/- 35 Acres West of S. Crystal Lake Road McHenry IL 60050

Project No: 2025282

Coordinates:

Latitude: 42.31081133
Longitude: -88.31715346
UTM Northing: 4,685,126.18
UTM Easting: 391,448.01
UTM Zone: 16T

Elevation: 817 FT

Order Information:

Order No: 25110700194
Date Requested: November 7, 2025
Requested by: Stateline Environmental Consulting Services, Inc.
Report Type: Database Report

Historicals/Products:

ERIS Xplorer [ERIS Xplorer](#)
Excel Add-On Excel Add-On
Fire Insurance Maps US Fire Insurance Maps

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	0	-	-	0
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	0	-	-	0
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0
FRP	Y	0.25	0	0	0	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
DELISTED FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
State								
SSU	Y	1	0	0	0	0	0	0
DELISTED SSU	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
SWF/LF SPECIAL	Y	0.5	0	0	0	0	-	0
NIPC	Y	0.5	0	0	0	0	-	0
CCDD	Y	0.5	0	0	0	0	-	0
LUST	Y	0.5	0	0	0	0	-	0
LUST DOCUMENT	Y	0.5	0	0	0	0	-	0
DELISTED LUST	Y	0.5	0	0	0	0	-	0
LUST TRUST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	1	0	-	-	1
DELISTED TANK	Y	0.25	0	0	0	-	-	0
ENG	Y	0.5	0	0	0	0	-	0
INST	Y	0.5	0	0	0	0	-	0
AUL	Y	0.5	0	0	0	0	-	0
SRP	Y	0.5	0	0	0	0	-	0
REM ASSESS	Y	0.5	0	0	0	0	-	0
BROWNFIELDS	Y	0.5	0	0	0	0	-	0
BROWN MBRGP	Y	0.5	0	0	0	0	-	0
Tribal								
INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED INDIAN LST	Y	0.5	0	0	0	0	-	0
DELISTED INDIAN UST	Y	0.25	0	0	0	-	-	0

County

No County databases were selected to be included in the search.

<i>Database</i>	<i>Searched</i>	<i>Search Radius</i>	<i>Project Property</i>	<i>Within 0.12mi</i>	<i>0.125mi to 0.25mi</i>	<i>0.25mi to 0.50mi</i>	<i>0.50mi to 1.00mi</i>	<i>Total</i>
Additional Environmental Records								
Federal								
PFAS GHG	Y	0.5	0	0	0	0	-	0
OSC RESPONSE	Y	0.125	0	0	-	-	-	0
FINDS/FRS	Y	PO	0	-	-	-	-	0
TRIS	Y	PO	0	-	-	-	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS FED SITES	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
PFAS ERNS	Y	0.5	0	0	0	0	-	0
PFAS NPDES	Y	0.5	0	0	0	0	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
PFAS TSCA	Y	0.5	0	0	0	0	-	0
PFAS E-MANIFEST	Y	0.5	0	0	0	0	-	0
PFAS IND	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
FUDS MRS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
MRDS	Y	1	0	0	0	0	0	0
LM SITES	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
AFS	Y	PO	0	-	-	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0
PCBT	Y	0.5	0	0	0	0	-	0
PCB	Y	0.5	0	0	0	0	-	0
POWER PLANTS	Y	0.125	0	0	-	-	-	0
HIST RISK	Y	0.125	0	0	-	-	-	0

State

SPILLS	Y	0.125	0	0	-	-	-	0
SPILL OER	Y	0.125	0	0	-	-	-	0
PFAS SPILLS	Y	0.5	0	0	0	0	-	0
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
IEPA DOCS	Y	PO	0	-	-	-	-	0
CDL	Y	0.25	0	0	0	-	-	0
TIER 2	Y	0.125	0	0	-	-	-	0
AIR PERMITS	Y	0.25	0	0	0	-	-	0
UIC	Y	PO	0	-	-	-	-	0
MEDICAL WASTE	Y	0.25	0	0	0	-	-	0
COMPOST	Y	0.5	0	0	0	0	-	0

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Total: 0 1 0 0 0 0 1

* PO – Property Only

* 'Property and adjoining properties' database search radii are set at 0.25 miles.

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
--------------------	-----------	--------------------------	----------------	------------------	-----------------------------	---------------------------	------------------------

No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
1	AST	Verizon Wireless	1207 CRYSTAL LAKE Road North MCHENRY IL 60050 <i>Type / Tank:</i> Tank - Above Ground Bulk Generator TANK#1-190	ENE	0.03 / 134.22	-8	16

Executive Summary: Summary by Data Source

Standard

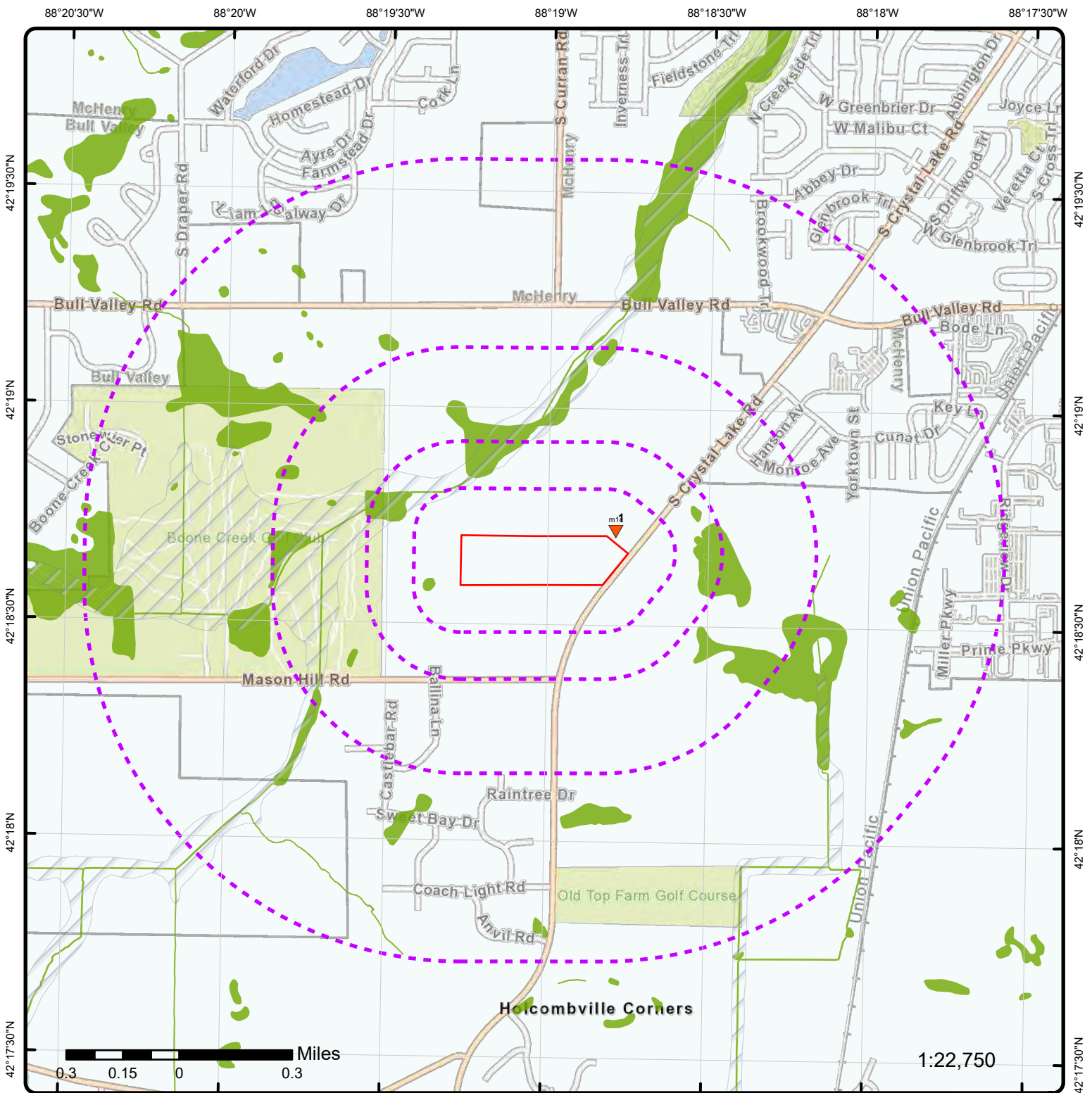
State

AST - Aboveground Storage Tanks (AST)

A search of the AST database, dated Jun 30, 2025 has found that there are 1 AST site(s) within approximately 0.25miles of the project property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Verizon Wireless	1207 CRYSTAL LAKE Road North MCHENRY IL 60050	ENE	0.03 / 134.22	1

Type / Tank: Tank - Above Ground Bulk Generator | TANK#1-190



Map: 1.0 Mile Radius

Order Number: 25110700194

Address: +/- 35 Acres West of S. Crystal Lake Road, McHenry, IL



- Project Property
- Buffer Outline
- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)

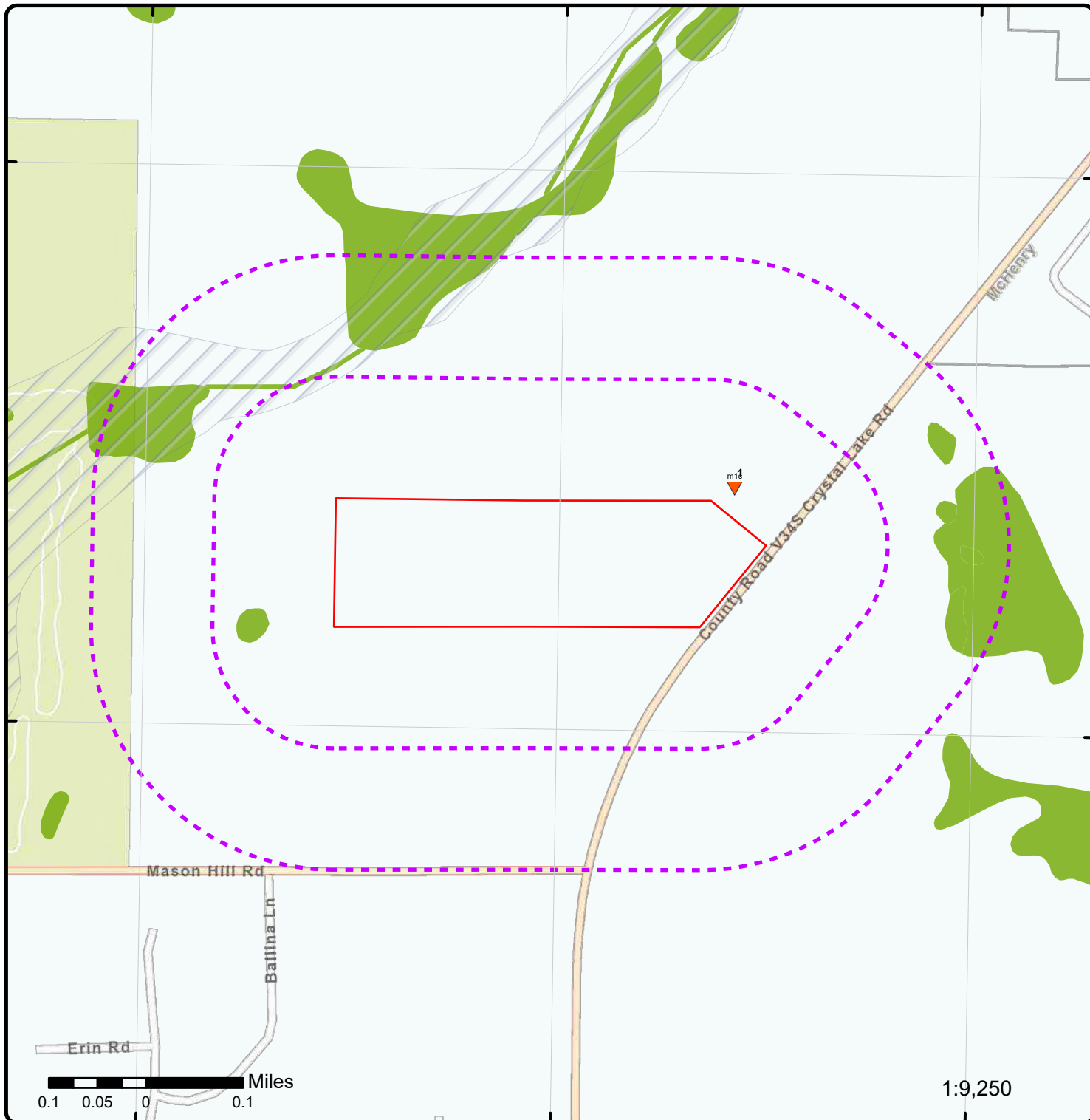


Map: 0.5 Mile Radius

Order Number: 25110700194
 Address: +/- 35 Acres West of S. Crystal Lake Road, McHenry, IL



- Project Property
- Buffer Outline
- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- + Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)



1:9,250

Map: 0.25 Mile Radius

Order Number: 25110700194

Address: +/- 35 Acres West of S. Crystal Lake Road, McHenry, IL



- Project Property
- Buffer Outline
- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National PRIORITYS List (Active, Delisted, Proposed, Institutional Control)

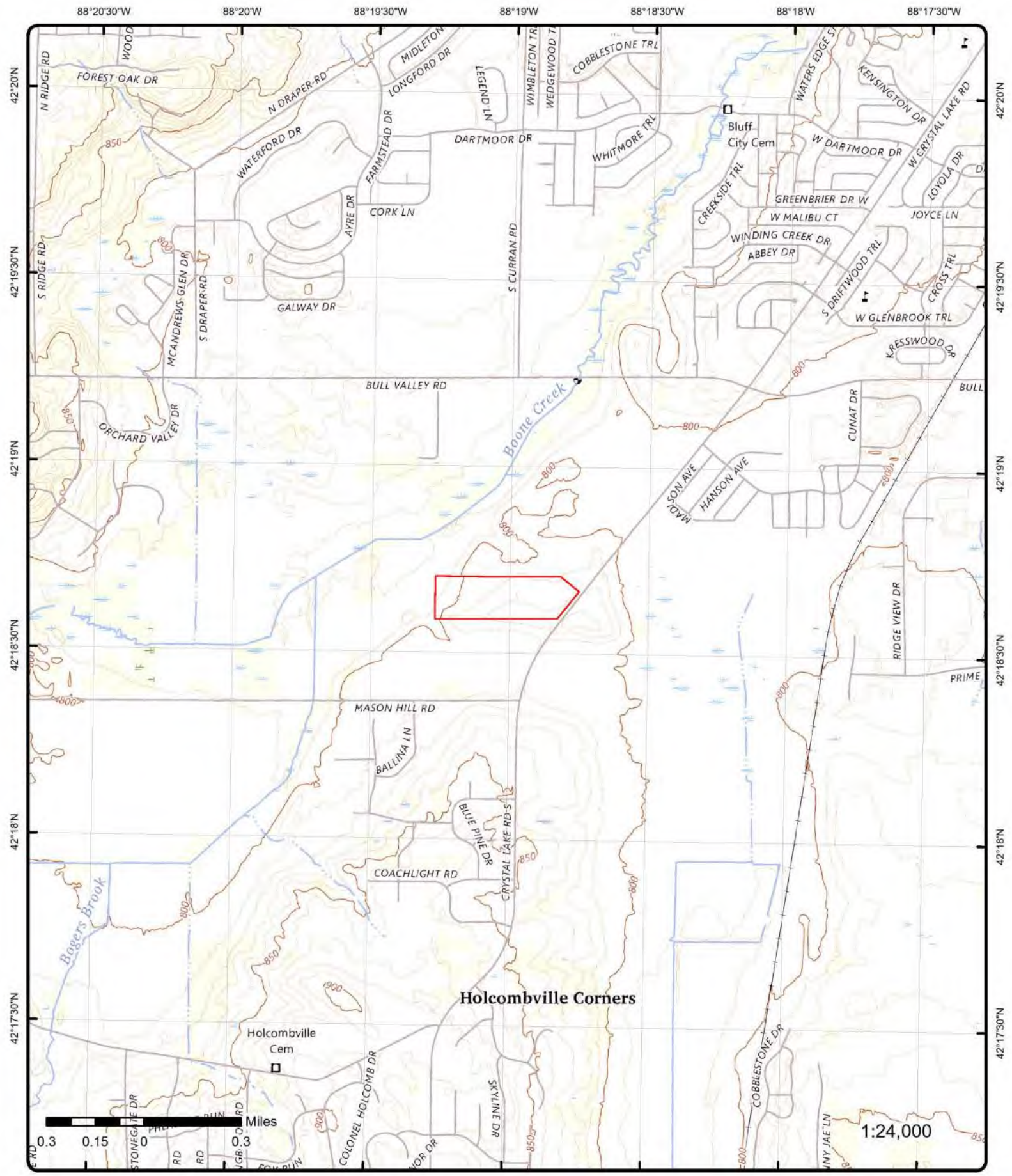


Aerial Year: 2024

Order Number: 25110700194

Address: +/- 35 Acres West of S. Crystal Lake Road, McHenry, IL





Topographic Map

Year: 2024

Order Number: 25110700194

Address: +/- 35 Acres West of S. Crystal Lake Road, IL



Quadrangle(s): McHenry IL

© ERIS Information Inc.

Source: USGS Topographic Map

Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<u>1</u>	1 of 1	ENE	0.03 / 134.22	809.21 / -8	Verizon Wireless 1207 CRYSTAL LAKE Road North MCHENRY IL 60050	AST

Type:	Tank - Above Ground Bulk Generator	Date:	11/6/17
NOVs:	2 NOVs	Inspector:	F.Richter
Tank 2:		Row:	156
Occupant 2:		Section:	MJ
Occupancy No:	MJ-059-1508445475817		
Occupant Type:	059 - ABOVE GROUND BULK STORAGE		
Tank:	TANK#1-190		
Building:			
Location Comment:			

Unplottable Summary

Total: 0 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
----	------------------------	---------	------	-----	---------

No unplottable records were found that may be relevant for the search criteria.

Unplottable Report

No unplottable records were found that may be relevant for the search criteria.

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List:

NPL

The U.S. Environmental Protection Agency (EPA)'s National Priorities List (NPL) includes the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program, based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. This data includes NPL sites represented as polygons, where available, that can be sourced from the EPA NPL Superfund Site Boundaries dataset, refreshed by the Shared Enterprise Geodata and Services (SEGS), and is limited to those sites where the NPL Status reflects the site is 'Currently on the Final NPL (F)' and/or the 'Site is Part of NPL Site (A)'. These site boundaries represent the footprint of a whole site, the sum of all the Operable Units (OUs) and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. As site investigation and remediation progress, OUs may be added, modified or refined. Data provided by external parties is not independently verified by EPA. This boundary data is made available to the public strictly for informational purposes. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Sep 6, 2025

National Priority List - Proposed:

PROPOSED NPL

Sites proposed by the U.S. Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites represented as polygons, where available, can be sourced from the EPA NPL Superfund Site Boundaries dataset, refreshed by the Shared Enterprise Geodata and Services (SEGS). These site boundaries represent the footprint of a whole site, the sum of all the Operable Units (OUs) and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Data provided by external parties is not independently verified by EPA. This boundary data is made available to the public strictly for informational purposes. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Sep 6, 2025

Deleted NPL:

DELETED NPL

Sites deleted from the U.S. Environmental Protection Agency (EPA)'s National Priorities List (NPL). The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425(e), sites may be deleted from the NPL where no further response is appropriate. Sites represented as polygons, where available, can be sourced from the EPA NPL Superfund Site Boundaries dataset, refreshed by the Shared Enterprise Geodata and Services (SEGS). These site boundaries represent the footprint of a whole site, the sum of all the Operable Units (OUs) and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Data provided by external parties is not independently verified by EPA. This boundary data is made available to the public strictly for informational purposes. Where there is no polygon boundary data available for a given site, the site is represented as a point.

Government Publication Date: Sep 6, 2025

SEMS List 8R Active Site Inventory:

[SEMS](#)

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the EPA's Facility Registry Service map tool.

Government Publication Date: Jun 26, 2025

SEMS List 8R Archive Sites:

[SEMS ARCHIVE](#)

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

Government Publication Date: Jun 26, 2025

Inventory of Open Dumps, June 1985:

[ODI](#)

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

EPA Report on the Status of Open Dumps on Indian Lands:

[IODI](#)

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

Comprehensive Environmental Response, Compensation and Liability Information System -

[CERCLIS](#)

CERCLIS:

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

CERCLIS - No Further Remedial Action Planned:

[CERCLIS NFRAP](#)

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens:

[CERCLIS LIENS](#)

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action:

[RCRA CORRACTS](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Sep 1, 2025

RCRA non-CORRACTS TSD Facilities:

[RCRA TSD](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites that have indicated engagement in the treatment, storage, or disposal of hazardous waste which requires a RCRA hazardous waste permit.

Government Publication Date: Sep 1, 2025

RCRA Generator List:

[RCRA LQG](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste. This list also includes RCRAInfo sites that have notified as LQGs that do not have a registered Site Manager or Certifier in RCRAInfo.

Government Publication Date: Sep 1, 2025

RCRA Small Quantity Generators List:

[RCRA SQG](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month. This list also includes RCRAInfo sites that have notified as SQGs that do not have a registered Site Manager or Certifier in RCRAInfo.

Government Publication Date: Sep 1, 2025

RCRA Very Small Quantity Generators List:

[RCRA VSQG](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

Government Publication Date: Sep 1, 2025

RCRA Non-Generators:

[RCRA NON GEN](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Sep 1, 2025

RCRA Sites with Controls:

[RCRA CONTROLS](#)

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Government Publication Date: Sep 1, 2025

Federal Engineering Controls-ECs:

[FED ENG](#)

List of Engineering controls (ECs) made available by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Sep 29, 2025

Federal Institutional Controls- ICs:

FED INST

List of Institutional controls (ICs) made available by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

Government Publication Date: Sep 29, 2025

Land Use Controls Information System:

LUCIS

The Land Use Controls Information System (LUCIS) database is sourced from the U.S. Department of the Navy (DON). This data contains information for former Base Realignment and Closure (BRAC) properties across the United States. DON's BRAC office was tasked with tracking certain base closures while requiring the prevention of risks to human health and the environment of those properties with LUCs in place. Regarding currently available LUC Sites data, the sites listing is limited to centroid point locations for the overall installation property boundaries. Formerly obtained LUC Sites data may reflect site details that applied previously for a BRAC property.

Government Publication Date: Jun 13, 2024

Institutional Control Boundaries at NPL sites:

NPL IC

These boundaries of Institutional Control areas at sites on the U.S. Environmental Protection Agency's (EPA) National Priorities List (NPL), or as Proposed or Deleted, are sourced from the EPA NPL Superfund Site Boundaries dataset, refreshed by the Shared Enterprise Geodata and Services (SEGS). The EPA's NPL includes the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Data provided by external parties is not independently verified by EPA. This boundary data is made available to the public strictly for informational purposes.

Government Publication Date: Sep 6, 2025

Emergency Response Notification System:

ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System:

ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System:

ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

Government Publication Date: Sep 7, 2025

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database:

FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

Government Publication Date: Sep 8, 2025

FEMA Underground Storage Tank Listing:

FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

Facility Response Plan:

FRP

This listing contains facilities that have submitted Facility Response Plans (FRPs) to the U.S. Environmental Protection Agency (EPA). Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit FRPs. Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments. This listing includes FRP facilities from an applicable EPA FOIA file and Homeland Infrastructure Foundation-Level Data (HIFLD) data file.

Government Publication Date: Jan 9, 2024

Delisted Facility Response Plans:

DELISTED FRP

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

Government Publication Date: Jan 9, 2024

Historical Gas Stations:

HIST GAS STATIONS

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

Government Publication Date: Jul 1, 1930

Petroleum Refineries:

REFN

This list of petroleum refineries is sourced from the U.S. Energy Information Administration (EIA), Refinery Capacity Report. The listing includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year. The geographic area the report covers is the 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, and other U.S. possessions. Per the EIA, the facility location data represents the approximate location based on research of publicly available information from sources such as Federal agencies, company websites, and satellite images on public websites.

Government Publication Date: Oct 31, 2024

Petroleum Product and Crude Oil Rail Terminals:

BULK TERMINAL

A list of petroleum product and crude oil rail terminals from the U.S. Energy Information Administration (EIA), as well as petroleum terminals sourced from Oak Ridge National Laboratory hosted by the Homeland Infrastructure Foundation-Level Database. Data includes operable bulk petroleum product terminals with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil with activity between 2017 and 2018. EIA petroleum product terminal data comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings.

Government Publication Date: Jun 5, 2025

LIEN on Property:

SEMS LIEN

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

Government Publication Date: Jun 26, 2025

Superfund Decision Documents:

SUPERFUND ROD

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

Government Publication Date: Jul 29, 2025

State

State Response Action Program Database:

SSU

The State Response Action Program database identifies the status of all sites under the responsibility of the Illinois EPA's State Sites Unit. The State Response Action Program database made available by Illinois Environmental Protection Agency. This database serves a purpose similar to that of the federal Superfund Enterprise Management System (SEMS), functioning as a state-level counterpart for tracking potential hazardous substance release sites.

Government Publication Date: Jan 16, 2025

Delisted State Response Action Program:

DELISTED SSU

List of sites removed from the State Response Action Program database identifies the status of all sites under the responsibility of the Illinois EPA's State Sites Unit.

Government Publication Date: Jan 16, 2025

Solid Waste Landfills Subject to State Surcharge Database:

SWF/LF

The Bureau of Land maintains a list of solid waste facilities and landfills throughout the state. This list made available by Illinois Environmental Protection Agency's Bureau of land.

Government Publication Date: Jun 24, 2024

Special Waste Site List:

SWF/LF SPECIAL

The following landfills are those that as of January 1, 1990, accept non-hazardous special waste pursuant to the Illinois Environmental Protection Agency Non-Hazardous Special Waste Definition. List A includes landfills that may receive any non-hazardous waste. Non-Regional Pollutant Control Facilities are so noted. List B includes landfills designed to receive specific non-hazardous wastes. List B landfills are designated as a Regional Pollutant Control Facility by RPCF, or Non-regional Pollutant Control Facility by Non-RPCF.

Government Publication Date: Jan 1, 1990

Northeastern Illinois Planning Commission Historical Inventory of Solid Waste Disposal Sites in

NIPC

Northeastern Illinois:

Historical inventory of solid waste disposal sites in northeastern Illinois prepared by the Northeastern Illinois Planning Commission (NIPC).

Government Publication Date: Dec 1987

Clean Construction or Demolition Debris:

CCDD

This is a list of CCDD Fill Operations with Approved Permits. Beginning July 1, 2008, no person can use CCDD as fill material in a current or former quarry, mine, or other excavation unless they have obtained a permit from the Illinois EPA.

Government Publication Date: Jul 1, 2025

Leaking Underground Storage Tanks (LUST):

LUST

Leaking underground storage tanks (LUSTs) are a significant source of environmental contamination and may pose threats to human health and safety. The Illinois Office of the State Fire Marshal (OSFM) regulates the daily operation and maintenance of UST systems. When a release occurs, a tank owner, operator, or their designated representative, must notify the Illinois Emergency Management Agency (IEMA), which then notifies the Illinois Environmental Protection Agency (Illinois EPA). The Illinois EPA's LUST Section begins oversight of remedial activities only after the UST release has been reported to the IEMA.

Government Publication Date: Aug 6, 2025

Leaking UST Document:

LUST DOCUMENT

A list of sites from the Illinois Environmental Protection Agency (IEPA) Document Explorer at which one or more of the documents is in the Leaking Underground Storage Tank (LUST) category. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are maintained in a digital format.

Government Publication Date: Jun 20, 2025

Delisted Leaking Underground Storage Tank Sites:

DELISTED LUST

List of sites removed from the Leaking Underground Storage Tank Incident Tracking (LIT) database made available by the Illinois Environmental Protection Agency.

Government Publication Date: Aug 6, 2025

Underground Storage Tank Fund Payment Priority List:

LUST TRUST

In case sufficient funds are not available in the Underground Storage Tank Fund, requests for payment are entered on the Payment Priority List by "queue date" order. As required by the Environmental Protection Act, the queue date is the date that a complete request for partial or final payment was received by the Agency. The queue date is "officially" confirmed at the end of the payment review process when a Final Decision Letter is sent to the site owner. The Underground Storage Tank Fund Priority list made available by Illinois Environmental Protection Agency.

Government Publication Date: Nov 01, 2016

Underground Storage Tank Database (UST):

UST

This Underground Storage Tank (UST) database is maintained by the Division of Petroleum & Chemical Safety of the Office of the Illinois State Fire Marshal (OSFM). Agency Disclaimer: The data contains information derived from tank registration information supplied to the OSFM from outside sources. This information may not contain complete or current information on a specific tank.

Government Publication Date: Jun 18, 2025

Aboveground Storage Tanks (AST):

AST

A list of aboveground storage tanks inspected by the Office of State Fire Marshal (OSFM).

Government Publication Date: Jun 30, 2025

Delisted Storage Tanks:

DELISTED TANK

This database contains a list of closed storage tank sites that were removed from the Illinois Department of Environmental Quality.

Government Publication Date: Aug 6, 2025

Sites with Engineering Controls:

ENG

Sites in the Illinois Environmental Protection Agency (IEPA)'s Site Remediation Program (SRP) database with engineering controls in place.

Government Publication Date: Oct 9, 2025

Institutional Controls:

INST

Sites in the Illinois Environmental Protection Agency (IEPA)'s Site Remediation Program (SRP) database with institutional controls in place.

Government Publication Date: Oct 9, 2025

Environmental Covenants Registry:

AUL

According to the Illinois Environmental Protection Agency (Illinois EPA), the Illinois Uniform Environmental Covenants Act (UECA) (765 Illinois Compiled Statutes (ILCS) 122 et seq.) creates an environmental covenant that is a specific recordable interest in real estate. It arises from an environmental response project that imposes activity and use limitations on a property. No environmental covenant is effective without the approval of the Illinois EPA, through the Director's signature. The UECA instrument recites the property use controls and remediation requirements imposed upon the property. Section 12(a) of the Illinois UECA requires the Illinois EPA to establish and maintain a registry that contains all environmental covenants and any amendment or termination of those covenants.

Government Publication Date: Apr 3, 2025

Illinois Site Remediation Program Database:

SRP

The Site Remediation Program (SRP) database identifies the status of all voluntary remediation projects administered through the Pre-Notice Site Cleanup Program (1989 to 1995) and the Site Remediation Program (1996 to the present). The SRP database is made available by the Illinois Environmental Protection Agency (IEPA).

Government Publication Date: Oct 9, 2025

Document Explorer Remediation and Assessment Sites:

REM ASSESS

A list of sites from the Illinois Environmental Protection Agency (IEPA) Document Explorer at which one or more documents available are associated with the Federal Facilities Unit, National Priorities List Unit, Site Assessment Unit, or Voluntary Site Remediation Unit. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are maintained in a digital format.

Government Publication Date: Jun 20, 2025

Brownfields Redevelopment Assessment Database:

BROWNFIELDS

This listing of Brownfields Redevelopment Assessment sites is provided by the Illinois Environmental Protection Agency's (IL EPA) Bureau of Land. Brownfields are abandoned or under-utilized industrial and commercial properties with actual or perceived contamination and an active potential for redevelopment. The IL EPA Remedial Project Management Section (RPMS) manages the Brownfields loan programs and offers technical support to communities through the services of its Brownfields Representatives.

Government Publication Date: Jun 30, 2025

Municipal Brownfields Redevelopment Grant Program (MBRGP) project sites administered through OBA:

BROWN MBRGP

The Office of Brownfields Assistance (OBA) database identifies the status of all Municipal Brownfields Redevelopment Grant Program (MBRGP) project sites administered through OBA. Office of Brownfields Assistance Database search made available by Illinois Environmental Protection Agency's Bureau of Land Data-Center.

Government Publication Date: Mar 31, 2013

Tribal

Leaking Underground Storage Tanks on Indian Lands:

INDIAN LUST

This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 5, which includes Illinois, is made available by the United States Environmental Protection Agency (EPA).

Underground Storage Tanks (USTs) on Indian Lands:

[INDIAN UST](#)

This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 5, which includes Illinois, is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Oct 16, 2017

Delisted Tribal Leaking Storage Tanks:

[DELISTED INDIAN LST](#)

Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 22, 2025

Delisted Tribal Underground Storage Tanks:

[DELISTED INDIAN UST](#)

Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: May 22, 2025

County

No County databases were selected to be included in the search.

Additional Environmental Record Sources

Federal

PFAS Greenhouse Gas Emissions Data:

[PFAS GHG](#)

The U.S. Environmental Protection Agency's (EPA) Greenhouse Gas Reporting Program (GHGRP) collects Greenhouse Gas (GHG) data from large emitting facilities (25,000 metric tons of carbon dioxide equivalent (CO₂e) per year), and suppliers of fossil fuels and industrial gases that results in GHG emissions when used. This dataset is sourced from the EPA's PFAS Analytic Tools, and it includes GHG emissions data for facilities that emit or have emitted since 2010 chemicals identified as PFAS based on EPA's CompTox Chemicals Dashboard lists of PFAS with defined and undefined structures. PFAS emissions data has been identified for facilities engaged in the following industrial processes: Aluminum Production (GHGRP Subpart F), HCFC-22 Production and HFC-23 Destruction (Subpart O), Electronics Manufacturing (Subpart I), Fluorinated Gas Production (Subpart L), Magnesium Production (Subpart T), Electrical Transmission and Distribution Equipment Use (Subpart DD), and Manufacture of Electric Transmission and Distribution Equipment (Subpart SS). Over time, other industrial processes with required GHGRP reporting may include PFAS emissions data and the list of reportable gases may change over time. Note that some regulatory programs have specified chemical structure requirements that define PFAS differently than the lists in EPA's CompTox Chemicals Dashboard.

Government Publication Date: Oct 7, 2025

On-Scene Coordinator Response Sites:

[OSC RESPONSE](#)

This list of On-Scene Coordinator (OSC) Response Sites is provided by the U.S. Environmental Protection Agency (EPA). OSCs are the federal officials responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the federal government. OSCs coordinate all federal efforts with, and provide support and information to local, state, and regional response communities. An OSC is an agent of either EPA or the U.S. Coast Guard (USCG), depending on where the incident occurs. EPA's OSCs have primary responsibility for spills and releases to inland areas and waters. USCG OSCs have responsibility for coastal waters and the Great Lakes. In general, an OSC has the following key responsibilities during and after a response: Assessment, Monitoring, Response Assistance, and Evaluation.

Government Publication Date: Oct 8, 2025

Facility Registry Service/Facility Index:

[FINDS/FRS](#)

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Oct 10, 2025

Toxics Release Inventory (TRI) Program:

[TRIS](#)

The U.S. Environmental Protection Agency's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of toxic chemicals from U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. There are currently 770 individually listed chemicals and 33 chemical categories covered by the TRI Program. Facilities that manufacture, process or otherwise use these chemicals in amounts above established levels must submit annual reporting forms for each chemical. Note that the TRI chemical list does not include all toxic chemicals used in the U.S. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment. This database includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.

Government Publication Date: Sep 20, 2023

PFOA/PFOS Contaminated Sites:

[PFAS NPL](#)

This list of Superfund Sites with Per- and Polyfluoroalkyl Substances (PFAS) detections is made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data, previously the list was obtained by EPA FOIA requests. EPA's Office of Land and Emergency Management and EPA Regional Offices maintain what is known about site investigations, contamination, and remedial actions under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) where PFAS is present in the environment. Limitations: Detections of PFAS at National Priorities List (NPL) sites do not mean that people are at risk from PFAS, are exposed to PFAS, or that the site is the source of the PFAS. The information in the Superfund NPL and Superfund Alternative Agreement (SAA) PFAS detection site list is years old and may not be accurate today. Site information such as site name, site ID, and location has been confirmed for accuracy; however, PFAS-related information such as media sampled, drinking water being above the health advisory, or mitigation efforts has not been verified. For Federal Facilities data, the other Federal agencies (OFA) are the lead agency for their data and provided them to EPA.

Government Publication Date: Sep 26, 2025

Federal Agency Locations with Known or Suspected PFAS Detections:

[PFAS FED SITES](#)

This list of federal agency locations with known or suspected detections of Per- and Polyfluoroalkyl Substances (PFAS) is made available by the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools data. The EPA outlines that these data are gathered from several federal entities, such as the federal Superfund program, Department of Defense (DOD), National Aeronautics and Space Administration (NASA), Department of Transportation (DOT), and Department of Energy (DOE). The dates this data was extracted for the PFAS Analytic Tools range from 2022 to 2025 per agency entity dataset. Sites on this list do not necessarily reflect the source/s of PFAS contamination and detections do not indicate level of risk or human exposure at the site. Agricultural notifications in this data are limited to DOD sites only. At this time, the EPA is aware that this list is not comprehensive of all Federal agencies.

Government Publication Date: May 30, 2025

SSEHRI PFAS Contamination Sites:

[PFAS SSEHRI](#)

This PFAS Contamination Site Tracker database is compiled by the PFAS Project Lab, part of the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents. Locations for the Known PFAS Contamination Sites are sourced from the PFAS Sites and Community Resources Map by the PFAS-REACH team, credited to PFAS Project Lab, Silent Spring Institute, and PFAS Exchange. Disclaimer: The source conveys the data undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Access the following source link for the most current information: <https://pfasproject.com/pfas-sites-and-community-resources/>

Government Publication Date: Aug 1, 2025

National Response Center PFAS Spills:

[PFAS ERNS](#)

This Per- and Poly-Fluoroalkyl Substances (PFAS) Spills dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The National Response Center (NRC), operated by the U.S. Coast Guard, is the designated federal point of contact for reporting all oil, chemical, and other discharges into the environment, for the United States and its territories. This dataset contains NRC spill information from 1990 to the present that is restricted to records associated with PFAS and PFAS-containing materials. Incidents are filtered to include only records with a "Material Involved" or "Incident Description" related to Aqueous Film Forming Foam (AFFF). The keywords used to filter the data included "AFFF," "Fire Fighting Foam," "Aqueous Film Forming Foam," "Fire Suppressant Foam," "PFAS," "PERFL," "PFOA," "PFOS," and "Genx." Limitations: The data from the NRC website contains initial incident data that has not been validated or investigated by a federal/state response agency. Keyword searches may misidentify some incident reports that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS spills/release incidents.

Government Publication Date: Sep 1, 2025

PFAS NPDES Discharge Monitoring:

[PFAS NPDES](#)

This list of National Pollutant Discharge Elimination System (NPDES) permitted facilities with required monitoring for Per- and Polyfluoroalkyl (PFAS) Substances is made available via the U.S. Environmental Protection Agency (EPA)'s PFAS Analytic Tools. Any point-source wastewater discharged to waters of the United States must have a NPDES permit, which defines a set of parameters for pollutants and monitoring to ensure that the discharge does not degrade water quality or impair human health. This list includes NPDES permitted facilities associated with permits that monitor for Per- and Polyfluoroalkyl Substances (PFAS), limited to the years 2007 - present. EPA further advises the following regarding these data: currently, fewer than half of states have required PFAS monitoring for at least one of their permittees, and fewer states have established PFAS effluent limits for permittees. For states that may have required monitoring, some reporting and data transfer issues may exist on a state-by-state basis.

Government Publication Date: Dec 16, 2024

Perfluorinated Alkyl Substances (PFAS) from Toxic Release Inventory:

[PFAS TRI](#)

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a per- or polyfluoroalkyl (PFAS) substance included in the U.S. Environmental Protection Agency's (EPA) consolidated PFAS Master List of PFAS Substances. Encompasses Toxics Release Inventory records included in the EPA PFAS Analytic Tools. The EPA's TRI database currently tracks information on disposal or releases of 770 individually listed toxic chemicals and 33 chemical categories from thousands of U.S. facilities and details about how facilities manage those chemicals through recycling, energy recovery, and treatment. This listing includes TRI Reporting Data for calendar years 1987 through 2021 and Preliminary Data for 2022.

Government Publication Date: Sep 20, 2023

PFAS Water Quality Portal Sampling Data:

[PFAS WATER](#)

This Per- and Poly-Fluoroalkyl Substances (PFAS) Environmental Media Sampling Data is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The Water Quality Portal (WQP), as a cooperative service sponsored by the United States Geological Survey, the EPA, and the National Water Quality Monitoring Council, is part of a modernized repository storing ambient sampling data for all environmental media and tissue samples. A wide range of federal, state, tribal and local governments, academic and non-governmental organizations, and individuals submit project details and sampling results to this public repository. Limitations: EPA did not carry out the sampling or testing of a majority of the data in the WQP PFAS dataset. EPA can only speak to the accuracy and completeness of the data from projects like the National Aquatic Resource Surveys for which EPA is the data owner/organization. Data may exist within the file on Quality Assurance Project Plans (QAPPs) and the approving agency of the QAPP, if a QAPP is entered.

Government Publication Date: Jul 21, 2025

PFAS TSCA Manufacture and Import Facilities:

[PFAS TSCA](#)

The U.S. Environmental Protection Agency (EPA) issued the Chemical Data Reporting (CDR) Rule under the Toxic Substances Control Act (TSCA) and requires chemical manufacturers and facilities that manufacture or import chemical substances to report data to EPA. This list is specific only to TSCA Manufacture and Import Facilities with reported per- and poly-fluoroalkyl (PFAS) substances. Data file is sourced from EPA's PFAS Analytic Tools TSCA dataset which includes CDR/Inventory Update Reporting data from 1998 up to 2020. Disclaimer: This data file includes production and importation data for chemicals identified in EPA's CompTox Chemicals Dashboard list of PFAS without explicit structures and list of PFAS structures in DSSTox. Note that some regulations have specific chemical structure requirements that define PFAS differently than the lists in EPA's CompTox Chemicals Dashboard. Reporting information on manufactured or imported chemical substance amounts should not be compared between facilities, as some companies claim Chemical Data Reporting Rule data fields for PFAS information as Confidential Business Information.

Government Publication Date: Jan 5, 2023

PFAS Waste Transfers from RCRA e-Manifest:

[PFAS E-MANIFEST](#)

This Per- and Poly-Fluoroalkyl Substances (PFAS) Waste Transfers dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. Every shipment of hazardous waste in the U.S. must be accompanied by a shipment manifest, which is a critical component of the cradle-to-grave tracking of wastes mandated by the Resource Conservation and Recovery Act (RCRA). According to the EPA, currently no Federal Waste Code exists for any PFAS compounds. To work around the lack of PFAS waste codes in the RCRA database, EPA developed the PFAS Transfers dataset by mining e-Manifest records containing at least one of these common PFAS keywords: • PFAS • PFOA • PFOS • PERFL • AFFF • GENX • GEN-X (plus the Vermont state-specific waste codes). Limitations: Amount or concentration of PFAS being transferred cannot be determined from the manifest information. Keyword searches may misidentify some manifest records that do not contain PFAS. This dataset should also not be considered to be exhaustive of all PFAS waste transfers.

Government Publication Date: Oct 4, 2025

PFAS Industry Sectors:

[PFAS IND](#)

This Per- and Poly-Fluoroalkyl Substances (PFAS) Industry Sectors dataset is made available via the U.S. Environmental Protection Agency's (EPA) PFAS Analytic Tools. The EPA developed the dataset from various sources that show which industries may be handling PFAS including: EPA's Enforcement and Compliance History Online (ECHO) records restricted to potential PFAS-handling industry sectors; ECHO records for Fire Training Sites identified where fire-fighting foam may have been used in training exercises; and 14 CFR Part 139 Airports compiled from historic and current records from the FAA Airport Data and Information Portal. Since July 2006, all certificated Part 139 Airports are required to have fire-fighting foam onsite that meet certain military specifications, which to date have been fluorinated (Aqueous Film Forming Foam). Limitations: Inclusion in this dataset does not indicate that PFAS are being manufactured, processed, used, or released by the facility. Listed facilities potentially handle PFAS based on their industrial profile, but are unconfirmed by the EPA. Keyword searches in ECHO for Fire Training sites may misidentify some facilities and should not be considered to be an exhaustive list of fire training facilities in the U.S.

Hazardous Materials Information Reporting System:

HMIRS

The Hazardous Materials Incident Reporting System (HMIRS) database contains unintentional hazardous materials release information reported to the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Government Publication Date: May 28, 2025

National Clandestine Drug Labs:

NCDL

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Nov 30, 2023

Toxic Substances Control Act:

TSCA

The U.S. Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule. The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI). EPA CDR collections occur approximately every four years and reporting requirements change per collection.

Government Publication Date: May 12, 2022

Hist TSCA:

HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing:

FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing:

FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List:

PRP

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).

Government Publication Date: Sep 29, 2025

State Coalition for Remediation of Drycleaners Listing:

SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRD no longer maintains this data, refer to applicable state source data where available.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS):

ICIS

The Integrated Compliance Information System (ICIS) database contains integrated enforcement and compliance information across most of U.S. Environmental Protection Agency's (EPA) programs. The vision for ICIS is to replace EPA's independent databases that contain enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions and a subset of the Permit Compliance System (PCS), which supports the National Pollutant Discharge Elimination System (NPDES). This information is maintained by the EPA Headquarters and at the Regional offices. A future release of ICIS will completely replace PCS and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities that support compliance and enforcement programs, including incident tracking, compliance assistance, and compliance monitoring.

Government Publication Date: May 3, 2025

Drycleaner Facilities:

FED DRYCLEANERS

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. This EPA source file tracks facilities that possess NAICS and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: Jul 19, 2025

Delisted Drycleaner Facilities:

DELISTED FED DRY

List of sites which once appeared on - and have since been removed from - the list of drycleaner facilities included in Enforcement and Compliance History Online (ECHO) data as made available by the U.S. Environmental Protection Agency (EPA), sourced from the ECHO Exporter file. This EPA source file tracks facilities that possess NAICS and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: Jul 19, 2025

Formerly Used Defense Sites:

FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset which applies to the Fiscal Year 2021 FUDS Inventory.

Government Publication Date: May 15, 2023

FUDS Munitions Response Sites:

FUDS MRS

Boundaries of Munitions Response Sites (MRS), published with the Formerly Used Defense Sites (FUDS) Annual Report to Congress (ARC) by the U.S. Army Corps of Engineers (USACE). An MRS is a discrete location within a Munitions response area (MRA) that is known to require a munitions response. An MRA means any area on a defense site that is known or suspected to contain unexploded ordnance (UXO), discarded military munitions (DMM), or munitions constituents (MC). This data is compiled from the USACE's Geospatial MRS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) MRS dataset.

Government Publication Date: May 15, 2023

Former Military Nike Missile Sites:

FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

Government Publication Date: Dec 2, 1984

PHMSA Pipeline Safety Flagged Incidents:

PIPELINE INCIDENT

This list of flagged pipeline incidents is made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types. Accidents reported on hazardous liquid gravity lines (§195.13) and reporting-regulated-only hazardous liquid gathering lines (§195.15) and incidents reported on Type R gas gathering (§192.8(c)) are not included in the flagged incident file data.

Government Publication Date: Jul 10, 2025

Material Licensing Tracking System (MLTS):

MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: May 11, 2021

Historic Material Licensing Tracking System (MLTS) sites:

[HIST MLTS](#)

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File:

[MINES](#)

The Master Index File (MIF) is provided by the United States Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

Government Publication Date: Aug 8, 2025

Surface Mining Control and Reclamation Act Sites:

[SMCRA](#)

This inventory of land and water impacted by past mining (primarily legacy coal mining operations) is maintained by the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement (OSMRE), as it provides information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This inventory contains information on the type and extent of Abandoned Mine Land (AML) Problems, as well as information on the cost associated with the reclamation of those problems. The data is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed. Disclaimer: Per the OSMRE, States and tribes who enter their data into e-AMLIS (AML Inventory System) may truncate their latitude and longitude so the precise location of usually dangerous AMLs is not revealed in an effort to protect the public from searching for these AMLs, most of which are on private property. If more precise location information is needed, please contact the applicable state/tribe of interest.

Government Publication Date: May 20, 2024

Mineral Resource Data System:

[MRDS](#)

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.

Government Publication Date: Mar 15, 2016

DOE Legacy Management Sites:

[LM SITES](#)

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Title II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: Dec 12, 2023

Alternative Fueling Stations:

[ALT FUELS](#)

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG), and Renewable Diesel (R20 and above) fuel type locations.

Government Publication Date: Aug 1, 2025

Superfunds Consent Decrees:

[CONSENT DECREES](#)

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Cases filed since 2010 limited to the following: Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS); and applicable ENRD's Environmental Defense Section (EDS) CERCLA Cases with "Consent" in History Note. CMS may not reflect the latest developments in a case, nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Jun 26, 2024

Air Facility System:

AFS

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

Registered Pesticide Establishments:

SSTS

This national list of active EPA-registered foreign and domestic pesticide and/or device-producing establishments is based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that each producing establishment must place its EPA establishment number on the label or immediate container of each pesticide, active ingredient or device produced. An EPA establishment number on a pesticide product label identifies the EPA registered location where the product was produced. The list of establishments is made available by the U.S. Environmental Protection Agency (EPA).

Government Publication Date: Sep 26, 2025

Polychlorinated Biphenyl (PCB) Transformers:

PCBT

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

Polychlorinated Biphenyl (PCB) Notifiers:

PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: May 23, 2024

Power Plants:

POWER PLANTS

This list of power plants is provided by the U.S. Energy Information Administration (EIA). The listing includes operable electric generating plants in the United States by energy source, originating from the EIA-860, Annual Electric Generator Report; EIA-860M, Monthly Update to the Annual Electric Generator Report; and EIA-923, Power Plant Operations Report. It includes all operable plants by energy source with a combined nameplate capacity of 1 megawatt or more that are operating, are on standby, or out of service for short- or long-term.

Government Publication Date: Jun 5, 2025

Historical Business Activity Risk:

HIST RISK

Proprietary list of sites identified as potentially having engaged in business activity that poses a higher-than-normal risk of contamination. Records originate from historical city directories, and are included in this list based on broad business categories Potentially Hazardous Chemical Users and Fuel and Automotive, including but not limited to Dry Cleaners and Fuel Stations, Garages, etc. Inclusion in this listing does not indicate that there is or ever has been contamination; rather, sites are included in this list due to their potential for having engaged in a business activity presenting an elevated risk of contamination. The list was compiled from various city directories including Polks, Millers, Mullin Kille, Interstate Directory, and State Directory Co; spanning roughly 1920s through 1960 depending on information available by city.

Government Publication Date: Jan 1, 1960

State

Spills and Incidents:

SPILLS

This listing of hazardous materials spill/incident reports is sourced from the Illinois Emergency Management Agency (IEMA)

Government Publication Date: Jun 20, 2025

Emergency Response Releases & Spills Database:

[SPILL OER](#)

The Illinois Environmental Protection Agency's (IEPA) Office of Emergency Response (OER) maintains this Emergency Response Releases & Spills Database. The Emergency Operations Unit (EOU), within OER, coordinates IEPA's response to environmental emergencies involving oil or hazardous materials and ensures that any environmental contamination is cleaned up. EOU works with other response agencies including the Illinois Emergency Management Agency (IEMA), which is the initial contact for responses to an emergency or disaster in Illinois.

Government Publication Date: Jul 10, 2025

PFAS Spill Sites:

[PFAS SPILLS](#)

A specific list of spill/incident reports from the Illinois Emergency Management Agency (IEMA) where the hazardous material involved in the spill/incident is identified in the PFAS Structure List and/or PFAS Chemicals Without Explicit Structure List made available by the United States Environmental Protection Agency (US EPA).

Government Publication Date: Jul 10, 2025

Dry Cleaning Facilities:

[DRYCLEANERS](#)

This list of licensed drycleaner facilities is provided by the Drycleaner Environmental Response Trust Fund of Illinois; and since July 1, 2020, is administrated by Illinois Environmental Protection Agency (IEPA).

Government Publication Date: Jul 7, 2025

Delisted Drycleaners:

[DELISTED DRYCLEANERS](#)

List of sites removed from the drycleaners database made available by the Drycleaner Environmental Response Trust Fund of Illinois.

Government Publication Date: Jul 7, 2025

IEPA Document Explorer:

[IEPA DOCS](#)

A list of permits and documents found in the Illinois Environmental Protection Agency (IEPA) Document Explorer. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are available in a digital format. This list includes records not otherwise categorized as LUST, Remediation, Air Permits, NPDES, or Compliance Commitment Agreements.

Government Publication Date: Mar 17, 2025

Clandestine Drug Labs:

[CDL](#)

List of clandestine drug lab locations made available by the Illinois Department of Public Health. The Department maintains a list of properties from reports it receives from the Illinois State Police through the Illinois Emergency Management Agency.

Government Publication Date: Jan 4, 2023

Tier 2 Report:

[TIER 2](#)

List of facilities who submit Tier II forms to the Illinois Emergency Management Agency (IEMA).

Government Publication Date: May 10, 2023

Air Permits:

[AIR PERMITS](#)

A list of sites from the Illinois Environmental Protection Agency (IEPA) Document Explorer at which one or more of the documents is in the Air Permits (construction and operating) category. The IEPA Document Explorer provides online access to numerous Illinois EPA public records which are maintained in a digital format.

Government Publication Date: Jun 20, 2025

Underground Injection Control Wells:

[UIC](#)

The Underground Injection Control (UIC) Program is a federal program established under the provision of the Safe Drinking Water Act of 1974. Since groundwater is a major source of drinking water in the United States, the UIC Program requirements were designed to prevent contamination of groundwater resulting from the operation of injection wells. The Underground Injection Well Inventory is provided by the Illinois Environmental Protection Agency. This inventory includes Class V Injections Wells which are utilized to inject non-hazardous waste into or above the Underground Source of Drinking Water.

Government Publication Date: Aug 1, 2019

Potentially Infectious Medical Waste Facilities:

[MEDICAL WASTE](#)

Title 35 of the Illinois Administrative Code defines Potentially Infectious Medical Waste (PIMW) as waste generated in connection with the diagnosis, treatment (i.e., provision of medical services), or immunization of human beings or animals; research pertaining to the provision of medical services; or the provision or testing of biologicals. The Illinois Environmental Protection Agency's Bureau of Land is responsible for administering the PIMW program. The facilities included on this listing treat, store, transfer or dispose of PIMW.

Government Publication Date: Jun 6, 2023

Compost Facilities:

COMPOST

The Illinois Environmental Protection Agency's Bureau of Land, Materials Management Unit maintains this list of composting facilities. Composting facilities provide an alternative option to managing and disposing of non-hazardous solid waste and/or landscape waste instead of the waste being landfilled. It is a natural form of recycling that turns some common kinds of household waste, like food and lawn wastes, into a dark organic material that can be used in a variety of beneficial ways.

Government Publication Date: Jun 27, 2025

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental record sources available for this State.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 10101 Hillwood Parkway
 Fort Worth, TX 76177

Aeronautical Study No.
 2025-AGL-15395-OE

Issued Date: 12/23/2025

MCHENRY SOLAR FARM LLC
 SURYA POWERED DEVELOPMENT TEAM
 141 w jackson BLVD STE 1692
 Chicago, IL 60605

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Solar Panel McHenry Solar Farm LLC
 County, State: McHenry, Illinois

Collected Point(s):

Label	Latitude	Longitude	SE	DET AGL	AMSL
NE Point	42-18-35.82N	88-18-50.34W	823 Ft	20 Ft	843 Ft
NW Point	42-18-40.27N	88-18-45.15W	815 Ft	20 Ft	835 Ft
SW Point	42-18-43.06N	88-19-16.18W	783 Ft	20 Ft	803 Ft
SE Point	42-18-36.11N	88-19-15.24W	798 Ft	20 Ft	818 Ft

In accordance with the provisions of 49 USC 44718 and as applicable 10 USC 183A, this aeronautical study was sent to the Military Aviation and Installation Assurance Clearinghouse established by the Secretary of Defense for review. The results of that review resulted in a finding of no risk to national security.

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 M Change 1.

This determination expires on 06/23/2027 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within

6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at 1-816-329-2525, or natalie.schmalbeck@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2025-AGL-15395-OE.

Signature Control No: 685694341-687998435

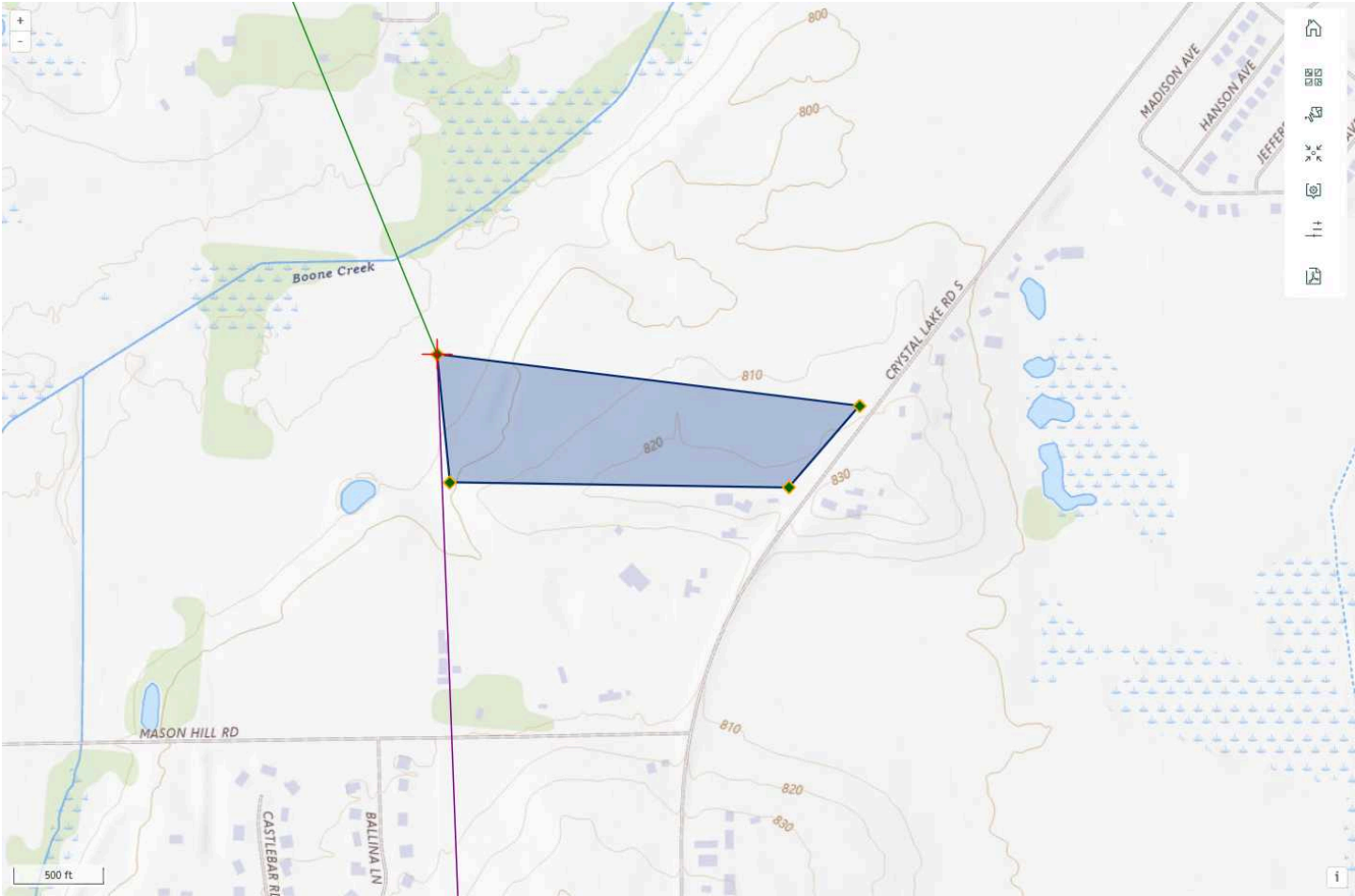
(DNE)

Natalie Schmalbeck
Technician

Attachment(s)
Frequency Data
Map(s)

Frequency Data for ASN 2025-AGL-15395-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
6	7	GHz	42	dBW




McHenry Solar Farm LLC | ACOE NPR Letter Request

From Tej Patel <tejpatel@suryapowered.com>

Date Mon 12/1/2025 6:41 PM

To Chicago Requests <chicagorequests@usace.army.mil>

 1 attachment (15 MB)

ACOE NPR Review Submittal Packet.pdf;

Hello USACOE,

I hope all is well. My name is Tej and I'm a Managing Partner at Surya Powered. Surya Powered has a solar facility development in McHenry, IL. We would like your department to review the attached documents in order to issue a *No Permit Required Letter*.

Please let me know if you have any further questions or concerns regarding our request.

Best,
Tej

--

Tej Patel | Managing Partner

(224) 222-0566

Surya Powered LLC

<https://www.suryapowered.com>

SuryaPowered

Project: McHenry Solar Farm
Client: McHenry Solar Farm LLC
Consultant: Baxter & Woodman Natural Resources LLC
RE: USFWS Section 7: Threatened & Endangered Species
BWNR #: 2500276.02

McHenry Solar Farm LLC plans to build a solar farm along the west side of S. Crystal Lake Road just north of Mason Mill Road in McHenry, Illinois 60050. The proposed project is located in Section 8 and 9, Township 44N, Range 8E. The proposed project site is approximately 37.0 acres. The project will involve installation of solar panels, fixed knot farm fencing, and a 20' wide access road with double gate.

On behalf of McHenry Solar Farm LLC, Baxter & Woodman Natural Resources LLC (BWNR) completed a review of the United States Fish & Wildlife Service's (USFWS) Section 7 Consultation guidance on January 15, 2026 via IPaC (Information for Planning & Consultation). According to USFWS Section 7 Consultation, endangered Northern Long-eared Bat (*Myotis septentrionalis*), endangered Whooping Crane (*Grus americana*), proposed threatened Monarch Butterfly (*Danaus plexippus*), endangered Rusty Patched Bumble Bee (*Bombus affinis*), proposed threatened Western Regal Fritillary (*Argynnis idalia occidentalis*), and Eastern Prairie Fringed Orchid (*Platanthera leucophaea*), are "Federally Threatened, Endangered, and Candidate Species" listed within the proposed project site (see map below) in McHenry County, Illinois. The following documentation for each species and how the proposed solar farm project will have "no effect" on listed species is included below.



2022 Aerial image of Proposed Solar Farm project area (Source: ArcGIS Web)

Northern Long-Eared Bat (*Myotis septentrionalis*).

Northern Long-Eared Bat spends winter months hibernating in caves and lives in wooded areas with mature live and dead trees offering crevices and cavities into the breeding season.

Although Northern Long-Eared Bats have been documented in McHenry County, Illinois, the proposed project site does not offer preferred habitat structure for potential roost trees or caves/mines for hibernation. All trees onsite of second grown, scrub shrub trees bordering the property line. In addition, all tree removal will occur outside the breeding window. Therefore, Northern Long-Eared Bat will not be exposed directly or indirectly to the proposed project resulting in “no effect” and no further consultation required.

Whooping Crane (*Grus americana*)

Whooping Cranes currently exist in the wild at only 3 locations and in captivity at 12 sites with an estimated population of 383 in 2010. There is only one self-sustaining wild population, the Aransas-Wood Buffalo National Park population. In addition, there is a small captive-raised, non-migratory population in central Florida, and a small migratory population of individuals introduced beginning in 2001 that migrate between Wisconsin and Florida in an eastern migratory population.

The project site could potentially be in the path of the Whooping Crane migrating population between Wisconsin and Florida. The proposed project is planned on land that is currently in row crop production with second growth invasive woody species along the property board. Row crop and second growth forests do not provide ideal migratory landing habitat. The proposed solar farm would change the existing land use but would not improve or decrease potential landing preference. Therefore, Whooping Cranes will not be exposed directly or indirectly to the proposed project resulting in “no effect” and no further consultation required.

Monarch Butterfly (*Danaus plexippus*)

Monarch Butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant and larvae emerge after two to five days and develop through five larval instars over a period of 9 to 18 days, feeding on milkweed. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly.

Monarchs in temperate climates undergo long-distance migration. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again.

The project site is within the Monarch’s breeding and migratory zones. The proposed project is planned on land that is currently in row crop production and second growth forest that does not contain milkweed plants and does not provide ideal habitat. The proposed solar farm would change the existing land use and improve potential habitat preference due to milkweed being included in the pollinator seed mix. Therefore, the Monarch Butterfly will not be exposed directly or indirectly to the proposed project resulting in “no effect” and no further consultation required.

Western Regal Fritillary (*Argynnis idalia occidentalis*)

The Western Regal Fritillary is found in 14 states in native grasslands of central and northern Great Plains and portions of the Midwest. This species needs violets to support larval growth, nectar to support breeding females in the fall, and tall grass to provide shelter.

This project area is currently in row crop production. This proposed project site does not offer nectar sources, violets, or tall native grasses. Therefore, Western Regal Fritillary will not be exposed directly or indirectly to the proposed project resulting in “no effect” and no further consultation is required.

Eastern Prairie Fringed Orchid (*Platanthera leucophaea*)

Eastern Prairie Fringed Orchid is found in high quality (Floristic Quality Index > 20 and/or Native Mean C > 3.5) mesic to wet prairies, sedge meadows, marsh edges, and bogs. A thorough examination of the proposed project area by BWNR on June 6, 2024, during a wetland delineation revealed that there were two wetlands in the project area, and a stream channel with steep eroded banks and dominated by invasive trees and shrubs.

Although Eastern Prairie Fringed Orchids are found in McHenry County, Illinois, the proposed project site does not offer preferred high-quality habitat. Therefore, Eastern Prairie Fringed Orchid will not be exposed directly or indirectly to the proposed project resulting in “no effect” and no further consultation required.