Exhibit J
Ecological Resource Analysis Report

DICKINSON WRIGHT PLLC

Ecological Resource Analysis Report

Proposed Fox Squirrel Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

October 5, 2021, 2021

Terracon Project No. N1217180

Prepared for:

Geenex Solar
Charlotte, North Carolina

Prepared by:

Terracon Consultants, Inc.
Cincinnati, Ohio

October 5, 2021

Geenex Solar
1930 Abbott Street
Charlotte, North Carolina 28203

Attn: Mr. Juergen Fehr
P: 614-205-3798
E: juergen.fehr@geenexsolar.com

Re: Ecological Resources Analysis Report
Proposed Fox Squirrel Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio
Terracon Project No. N1217180

Dear Mr. Fehr:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Ecological Resource Analysis Report for the above-referenced site. Terracon's services were performed in a manner consistent with generally accepted practices of profession undertaken in similar studies in the same geographical area during the same time period. We appreciate the opportunity to provide services to Geenex Solar. If you have any questions concerning this report, or if we can assist you in any other matter, please call our office at (513) 612-9094.

Sincerely,

TERRACON CONSULANTS, INC.

Michael Perkins
Senior Staff Scientist

Scott West
Group Manager

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EXECUTIVE SUMMARY

Project Information

Fox Squirrel Solar, LLC (Applicant or Fox Squirrel) is proposing to add land to the Initial Project Area that the Ohio Power Siting Board approved for the Fox Squirrel Solar Farm in Case No. 20-931-EL-BGN (Project). The additional land (Boundary Change Area (BCA)) for the Project is located in rural, unincorporated Madison County, Ohio, partially in Range Township and Oak Run Township, and approximately 4.25 miles southeast of London, Ohio and 7.25 miles northwest of Mt. Sterling, Ohio. The BCA comprises 1,494.45 acres of private land located on the northeast side of Yankeetown-Chenoweth Road. The proposed types of infrastructure that will be located within the BCA is identical to the types of infrastructure previously approved for the Initial Project Area and includes the development of photovoltaic (PV) panels and supporting racking infrastructure, as well as some access roads and fencing.

Terracon Consultants, Inc. (Terracon), on behalf of Fox Squirrel Solar, LLC, has completed an Ecological Resource Analysis (ERA) of the proposed Project. The ERA was conducted per the *Ohio Power Siting Board (OPSB) in order to fulfill the requirements of Ohio Administrative Code (OAC)* § 4906-4-08(B). The purpose of ERA was to evaluate potential impacts from the proposed solar project on ecological resources through environmental studies and state and federal natural resources agency coordination. This evaluation includes a desktop review of available data for the area, a plant and animal literature review, a plant and animal field survey, a Waters of the United States (WOTUS) field survey, a review of potential impacts to the aforementioned resources, and short-term and long-term mitigation measures. Findings presented in this report are specific to the BCA portion of the Project.

Ecological Resource Project Site Map Review

Terracon performed a literature review of threatened and endangered (T&E) species, migratory birds, critical habitat, and species that are of commercial or recreational value at the BCA. A review of federal and state-listed species that could potentially occur in the area of the BCA identified six federally endangered, one federally threatened, and one federal candidate species, as well as ten state endangered and four state threatened species, and one state species of concern. Five migratory bird species of concern were also identified as potentially occurring on or around the BCA. Critical habitat is not present on or around the BCA. Species of commercial or recreational value were not identified as occurring on or around the BCA.

Field Survey Results – Plant and Animal

The BCA was observed to be predominantly open, agricultural land with limited, wooded areas in the south BCA area. Potential habitat for 9 of the 11 listed species identified as potentially occurring by Terracon from desktop and agency resources was observed within the BCA. Suitable habitat for the federally-listed Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*) was observed within wooded areas on the BCA. Suitable aquatic

habitat was identified on the BCA for the following mollusk species: Clubshell (*Pleurobema clava*), Northern Riffleshell (*Epioblasma torulosa rangiana*), Elephant Ear (*Elliptio crassidens*), Rabbitsfoot (*Quadrula (Theliderma) cylindrica cylindrica*), and the Wavy-rayed lampmussel; and the fish species Scioto Madtom (*Noturus trautmani*) and Tippecanoe Darter (*Etheostoma tippecanoe*).

Field Survey Results – Vegetation and Surface Water

Terracon conducted wetland delineations to identify potential Waters of the United States (WOTUS) and wetlands at the BCA and within a 100-foot buffer around the BCA. Based on the wetland delineation, two wetlands totaling 0.97 acres and three streams totaling 16,770 linear feet were observed on the BCA and within the 100-foot buffer. All delineated wetlands and stream channels are jurisdictional to United States Army Corps of Engineers (USACE), based on a Preliminary Jurisdictional Determination, dated March 23, 2021, and in accordance with Section 404 of the Clean Water Act (CWA). The BCA is located within the jurisdiction of the USACE Huntington District. The Ohio Environmental Protection Agency (OEPA), in accordance with Section 401 of the CWA and the Ohio Revised Code 6111.02 to 6111.028 for issuance of a Water Quality Certificate (WQC), takes jurisdiction of isolated wetlands that may exist or are impacted within the BCA boundaries.

Ecological Impacts

The conversion of agricultural land to a solar farm should have no significant adverse impact on wildlife within the BCA. Due to the presence of suitable habitat for the Indiana bat and Northern long-eared bat, any tree clearing, should it become necessary, should be performed seasonally (from October 1 to March 31) or a presence/absence survey may be required. In addition, incidental take of Northern long-eared bats is exempt in this location under the 4(d) rule.

Two fish species, the Western Creek Chubsucker (*Erimyzon claviformis*) and the Least Darter (*Etheostoma microperca*), identified in the Ohio Department of Natural Resources (ODNR) Natural Heritage Database (NHD) as occurring in Bradford Creek near the BCA, are not anticipated to be impacted due to proposed avoidance of impacts to the on-site waters. In-stream work is not proposed as part of the Project; therefore, impacts are not anticipated for the other fish and mussel species identified in the review.

Based on Terracon's review of the BCA and planned development activities, which include avoidance of impacts to habitat types and/or the significant amount of similar habitat in the surrounding areas, no adverse effects to threatened or endangered species are anticipated. Terracon has coordinated with ODNR and United States Fish and Wildlife Service (USFWS). Coordination correspondence records are appended to this report.

Regarding surface waters, a Preliminary Jurisdictional Determination has been issued by the USACE, dated May 23, 2021, concurring with Terracon's Wetland Delineation findings. Site

design plans indicate that solar arrays and associated equipment will not impact regulated features on the BCA. Three free span bridges for access roads are proposed to be constructed over S-1 (Bradford Branch), S-2, and S-3 (Bradford Creek), which will avoid impacts to those waters. If plans change and in-stream work becomes necessary for bridge placement, any associated impacts to the streams will potentially require permitting by the USACE and mitigation.

1. PROJECT DESCRIPTION

1.1. Project Site

The Boundary Change Area (BCA) is located in rural, unincorporated Madison County, Ohio, partially in Range Township and Oak Run Township and approximately 4.25 miles southeast of London, Ohio, 7.25 miles northeast of Mt. Sterling, Ohio, and approximately 15 miles southwest of Columbus, Ohio. The BCA is 1,494.45 acres and is comprised of a north BCA area and a south BCA area, both located on the northeast side of Yankeetown-Chenoweth Road. Approximately 150-acres within the BCA boundaries are set aside as areas that will not be disturbed as part of the Project. The majority of the BCA consists of agricultural land with minimal wooded area in the southeastern portion of the BCA and can be seen in Figure 1. Residential structures, associated outbuildings, and associated, apparent agricultural facilities are depicted in the southwestern portion of the BCA, along Yankeetown-Chenoweth Road and another in the north-central portion of the BCA along Madden Higgins Road. Overhead power lines appear to cross the BCA and are assumed to provide a point of interconnection for the Project.

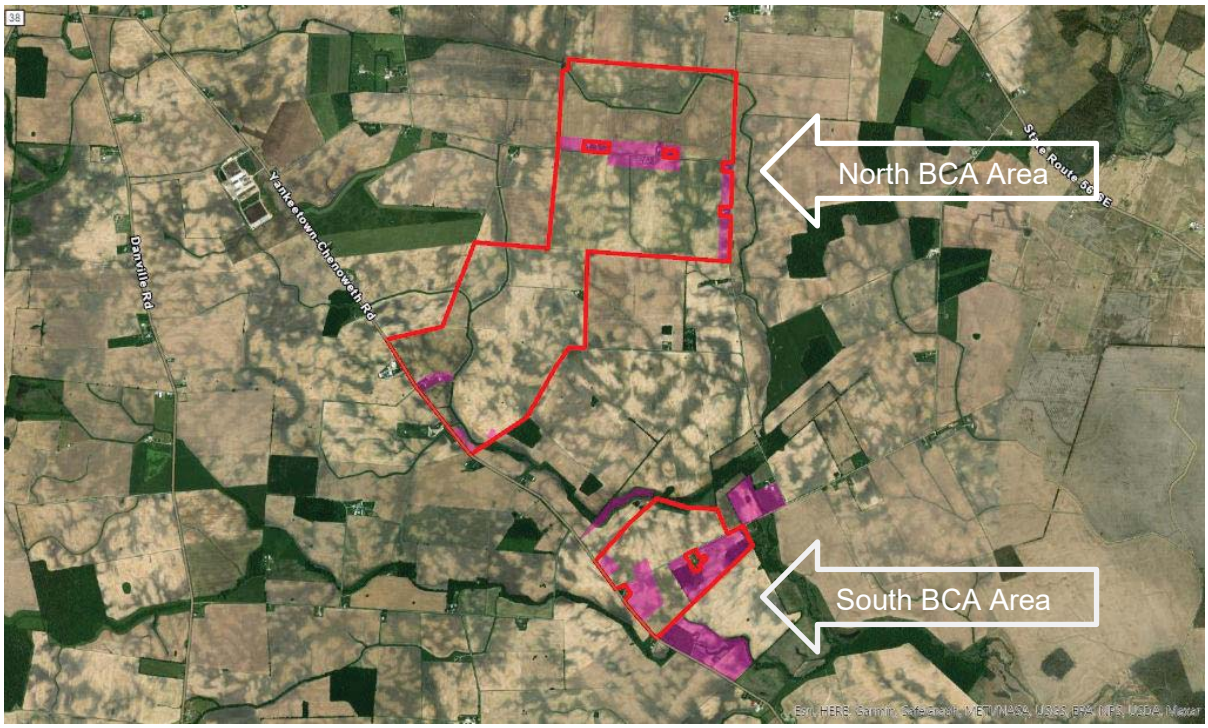

Figure 1. Aerial overview of the Boundary Change Area (red outline) and areas that will not be disturbed as part of the Project (magenta overlay).

1.2. Project

The proposed Project consists of the development of a photovoltaic (PV) solar energy facility, which includes the installation of PV panels and supporting steel frames. Foundations for the solar array may consist of wide flange steel piles (W6x9 or similar) or other propriety sections. In addition, Terracon understands that invertors, transformers, and other appurtenant equipment may be supported on shallow spread or mat foundations or through a direct drilled pier foundation. We anticipate that the solar field will follow existing topographic grade with minimal grading required. Terracon understands plans also include the development of access roads, a security fence, and a small substation.

2. REGULATORY REVIEW

As stated in the Executive Summary, this Ecological Resource Analysis (ERA) was conducted per the *Ohio Power Siting Board (OPSB) in order to fulfill the requirements of Ohio Administrative Code (OAC)* § 4906-4-08(B). The purpose of this ERA was to evaluate Project impacts on ecological resources through environmental studies and state and federal natural resources agency coordination. Per OPSB regulations, the evaluation includes a literature survey of the plant and animal life within a 0.25 mile radius of the BCA boundary, field survey of suitable habitat and occurrence for plant and animal species identified in the literature review (1-A), a field survey of the vegetation and surface waters within 100-feet of the potential construction (1-B), and a summary of any additional studies which have been made by or for the applicant addressing the ecological impact of the proposed facility (1-E). Utilizing the results of the field survey, this evaluation details ecological resources that may be impacted during construction including, but not limited to linear feet and acreage impacted, proposed crossing methodology of each stream or wetland, the extent of vegetation clearing, potential reduction of woody vegetation clearing, potential impacts to wildlife and their habitat (2-A). Short-term and long-term mitigation measures are included and describe post-construction site restoration / stabilization of disturbed soils, best management practices (BMPs) including sedimentation and erosion control for construction around streams and wetlands, and vegetative protection (2-B-i-vii).

3. LITERATURE REVIEW

3.1. Ecological Resource Project Site Map Review

3.1.1. Topographic Map

The United States Geologic Survey (USGS) 7.5-Minute Topographic Map of the BCA was reviewed to identify drainages or other potential water features within the BCA. The USGS map indicates the presence of two perennial streams on site; Bradford Branch and Bradford

Creek. Additionally, two intermittent streams are depicted across the site; one in the northwestern portion draining into Bradford Branch, and one in the eastern portion draining into Bradford Creek. The site appears to be relatively flat with an approximate elevation of 1000 feet above sea level (asl). The USGS topographic map is included in Appendix A.

3.1.2. Aerial Imagery

A recent aerial photograph (2020) of the BCA was reviewed to determine land use and evaluate vegetative cover. The BCA is predominantly shown to consist of agricultural land with forested land in the southern portion. Several apparent streams are shown throughout the site. The aerial is included as Exhibit 4 in Appendix A.

3.1.3. Wetlands and Waters of the United States

National Wetlands Inventory (NWI) data for the BCA was reviewed to identify potential wetland areas. NWI data for the BCA is published by US Fish and Wildlife Service (USFWS) and depicts possible wetland areas based on stereoscopic analysis of high-altitude aerial photographs. Features indicated within the BCA boundaries from the review of the NWI data are summarized in the table below. The NWI map is included in Appendix A.

Table 1. NWI Features on the BCA.

Number and Type of Feature	Cowardin Classification	General Location
One perennial stream	R5UBH	Northern portion of the BCA; draining west to east.
One intermittent stream	R4SBC	Eastern portion of north BCA area; draining to the east then southeast
Three intermittent streams	R4SBC	Western portion of north BCA area; draining from north, west, and southwest of BCA, joining on-site, exiting the BCA to the south, and becoming the perennial stream described below.
One perennial stream	R2UBH	Northern portion of south BCA area; draining to the east then southeast
One emergent wetland, temporarily flooded	PEM1A	Western boundary of north BCA area.

3.1.4. Soils

Data from the soil survey of Madison County, Ohio was reviewed to identify soil types, including hydric soils. Data for the soil survey was compiled by the U.S. Department of

Agriculture Natural Resource Conservation Service (NRCS) in 1981. Hydric soils information was gathered from the 'National Hydric Soils List' (USDA Natural Resource Conservation Service, https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/). A soil survey map is included as Exhibit 3 in Appendix A.

The following soil types were identified within the BCA boundaries on the soil survey map:

- Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slope (CrA): This soil is defined as somewhat poorly drained, gently sloping, and is typically located on the edge of broad, nearly level areas and along small waterways. The soil color ranges from brown to yellowish-brown. This map unit is not classified as hydric.
- Crosby-Lewisburg silt loams, 0 to 2 percent slope (CsA): This soil is defined as somewhat poorly to poorly drained and nearly level. The soil color is typically grayish brown. This map unit is classified as hydric.
- Crosby-Lewisburg silt loams, 2 to 6 percent slope (CsB): This soil is defined as moderately well drained, gently sloping to sloping, and is typically found along ridgetops and shoulders of the loess-capped till plains. The soil color ranges from dark grayish brown to yellowish-brown. This map unit is classified as hydric.
- Eldean silt loam, 2 to 6 percent slope (ElB): This soil is defined as moderately well drained, gently sloping to sloping, and is typically found along ridgetops and shoulders of the loess-capped till plains. The soil color ranges from dark grayish brown to yellowish-brown. This map unit is not classified as hydric.
- Kokomo silty clay loam, 0 to 2 percent slopes (Ko): This soil is defined as very poorly drained, nearly level, and is typically found in flood plains. The soil color ranges from very dark gray to dark grayish brown. This map unit is classified as hydric.
- Miamian silt loam, 6 to 12 percent slope, eroded (MlC2): This soil is defined as well drained, gently sloping, and typically found on the backslope of till plains. The soil color ranges from dark brown to yellowish brown. This map unit is not classified as hydric.
- Odell-Lewisburg complex, 0 to 2 percent slope (OdA): This soil is defined as somewhat poorly drained or moderately well drained in upland areas. This unit is nearly level, and typically found on the summit of till plains or moraines. The soil color ranges from very dark brownish gray to black friable silty clay loam. This map unit is not classified as hydric.
- Westland silty clay loam, Southern Ohio Till Plain, 0 to 2 percent slopes (Wt): This soil is defined as very poorly drained, slowly or moderately slowly permeable soils on low stream terraces and outwash plains. The soil color ranges from very dark gray to dark grayish brown. This map unit is not classified as hydric.

Highly erodible soils are not present on the BCA.

3.1.5. Land Use

The proposed BCA consists of multiple land use types based on field observations and desktop data review and included as Exhibit 6 in Appendix A. The following land use categories and their approximate acreages were identified within the BCA boundaries:

- Row Crop Agriculture Land – 1,428 acres +/-
- Herbaceous Vegetation – Agricultural and Stream Boundary – 35 acre +/-
- Deciduous Forest Land – 18 acres +/-
- Developed (Farmsteads and Roads) – 17 acres +/-
- Woodland (Sparse Tree Cover) – 6 acres +/-

Row crop agricultural land use comprises approximately 96% of the land use, with another 2% made up of herbaceous vegetation typically found around the edges of agricultural fields and in riparian corridors on the BCA. Deciduous forest and farmsteads and roads each make up approximately 1% of the landcover. Finally, sparsely wooded land found in the southeastern portion of the south BCA area made up less than 1% of land use.

The conversion of these agricultural fields is likely to have negligible environmental impact, as agricultural fields provide minimal habitat for plant and animal species and are seasonally disturbed via farming activities. Project development will provide similar minimal habitat as cropland. Adequate vegetative ground cover will be maintained as part of post-construction and operation activities. Where possible, the client will utilize native plant species for post-construction ground cover.

3.2. Literature Review – Plant and Animal

3.2.1. Wildlife Resource Conservation Areas

A review of the ODNR Division of Wildlife Area maps (Ohiodnr.gov) was conducted to determine the potential for wildlife areas, nature preserves, and other conservation areas being located within the BCA boundaries or within a 0.25-mile buffer surrounding the BCA. The nearest wildlife conservation area is the Madison Wildlife Production Area 49-2, located approximately 4.3 miles northeast of the BCA. There are no wildlife areas or nature preserves within the BCA boundaries or within the 0.25-mile buffer, as shown in Exhibit 8 of Appendix A.

3.2.2. Migratory Birds and Bald Eagles

Migratory birds are protected by the Migratory Bird Treaty Act (MBTA) of 1918 and bald eagles are protected by the Bald and Golden Eagle Protection Act (BGEPA). These Acts prohibit the “take”, possession, import, export, transport, sale, purchase, barter, or offer for sale, purchase,

or barter of any migratory bird, or the parts, nest, or eggs of such bird. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, molest, or disturb". "Disturb" means, "to agitate or bother such bird to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior". Bald eagles, like most native birds, are also protected by the MBTA.

Construction activities on the BCA have the potential to displace these species from the habitat that is regularly utilized for foraging, breeding, and nesting. Terracon reviewed multiple bird species conservation platforms to determine the likelihood of utilization of the BCA by these species. Terracon utilized the USFWS Information, Planning, and Conservation System (IPaC), which provides an online list of threatened and endangered species as well as migratory birds, including eagles. Six migratory bird species were identified on the IPaC list as being of special concern based on the BCA location.

Table 2. Migratory bird species listed in the USFWS IPaC system for the BCA.

Species Name	Species Habitat	Status	Potential Habitat/Presence on the BCA
Bald Eagle (*Haliaeetus leucocephalus*)	Large, super-canopy roost trees that are open and accessible. Forested areas adjacent to large bodies of water.	Protected by BGEPA	Wooded areas in the south BCA area are potential habitat.
Bobolink (*Dolichonyx oryzivorus*)	Large fields with grasses and broadleaved plants; hayfields and meadows; freshwater marshes	Bird of Conservation Concern	Potential habitat not present on the BCA.
Prothonotary Warbler (*Protonotaria citrea*)	Large, flooded bottomland forests, wooded swamps, and forests near lakes and streams	Bird of Conservation Concern	Wooded areas in the south BCA area are potential habitat.
Red-headed Woodpecker (*Melanerpes erythrocephalus*)	Deciduous woodlands with oak and beech trees and snags, in areas with disturbance or edge characteristics	Bird of Conservation Concern	Wooded areas in the south BCA area are potential habitat.
Rusty Blackbird (*Euphagus carolinus*)	Wet forests, bogs, swamps, and pond edges	Bird of Conservation Concern	Wooded areas in the south BCA area are potential habitat.
Wood Thrush (*Hylocichla mustelina*)	Mature deciduous forests	Bird of Conservation Concern	Wooded areas in the south BCA area are potential habitat.

Terracon also reviewed eBird (Cornell Lab of Ornithology, 2002), which provides an online checklist program that compiles bird abundance and distribution data made by recreational and professional bird waters. The nearest eBird 'personal location' of a migratory bird listed above was a Prothonotary Warbler, observed approximately 3 miles north of the BCA

boundary at Madison Lake State Park in late April 2021. There are no records for known bald eagle nests within the BCA boundaries or 0.25-mile buffer.

The proposed Project solar array will employ PV solar panels. PV solar panels, in comparison with coal, oil, natural gas, and wind energy, provide electricity without emitting any carbon pollution. The BCA predominantly consists of cultivated cropland, which is seasonally disturbed for agriculture, with apparently maintained boundary areas of herbaceous, non-crop vegetation. Approximately 1,316 acres +/- of croplands will be converted to energy generation use as a result of the Project. Changes to agricultural land will include revegetation, where necessary, with native grasses. Forested areas are located in portions of the BCA that will not be disturbed as a result of the Project. The forested and wooded areas on the BCA provide habitat for a variety of avian species. Impacts to trees on the BCA are not anticipated; however, should tree impacts become necessary, Terracon recommends that any tree clearing be performed seasonally (October 1st – March 31st), to avoid potential take of migratory birds.

Based on the proposed avoidance of impacts to forested and wooded areas, it is Terracon's opinion that the Project will have a minimal effect on migratory birds and bald eagles within the BCA boundaries and 0.25-mile buffer.

3.2.3. Threatened and Endangered Species

Terracon has performed a desktop T&E species review to determine the potential for federally protected species being located within the BCA boundaries and within a 0.25-mile buffer surrounding the BCA boundaries. Terracon searched available online data to evaluate the known past presence and potential presence of T&E species and critical habitat in the BCA area. The USFWS IPaC list was reviewed to identify federally listed species that may occur in the area of the site. Terracon submitted early coordination letters to the USFWS and ODNR for occurrences of listed species within the BCA boundaries and 0.25-mile buffer. The species listed in Table 3 were identified through these reviews.

Table 3. Federal/State-listed threatened and endangered species and desktop evaluation of habitat presence on the BCA.

Taxon	Species Name	Species Habitat	Status	Potential Habitat/Presence on the BCA
Mammal	Indiana Bat (*Myotis sodalis*)	During winter, this species hibernates in caves or, occasionally, in abandoned mines. During summer, this species is found in wooded areas.	Federally Endangered, State Endangered	Potential suitable habitat is present on the BCA within forested areas.

Mammal	Northern long-eared bat (*Myotis septentrionalis*)	During winter, this species hibernates in caves or, occasionally, in abandoned mines. During summer, this species is found in wooded areas.	Federally Threatened, State Threatened	Potential suitable habitat is present on the BCA within forested areas.
Fish	Scioto madtom (*Noturus trautmani*)	This species can be found in high quality water in stream riffles of moderate currents on gravel bottoms	Federally Endangered, State Threatened	Potential suitable habitat is present on the BCA within stream channels.
Fish	Spotted darter (*Etheostoma maculatum*)	This species is found in medium sized rivers and streams near riffles in the upstream edge of boulders or flat slabs of rock.	State Endangered	No suitable habitat is present on the BCA.
Fish	Tippecanoe darter (*Etheostoma tippecanoe*)	This species is found in medium to large streams, in riffles of moderate current with small cobble and/or gravel substrate.	State Threatened	Potential suitable habitat is present on the BCA within larger streams.
Avian	Upland sandpiper (*Bartramia longicauda*)	This species breeds in grasslands and in mosaics of unkempt agricultural land, old fields, and crop lands.	State Endangered	No suitable habitat is present on the BCA.
Avian	Northern harrier (*Circus hudsonius*)	This species prefers grasslands and, sometimes, large marshy areas for breeding.	State Endangered	No suitable habitat is present on the BCA.
Avian	King rail (*Rallus elegans*)	This species prefers large wetlands with cattails and sedges, marshy fields, and other wet areas.	State Endangered	No suitable habitat is present on the BCA.
Mollusk	Clubshell (*Pleurobema clava*)	This species is found in small to medium rivers and streams with clean, loose sand and/or gravel substrate.	Federally Endangered, State Endangered	Potential suitable habitat is present on the BCA within stream channels.

Mollusk	Northern riffleshell (*Epioblasma torulosa rangiana*)	This species is found in a wide variety of stream sizes with sand and/or gravel substrate.	Federally Endangered, State Endangered	Potential suitable habitat is present on the BCA within stream channels.
Mollusk	Rabbitsfoot (*Quadrula (Theliderma) cylindrica cylindrica*)	This species is found in a wide variety of stream sizes with shallow areas of reduced stream velocity along banks and other stream features and typically consisting of sand and/or gravel.	Federally Candidate Species, State Threatened	Potential suitable habitat is present on the BCA within stream channels.
Mollusk	Rayed bean (*Villosa fabalis*)	This species is generally found in larger and headwater streams with moderate to swift currents.	Federally Endangered, State Endangered	Potential suitable habitat is present on the BCA within stream channels.
Mollusk	Snuffbox mussel (E*pioblasma triquetra*)	This species is generally found in larger and headwater streams with moderate to swift currents.	Federally Endangered, State Endangered	Potential suitable habitat is present on the BCA within stream channels.
Mollusk	Elephant-ear (*Elliptio crassidens*)	This species is found in medium to large rivers and streams with mud, sand, and/or fine gravel substrate.	State Endangered	Potential suitable habitat is present on the BCA within larger stream channels.
Mollusk	Wavy-rayed lampmussel (Lampsilis fasciola)	This species is found in small to medium shallow streams, near riffles, and in areas of good current.	State Species of Concern	Potential suitable habitat is present on the BCA within stream channels.

Based on the desktop evaluation of potential habitat, there is potential suitable habitat for 11 of the 15 species listed above on the BCA. A field habitat assessment was performed for species that are likely to be present on site. This field habitat assessment and its findings are further detailed in Section 4.2.

A Natural Heritage Database (NHD) review was performed by ODNR to evaluate the presence of listed species and natural features of interest within one mile of the BCA. The NHD review identified records of two state species of concern within Bradford Creek at the northeastern edge of the BCA - Western Creek Chubsucker (*Erimyzon claviformis*) and the Least Darter

(*Etheostoma microperca*). The NHD review also identified records of the Western Creek Chubsucker in Bradford Creek, approximately 800 feet east of the south BCA area and for the Western Creek Chubsucker and the Least Darter in South Fork Bradford Creek, approximately 500 feet south of the south BCA area. The NHD did not identify any other ecological resources, nature preserves, wildlife areas, or natural resources of interest within one mile of the BCA.

The USFWS IPaC report did not identify critical habitat on the BCA. The agency coordination documents are provided in Appendix B.

3.2.4. Commercial and Recreational Plant and Animal Species

Due to the nature of the current BCA use for row crop agriculture, commercial and recreational plant and animal species are not anticipated to be present on the BCA.

4. FIELD SURVEY RESULTS

Field surveys were performed at the site as applicable, based on the results of the desktop studies detailed above.

4.1. Field Results – Vegetative Communities

Various plant communities and types of land cover were observed at the site including forested wetlands, emergent wetlands, and various upland communities. The BCA landcover is dominated by agricultural row cropland with remnants of corn (*Zea mays*). There are wooded areas dominated by Osage orange (*Maclura pomifera*), white ash (*Fraxinus americana*), black locust (*Robinia pseudoacacia*), honeylocust (*Gleditsia tricanthos*), black walnut (*Juglans nigra*), eastern redcedar (*Juniperus virginiana*), honeysuckle (*Lonicera maackii*), white oak (*Quercus alba*), shagbark hickory (*Carya ovata*), and blackberry (*Rubus allegheniensis*), present in the southeastern portion of the BCA. Additionally, emergent wetland areas identified on the BCA were dominated by reed canary grass (*Phalaris arundinacea*). Finally, herbaceous cover uplands were dominated by yellow foxtail (*Setaria pumila)* and Canada wildrye (*Elymus canadensis*).

4.2. Field Results – Plant and Animal Threatened and Endangered Species

As stated above in Section 4.2.3, an ecological resource BCA map review of threatened and endangered species and early coordination with ODNR and USFWS identified three federally-listed and five state-listed threatened or endangered species within the BCA boundaries and within the 0.25-mile buffer surrounding the BCA boundaries. Due to lack of habitat within the

BCA boundaries or 0.25-mile buffer, select species were determined to not likely be present on or within the vicinity of the site.

Terracon performed a species habitat survey, within the BCA boundaries, in an effort to identify potential suitable habitat for the species listed in Table 3 that were deemed likely to be present on site. The results of the field assessment for potential, on-site habitat is summarized for each species in Table 4. Critical habitat for these species was not identified within the BCA boundaries.

Table 4. Federal and State-listed threatened and endangered species the evaluation of habitat presence and potential impacts related to the Project and BCA.

Taxon	Species Name	Species Habitat	Results of Threatened and Endangered Species Field Survey	Effect Finding / Implication for Project
Mammal	Indiana Bat (*Myotis sodalis*) and Northern Long-eared Bat (*Myotis septentrionalis*)	Potential summer roosting habitat for these species generally consists of sites that contain mature and/or standing dead trees (snags) with exfoliating bark, and/or stream/river corridors which serve as flight paths. Additionally, sites that caves and mines could be used by these species for winter hibernacula.	Mature trees and snags were observed in forested areas on the BCA with relatively open understories and nearby stream corridors.	Tree clearing during summer roosting could impact these species. Any tree clearing should be performed seasonally (October 1st – March 31st), or presence/absence surveys would be necessary. Incidental take, which is the incidental to, and not the purpose of, the carrying out of an otherwise lawful activity, of Northern long-eared bats is exempt in this location under the 4(d) rule. Based on the planned avoidance of impacts to wooded areas on the BCA, impacts to this species are not anticipated.
Fish	Scioto madtom (*Noturus trautmani*)	This species can be found in high quality water in stream riffles of moderate currents on gravel bottoms.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.
Fish	Tippecanoe darter (*Etheostoma tippecanoe*)	This species is found in medium to large streams, in riffles of moderate current with small cobble and/or gravel substrate.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.

Mollusk	Clubshell (*Pleurobema clava*)	This species is found in small to medium rivers and streams with clean, loose sand and/or gravel substrate.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.
Mollusk	Northern Riffleshell (*Epioblasma torulosa rangiana*)	This species is found in a wide variety of stream sizes with sand and/or gravel substrate.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.
Mollusk	Rabbitsfoot (*Quadrula (Theliderma) cylindrica cylindrica*)	This species is found in a wide variety of stream sizes with shallow areas of reduced stream velocity along banks and other stream features and typically consisting of sand and/or gravel.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.
Mollusk	Rayed bean (*Villosa fabalis*)	This species is generally found in larger and headwater streams with moderate to swift currents.	Potential habitat was not identified on the BCA.	Due to the lack of suitable habitat and no proposed in-stream work, impacts to this species are not anticipated
Mollusk	Snuffbox mussel (E*pioblasma triquetra*)	This species is generally found in larger and headwater streams with moderate to swift currents.	Potential habitat was not identified on the BCA.	Due to the lack of suitable habitat and no proposed in-stream work, impacts to this species are not anticipated.
Mollusk	Elephant-ear (*Elliptio crassidens*)	This species is found in medium to large rivers and streams with mud, sand, and/or fine gravel substrate.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.
Mollusk	Wavy-rayed lampmussel (Lampsilis fasciola)	This species is found in small to medium shallow streams, near riffles, and in areas of good current.	Potential habitat was identified on the BCA.	In-stream work is not proposed; therefore, impacts to this species are not anticipated.

Due to the presence of suitable habitat for the Indiana bat and Northern long-eared bat, any tree clearing would likely need to be performed seasonally (from October 1 to March 31), based on correspondence with the USFWS (Appendix B). In addition, incidental take of Northern long-eared bats is excepted in this location under the 4(d) rule.

Terracon conducted a species habitat survey within the BCA in an effort to identify potential suitable habitat for the species listed in Table 3 that were deemed likely to be present. Critical habitat for listed species was not identified within the BCA. Potential habitat for 9 of the 11 listed species was identified within the BCA. Suitable aquatic habitat was identified on the BCA for the following mollusk species: Clubshell, Northern Riffleshell, Elephant Ear, Rabbits foot, and the Wavy-rayed lampmussel; and the fish species Scioto Madtom and Tippecanoe Darter. In-stream work is not proposed as part of the Project; therefore, impacts are not anticipated for these species.

Two fish species, the Western Creek Chubsucker and the Least Darter, identified in the ODNR NHD as occurring in Bradford Creek near the BCA, are not anticipated to be impacted due to avoidance of impacts to the on-site waters.

4.3. Field Results – Wetland Delineation

Terracon completed a Wetland Delineation Report, which can be found in Appendix C, to determine if wetlands or other waters under the jurisdiction of the USACE or the Ohio Environmental Protection Agency (OEPA) are present at the BCA. The purpose of these investigations was to identify and evaluate the impacts of this project to potential jurisdictional waters. Terracon conducted a site reconnaissance of the BCA, on November 12 and 16, 2020, to characterize the existing site conditions and observe for the presence of wetlands and potential jurisdictional waters. The evaluation methods generally followed the routine on-site determination method referenced in the 1987 USACE Manual and 2010 Midwest Regional Supplement. Additionally, following OPSB reporting requirements, water features were field identified within a 100-foot buffer around the BCA. This requirement leads to slight differences between the delineated water features noted in this report and the appended Wetland Delineation Report, which only identified waters within BCA boundaries (Appendix C).

Wetlands generally have three essential characteristics: hydrophytic (wetland) vegetation, hydric soils, and wetland hydrology. Based on NWI data, aerial imagery and topographical data, on-site areas were investigated for potential wetland properties. Additional areas were investigated, based on observations made during the site reconnaissance. Data regarding the three essential characteristics was gathered within observed suspect wetland areas to further delineate boundaries.

Upon completion of the review of the three wetland criteria at each area, a wetland determination was made. Under normal circumstances, if one or more of the wetland criteria were not identified, the area was not considered to be a wetland. If all three wetland indicators were identified, the area was classified as wetland. Additional observations were made throughout the wetland area to define the wetland/non-wetland boundary. Vegetation, soil and hydrology assessment data from at least one location within the wetland and one upland location outside of the wetland were recorded on a USACE Wetland Determination Form which can be found in Appendix C.

Terracon also made observations of site features that may be considered a jurisdictional waterbody. If a potential jurisdictional waterbody was identified, observations regarding its characteristics were recorded.

The majority of the BCA consisted of agricultural land with small areas of forested land in the eastern portion of the south BCA area. Ground photographs, included in the Wetland Delineation Report (Appendix C), provide an indication of the physical characteristics observed during the site visit. Descriptions of the observed areas are listed in the following sections.

4.4. Wetland Characteristics

Various plant communities and types of land cover were observed at the BCA including emergent wetlands and agricultural, forested, and herbaceous-cover upland communities.

The dominant plant species observed in the emergent wetland areas was reed canary grass (*Phalaris arundinacea*).

4.5. Delineated Features

The following wetlands were observed at the BCA and within the 100-foot buffer during the site reconnaissance. The size of each wetlands, Cowardin classification as palustrine emergent (PEM), and jurisdictional status are noted. These features were delineated with field flagging and located with a submeter, Eos Arrow 100 GPS unit.

Table 5. Wetland features observed on the BCA and within 100-foot buffer.

Wetland	Size On-Site (acres)	Additional acreage within 100 feet	Total Area (acres)	Cowardin Classification	USACE Jurisdictional (Y/N)	Impacts
A	0.27	0.42	0.69	PEM	Y	N
B	0.02	0.26	0.28	PEM	Y	N
TOTAL	0.29	0.68	**0.97**			

PEM – Palustrine emergent wetland

The above listed wetlands were observed to have a significant nexus to Bradford Branch, a perennial stream on the BCA, thereby falling under jurisdictional features to the USACE.

4.6. Streams

The following streams (Table 6) were observed at the BCA and within the 100-foot buffer during the site reconnaissance. These features were delineated with field flagging and located with a submeter GPS unit. The streams are considered jurisdictional feature regulated by the USACE.

A Preliminary Jurisdictional Determination (PJD) dated March 23, 2021, has been granted by the USACE, for the water features located within the BCA boundaries. This PJD was consistent with Terracon's reported findings and is included in Appendix C.

Table 6. Stream features observed on the BCA and within 100-foot buffer.

Streams	On-Site Length (linear feet)	Additional Stream Length within 100 feet (linear feet)	Total Length (linear feet)	Flow Regime	Average Stream Width at Top of Bank (feet)	Impacts
1 (Bradford Branch)	7,537	232	7,769	Intermittent	10-15	N
	1,005	261	1,266	Perennial	15-30	N
2	912	115	1,027	Ephemeral	5-10	N
3 (Bradford Creek)	6,383	325	6708	Perennial	10-30	N
TOTAL	**15,837**	**933**	**16,770**			

4.7. Stream Scoring

Project design indicates that underground collector lines are proposed to cross beneath all four on-site streams. Terracon completed Headwater Habitat Evaluation Indices (HHEI) (Ohio EPA 2018) for four streams with proposed underground collector line crossings. The results of those evaluations are provided in Table 6. Additionally, the HHEI forms are included in Appendix F.

Table 7. HHEI scoring for steams with proposed underground collector line crossings.

Stream ID	HHEI Score	Category
Bradford Creek	66	CLASS II
South Fork Bradford Branch (INT)	60	CLASS II
South Fork Bradford Branch (PER)	77	CLASS III
Stream 2	44	CLASS I

5. SUMMARY OF FIELD SURVEYS

A summary of field observations and conclusions concerning jurisdictional status of observed water features and status of protected species is outlined in the following sections.

5.1. Threatened and Endangered Species

A species habitat survey was performed within the BCA boundaries for the 14 species that were deemed to potentially have suitable habitat on the BCA or be located on the site (Table 3). Field surveys identified potential habitat for 12 of the 14 species on the BCA. Critical habitat for listed species was not identified within the BCA.

Due to the presence of suitable habitat for the Indiana bat and Northern long-eared bat, tree clearing should be performed seasonally (from October 1 to March 31). In addition, incidental take of Northern long-eared bats is excepted in this location under the 4(d) rule. It is Terracon's understanding that the forested areas on the BCA are designated as "Do Not Disturb" areas and will not be impacted as a result of the Project.

In-stream work is not proposed as part of the Project; therefore, impacts are not anticipated for listed aquatic species as a result of the Project. Based on the proposed avoidance of impacts to forested areas on the BCA, impacts to avian species are not anticipated as a result of the Project.

Coordination documentation with USFWS and ODNR can be found in Appendix B.

5.2. Potential WOTUS and Wetlands

Two wetlands totaling 0.97 acres were observed within the BCA boundaries and the 100-foot buffer during the site reconnaissance. All wetlands within the BCA boundaries are considered jurisdictional to the USACE. Three streams totaling 16,770 linear feet were observed within the BCA boundaries and the 100-foot buffer during the site reconnaissance. These streams are considered jurisdictional within the BCA boundaries.

5.3. Impacts to WOTUS

The most recent BCA Plans (Appendix D) indicate three stream crossings by proposed Project access roads: one across Bradford Branch (Stream 1), one across Stream 2, and one across Bradford Creek (Stream 3). Based on conversations with the client, site design drawings, and bridge design drawings (Appendix D), it is Terracon's understanding that all access road bridges are free-span in design and will avoid work and placement of fill within streams.

6. ECOLOGICAL IMPACTS

Terracon performed an ERA to evaluate the Project's potential adverse impact on natural resources. An Ecological Resources Map depicting forested/non-forested land use, water features, and potential erodible soils has been provided as Exhibit 1 in Appendix A. Based on the review of readily available published lists, files, documented resource documents, and field studies, Terracon concluded the following:

- The conversion of the BCA from primarily disturbed, cultivated cropland to commercial solar development should have no significant or adverse impact on wildlife within the BCA and surrounding areas.

- The Project is not expected to result in impacts to bald eagles due to lack of observed nests on the BCA and the avoidance of impacts to forested areas on the BCA. Migratory birds are not anticipated to be impacted due to lack of suitable habitat for some species, avoidance of potential habitat, and/or adequate presence of suitable habitat proximal to the BCA.

- The Project is not expected to impact listed fish and mollusk species due to proposed avoidance of in-stream work.

- Suitable habitat (mature forests) for the federally-listed Indiana and Northern long-eared bats was observed within the forested areas on the BCA. It is Terracon's understanding that impacts to forested areas will be avoided in the BCA. All other federal and state-listed species are not anticipated to be impacted by the Project.

- It is Terracon's understanding that the project has been designed to fully avoid impacts to all delineated, on-site waters. Three free span bridges for access roads are proposed to be constructed over S-1 (Bradford Branch), S-2, and S-3 (Bradford Creek). Impacts to the these and all other on-site WOTUS features are not anticipated, thus impacts to associated aquatic T&E species is not anticipated. Any Project changes resulting in impacts to WOTUS would likely require reevaluation of impacts to listed species dependent on these habitats.

6.1. Post-Construction Site Stabilization

Minimal grading and clearing are anticipated, due to the relatively flat nature of the BCA and prior clearing and use for agriculture. Open-cut trenching and boring methods will be used to

install the underground collection system. As previously noted, direct impacts to wetlands, streams, and ponds will be avoided.

Permanent stabilization of BCA soils through seeding will occur periodically throughout construction. Areas disturbed during construction activities will be seeded with a low-profile, native grass seed mix under the solar array. Select open areas outside of the solar array will be planted with a pollinator-friendly, native seed mix. Invasive and noxious plant species will be managed through mechanical methods (mowing) and application of commercially available herbicides.

The Project will be permanently stabilized when soil disturbing activities have been completed and a uniform, perennial vegetative cover density of at least 70% has been established in all BCA areas that do not have existing permanent groundcover. All seed, straw, and/or matting used to meet Project stabilization goals will comply with Ohio stormwater standards (ODNR 2006).

7. REFERENCES

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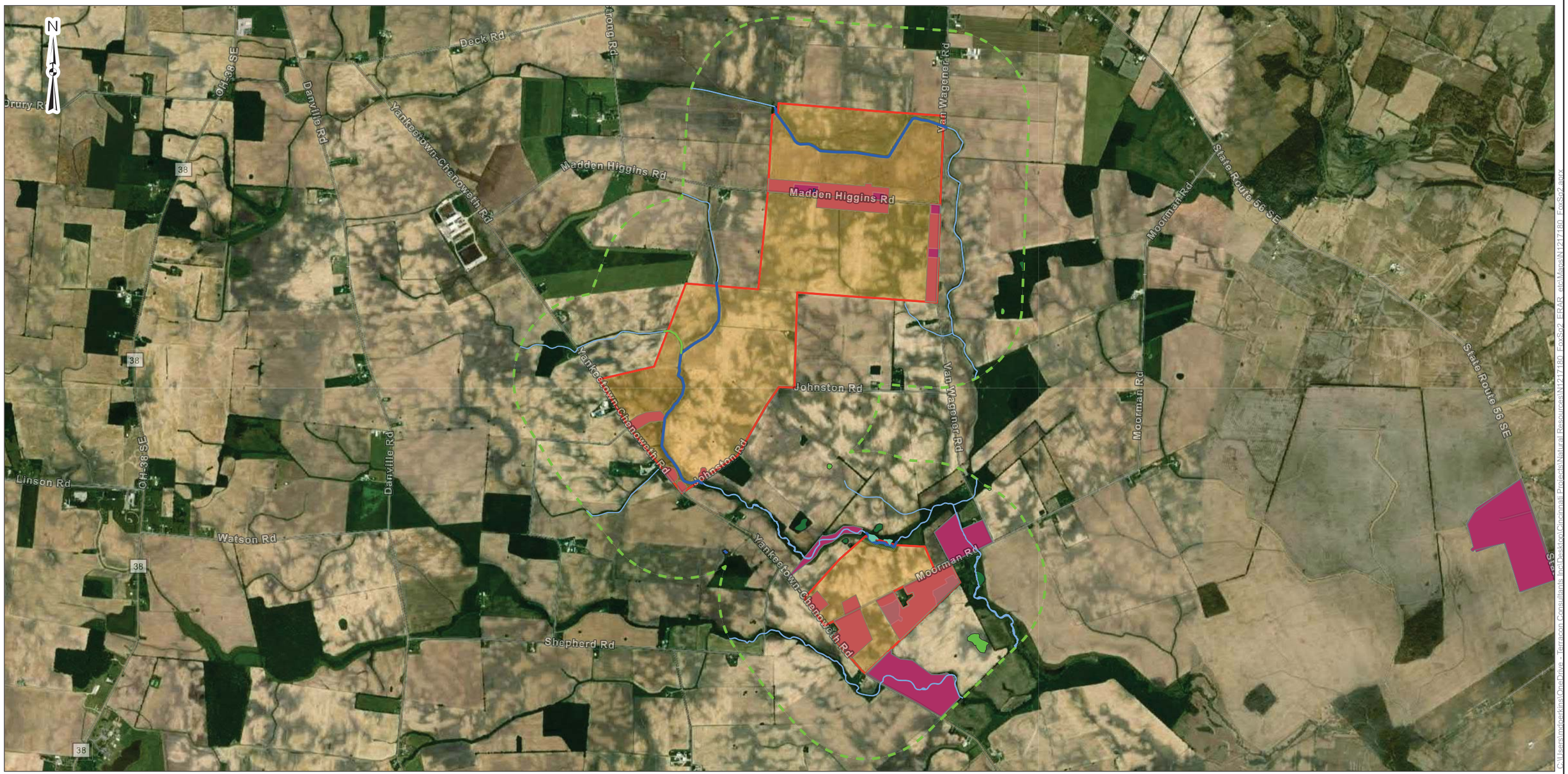
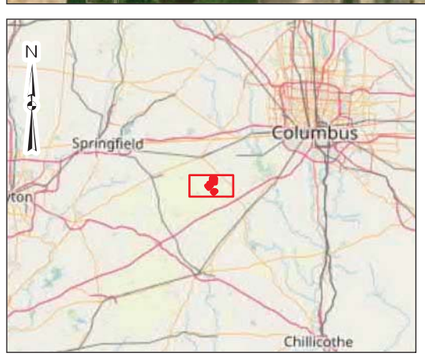
APPENDIX A





Boundary Change Area
Do Not Disturb Areas
Half-Mile Radius
Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Streams On-Site and Within 100 Feet

Intermittent/Perennial Streams - 15,473 lf +/-
Ephemeral Streams - 1,027 lf +/-

Land Cover

Forested - 18 ac +/-
Non-Forested - 1,465 ac +/-

NWI Wetland Type Within Half-Mile

Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Riverine

*All Boundary Change Area soils are considered hydric. Highly eroded/erodible soils are not present on the Boundary Change Area.

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.5 1

Scale: 1:36,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

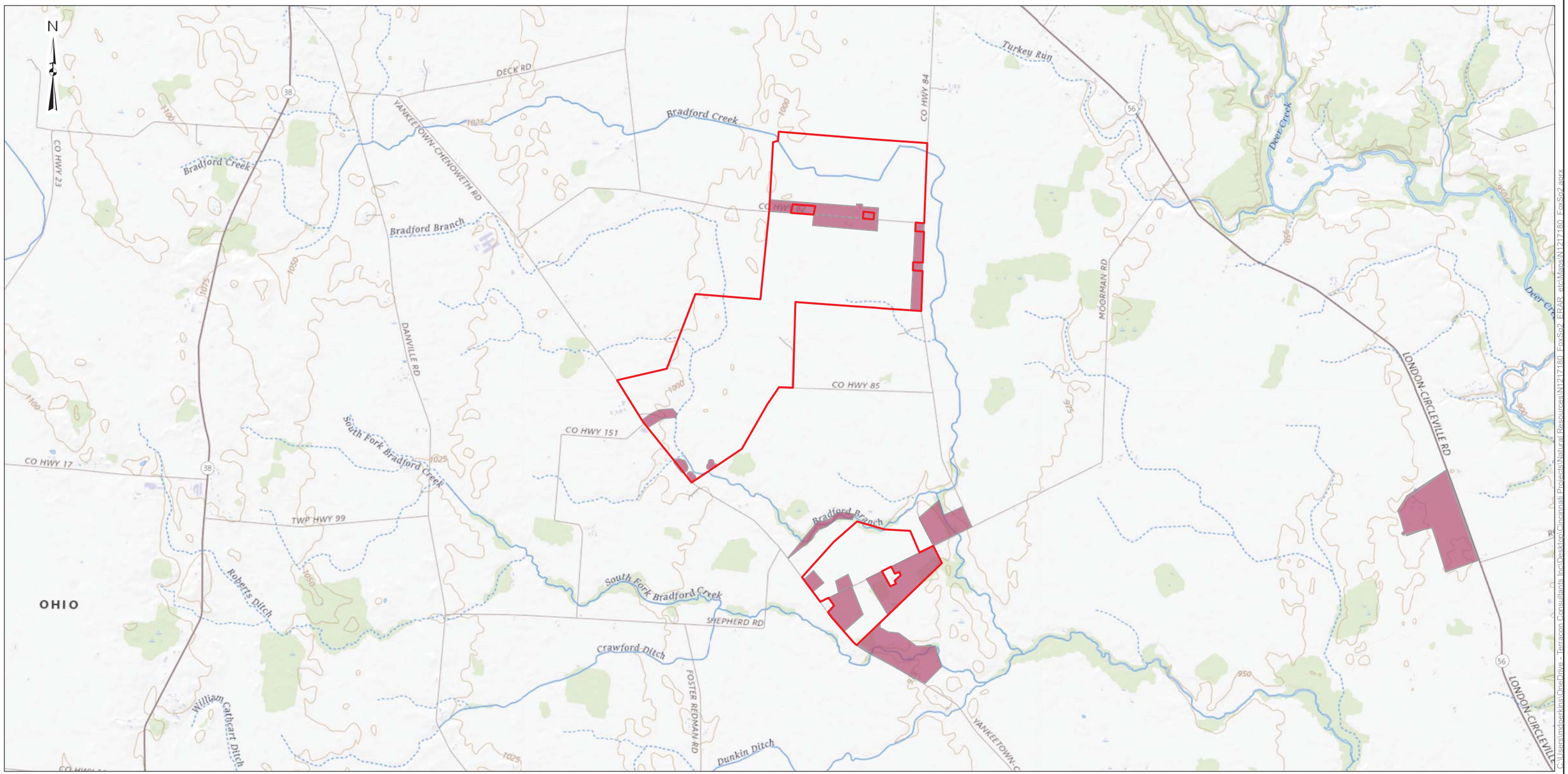
Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

Ecological Resources Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

1



Boundary Change Area

Do Not Disturb Areas

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.25 0.5 1 1.5

Walnut Run, OH and Big Plain, OH USGS 7.5' Topographic Quadrangles

Scale: 1:40,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

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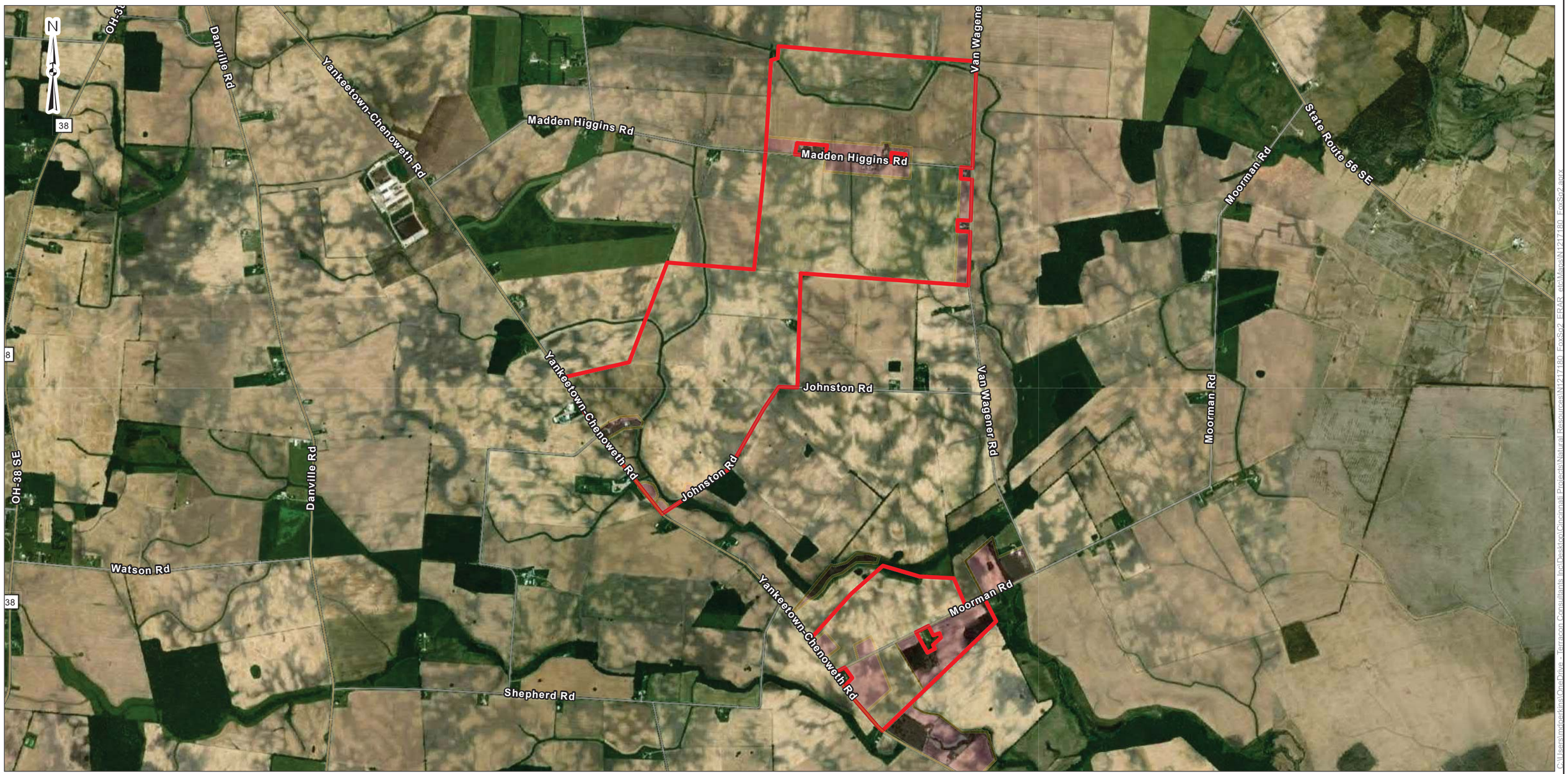
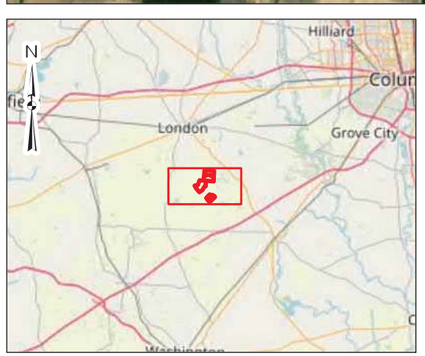
USGS Topographic Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

2





Boundary Change Area

Do Not Disturb Areas

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
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Scale: 1:30,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

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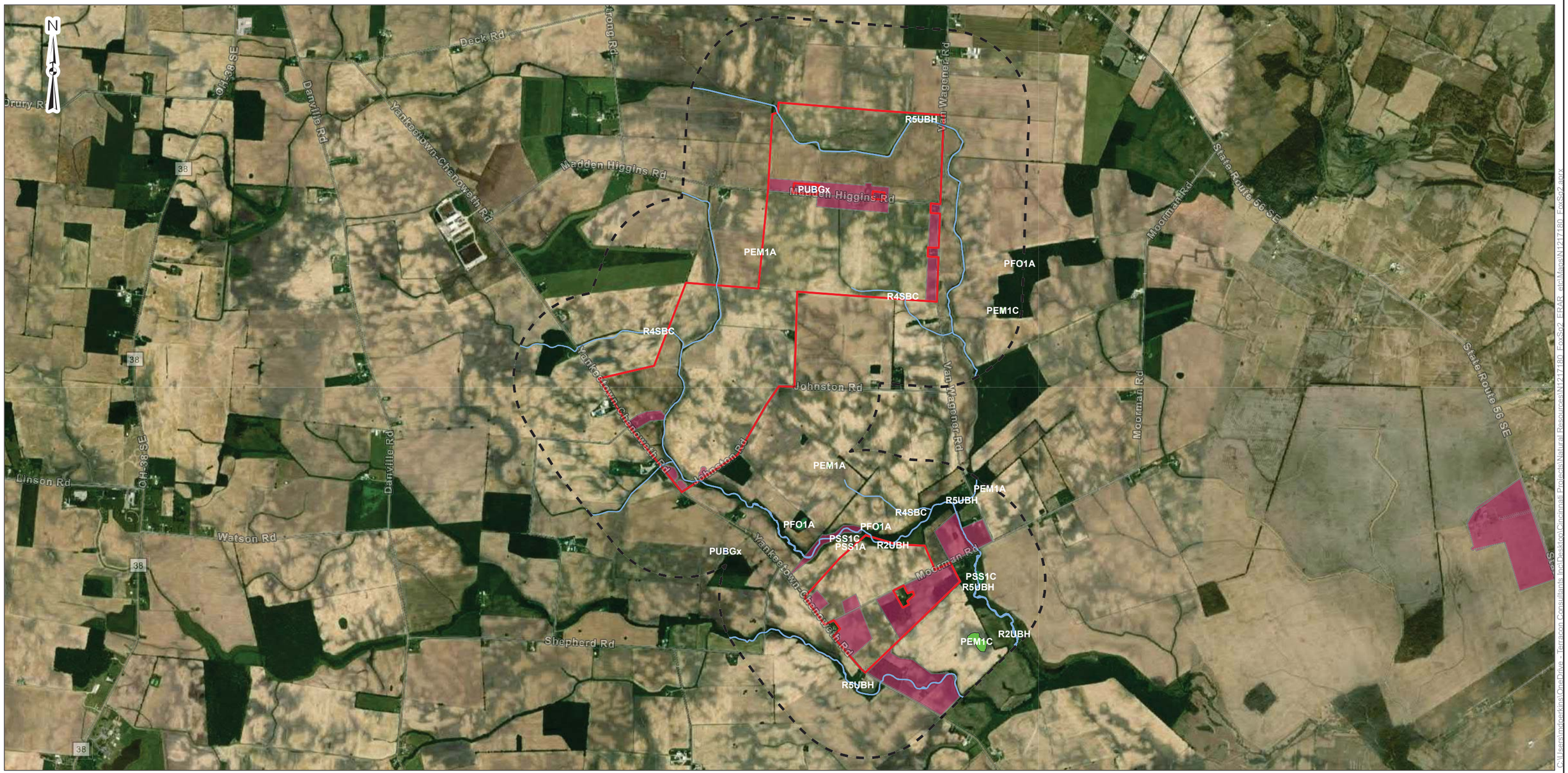
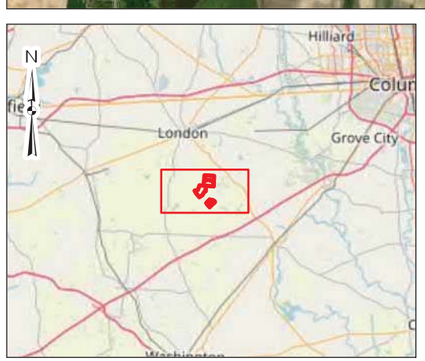
Aerial Site Diagram (2020 Imagery)

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

3





- Boundary Change Area
- Half-Mile Radius
- Do Not Disturb Areas

NWI Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.25 0.5 1 1.5

Scale: 1:36,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

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National Wetlands Inventory Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

4

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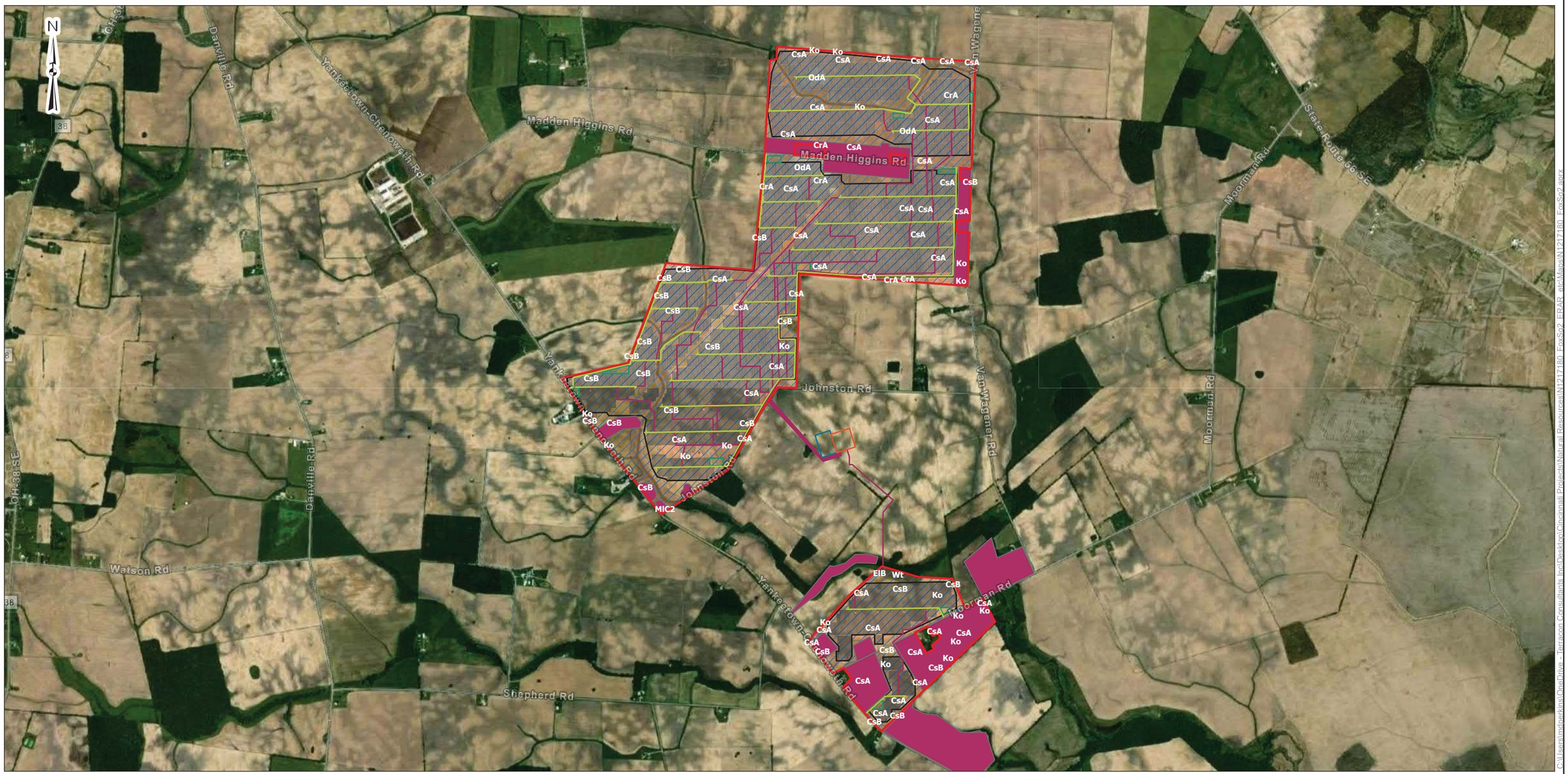

Boundary Change Area
Do Not Disturb Areas
Hydric Soils

Soil Map Unit

- CrA,Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes
- CsA,Crosby-Lewisburg silt loams, 0 to 2 percent slopes
- CsB,Crosby-Lewisburg silt loams, 2 to 6 percent slopes
- ElB,Eldean silt loam, 2 to 6 percent slopes
- Ko,Kokomo silty clay loam, 0 to 2 percent slopes
- MIC2,Miamian silt loam, 6 to 12 percent slopes, eroded
- OdA,Odell-Lewisburg complex, 0 to 2 percent slopes
- Wt,Westland silty clay loam, Southern Ohio Till Plain, 0 to 2 percent slopes

Proposed Facility Features

- Substation
- Switchyard
- Access Roads
- Collection Lines
- Equipment Laydown Areas
- Security Fence
- Panel Area

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.25 0.5 1

All Boundary Change Area soils are hydric.

Scale: 1:30,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

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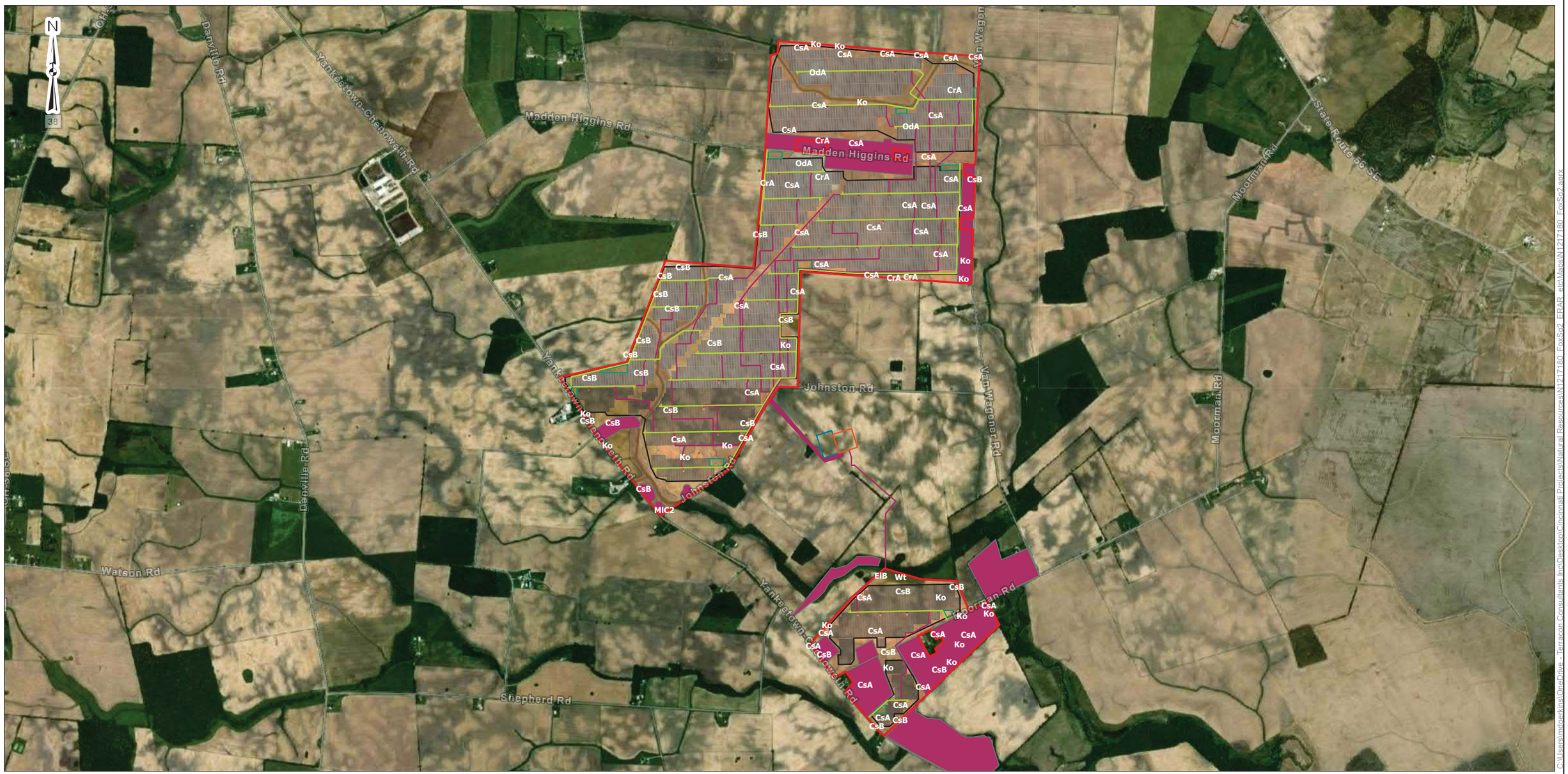
SSURGO Soils Map - Hydric Soils Noted

Ecological Resource Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

5A



Boundary Change Area
Do Not Disturb Areas

Soil Map Unit

- CrA,Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes
- CsA,Crosby-Lewisburg silt loams, 0 to 2 percent slopes
- CsB,Crosby-Lewisburg silt loams, 2 to 6 percent slopes
- ElB,Eldean silt loam, 2 to 6 percent slopes
- Ko,Kokomo silty clay loam, 0 to 2 percent slopes
- MIC2,Miamian silt loam, 6 to 12 percent slopes, eroded
- OdA,Odell-Lewisburg complex, 0 to 2 percent slopes
- Wt,Westland silty clay loam, Southern Ohio Till Plain, 0 to 2 percent slopes

Proposed Facility Features

- Substation
- Switchyard
- Access Roads
- Collection Lines
- Equipment Laydown Areas
- Security Fence
- Panel Area

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.25 0.5 1

No Boundary Change Area soils are considered highly erodible.

Scale: 1:29,555

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

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SSURGO Soils Map - Eroded Soils Noted

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Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

5B

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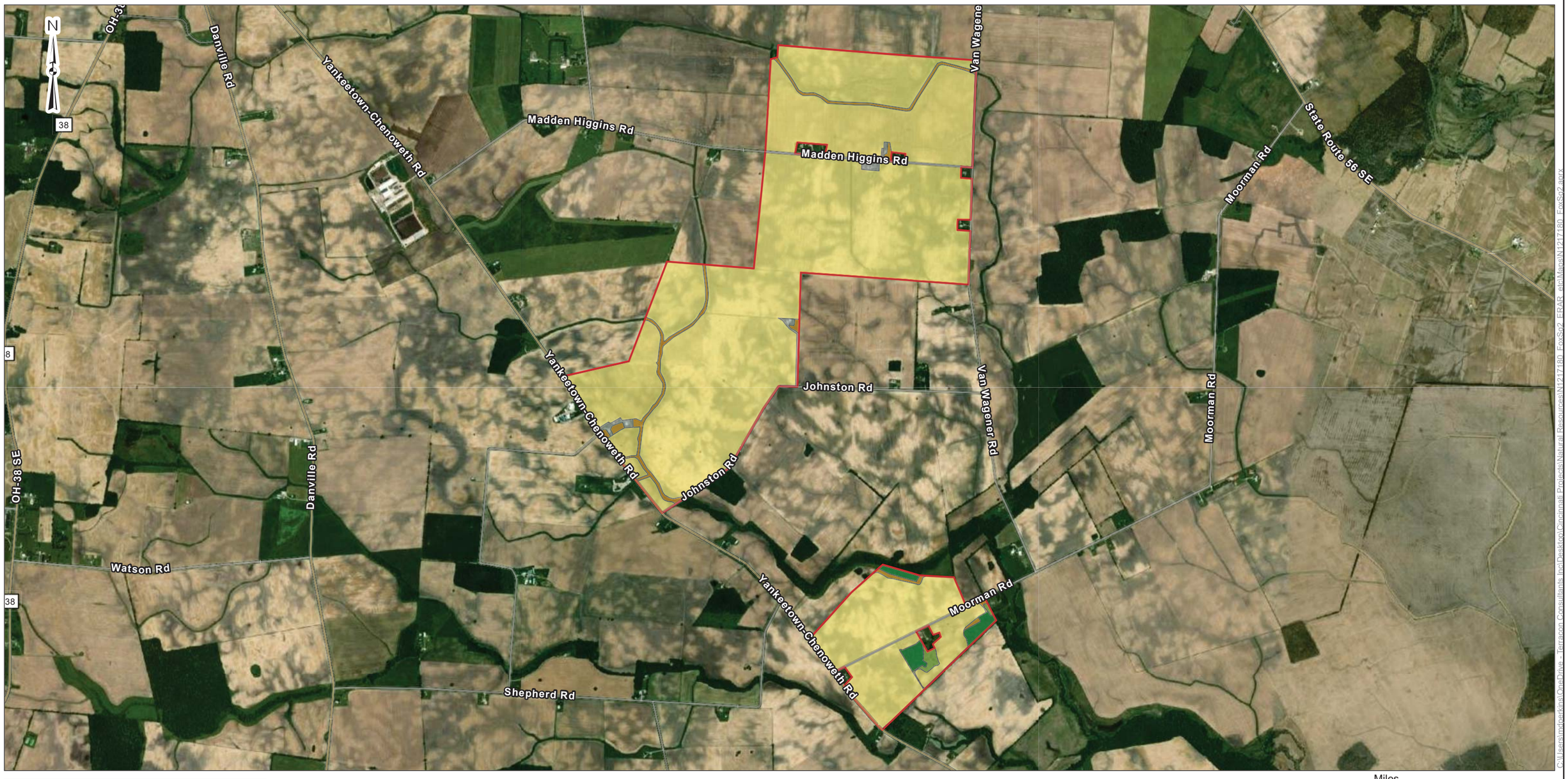
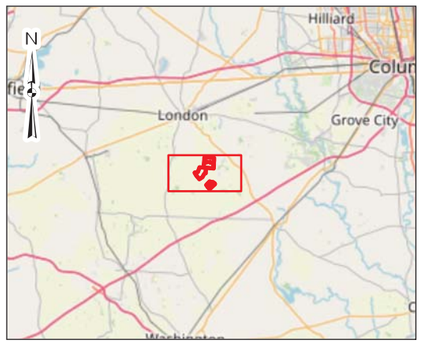




Boundary Change Area

Delineated Land Cover

- Row Crop Agriculture - 1,428 ac +/-
- Herbaceous Vegetation – Agricultural and Stream Boundaries - 35 ac +/-
- Deciduous Forest Land - 18 ac +/-
- Developed (Farmsteads and Roads) - 17 ac +/-
- Woodland (Sparse Tree Cover Land) - 6 ac +/-

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.25 0.5 1

Scale: 1:30,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

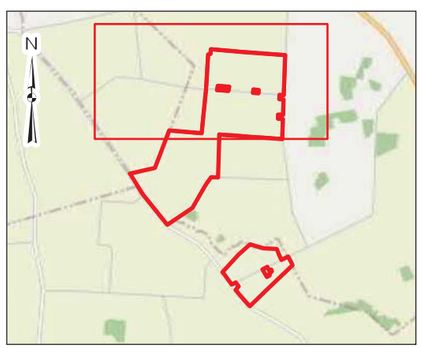
Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

Delineated Land Cover

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

6



Boundary Change Area
Do Not Disturb Areas
100-Foot Radius
Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Stream Type

Intermittent/Perennial Streams - 15,743 lf +/-
Ephemeral Streams - 1,027 lf +/-

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 500 1,000 2,000

Scale: 1:12,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

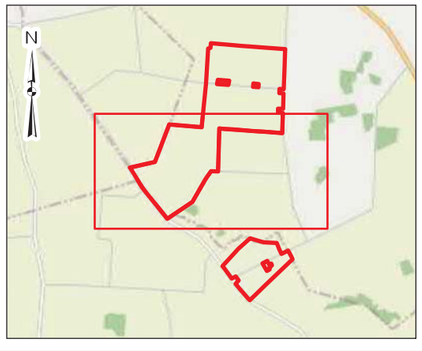
Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

Delineated Water Features Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

7



Boundary Change Area

Do Not Disturb Areas

100-Foot Radius

Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Stream Type

Intermittent/Perennial Streams - 15,743 lf +/-

Ephemeral Streams - 1,027 lf +/-

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 500 1,000 2,000

Scale: 1:12,000

Project No.:	N1217180
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Delineated Water Features Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

7

- Boundary Change Area
- Do Not Disturb Areas
- 100-Foot Radius
- Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Stream Type

- Intermittent/Perennial Streams - 15,743 lf +/-
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DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 500 1,000 2,000

Scale: 1:12,000

Project No.:	N1217180
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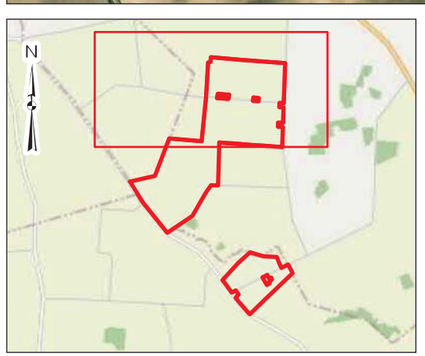
Delineated Water Features Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

7



Boundary Change Area
Do Not Disturb Areas
100-Foot Radius
Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Stream Type

Intermittent/Perennial Streams - 15,743 lf +/-
Ephemeral Streams - 1,027 lf +/-

Proposed Facility Features

Substation
Switchyard
Collection Lines
Equipment Laydown Areas
Security Fence
Access Roads (20-feet wide)
Panel Area
Proposed Free Span Bridges

The access road crossings of on-site streams will be achieved with free span bridges that avoid any work or fill placement within the streams. Impacts to on-site waters are not anticipated.

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 500 1,000 2,000

Scale: 1:12,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

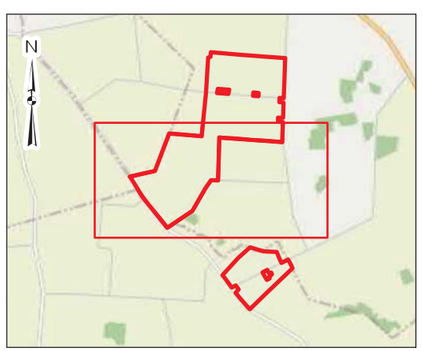
Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

Delineated Water Features Impact Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

8



- Boundary Change Area
- Do Not Disturb Areas
- 100-Foot Radius
- Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Stream Type

- Intermittent/Perennial Streams - 15,743 lf +/-
- Ephemeral Streams - 1,027 lf +/-

Proposed Facility Features

- Substation
- Switchyard
- Collection Lines
- Equipment Laydown Areas
- Security Fence
- Access Roads (20-feet wide)
- Panel Area
- Proposed Free Span Bridges

The access road crossings of on-site streams will be achieved with free span bridges that avoid any work or fill placement within the streams. Impacts to on-site waters are not anticipated.

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 500 1,000 2,000

Scale: 1:12,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

Delineated Water Features Impact Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

8

Boundary Change Area
Do Not Disturb Areas
100-Foot Radius
Wetlands On-Site and Within 100 Feet - 0.97 ac +/-

Stream Type

Intermittent/Perennial Streams - 15,743 lf +/-
Ephemeral Streams - 1,027 lf +/-

Proposed Facility Features

Substation
Switchyard
Collection Lines
Equipment Laydown Areas
Security Fence
Access Roads (20-feet wide)
Panel Area

The access road crossings of on-site streams will be achieved with free span bridges that avoid any work or fill placement within the streams. Impacts to on-site waters are not anticipated.

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 500 1,000 2,000

Scale: 1:12,000

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

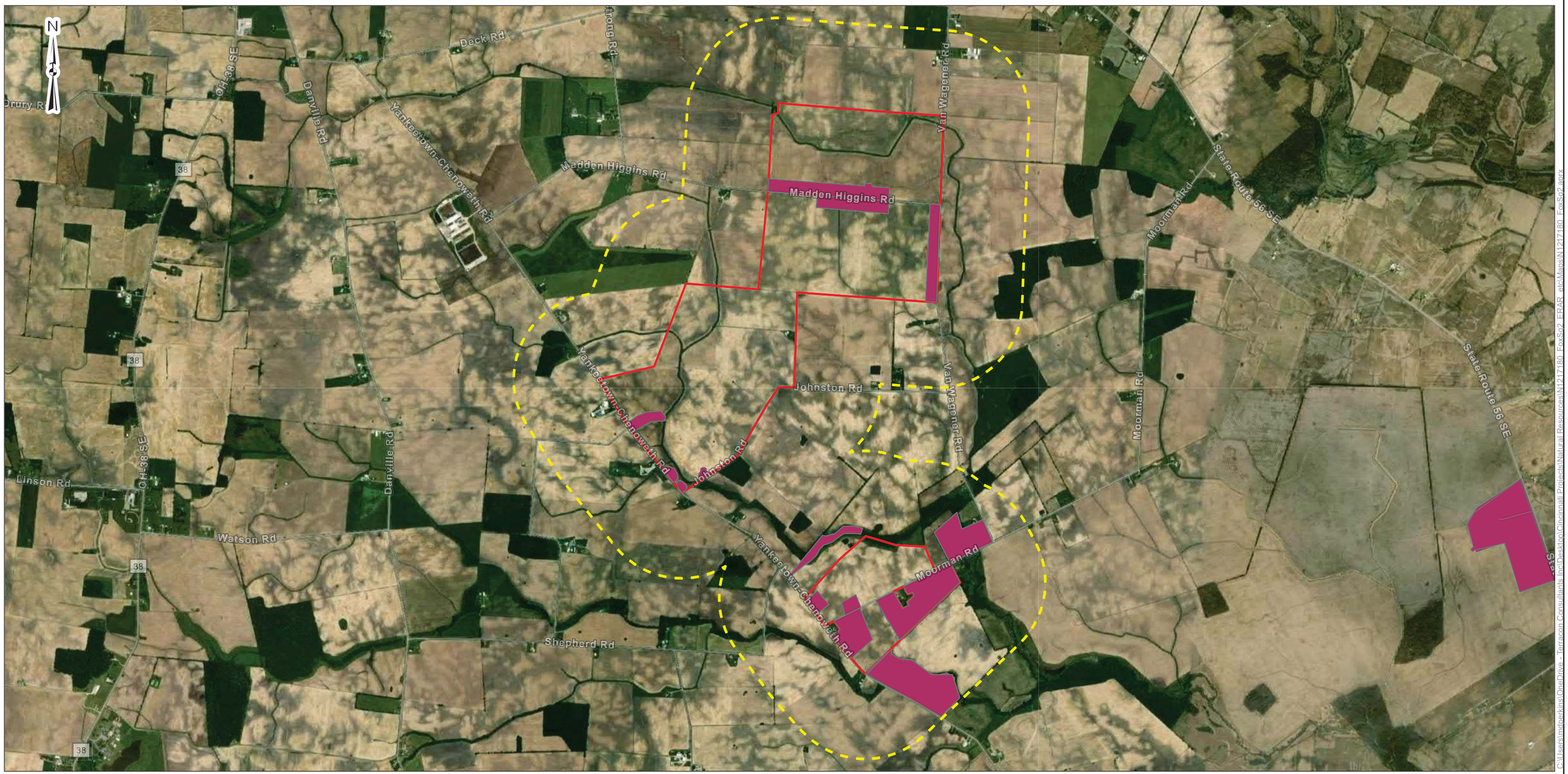
Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

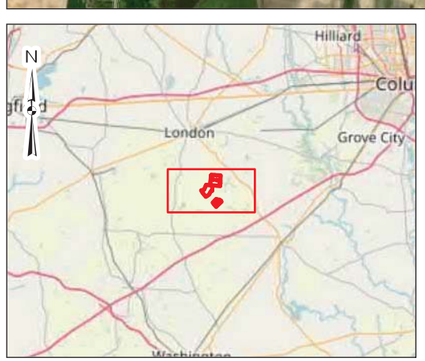
Delineated Water Features Impact Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

8





Boundary Change Area
Do Not Disturb Areas
Half-Mile Radius

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Miles
0 0.5 1

Scale: 1:36,000

Wildlife preserves, refuges, and management areas are not present on or within 0.5 miles of the Boundary Change Area.

Project No.:	N1217180
Date:	Sep 2021
Drawn By:	MDP
Reviewed By:	EK

Terracon
611 Lunken Park Drive Cincinnati, OH 45226
PH: (513) 321-5816 terracon.com

Wildlife Preserves and Refuges Map

Ecological Resources Analysis Report
Fox Squirrel Solar Project Boundary Change Area
Yankeetown-Chenoweth Road
Madison County, Ohio

Exhibit

9

APPENDIX B

Perkins, Michael D

From: West, Scott
Sent: Thursday, May 13, 2021 12:42 PM
To: Perkins, Michael D
Subject: FW: Additional Review for the Proposed Fox Squirrel Solar Farm, Mt. Sterling Madison County, Ohio

Follow Up Flag: Follow up
Flag Status: Flagged

From: Ohio, FW3 <ohio@fws.gov>
Sent: Monday, December 14, 2020 11:12 AM
To: West, Scott <Scott.West@terracon.com>; Brendel, Cassandra E <Cassandra.Brendel@terracon.com>
Cc: nathan.reardon@dnr.state.oh.us; Parsons, Kate <kate.parsons@dnr.state.oh.us>; Lott, Keith <keith_lott@fws.gov>
Subject: Additional Review for the Proposed Fox Squirrel Solar Farm, Mt. Sterling Madison County, Ohio

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994

TAILS# 03E15000-2020-TA-0815

EVENT# 03E15000-2021-E-00645

Dear Mr. West,

The U.S Fish and Wildlife Service (Service) has received your recent correspondence requesting information about the subject proposal. We offer the following comments and recommendations to assist you in minimizing and avoiding adverse impacts to threatened and endangered species pursuant to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq), as amended (ESA).

Federally Threatened and Endangered Species: The endangered **Indiana bat** (*Myotis sodalis*) and threatened **northern long-eared bat** (*Myotis septentrionalis*) occur throughout the State of Ohio. The Indiana bat and northern long-eared bat may be found wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and breed that may also include adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, woodlots, fallow fields, and pastures. Roost trees for both species include live and standing dead trees ≥3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities. These roost trees may be located in forested habitats as well as linear features such as fencerows, riparian forests, and other wooded corridors. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential

summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves, rock crevices and abandoned mines.

Seasonal Tree Clearing for Federally Listed Bat Species: Should the proposed project site contain trees ≥3 inches dbh, we recommend avoiding tree removal wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees ≥3 inches dbh cannot be avoided, we recommend removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Seasonal clearing is recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see http://www.fws.gov/midwest/endangered/mammals/nleb/index.html), incidental take of Indiana bats is still prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.
If implementation of this seasonal tree cutting recommendation is not possible, a summer presence/absence survey may be conducted for Indiana bats. If Indiana bats are not detected during the survey, then tree clearing may occur at any time of the year. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Ohio Field Office. Surveyors must have a valid federal permit. Please note that in Ohio summer mist net surveys may only be conducted between June 1 and August 15.

Section 7 Coordination: If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), then no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

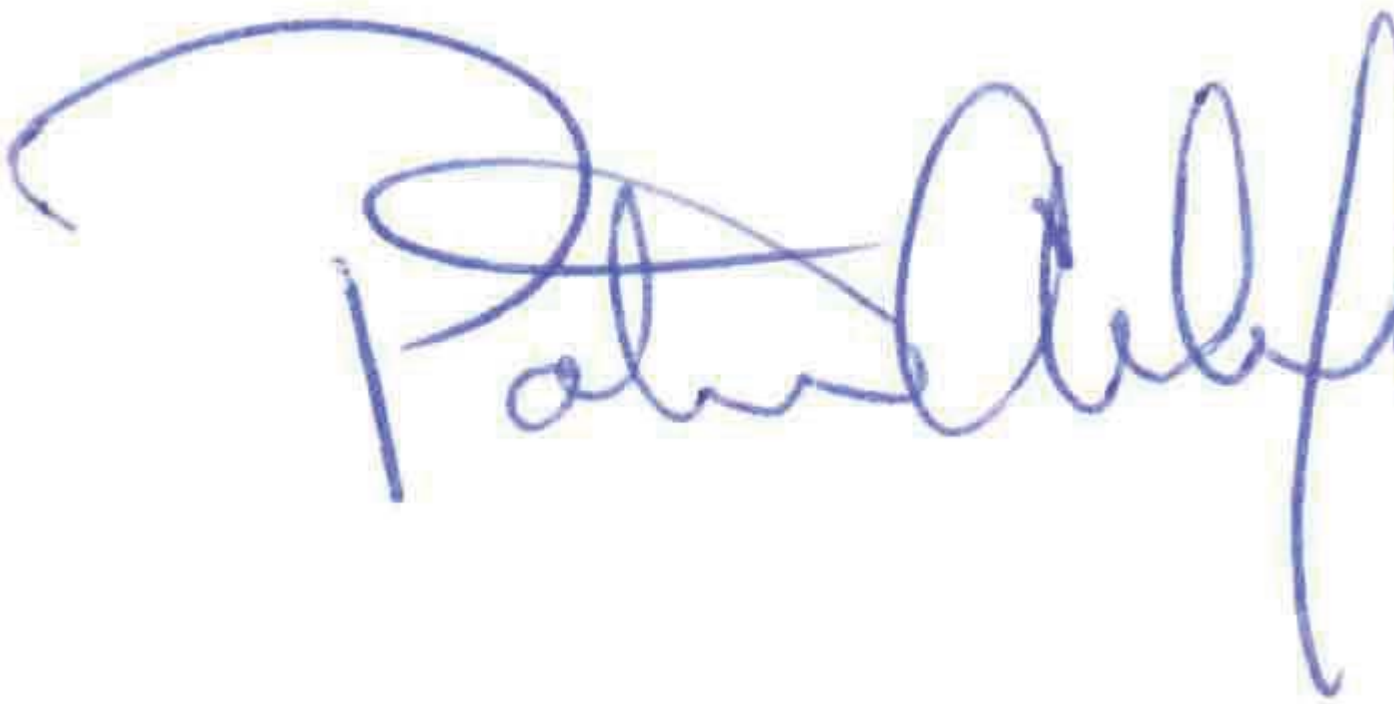
Stream and Wetland Avoidance: Over 90% of the wetlands in Ohio have been drained, filled, or modified by human activities, thus is it important to conserve the functions and values of the remaining wetlands in Ohio (https://epa.ohio.gov/portals/47/facts/ohio_wetlands.pdf). We recommend avoiding and minimizing project impacts to all wetland habitats (e.g., forests, streams, vernal pools) to the maximum extent possible in order to benefit water quality and fish and wildlife habitat. Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the U.S. Army Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. Disturbed areas should be mulched and revegetated with native plant species. In addition, prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, or proposed species, or proposed or designated critical habitat. Should the project design change, or additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, coordination with the Service should be initiated to assess any potential impacts.

Thank you for your efforts to conserve listed species and sensitive habitats in Ohio. We recommend coordinating with the Ohio Department of Natural Resources due to the potential for the proposed project to affect state listed species and/or state lands. Contact Mike Pettegrew, Acting Environmental Services Administrator, at (614) 265-6387 or at mike.pettegrew@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,



Patrice Ashfield
Field Office Supervisor

cc: Nathan Reardon, ODNR-DOW
Kate Parsons, ODNR-DOW

Office of Real Estate
John Kessler, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6621
Fax: (614) 267-4764

May 8, 2020

Cassie Brendel
Terracon Consultants, Inc.
800 Morrison Road
Gahanna, Ohio 43230

Re: 20-362; Proposed Fox Squirrel Solar Farm, Terracon Project: N1207080

Project: The proposed project involves the development of the site with solar panels.

Location: The proposed project is located in Mt. Sterling, Madison County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has the following records at or within a one-mile radius of the project area:

Snuffbox *(Epioblasma triquetra*), E, FE
Clubshell (*Pleurobema clava*), E, FE
Western creek chubsucker (*Erimyzon claviformis*), SC
Least darter (*Etheostoma microperca*), SC

The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980. This information is provided to inform you of features present within your project area and vicinity.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal

endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The Division of Wildlife is working closely with our partners at Ohio Pollinator Habitat Initiative (OPHI) to create and enhance pollinator habitat at solar power installations. Attached for your use is the Ohio Solar Site Pollinator Habitat Planning and Assessment Form. This form was developed by the OPHI Solar Pollinator Program Advisory Team. We recommend that the areas between and around the solar panels be planted with legumes and wildflowers (i.e. forbs) that are beneficial to pollinators and other wildlife and reduce use of non-native grass and gravel. The recommended legumes and forbs listed below are low-growing so as not to cast shadows on the solar panels and would only require one to two mowings a year for maintenance, which should minimize maintenance costs. For other areas of the installation where vegetation does not have to be low-growing, alternative pollinator mixes are available with a more diverse array of flowering plants. This perennial vegetation will provide beneficial foraging habitat to songbirds and pollinators while reducing storm water runoff, standing water, and erosion. Please contact the Ohio Pollinator Habitat Initiative http://www.ophi.info/, and specifically Mike Retterer mretterer@pheasantsforever.org for further information on solar power facility pollinator plantings.

Recommended low-growing grasses and forbs may include:

Little Bluestem	*Schizachyrium scoparium*
Sideoats Grama	*Bouteloua curtipendula*
Alfalfa	*Medicago spp.*
Alsike Clover	*Trifolium hybridum*
Brown-eyed Susan	*Rudbeckia triloba*
Butterfly Milkweed	*Asclepias tuberosa*
Lanceleaf Coreopsis	*Coreopsis lanceolata*
Partridge Pea	*Chamaecrista fasciculata*
Timothy	*Phleum pratense*
Orchardgrass	*Dactylis glomerata*
Crimson Clover	*Trifolium incarnatum*
Ladino or White Clover	*Trifolium repens*

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that Best Management Practices be utilized to minimize erosion and sedimentation.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on

the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of for the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel; the clubshell (*Pleurobema clava*), a state endangered and federally endangered mussel;; the Northern riffleshell (*Epioblasma torulosa rangiana*), a state endangered and federally endangered mussel; the rayed bean (*Villosa fabalis*), a state endangered and federally endangered mussel; the rabbitsfoot (*Quadrula cylindrica cylindrica*), a state endangered and federal candidate mussel; the elephant-ear (*Elliptio crassidens crassidens*), a state endangered mussel; and the wavy-rayed lampmussel (*Lampsilis fasciola*), a state species of concern.

This project must not have an impact on freshwater native mussels at the project site. This applies to both listed and non-listed species. Per the Ohio Mussel Survey Protocol (2020), all Group 2, 3, and 4 streams (Appendix A) require a mussel survey. Per the Ohio Mussel Survey Protocol, Group 1 streams (Appendix A) and unlisted streams with a watershed of 5 square miles or larger above the point of impact should be assessed using the Reconnaissance Survey for Unionid Mussels (Appendix B) to determine if mussels are present. Mussel surveys may be recommended for these streams as well. This is further explained within the Ohio Mussel Survey Protocol. Therefore, if in-water work is planned in any stream that meets any of the above criteria, the DOW recommends the applicant provide information to indicate no mussel impacts will occur. If this is not possible, the DOW recommends a professional malacologist conduct a mussel survey in the project area. If mussels that cannot be avoided are found in the project area, as a last resort, the DOW recommends a professional malacologist collect and relocate the mussels to suitable and similar habitat upstream of the project site. Mussel surveys and any subsequent mussel relocation should be done in accordance with the Ohio Mussel Survey Protocol. The Ohio Mussel Survey Protocol (2020) can be found at:

http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/licenses%20&%20permits/OH%20Mussel%20Survey%20Protocol.pdf

The project is within the range of the Scioto madtom (*Noturus trautmani*), a state endangered and federally endangered fish, the spotted darter *(Etheostoma maculatum),* a state endangered fish, and the Tippecanoe darter (*Etheostoma Tippecanoe*), a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, the project is not likely to impact these or other aquatic species.

The project is within the range of the upland sandpiper (*Bartramia longicauda*), a state endangered bird. Nesting upland sandpipers utilize dry grasslands including native grasslands, seeded grasslands, grazed and ungrazed pasture, hayfields, and grasslands established through the Conservation Reserve Program (CRP). If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of April 15 to July 31. If this type of habitat will not be impacted, the project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 1 to August 1. If no wetland habitat will be impacted, the project is not likely to impact this species.

The project is within the range of the northern harrier (*Circus cyaneus*), a state endangered bird. This is a common migrant and winter species. Nesters are much rarer, although they occasionally breed in large marshes and grasslands. Harriers often nest in loose colonies. The female builds a nest out of sticks on the ground, often on top of a mound. Harriers hunt over grasslands. If this type of habitat will be impacted, construction should be avoided in this habitat during the species' nesting period of May 15 to August 1. If this habitat will not be impacted, the project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

Geological Survey: The Division of Geological Survey has the following comments.

Physiographic Region

The proposed project area is in Range, Oak Run and Pleasant townships, Madison County. This area is in the Darby Plain physiographic region. This region is characterized by moderately low relief and few large streams. The region is primarily made up of broadly hummocky ground moraine and includes several indistinct recessional moraines. Loamy till that is Wisconsinan in age with a high lime concentration covers Silurian and Devonian-aged carbonate and shale bedrock (Ohio Department of Natural Resources, Division of Geological Survey, 1998).

Surficial/Glacial Geology

The project area lies within the glaciated margin of the state and includes several Wisconsinan-aged glacial features. The entirety of the project area sits on a ground moraine made up of late Woodfordian ice deposits. Till in this area generally has a silty loam composition. The most common tills in this area are the Darcy, Bellefontaine and Centerburg tills (Pavey et al, 1999). Glacial drift throughout most of the study area is between 82 and 347 feet thick. Interbedded lenses of sand and gravel may be present within the till (Powers and Swinford, 2004).

Bedrock Geology

The uppermost bedrock unit in the project area is the Salina Undifferentiated. This unit is Silurian-aged and consists of a gray to brown dolomite which contains argillaceous partings, brecciated intervals, algal laminations and anhydrite/gypsum zones. This unit covers both the northwest and the southeast portions of the project area. Underlying the Salina Undifferentiated is the Silurian-aged Tymochtee Dolomite. This unit is characterized by an olive gray to yellowish brown dolomite. It frequently contains brownish-black to gray shale laminae. This unit covers much of the center portion of the project area. Underlying the Tymochtee Dolomite is the Silurian-aged Greenfield Dolomite. This unit is characterized by olive gray to yellowish brown dolomite. There is an absence of shale laminae compared to overlying units. It may contain sedimentary breccia zones. This unit is found in the northeast corner of the study area. It should

be noted that bedrock is not exposed at the surface within the boundaries of the project area due to significant glacial drift (Slucher et al, 2006).

Oil, Gas and Mining

ODNR has record of no oil and gas wells within one mile of the proposed project area. The closest oil and gas well to the site is approximately 3 miles away and is listed as plugged (Ohio Department of Natural Resources, Division of Oil and Gas, *Ohio Oil and Gas Wells Locator*).

Seismic Activity

Several small earthquakes have historically been recorded near the site. The three events closest to the site are listed in the chart below (Ohio Department of Natural Resources, Division of Geological Survey, *Ohio Earthquake Epicenters*):

Date	Magnitude	Distance to Site Boundary	County	Township
March 17, 1985	1.9	9 miles	Fayette	Paint
October 21, 2013	2.0	16 miles	Pickaway	Jackson
October 4, 1980	2.0	20 miles	Clark	Green

Karst

There are no known karst features in this area (Ohio Department of Natural Resources, Division of Geological Survey, *Ohio Karst*).

Soils

According to the USDA Web Soil Survey, the project area consists primarily of soils derived from glacial till. Kokomo and Crosby are the most common soil series found within the boundaries of the project area. These two soil units make up over 75% of the study area and consist of a clay loam media. The alluvial deposits consist primarily of the Sloan soil series. This series is a silt loam and makes up about 8.5% of the project area (USDA Web Soil Survey).

There is a low to moderate risk of shrink-swell potential in these soils. Other limiting factors include poor drainage. Slope remains relatively flat, with slope seldom exceeding a 6% grade (USDA Web Soil Survey).

Groundwater

Groundwater resources are plentiful throughout the project area. Wells developed in bedrock are likely to yield between 100 and 500 gallons per minute. This aquifer consists of carbonate bedrock at depths typically less than 350 ft (Hallfrisch, 1994 and Ohio Department of Natural Resources, Division of Water, Bedrock Aquifer Map, 2000). Wells developed in the unconsolidated sand and gravel lenses interbedded within the till are likely to yield between 5 and 25 gallons per minute. The New Holland Complex Aquifer covers most of the project area, with Deer Creek Alluvial Aquifer covering the alluvial areas along Bradford Branch and South Fork Bradford Creek. This alluvial area may have yields as high as 500 gallons per minute where coarse sand and gravel outwash deposits underly the floodplains (Hallfrisch, 1994 and Ohio Department of Natural Resources, Division of Water, Statewide Unconsolidated Aquifer Map, 2000).

ODNR has a record of 70 water wells drilled within one mile of the study area. These wells range in depth from 30 to 227 feet deep, with an average depth of 98.4 feet. The most common aquifer listed is sand and gravel. There are 16 wells that are developed in the underlying bedrock. A sustainable yield of 10 to 100 gallons per minute is expected from wells drilled in this area based on well log records. The average sustainable yield from these records within one mile was 42.4 gallons per minute (Ohio Department of Natural Resources, Division of Water, *Ohio Water Wells*).

References

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ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

Mike Pettegrew
Environmental Services Administrator (Acting)

Ohio Department of Natural Resources

MIKE DEWINE, GOVERNOR MARY MERTZ, DIRECTOR

Jeff Johnson, Chief
Division of Natural Areas & Preserves
2045 Morse Rd, Building A
Columbus, Ohio 43229

17 May 2021

Michael Perkins
Terracon Consultants, Inc.
611 Lunken Park Dr.
Cincinnati, OH 45226

Dear Mr. Perkins,

I have reviewed the Natural Heritage Database for the Fox Squirrel 2 Solar project area, including a one mile radius, in Oak Run and Range Townships, Madison County, Ohio. The numbers on the list below correspond to the areas marked on the accompanying map. Common name, scientific name and status are given for each species.

1. *Erimyzon claviformis* – Western Creek Chubsucker, species of concern
Etheostoma microperca – Least Darter, species of concern
2. *Erimyzon claviformis* – Western Creek Chubsucker, species of concern
3. *Erimyzon claviformis* – Western Creek Chubsucker, species of concern
Etheostoma microperca – Least Darter, species of concern

We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state nature preserves, wildlife areas, parks or forests, national wildlife refuges, parks or forests, or other protected natural areas within a one mile radius of the project area.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

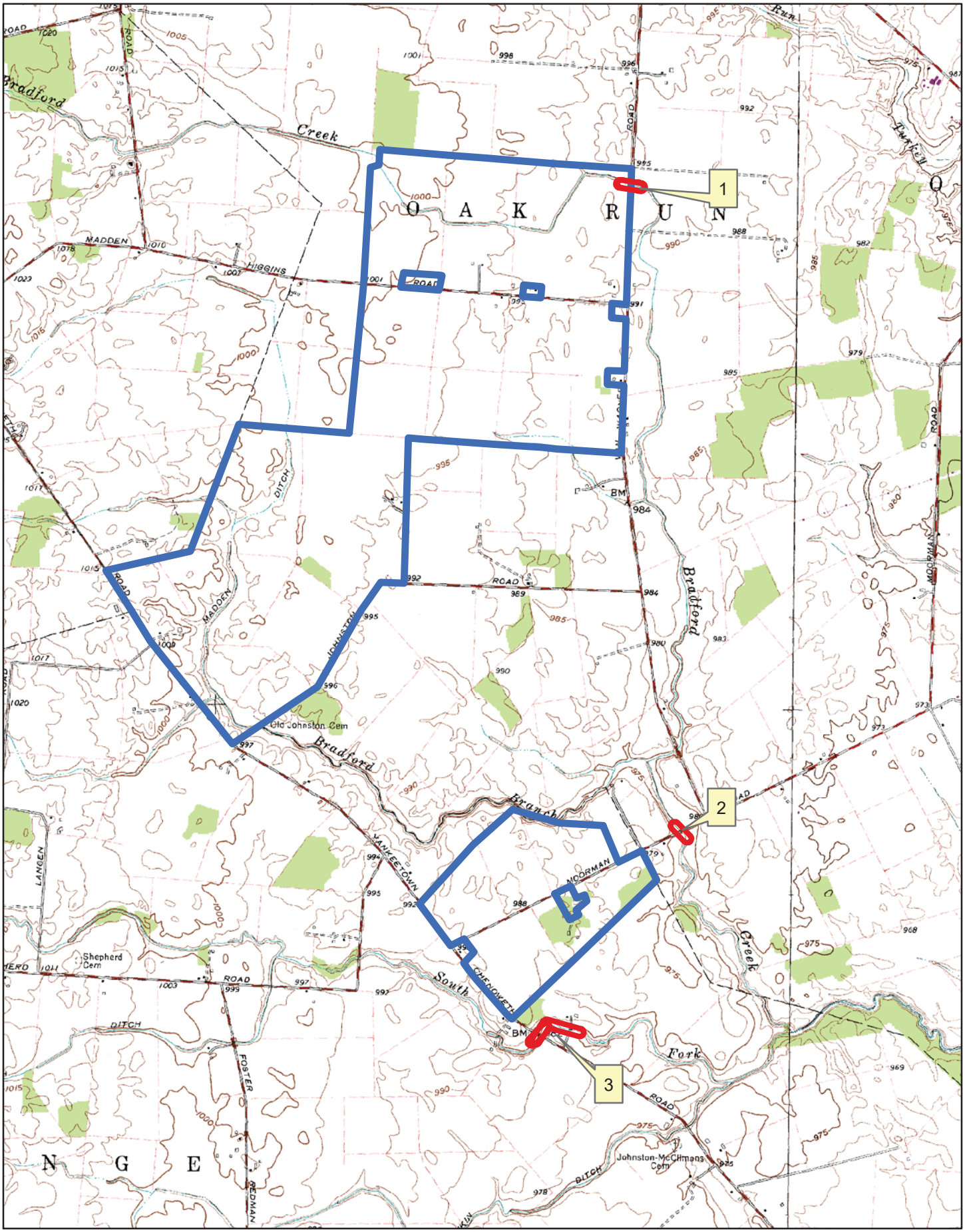
Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke

Debbie Woischke
Ohio Natural Heritage Program

Fox Squirrel 2 Solar



APPENDIX C

December 15, 2020

Geenex Solar
1930 Abbott Street
Charlotte, North Carolina 28203

Attn: Mr. Juergen Fehr
E: juergen.fehr@geenexsolar.com

Re: Wetland Delineation Report
Proposed Fox Squirrel Solar Farm – Additional Parcels
Yankeetown Chenoweth Road
Mt. Sterling, Madison County, Ohio
Terracon Project No. N1207473

Dear Mr. Fehr:

Terracon is pleased to submit the wetland delineation report for the above referenced project. Based on the results of the assessment, Terracon observed three streams and two wetlands on the project site.

A cover letter addressed to the U.S. Army Corps of Engineers (USACE) has been included with the enclosed report; however, a copy of this report has not been provided to USACE by Terracon. A copy of the wetland delineation report and attached letter should be submitted to USACE for review and concurrence. The USACE can be reached at the following address:

US Army Corps of Engineers – Huntington District
ATTN: Regulatory Branch
502 Eighth Street
Huntington, WV 25701-2070

Terracon appreciates the opportunity to have worked for you on this project. If you have any questions regarding the content of this report, please contact me at (513) 612-9094 or via email at swest@terracon.com.

Sincerely,
TERRACON Consultants, Inc.

Cassie Brendel
Staff Scientist

Scott E. West
Group Manager

Wetland Delineation Report

Proposed Fox Squirrel Solar Farm – Additional Parcels

Yankeetown Chenoweth Road

Mt. Sterling, Madison County, Ohio

Date: December 15, 2020

Terracon Project No. N1207473

Prepared for:

Geenex Solar

Charlotte, North Carolina

Prepared by:

Terracon Consultants, Inc.

Cincinnati, Ohio

December 15, 2020

US Army Corps of Engineers – Huntington District
ATTN: Regulatory Branch
502 Eighth Street
Huntington, WV 25701-2070

Re: Wetland Delineation Report
Proposed Fox Squirrel Solar Farm – Additional Parcels
Yankeetown Chenoweth Road
Mt. Sterling, Madison County, Ohio
Terracon Project No. N1207473

Regulatory Branch:

Terracon is pleased to submit the wetland delineation report prepared for Geenex Solar for the abovementioned project. This assessment describes the observations made during our site visit and other sources of information used to investigate the project site for wetlands and other waterbodies. Based on the results of the assessment, two wetlands and three streams are present at the project site. At this time, we are requesting that your office perform a review of the report for the project site and advise our client if a permit will be required for any proposed activities.

If you have any questions concerning this report, please contact Scott West at (513) 612-9094 or by e-mail at swest@terracon.com.

Sincerely,
TERRACON Consultants, Inc.

Cassie Brendel
Staff Scientist

Scott E. West
Group Manager

Copy to: Mr. Juergen Fehr
Geenex Solar
1930 Abbott Street
Charlotte, North Carolina 28203

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Wetland Delineation Report
Proposed Fox Squirrel Solar Farm – Additional Parcels
Yankeetown Chenoweth Road
Mt. Sterling, Madison County, Ohio
Terracon Project No. N1207473
December 15, 2020

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) was retained by Geenex Solar (client) to perform a wetland delineation to determine if wetlands or other waters under the jurisdiction of the United States Army Corps of Engineers (USACE) or the Ohio Environmental Protection Agency (OEPA) are present at the approximately 1,482-acre property, hereafter referred to as the project site. The project site is located east of Yankeetown Chenoweth Road in Mt. Sterling, Madison County, Ohio. The project site location is depicted on Exhibit 1 in Appendix A.

The purpose of performing this wetland delineation of the project site was to characterize the existing site conditions, observe the project site for suspect waterbodies and wetlands and provide a recommendation regarding whether or not suspect waterbodies (if observed) would be considered jurisdictional with the USACE.

It is important to note that the findings presented in this report represent Terracon's professional opinion, based upon field observations made during the site visit and our experience with current regulatory guidance under the Clean Water Act. In order to verify the delineation boundaries and jurisdictional classifications presented in this report, the USACE must review this report and make a jurisdictional determination.

2.0 SCOPE OF SERVICES

Terracon performed the following scope of work:

- Reviewed United States Geologic Survey (USGS) topographical maps, National Wetlands Inventory (NWI) maps, United States Department of Agriculture (USDA) National Resource Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) soil maps and surveys, Federal Emergency Management Agency (FEMA) Flood Insurance Risk Maps (FIRM), and aerial photographs to assist with identifying suspect Waters of the United States (WOUS) and wetland areas at the project site.
- Mobilized to the project site to conduct the preliminary site visit.
- Prepared a map showing approximate locations of suspect waterbodies or wetland areas observed during the site visit, if any.
- Completed a wetland delineation report that included site characterization information, a discussion of applicable data, and recommendations for the project site.

3.0 PRELIMINARY DATA GATHERING AND ANALYSIS

Prior to performing the delineation, several map and aerial photograph resources were reviewed to assist with identifying potential wetland areas at the project site. Each source of data is described in detail below.

3.1 Topographic Map

The USGS 7.5-Minute Topographic Map of the project site was reviewed to identify drainages or potential wetlands and streams within the project site. The USGS map indicates the presence of three perennial streams on site; Bradford Branch, and Bradford Creek. Additionally, two intermittent streams are depicted across the site; one in the northwestern portion draining into Bradford Branch, and one in the eastern into Bradford Creek. The site appears to be relatively flat with an approximate elevation of 1000 feet above sea level (asl). A portion of the Mt. Sterling, Ohio Quadrangle can be seen as Exhibit 1 in Appendix A.

3.2 National Wetlands Inventory Map

The NWI Map of the project site was reviewed to identify potential wetland areas. The map for the project site was published by the U.S. Department of the Interior's Fish and Wildlife Service (USFWS) and depicts probable wetland areas based on stereoscopic analysis of high-altitude aerial photographs and analysis of infrared bands from remotely-sensed imagery. The NWI map depicts two intermittent streams (R4SBC) each draining into two perennial streams (R2UBH and R5UBH); one in the western portion and one in the northeastern portion of the project site, respectively. The NWI map for the project site can be seen as Exhibit 2 in Appendix A.

3.3 Soil Survey

Data from the soil survey of Madison County, Ohio was reviewed to identify soil types, including hydric soils. Data for the soil survey was compiled by the USDA NRCS in 1973. Hydric soils information was gathered from the 'National Hydric Soils List' (USDA NRCS, https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/). A soil survey map is included as Exhibit 3 in Appendix A.

The following soil types were identified within the project site boundaries on the soil survey map:

- Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slope (CrA): This soil is defined as somewhat poorly drained, gently sloping, and is typically located on the edge of broad, nearly level areas and along small waterways. The soil color ranges from brown to yellowish-brown. This map unit is not classified as hydric.
- Crosby-Lewisburg silt loams, 0 to 2 percent slope (CsA): This soil is defined as somewhat poorly to poorly drained and nearly level. The soil color is typically grayish brown. This map unit is classified as hydric.

- Crosby-Lewisburg silt loams, 2 to 6 percent slope (CsB): This soil is defined as moderately well drained, gently sloping to sloping, and is typically found along ridgetops and shoulders of the loess-capped till plains. The soil color ranges from dark grayish brown to yellowish-brown. This map unit is classified as hydric.
- Eldean silt loam, 2 to 6 percent slope (EIB): This soil is defined as moderately well drained, gently sloping to sloping, and is typically found along ridgetops and shoulders of the loess-capped till plains. The soil color ranges from dark grayish brown to yellowish-brown. This map unit is not classified as hydric.
- Kokomo silty clay loam, 0 to 2 percent slopes (Ko): This soil is defined as very poorly drained, nearly level, and is typically found in flood plains. The soil color ranges from very dark gray to dark grayish brown. This map unit is classified as hydric.
- Miamian silt loam, 6 to 12 percent slope, eroded (MlC2): This soil is defined as well drained, gently sloping, and typically found on the backslope of till plains. The soil color ranges from dark brown to yellowish brown. This map unit is not classified as hydric.
- Odell-Lewisburg complex, 0 to 2 percent slope (OdA): This soil is defined as somewhat poorly drained or moderately well drained in upland areas. This unit is nearly level, and typically found on the summit of till plains or moraines. The soil color ranges from very dark brownish gray to black friable silty clay loam. This map unit is not classified as hydric.
- Westland silty clay loam, Southern Ohio Till Plain, 0 to 2 percent slopes (Wt): This soil is defined as very poorly drained, slowly or moderately slowly permeable soils on low stream terraces and outwash plains. The soil color ranges from very dark gray to dark grayish brown. This map unit is not classified as hydric.

3.4 Aerial Photographs

A recent aerial photograph (2019) of the project site was reviewed to determine land use and evaluate vegetative cover. The project site is predominantly shown to consist of agricultural land with forested land in the southern portion. Several apparent streams are shown throughout the site. For reference, the aerial photograph has been included as Exhibit 4 in Appendix A.

3.5 FEMA FIRM Data

Terracon reviewed FEMA FIRM data (Panel #'s 39097C0275D, 6/18/2010, 39097C300D, 6/18/2010) to identify areas that may have elevated likelihoods of containing WOUS. The FEMA FIRM data indicated that the majority of the project site is in Zone X, an area of minimal flood hazard. However, riparian zones along Bradford Creek and South Fork of Bradford Creek, within the project site boundary, are consider within the 1% Annual Chance Flood Hazard Zone which is known as 100-year floodplain. This data is included as Exhibit 5 in Appendix A.

4.0 FIELD TECHNIQUES

Terracon personnel, Cassie Brendel conducted a reconnaissance of the project site on November 12 and 16, 2020, to characterize the existing site conditions and observe for the presence of wetlands and potential jurisdictional waters. Characteristics of jurisdictional waters and wetland areas were assessed utilizing the criteria detailed in sections 4.1 and 4.2 of this report. The evaluation methods generally followed the routine on-site determination method referenced in the 1987 USACE Manual and 2010 Midwest Regional Supplement.

4.1 Wetland Observations

Wetlands generally have three essential characteristics: hydrophytic (wetland) vegetation, hydric soils, and wetland hydrology. Based on NWI data, aerial imagery and topographical data, on-site areas were investigated for potential wetland properties. Additional areas were investigated, based on observations made during the site reconnaissance. Data regarding the three essential characteristics was gathered within observed suspect wetland areas to further delineate boundaries.

4.1.1. Plant Community Assessment

Suspect areas were visually observed to determine the species, when possible, and absolute percentage of ground cover for four stratum of plant community types. Herbs were generally observed within a five-foot radius, shrubs/saplings within a fifteen-foot radius, and trees and vines within a thirty-foot radius of the observation location.

For each species of vegetation observed, their wetland indicator status was evaluated. Indicator status was determined using the NRCS Plants Database. Indicator categories for vegetation are presented below:

- Obligate Wetland (OBL) - occur almost always (estimated probability greater than 99%) under natural conditions in wetlands.
- Facultative Wetland (FACW) - usually occur in wetlands (estimated probability 67% - 99%) but occasionally found in non-wetlands.
- Facultative (FAC) - equally likely to occur in wetlands or non-wetlands (estimated probability 34% - 66%).
- Facultative Upland (FACU) - usually occur in non-wetlands (estimated probability 67% - 99%) but occasionally found in wetlands.
- Obligate Upland (UPL) – rarely occur in wetlands, but occur almost always (estimated probability greater than 99%) under natural conditions in non-wetlands.

The percent cover of each stratum was determined and dominance was evaluated. Dominant species were the most abundant species that accounted for more than 20 percent of the absolute percent coverage of the stratum. The number of dominant species with an indicator status of OBL, FACW, and/or FAC was compared to the total number of dominant species across all strata. Typically, when more than 50 percent of the dominant species had an indicator status of OBL, FACW, and/or FAC, hydrophytic vegetation was present.

If the percentage of dominant species with an indicator status of OBL, FACW, and/or FAC was less than 50 percent, prevalence index and morphological adaptations may have been evaluated to confirm if hydrophytic vegetation was present or absent.

4.1.2. Hydric Soils Assessment

After Terracon evaluated wetland vegetation, subsurface soil samples were collected using a soil probe or similar method. The samples were collected to a depth of approximately 15 inches below ground surface and were visually compared to Munsell Soil Color Charts (Munsell, 2009), which aided in the evaluation of hydric soil characteristics. The soil samples were further examined for hydric soil indicators including, but not limited to, histosol, thick dark surface, sandy gleyed matrix, sandy redox, loamy gleyed matrix, redox dark surface, and/or redox depressions. If these or other hydric soil indicators were observed in the subsurface soil sample, the observation location was considered to have hydric soil.

4.1.3 Wetland Hydrology Assessment

Visual indicators of wetland hydrology were evaluated. Examples of primary wetland hydrology indicators include, but are not limited to, surface water, high water table, soil saturation, water marks, sediment deposits, drift deposits, iron deposits, inundation visible on aerial imagery, sparsely vegetated concave surface, and water-stained leaves. If at least one primary or two secondary indicators were observed, the observation location was considered to have wetland hydrology.

4.1.4 Classification of Wetlands

Upon completion of the review of the three wetland criteria at each area, a wetland determination was made. Under normal circumstances, if one or more of the wetland criteria were not identified, the area was not considered to be a wetland. If all three wetland indicators were identified, the area was classified as wetland. Additional observations were made throughout the wetland area to define the wetland/non-wetland boundary. Vegetation, soil and hydrology assessment data from at least one location within the wetland and one upland location outside of the wetland were recorded on a USACE Wetland Determination Form (Data Sheet).

4.2 Other Waters Observations

Terracon also made observations of site features that may be considered a jurisdictional waterbody. If a potential jurisdictional waterbody was identified, observations regarding its characteristics were recorded. Potential jurisdictional waterbodies were evaluated based on the observation of the following characteristics:

- Flow Characteristics:
  - Perennial: contains water at all times except during extreme drought.
  - Intermittent: carries water a considerable portion of the time, but ceases to flow occasionally or seasonally.
  - Ephemeral: carries water only during and immediately after periods of rainfall or snowmelt.
- Ordinary High-Water Mark:
  - The limit line on the shore established by the fluctuation of the water surface. It is shown by such things as a clear line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, the presence of litter and debris or other features influenced by the surrounding area.
- Bank Shape Descriptions:
  - Undercut: banks that overhang the stream channel
  - Steep: bank slope of approximately greater than 30 degrees
  - Gradual: bank slope of approximately 30 degrees or less
- Aquatic Habitat Descriptions:
  - Pool: deeper portion of a stream where water flows slower than in neighboring, shallower portions, smooth surface, and finer substrate
  - Riffle: shallow area in a stream where water flows swiftly over gravel and rock or other coarse substrate resulting in a rough flow and a turbulent surface
  - Run: section of a stream with a low or high velocity and with little or no turbulence on the surface of the water.

5.0 FIELD OBSERVATIONS RESULTS

On November 12 and 16, 2020, Terracon performed field observations at the project site. The project site consisted of agricultural land, with forested areas in the southern portion. Ground photographs, included in Appendix B, provide an indication of the physical characteristics observed during the site visit. Descriptions of the observed areas are listed in the following sections.

5.1 Plant Communities Found at Project Site

5.1.1 Emergent Wetlands

The dominant plant species observed in the emergent wetland areas was reed canary grass (*Phalaris arundinacea*).

5.1.2 Forested Uplands

The dominant plant species observed in the forested upland areas were Osage orange (*Maclura pomifera*), white ash (*Fraxinus americana*), black locust (*Robinia pseudoacacia*), honeylocust (*Gleditsia tricanthos*), black walnut (*Juglans nigra*), eastern redcedar (*Juniperus virginiana*), honeysuckle (*Lonicera maackii*), white oak (*Quercus alba*), shagbark hickory (*Carya ovata*), and blackberry (*Rubus allegheniensis*).

5.1.3 Emergent Uplands

The dominant plant species observed in the emergent upland areas were yellow foxtail (*Setaria pumila),* and Canada wildrye (*Elymus canadensis*).

5.1.4 Agricultural Uplands

The dominant plant species observed in the agricultural upland areas were the remnants of corn (*Zea mays*).

5.2 Wetland Area Description

The following wetlands were observed at the project site during the site reconnaissance.

Wetland	Size (acres)	COWARDIN CLASSIFICATION	WATER SOURCES	USACE JURISDICTIONAL (Y/N)
A	0.27	PEM	Precipitation, Surface Runoff	Y
B	0.02	PEM	Precipitation, Surface Runoff	Y
TOTAL	**0.29 ACRES**			

PEM – Palustrine emergent wetland

The on-site wetlands are considered jurisdictional based on their significant nexus to on-site stream, Bradford Branch.

5.3 Streams

The following streams were observed at the project site during the site reconnaissance.

Streams	Length (linear feet)	Flow Regime	Average Stream Width at Top of Bank (feet)
1 (Bradford Branch)	1,005	Perennial	15-30
	7,537	Intermittent	10-15
2	912	Ephemeral	5-10
3 (Bradford Creek)	6,383	Perennial	10-30
TOTAL	**15,837 linear feet**		

Terracon considers all on-site streams jurisdictional.

5.4 Other Waters

Other waters were not observed on site during the site reconnaissance.

6.0 SUMMARY AND CONCLUSIONS OF FIELD OBSERVATIONS

A wetland delineation was conducted at an approximately 1,482-acre site located in Mt Sterling, Ohio on November 12 and 16, 2020. A review of the project site was conducted utilizing readily available information including, but not limited to, topographical, aerial, soils, floodplain, and wetland data. In addition, a preliminary site visit was performed to characterize the existing site conditions and observe the project site for suspect waterbodies and wetlands (if any). A summary of field observations and conclusions concerning jurisdictional status is outlined in the following sections.

6.1 Wetlands

Two wetlands, totaling 0.29 acres, were observed across the project site during the site reconnaissance. Terracon considers all of the on-site wetlands jurisdictional based on their significant nexus to on-site waters.

6.2 Streams

Three streams totaling 15, 837 linear feet, were observed across the project site during the site reconnaissance. Terracon considers all of the on-site streams jurisdictional.

6.3 Other Waters

Other waters were not observed on site during the site reconnaissance.

7.0 RECOMMENDATIONS

According to our preliminary site investigation, potential jurisdictional waters are present on the project site. However, for all on-site areas, only the USACE can make the final determination on the jurisdictional status of waterbodies, and on the need for permit processing and compensatory mitigation. In addition, it should be noted that the State of Ohio has an isolated wetlands program, which included isolated ponds, and any impacts to on-site waters may have to be processed through the Ohio Environmental Protection Agency's 401 program.

Again, Terracon recommends a copy of this report be submitted to the USACE for their final determination of the findings of this delineation on the site. The USACE can be reached at the following address:

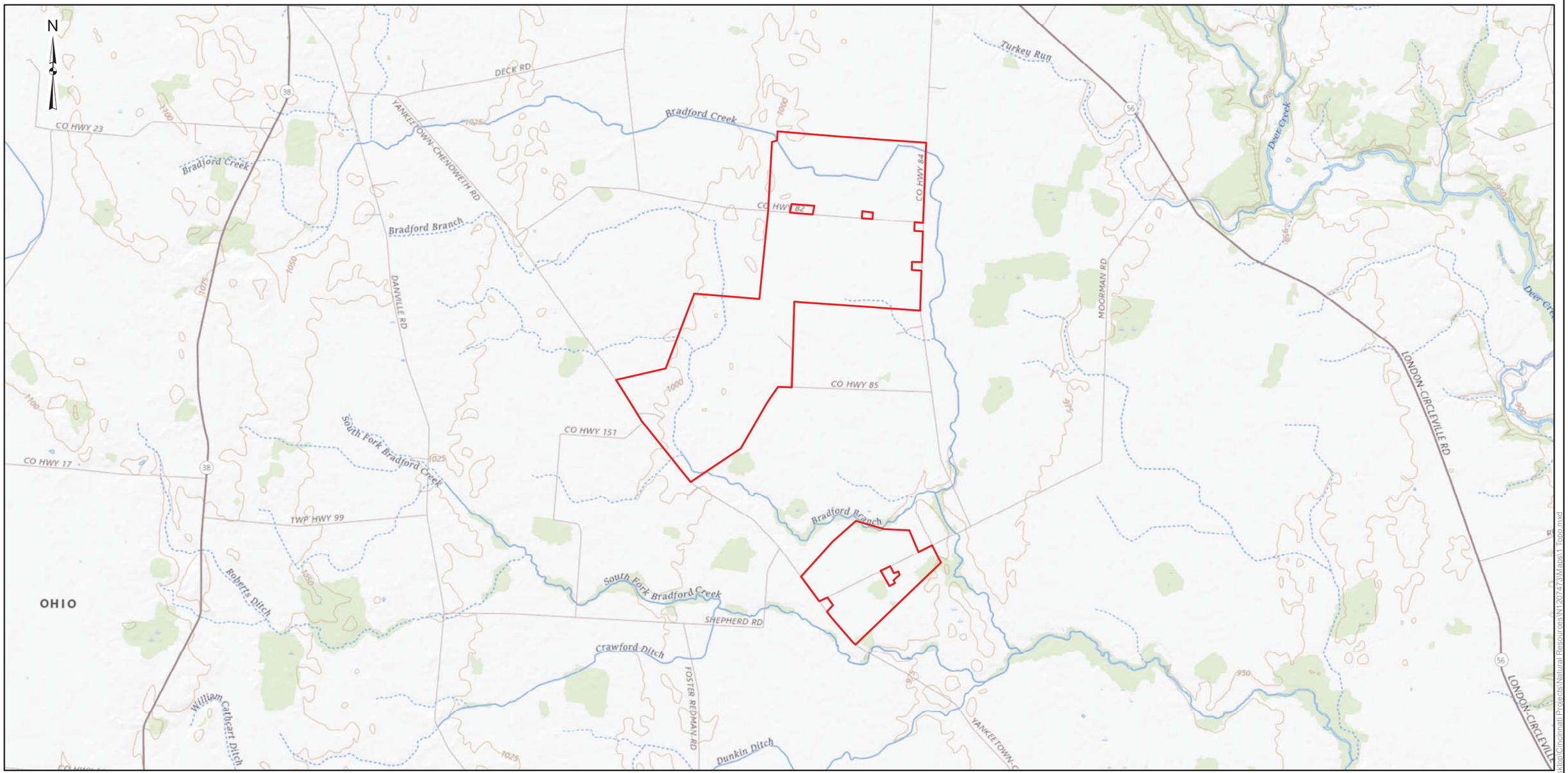
US Army Corps of Engineers – Huntington District
ATTN: Regulatory Branch
502 Eighth Street
Huntington, WV 25701-2070

8.0 GENERAL COMMENTS

The wetland delineation was performed in accordance with generally accepted practices of this profession undertaken in similar studies at the same time and in the same geographical area. A wetland delineation, such as the one performed at this site, is of limited scope, is noninvasive, and cannot eliminate the potential that wetlands or waterbodies are present at the site beyond what is identified by the limited scope of this preliminary assessment. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. No biological assessment can wholly eliminate uncertainty regarding the potential for concerns in connection with a project. The limitations of this preliminary assessment should be recognized.

This report has been prepared in accordance with generally accepted scientific and engineering evaluation practices. This report is for the exclusive use of the client for the project being discussed. No warranties, either expressed or implied, are intended or made.

APPENDIX A – EXHIBITS



Legend

Project Site Boundary

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS

0 0.25 0.5 1 Miles

1:40,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

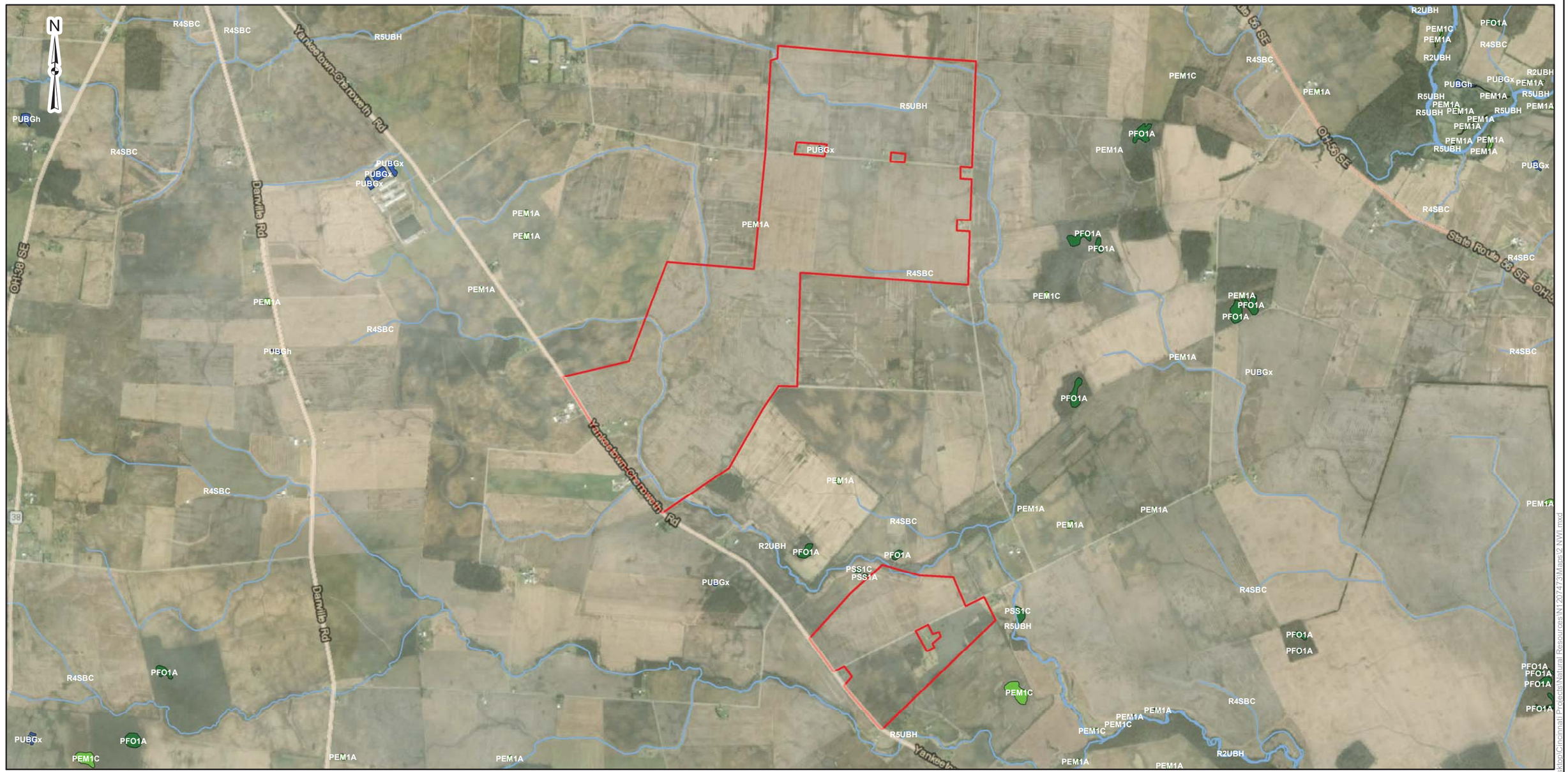
Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

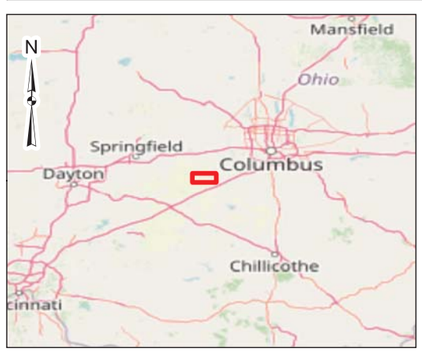
USGS Topographic Map

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

1





Legend

- Project Site Boundary

Wetland Type

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Riverine

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS, USFWS

0 0.25 0.5 1 Miles

1:30,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

National Wetlands Inventory Map

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

2

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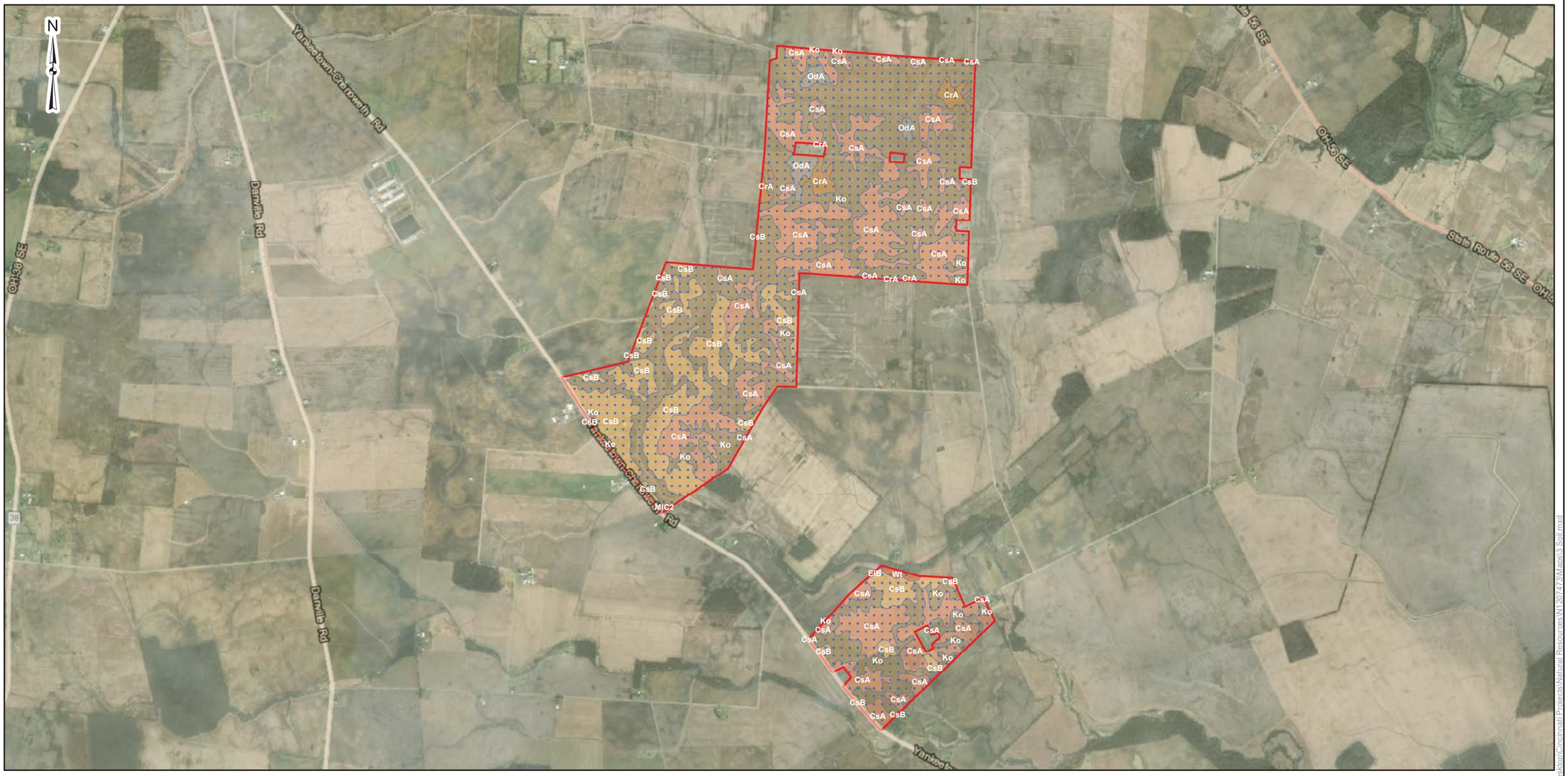

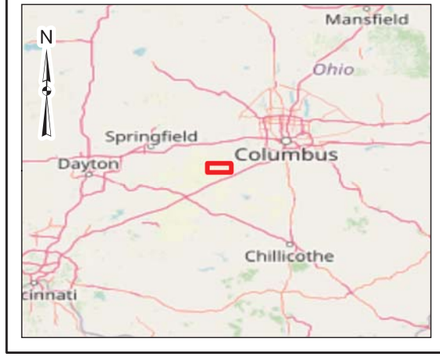

Legend

- Project Site Boundary

Soil Map Unit

- Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes
- Crosby-Lewisburg silt loams, 0 to 2 percent slopes
- Crosby-Lewisburg silt loams, 2 to 6 percent slopes
- Eldean silt loam, 2 to 6 percent slopes
- Kokomo silty clay loam, 0 to 2 percent slopes
- Miamian silt loam, 6 to 12 percent slopes, eroded
- Odell-Lewisburg complex, 0 to 2 percent slopes
- Westland silty clay loam, Southern Ohio Till Plain, 0 to 2 percent slopes
- Hydric Soils

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS, USFWS

0 0.25 0.5 1 Miles

1:30,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

NRCS SSURGO Soils Map

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

3

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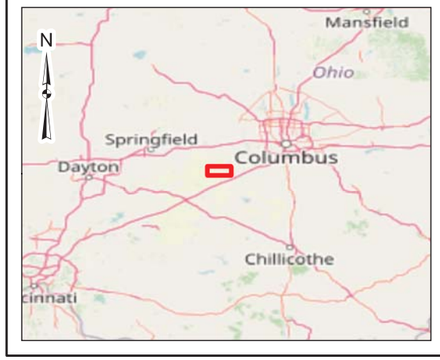

Legend

Project Site Boundary

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS, USFWS

0 0.25 0.5 1 Miles

1:30,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

Aerial Image (2019)

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

4

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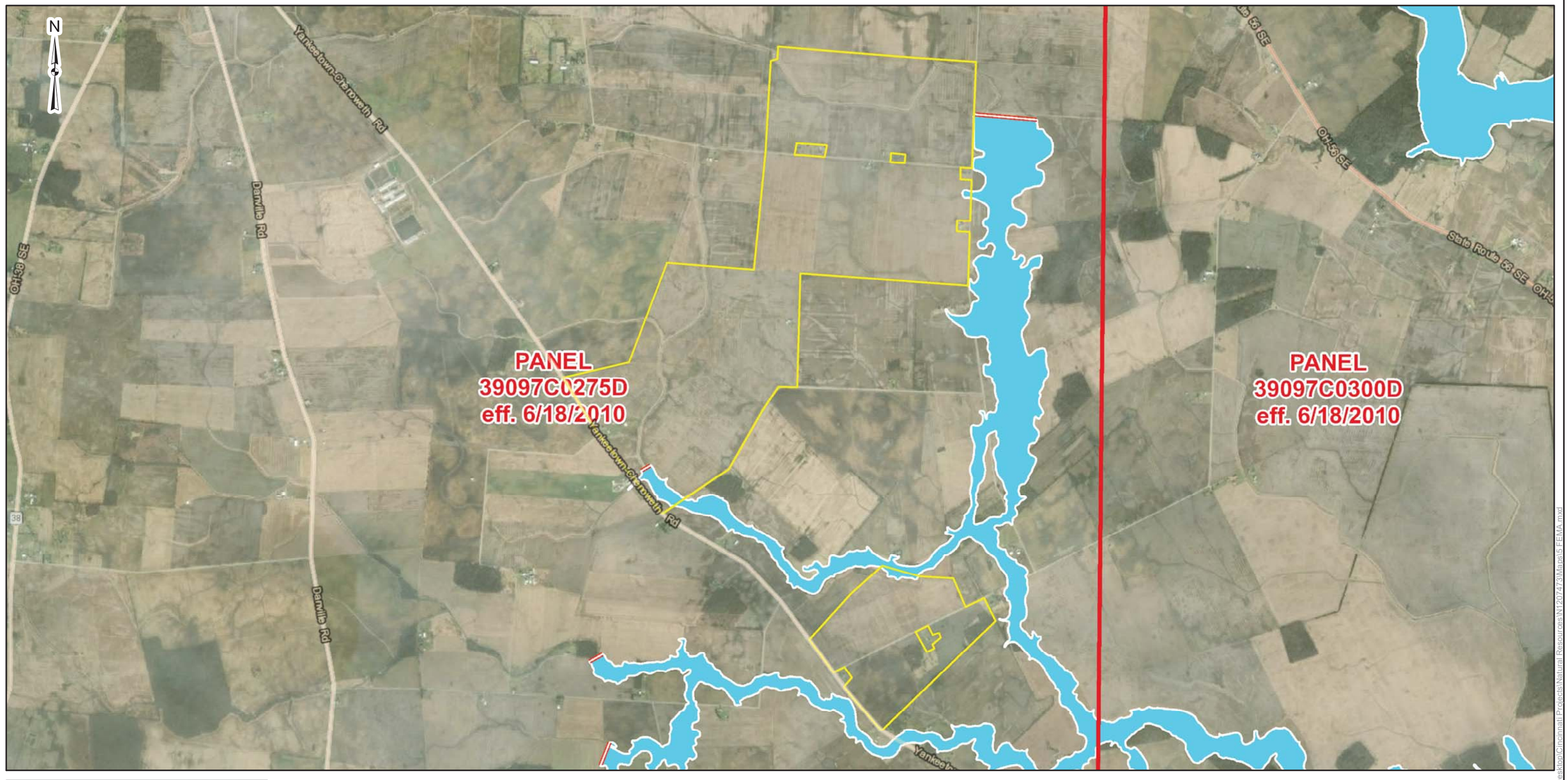
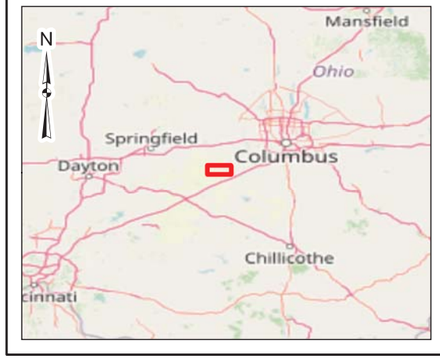




Legend

Project Site Boundary

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS, USFWS

0 0.25 0.5 1 Miles

1:30,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

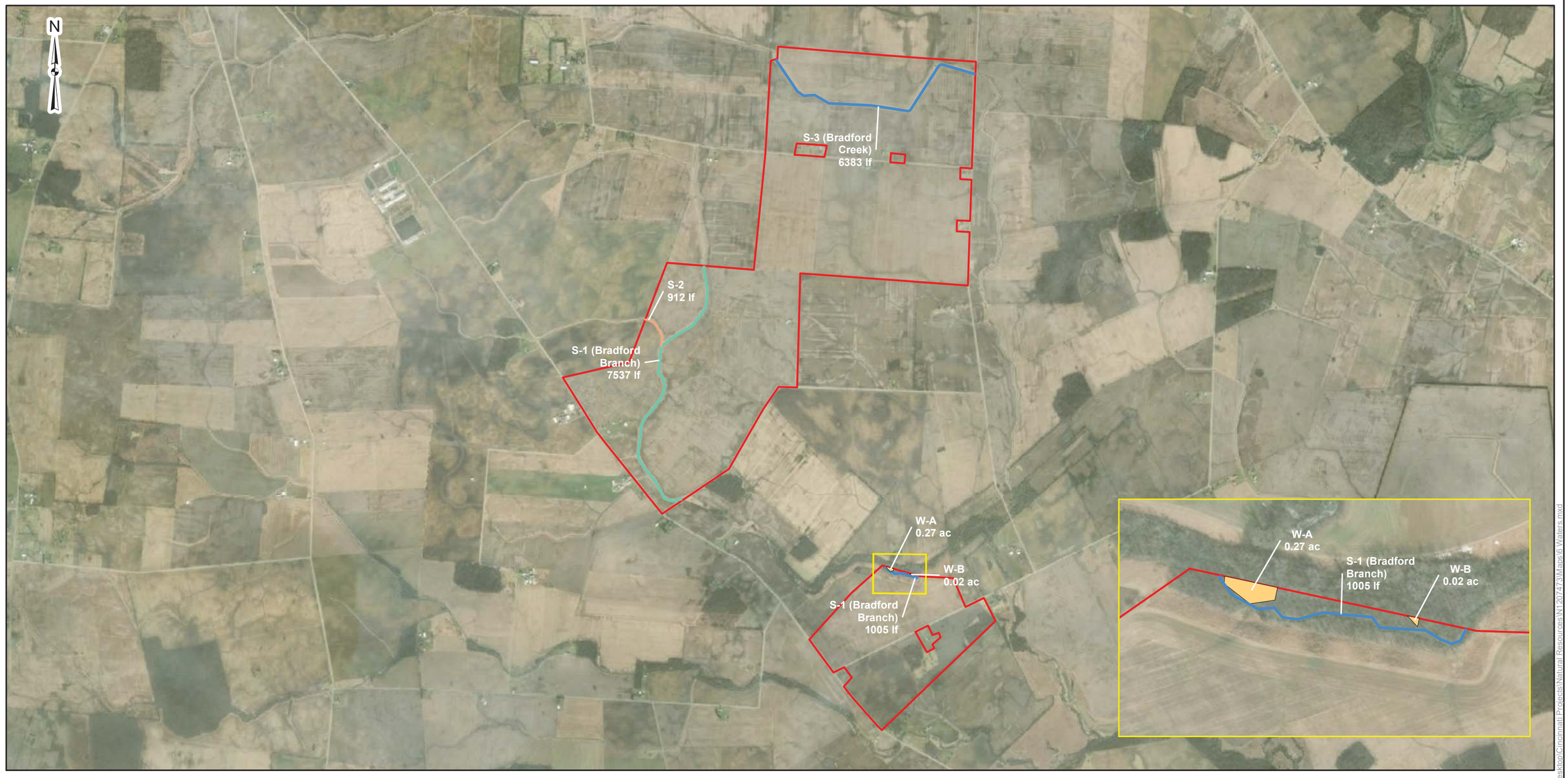
Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

FEMA Flood Insurance Rate Map (FIRM)

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

5



Legend

- Wetlands

Streams

- Perennial
- Intermittent
- Ephemeral

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS, USFWS

0 0.25 0.5 1 Miles

1:30,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

Wetland Delineation Map

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

6

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APPENDIX B – GROUND PHOTOGRAPHS

Terracon
Consulting Engineers & Scientists

Photographic Documentation

Client:	Fox Squirrel Additional Parcels	**Project Number:**	N1207473
Location:	Yankeetown Chenoweth Road Mt. Sterling, Ohio	**Photographer**:	C. Brendel

Photograph No. 1

Date: November 12, 2020

Direction: East

Description:
General view of the southern portion of the site.

Photograph No. 2

Date: November 12, 2020

Direction: West

Description:
General view of the northern portion of the site.

Terracon
Consulting Engineers & Scientists

Photographic Documentation

Client:	Fox Squirrel Additional Parcels	**Project Number:**	N1207473
Location:	Yankeetown Chenoweth Road Mt. Sterling, Ohio	**Photographer**:	C. Brendel

Photograph No. 3

Date: November 12, 2020

Direction: West

Description:
Bradford Creek

Photograph No. 4

Date: November 12, 2020

Direction: North

Description:
Bradford Branch (intermittent)

Terracon
Consulting Engineers & Scientists

Photographic Documentation

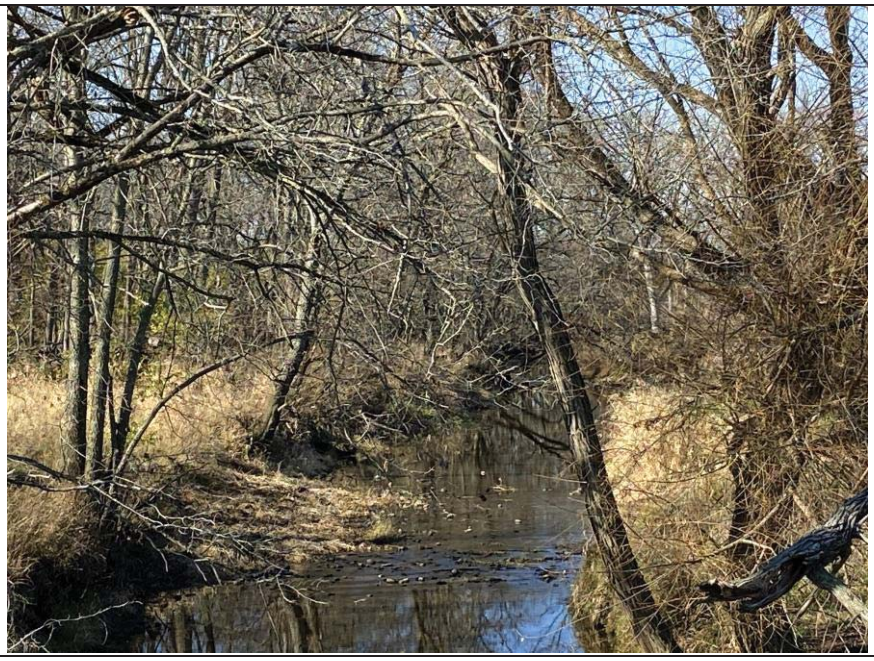
Client:	Fox Squirrel Additional Parcels	**Project Number:**	N1207473
Location:	Yankeetown Chenoweth Road Mt. Sterling, Ohio	**Photographer**:	C. Brendel

Photograph No. 5

Date: November 12, 2020

Direction: North

Description:
Bradford Branch (perennial)



Photograph No. 6

Date: November 12, 2020

Direction: East

Description:
Stream 2

APPENDIX C – DATA SHEETS

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Fox Squirrel Solar City/County: Mt. Sterling/Madison Sampling Date: 3/6/20

Applicant/Owner: Geenex State: OH Sampling Point:

Investigator(s): C.Brendel Section, Township, Range:

Landform (hillside, terrace, etc.): Local relief (concave, convex, none):

Slope (%): Lat: Long: Datum: NAD83

Soil Map Unit Name: Kokomo silty clay loam, 0 to 2 percent NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** **Yes** X **No**
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	

Remarks:
Wetlands A/B

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size:)			
1. *Phalaris arundinacea*	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	100	x 2 =	200
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		200 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- 1 - Rapid Test for Hydrophytic Vegetation
- X 2 - Dominance Test is >50%
- X 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.

Hydrophytic Vegetation Present? **Yes** X **No**

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

SOIL

Sampling Point: _____

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	7.5YR 5/3	75	10YR 5/8	25	C	M	Loamy/Clayey	Prominent redox concentrations

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

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ? Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

This data form is revised from Midwest Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils, Version 7.0, 2015 Errata. (http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx)

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes x	No ___	Depth (inches): 4
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 2

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

REPLY TO
ATTENTION OF

March 23, 2021

Regulatory Division
North Branch
LRH-2021-212-SCR-Bradford Branch

PRELIMINARY JURISDICTIONAL DETERMINATION

Mr. Juergen Fehr
Greenex Solar
1930 Abbott Street
Charlotte, North Carolina 28203

Dear Mr. Fehr:

I refer to the *Wetland Delineation Report Proposed Fox Squirrel Solar Farm – Additional Parcels, Yankeetown Chenoweth Road, Mt. Sterling, Madison County, Ohio* dated December 15, 2020, submitted on your behalf by Terracon Consultants, Inc., and received in this office on March 11, 2021. You have requested a preliminary jurisdictional determination (JD) for the potential jurisdictional aquatic resources on the approximately 1,482-acre site located east of Yankeetown Chenoweth Road in Mt. Sterling, Madison County, Ohio at approximately 39.80802 latitude, -83.403073 longitude. Your JD request has been assigned the following file number: LRH-2021-212-SCR-Bradford Branch. Please reference this number on all future correspondence related to this JD request.

The United States Army Corps of Engineers' (Corps) authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328, including the amendment to 33 CFR 328.3 (85 Federal Register 22250), and 33 CFR 329. Section 404 of the Clean Water Act (Section 404) requires a Department of the Army (DA) permit be obtained prior to discharging dredged and/or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires a DA permit be obtained for any work in, on, over or under a navigable water.

Based upon a review of the information provided, this office has determined 0.29 acre of two (2) emergent wetlands (Wetlands A and B), 7,388 linear feet of two (2) perennial streams (Streams 1 and 3), 7,537 linear feet of one (1) intermittent stream (Stream 1), and 912 linear feet of one (1) ephemeral stream (Stream 2) are located within the 1,482-acre site. The aquatic resources identified above and on the enclosed preliminary JD form may be waters of the United States in accordance with the Regulatory Guidance Letter for JDs issued by the Corps on October 31, 2016 (Regulatory Guidance Letter No. 16-01). As indicated in the guidance, this preliminary JD is non-binding and cannot be appealed (33 CFR 331.2), and only provides a written indication that waters of the United States, including wetlands, may be present on-site.

You have declined to exercise the option to obtain an approved JD in this instance and at this time for the above aquatic resources. However, for the purposes of the determination of impacts, compensatory mitigation, and other resource protection measures for activities that require authorization from this office, the above aquatic resources will be evaluated as if they are waters of the United States.

Enclosed please find a copy of the preliminary JD form. If you agree with the findings of this preliminary JD and understand your options regarding the same, please sign and date the preliminary JD form and return it to this office within 30 days of receipt of this letter. You should submit the signed copy Kayla Osborne by email at kayla.n.osborne@usace.army.mil or to the following address:

United States Army Corps of Engineers
Huntington District
Attn: North Branch
502 Eighth Street
Huntington, West Virginia 25701

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by May 22, 2021. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

A copy of this letter will be provided to your agent, Scott West with Terracon Consultants, Inc. If you have any questions concerning the above, please contact Kayla Osborne of the North Branch at 304-399-5850, by mail at the above address, or by email at kayla.n.osborne@usace.army.mil.

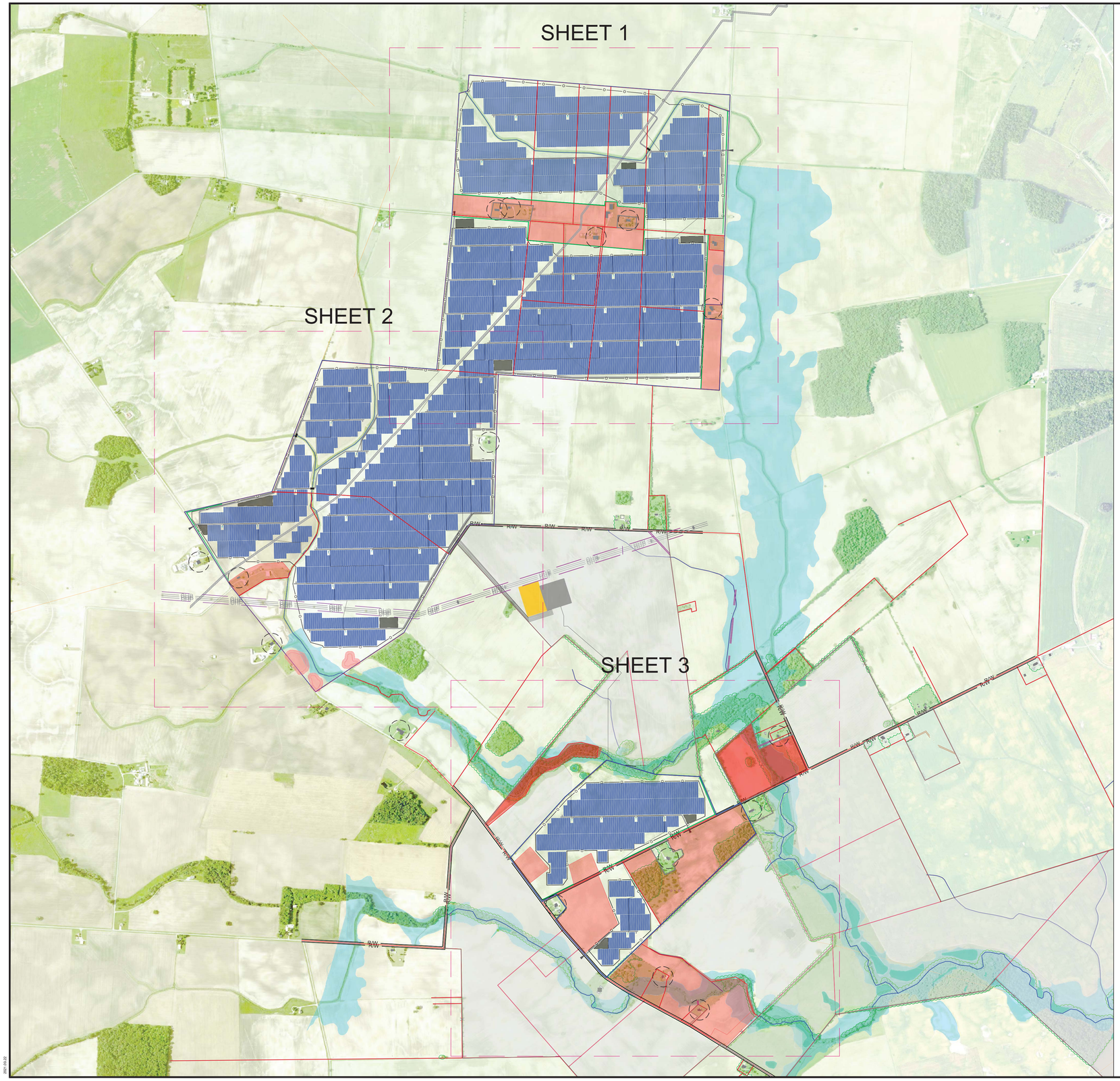
Sincerely,

Laurie Moore
Regulatory Project Manager
North Branch

Enclosures

cc:
Scott West, Terracon Consultants, Inc. (via email)

APPENDIX D



LEGEND

- INITIAL PROJECT AREA
- BOUNDARY CHANGE AREA
- PROPOSED PV ARRAY
- PROPOSED INVERTER STATION
- PROPOSED 35KV COLLECTOR LINE
- PROPOSED 15-20' ACCESS ROAD
- PROPOSED BRIDGE
- PROPOSED VEGETATIVE BUFFER
- PROPOSED SECURITY FENCE
- PROPOSED COLLECTOR SUBSTATION - INCLUDED IN INITIAL PROJECT AREA
- PROPOSED AEP SWITCHYARD - INCLUDED IN INITIAL PROJECT AREA
- TEMPORARY PARKING & LAYDOWN AREA
- PROPOSED ACCESS POINT
- OHP — *EXISTING OVERHEAD POWER*
- *EXISTING TREES*
- R/W — *ROAD RIGHT-OF-WAY*
- R/W — *PROPERTY LINE*
- *FIBER OPTIC LINE EASEMENT*
- *TRANSMISSION LINE EASEMENT*
- *DELINEATED STREAM*
- *RESIDENTIAL STRUCTURE (PARTICIPATING)*
- *RESIDENTIAL STRUCTURE (NON-PARTICIPATING WITH 200FT BUFFER)*

SETBACKS

- *FIELD DELINEATED WETLANDS*
- *FEMA 100 YEAR FLOODPLAIN*
- *NO DEVELOPMENT AREA*
- *SIGNIFICANT CULTURAL AREA*
- *INITIAL PROJECT AREA*

NOTES

- FINAL PROPERTY LINES, RIGHT-OF-WAYS, EASEMENTS, AND EXISTING INFRASTRUCTURE MAY BE REVISED ONCE ON-SITE ALTA SURVEY HAS BEEN COMPETED.

SETBACK TABLE

FEATURE	MINIMUM SETBACK TO SOLAR EQUIPMENT	MINIMUM SETBACK TO FENCE LINE
DITCH EASEMENT	10 ft.	--
FIELD DELINEATED STREAM	25 ft.	25 ft.
FIELD DELINEATED WETLAND	25 ft.	25 ft.
NO DEVELOPMENT AREAS	50 ft.	--
NON-PARTICIPATING PROPERTY LINE	75 ft.	25 ft.
NON-PARTICIPATING RESIDENTIAL STRUCTURE	200 ft.	--
ROAD RIGHT-OF-WAY	100 ft.	25 ft.
TRANSMISSION LINE EASEMENT	25 ft.	--

Fox Squirrel Solar Project

Madison County, Ohio

Rev	Date	Description	By
0A	03/12/2021	10% SUBMITTAL	CSS
0B	04/01/2021	10% SUBMITTAL	CSS
0C	04/08/2021	10% SUBMITTAL	CSS
0D	09/22/2021	10% SUBMITTAL	CSS

EDF renewables
15445 Innovation Dr.
San Diego, CA 92128

N W E S

0 500 1000 2000

NAD83 OHIO STATE PLANES, SOUTHERN ZONE, US FOOT

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We listen. We solve.™
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Fargo, North Dakota 58104
Phone: 701.280.8500
Fax: 701.237.3191
www.ulteig.com

Design By: T. BERENDS
Drawn By: B. PEDERSON
Approved By: C. SMAALADEN
Project Number: 21.00665

OVERALL SITE PLAN

DWG #: FSS-OSP-001

REVISION: 0D

2021.09.22

LEGEND

- INITIAL PROJECT AREA
- BOUNDARY CHANGE AREA
- PROPOSED PV ARRAY
- PROPOSED INVERTER STATION
- PROPOSED 35KV COLLECTOR LINE
- PROPOSED 15-20' ACCESS ROAD
- PROPOSED BRIDGE
- PROPOSED VEGETATIVE BUFFER
- PROPOSED SECURITY FENCE
- PROPOSED COLLECTOR SUBSTATION - INCLUDED IN INITIAL PROJECT AREA
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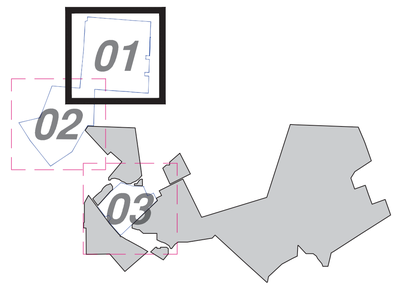
- FIBER OPTIC LINE EASEMENT
- TRANSMISSION LINE EASEMENT
- DELINEATED STREAM
- RESIDENTIAL STRUCTURE (PARTICIPATING)
- RESIDENTIAL STRUCTURE (NON-PARTICIPATING WITH 200FT BUFFER)

SETBACKS

- FIELD DELINEATED WETLANDS
- FEMA 100 YEAR FLOODPLAIN
- NO DEVELOPMENT AREA
- SIGNIFICANT CULTURAL AREA
- INITIAL PROJECT AREA

NOTES

- FINAL PROPERTY LINES, RIGHT-OF-WAYS, EASEMENTS, AND EXISTING INFRASTRUCTURE MAY BE REVISED ONCE ON-SITE ALTA SURVEY HAS BEEN COMPETED.



KEYMAP

Fox Squirrel Solar Project

Madison County, Ohio

Rev	Date	Description	By
0A	03/12/2021	10% SUBMITTAL	CSS
0B	04/01/2021	10% SUBMITTAL	CSS
0C	04/08/2021	10% SUBMITTAL	CSS
0D	09/22/2021	10% SUBMITTAL	CSS

EDF renewables
15445 Innovation Dr.
San Diego, CA 92128

N
W E
S

0 175 350 700

NAD83 OHIO STATE PLANES, SOUTHERN ZONE, US FOOT

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www.ulteig.com

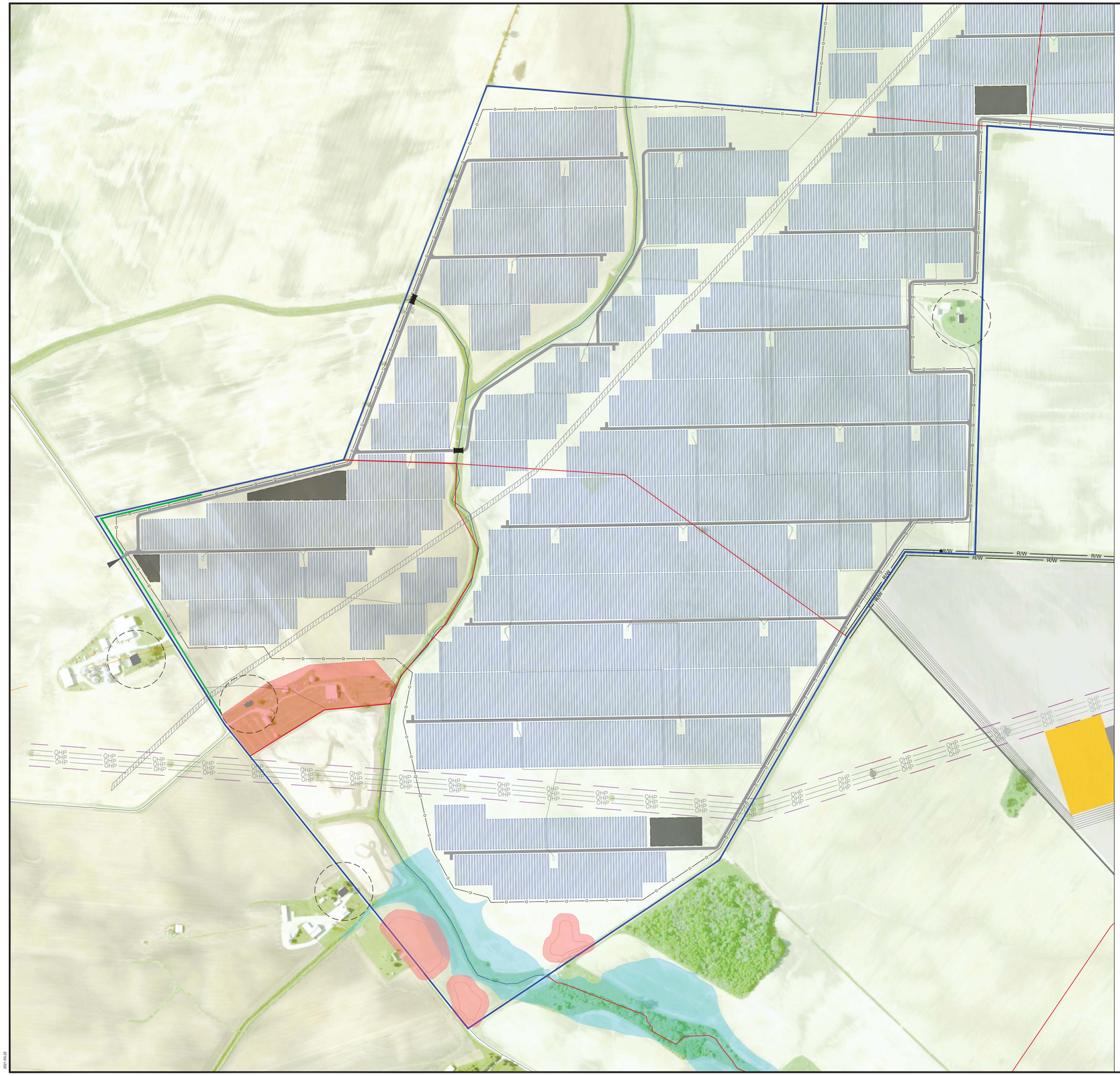
Design By:	T. BERENDS
Drawn By:	B. PEDERSON
Approved By:	C. SMAALADEN
Project Number:	21.00665

SITE PLAN (1 OF 3)

DWG #: FSS-CVL-001

REVISION: 0D

2021.09.22



LEGEND

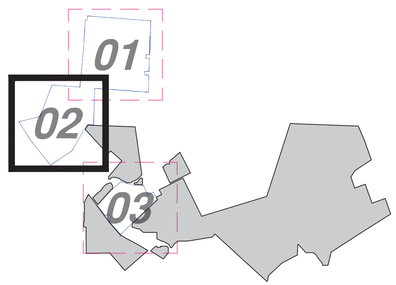
- INITIAL PROJECT AREA
- BOUNDARY CHANGE AREA
- PROPOSED PV ARRAY
- PROPOSED INVERTER STATION
- PROPOSED 35KV COLLECTOR LINE
- PROPOSED 15-20' ACCESS ROAD
- PROPOSED BRIDGE
- PROPOSED VEGETATIVE BUFFER
- PROPOSED SECURITY FENCE
- PROPOSED COLLECTOR SUBSTATION - INCLUDED IN INITIAL PROJECT AREA
- PROPOSED AEP SWITCHYARD - INCLUDED IN INITIAL PROJECT AREA
- TEMPORARY PARKING & LAYDOWN AREA
- PROPOSED ACCESS POINT
- OHP — *EXISTING OVERHEAD POWER*
- *EXISTING TREES*
- R/W — *ROAD RIGHT-OF-WAY*
- R/W — *PROPERTY LINE*
- *FIBER OPTIC LINE EASEMENT*
- *TRANSMISSION LINE EASEMENT*
- *DELINEATED STREAM*
- *RESIDENTIAL STRUCTURE (PARTICIPATING)*
- *RESIDENTIAL STRUCTURE (NON-PARTICIPATING WITH 200FT BUFFER)*

SETBACKS

- *FIELD DELINEATED WETLANDS*
- *FEMA 100 YEAR FLOODPLAIN*
- *NO DEVELOPMENT AREA*
- *SIGNIFICANT CULTURAL AREA*
- *INITIAL PROJECT AREA*

NOTES

- FINAL PROPERTY LINES, RIGHT-OF-WAYS, EASEMENTS, AND EXISTING INFRASTRUCTURE MAY BE REVISED ONCE ON-SITE ALTA SURVEY HAS BEEN COMPETED.



KEYMAP

Fox Squirrel Solar Project

Madison County, Ohio

Rev	Date	Description	By
0A	03/12/2021	10% SUBMITTAL	CSS
0B	04/01/2021	10% SUBMITTAL	CSS
0C	04/08/2021	10% SUBMITTAL	CSS
0D	09/22/2021	10% SUBMITTAL	CSS

EDF renewables
15445 Innovation Dr.
San Diego, CA 92128

N
W E
S

0 175 350 700

NAD83 OHIO STATE PLANES, SOUTHERN ZONE, US FOOT

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Ulteig
We listen. We solve.™
3350 38th Avenue South
Fargo, North Dakota 58104
Phone: 701.280.8500
Fax: 701.237.3191
www.ulteig.com

Design By:	T. BERENDS
Drawn By:	B. PEDERSON
Approved By:	C. SMAALADEN
Project Number:	21.00665

SITE PLAN (2 OF 3)

DWG #: FSS-CVL-002

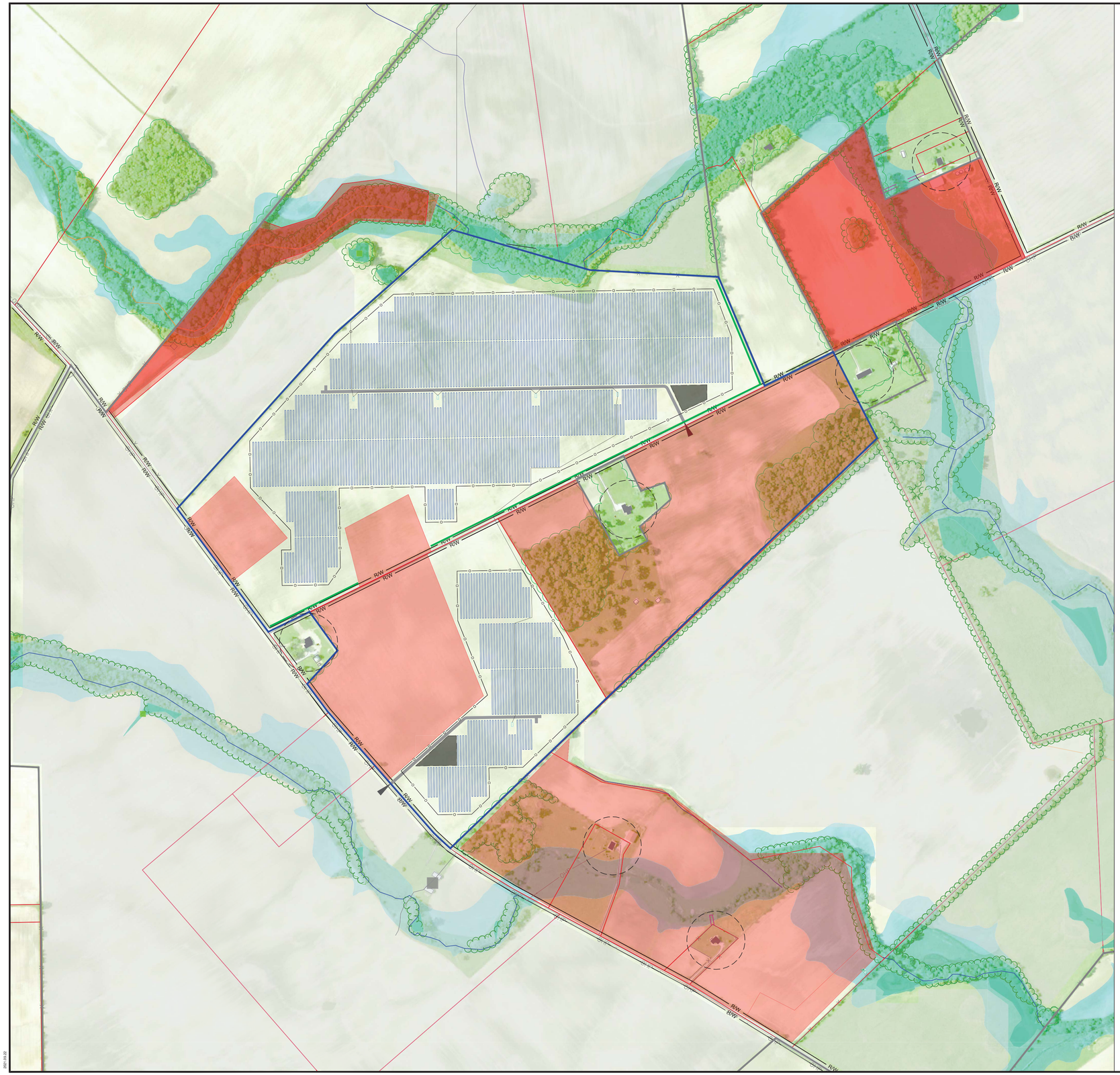
REVISION: 0D

2021.09.22

Fox Squirrel Solar Project

Madison County, Ohio

Rev	Date	Description	By
0A	03/12/2021	10% SUBMITTAL	CSS
0B	04/01/2021	10% SUBMITTAL	CSS
0C	04/08/2021	10% SUBMITTAL	CSS
0D	09/22/2021	10% SUBMITTAL	CSS



LEGEND

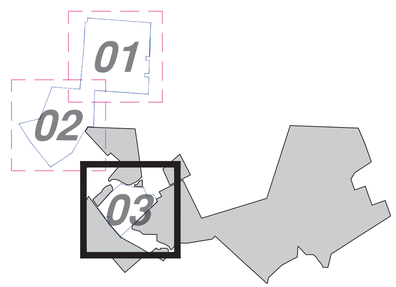
- INITIAL PROJECT AREA
- BOUNDARY CHANGE AREA
- PROPOSED PV ARRAY
- PROPOSED INVERTER STATION
- PROPOSED 35KV COLLECTOR LINE
- PROPOSED 15-20' ACCESS ROAD
- PROPOSED BRIDGE
- PROPOSED VEGETATIVE BUFFER
- PROPOSED SECURITY FENCE
- PROPOSED COLLECTOR SUBSTATION - INCLUDED IN INITIAL PROJECT AREA
- PROPOSED AEP SWITCHYARD - INCLUDED IN INITIAL PROJECT AREA
- TEMPORARY PARKING & LAYDOWN AREA
- PROPOSED ACCESS POINT
- OHP — *EXISTING OVERHEAD POWER*
- *EXISTING TREES*
- RW RW — *ROAD RIGHT-OF-WAY*
- *PROPERTY LINE*
- *FIBER OPTIC LINE EASEMENT*
- *TRANSMISSION LINE EASEMENT*
- *DELINEATED STREAM*
- *RESIDENTIAL STRUCTURE (PARTICIPATING)*
- *RESIDENTIAL STRUCTURE (NON-PARTICIPATING WITH 200FT BUFFER)*

SETBACKS

- *FIELD DELINEATED WETLANDS*
- *FEMA 100 YEAR FLOODPLAIN*
- *NO DEVELOPMENT AREA*
- *SIGNIFICANT CULTURAL AREA*
- *INITIAL PROJECT AREA*

NOTES

- FINAL PROPERTY LINES, RIGHT-OF-WAYS, EASEMENTS, AND EXISTING INFRASTRUCTURE MAY BE REVISED ONCE ON-SITE ALTA SURVEY HAS BEEN COMPETED.



KEYMAP

EDF renewables
15445 Innovation Dr.
San Diego, CA 92128

N
W E
S

0 175 350 700

NAD83 OHIO STATE PLANES, SOUTHERN ZONE, US FOOT

THIS DRAWING IS PRELIMINARY AND IS NOT TO BE USED FOR CONSTRUCTION. FOR REVIEW PURPOSES ONLY.

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www.ulteig.com

Design By:	T. BERENDS
Drawn By:	B. PEDERSON
Approved By:	C. SMAALADEN
Project Number:	21.00665

SITE PLAN (3 OF 3)

DWG #: FSS-CVL-003

REVISION: 0D

2021.09.22

APPENDIX E

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : **60**

SITE NAME/LOCATION: **Fox Squirrel Mt. Sterling, Ohio**

SITE NUMBER: | RIVER BASIN: | DRAINAGE AREA (mi²):

LENGTH OF STREAM REACH (ft): **8,542** | LAT. | LONG. | RIVER CODE | RIVER MILE

DATE: **11/12/20** | SCORER: **C. Brendel** | COMMENTS: **Bradford Branch - intermittent portion**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☑ RECOVERING ☐ RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT
	BLDR SLABS [16 pts]	0%
	BOULDER (>256 mm) [16 pts]	0%
	BEDROCK [16 pt]	0%
	COBBLE (65-256 mm) [12 pts]	0%
☑	GRAVEL (2-64 mm) [9 pts]	25%
	SAND (<2 mm) [6 pts]	0%

TYPE		PERCENT
☑	SILT [3 pt]	50%
	LEAF PACK/WOODY DEBRIS [3 pts]	0%
	FINE DETRITUS [3 pts]	0%
	CLAY or HARDPAN [0 pt]	25%
	MUCK [0 pts]	0%
	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: **0.00%** (A)

Substrate Percentage Check: 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **12**

TOTAL NUMBER OF SUBSTRATE TYPES: **3**

2. Maximum Pool Depth ***(Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

- ☐ > 30 centimeters [20 pts]
- ☐ > 22.5 - 30 cm [30 pts]
- ☑ > 10 - 22.5 cm [25 pts]
- ☐ > 5 cm - 10 cm [15 pts]
- ☐ < 5 cm [5 pts]
- ☐ NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS: | **MAXIMUM POOL DEPTH (centimeters):**

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) **(Check *ONLY* one box):**

- ☐ > 4.0 meters (> 13') [30 pts]
- ☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]
- ☑ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]
- ☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
- ☐ ≤ 1.0 m (<=3' 3") [5 pts]

COMMENTS: | **AVERAGE BANKFULL WIDTH (meters):**

HHEI Metric Points

	Max	Score
Substrate	40	15
A + B		
Pool Depth	30	25
Bankfull Width	30	20

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH L	RIPARIAN WIDTH R	(Per Bank)	FLOODPLAIN QUALITY L	FLOODPLAIN QUALITY R	(Most Predominant per Bank)	L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☐	☐	Moderate 5-10m	☑	☐	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☑	☑	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☑	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS: Riparian quality relatively equal on both banks

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

- ☑ Stream Flowing
- ☐ Subsurface flow with isolated pools (Interstitial)
- ☐ Moist Channel, isolated pools, no flow (Intermittent)
- ☐ Dry channel, no water (Ephemeral)

COMMENTS:

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

- ☐ None
- ☐ 0.5
- ☐ 1.0
- ☐ 1.5
- ☑ 2.0
- ☐ 2.5
- ☐ 3.0
- ☐ >3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☑ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? - ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: **Mt. Sterling, Ohio** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Madison** Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): **N** Date of last precipitation: _____ Quantity: **0.00**

Photograph Information: _____

Elevated Turbidity? (Y/N): **N** Canopy (% open): **0%**

Were samples collected for water chemistry? (Y/N): **N** (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) **N** If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): **Y** (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) **Y** Voucher? (Y/N) **N** Salamanders Observed? (Y/N) **N** Voucher? (Y/N) **N**

Frogs or Tadpoles Observed? (Y/N) **Y** Voucher? (Y/N) **N** Aquatic Macroinvertebrates Observed? (Y/N) **Y** Voucher? (Y/N) **N**

Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW →

Save as pdf Reset Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : 77

SITE NAME/LOCATION: Fox Squirrel Mt. Sterling, Ohio

SITE NUMBER: | RIVER BASIN: | DRAINAGE AREA (mi²):

LENGTH OF STREAM REACH (ft): 8,542 | LAT. | LONG. | RIVER CODE | RIVER MILE

DATE: 11/12/20 | SCORER: C. Brendel | COMMENTS: Bradford Branch - perennial portion

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☑ RECOVERED ☐ RECOVERING ☐ RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐	BLDR SLABS [16 pts]	0%	☑	SILT [3 pt]	35%
☐	BOULDER (>256 mm) [16 pts]	0%	☐	LEAF PACK/WOODY DEBRIS [3 pts]	15%
☐	BEDROCK [16 pt]	5%	☐	FINE DETRITUS [3 pts]	0%
☐	COBBLE (65-256 mm) [12 pts]	0%	☐	CLAY or HARDPAN [0 pt]	0%
☑	GRAVEL (2-64 mm) [9 pts]	45%	☐	MUCK [0 pts]	0%
☐	SAND (<2 mm) [6 pts]	0%	☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: 5.00% (A) | Substrate Percentage Check: 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 **TOTAL NUMBER OF SUBSTRATE TYPES:** 5

HHEI Metric Points

Substrate Max = 40

17

A + B

2. Maximum Pool Depth ***(Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

- ☐ > 30 centimeters [20 pts]
- ☑ > 22.5 - 30 cm [30 pts]
- ☐ > 10 - 22.5 cm [25 pts]
- ☐ > 5 cm - 10 cm [15 pts]
- ☐ < 5 cm [5 pts]
- ☐ NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS: | **MAXIMUM POOL DEPTH (centimeters):**

Pool Depth Max = 30

30

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) **(Check *ONLY* one box):**

- ☑ > 4.0 meters (> 13') [30 pts]
- ☐ > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]
- ☐ > 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]
- ☐ > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
- ☐ ≤ 1.0 m (<=3' 3") [5 pts]

COMMENTS: | **AVERAGE BANKFULL WIDTH (meters):**

Bankfull Width Max=30

30

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☑	☑	Moderate 5-10m	☑	☐	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☐	☐	Narrow <5m	☐	☐	Residential, Park, New Field	☐	☑	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS: Riparian quality relatively equal on both banks

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

- ☑ Stream Flowing
- ☐ Subsurface flow with isolated pools (Interstitial)
- ☐ Moist Channel, isolated pools, no flow (Intermittent)
- ☐ Dry channel, no water (Ephemeral)

COMMENTS:

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐ None	☐ 1.0	☐ 2.0	☐ 3.0
☐ 0.5	☐ 1.5	☑ 2.5	☐ >3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☑ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? - ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: **Mt. Sterling, Ohio** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Madison** Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): **N** Date of last precipitation: _____ Quantity: **0.00**

Photograph Information: _____

Elevated Turbidity? (Y/N): **N** Canopy (% open): **0%**

Were samples collected for water chemistry? (Y/N): **N** (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) **N** If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): **Y** (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) **Y** Voucher? (Y/N) **N** Salamanders Observed? (Y/N) **N** Voucher? (Y/N) **N**

Frogs or Tadpoles Observed? (Y/N) **Y** Voucher? (Y/N) **N** Aquatic Macroinvertebrates Observed? (Y/N) **Y** Voucher? (Y/N) **N**

Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW →

Save as pdf Reset Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : **44**

SITE NAME/LOCATION: **Fox Squirrel Mt. Sterling, Ohio**

SITE NUMBER: _____ RIVER BASIN: _____ DRAINAGE AREA (mi²): _____

LENGTH OF STREAM REACH (ft): **1,027** LAT.: _____ LONG.: _____ RIVER CODE: _____ RIVER MILE: _____

DATE: **11/12/20** SCORER: **C. Brendel** COMMENTS: **Stream 2 - ephemearl**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☑ RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐ ☐	BLDR SLABS [16 pts]	0%	☑ ☐	SILT [3 pt]	50%
☐ ☐	BOULDER (>256 mm) [16 pts]	0%	☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐ ☐	BEDROCK [16 pt]	0%	☐ ☐	FINE DETRITUS [3 pts]	0%
☐ ☐	COBBLE (65-256 mm) [12 pts]	0%	☐ ☐	CLAY or HARDPAN [0 pt]	50%
☐ ☑	GRAVEL (2-64 mm) [9 pts]	0%	☐ ☐	MUCK [0 pts]	0%
☐ ☐	SAND (<2 mm) [6 pts]	0%	☐ ☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: **0.00%** (A)

Substrate Percentage Check: 100% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **12** **TOTAL NUMBER OF SUBSTRATE TYPES:** **2**

HHEI Metric Points

Substrate Max = 40

14

A + B

2. Maximum Pool Depth ***(Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐	> 30 centimeters [20 pts]	☑	> 5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5 pts]
☐	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS: _____ **MAXIMUM POOL DEPTH (centimeters):** _____

Pool Depth Max = 30

15

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) **(Check *ONLY* one box):**

☐	> 4.0 meters (> 13') [30 pts]	☑	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☐	> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐	≤ 1.0 m (<=3' 3") [5 pts]
☐	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		

COMMENTS: _____ **AVERAGE BANKFULL WIDTH (meters):** _____

Bankfull Width Max=30

15

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☐	☐	Moderate 5-10m	☐	☐	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☑	☑	Narrow <5m	☐	☐	Residential, Park, New Field	☑	☑	Open Pasture, Row Crop
☐	☐	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS: Riparian quality relatively equal on both banks

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

☑ Stream Flowing ☐ Moist Channel, isolated pools, no flow (Intermittent)

☐ Subsurface flow with isolated pools (Interstitial) ☐ Dry channel, no water (Ephemeral)

COMMENTS: _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐ None ☑ 1.0 ☐ 2.0 ☐ 3.0

☐ 0.5 ☐ 1.5 ☐ 2.5 ☐ >3

STREAM GRADIENT ESTIMATE

☑ Flat (0.5 ft/100 ft) ☐ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? - ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: **Mt. Sterling, Ohio** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Madison** Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): **N** Date of last precipitation: _____ Quantity: **0.00**

Photograph Information: _____

Elevated Turbidity? (Y/N): **N** Canopy (% open): **0%**

Were samples collected for water chemistry? (Y/N): **N** (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) **N** If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): **Y** (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) **Y** Voucher? (Y/N) **N** Salamanders Observed? (Y/N) **N** Voucher? (Y/N) **N**

Frogs or Tadpoles Observed? (Y/N) **Y** Voucher? (Y/N) **N** Aquatic Macroinvertebrates Observed? (Y/N) **Y** Voucher? (Y/N) **N**

Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW →

Save as pdf Reset Form

Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3) : **66**

SITE NAME/LOCATION: **Fox Squirrel Mt. Sterling, Ohio**

SITE NUMBER: _____ RIVER BASIN: _____ DRAINAGE AREA (mi²): _____

LENGTH OF STREAM REACH (ft): **6,383** LAT.: _____ LONG.: _____ RIVER CODE: _____ RIVER MILE: _____

DATE: **11/12/20** SCORER: **C. Brendel** COMMENTS: **Bradford Creek**

NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instructions

STREAM CHANNEL MODIFICATIONS: ☐ NONE / NATURAL CHANNEL ☐ RECOVERED ☐ RECOVERING ☑ RECENT OR NO RECOVERY

1. SUBSTRATE (Estimate percent of every type of substrate present. Check *ONLY* two predominant substrate *TYPE* boxes (Max of 32). Add total number of significant substrate types found (Max of 8). Final metric score is sum of boxes A & B.

TYPE		PERCENT	TYPE		PERCENT
☐ ☐	BLDR SLABS [16 pts]	0%	☑ ☐	SILT [3 pt]	55%
☐ ☐	BOULDER (>256 mm) [16 pts]	0%	☐ ☐	LEAF PACK/WOODY DEBRIS [3 pts]	0%
☐ ☐	BEDROCK [16 pt]	0%	☐ ☐	FINE DETRITUS [3 pts]	0%
☐ ☐	COBBLE (65-256 mm) [12 pts]	0%	☐ ☐	CLAY or HARDPAN [0 pt]	10%
☐ ☑	GRAVEL (2-64 mm) [9 pts]	25%	☐ ☐	MUCK [0 pts]	5%
☐ ☐	SAND (<2 mm) [6 pts]	0%	☐ ☐	ARTIFICIAL [3 pts]	0%

Total of Percentages of Bldr Slabs, Boulder, Cobble, Bedrock: **0.00%** (A)

Substrate Percentage Check: 95% (B)

SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: **12** **TOTAL NUMBER OF SUBSTRATE TYPES:** **4**

HHEI Metric Points

Substrate Max = 40

16

A + B

2. Maximum Pool Depth ***(Measure the maximum pool depth within the 61 meter (200 ft)*** evaluation reach at the time of evaluation. Avoid plunge pools from road culverts or storm water pipes) (Check *ONLY* one box):

☐	> 30 centimeters [20 pts]	☐	> 5 cm - 10 cm [15 pts]
☐	> 22.5 - 30 cm [30 pts]	☐	< 5 cm [5 pts]
☑	> 10 - 22.5 cm [25 pts]	☐	NO WATER OR MOIST CHANNEL [0 pts]

COMMENTS: _____ **MAXIMUM POOL DEPTH (centimeters):** _____

Pool Depth Max = 30

25

3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) **(Check *ONLY* one box):**

☐	> 4.0 meters (> 13') [30 pts]	☐	> 1.0 m - 1.5 m (> 3' 3" - 4' 8") [15 pts]
☑	> 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	☐	≤ 1.0 m (<=3' 3") [5 pts]
☐	> 1.5 m - 3.0 m (> 9' 7" - 4' 8") [20 pts]		

COMMENTS: _____ **AVERAGE BANKFULL WIDTH (meters):** _____

Bankfull Width Max=30

25

This information must also be completed

RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆

RIPARIAN WIDTH (Per Bank) L	R	FLOODPLAIN QUALITY (Most Predominant per Bank) L	R		L	R	
☐	☐	Wide >10m	☐	☐	Mature Forest, Wetland	☐	☐	Conservation Tillage
☐	☐	Moderate 5-10m	☐	☐	Immature Forest, Shrub or Old Field	☐	☐	Urban or Industrial
☐	☐	Narrow <5m	☐	☐	Residential, Park, New Field	☑	☑	Open Pasture, Row Crop
☑	☑	None	☐	☐	Fenced Pasture	☐	☐	Mining or Construction

COMMENTS: riparian quality relatively equal on both banks

FLOW REGIME *(At Time of Evaluation)* (Check *ONLY* one box):

☑ Stream Flowing
☐ Subsurface flow with isolated pools (Interstitial)
☐ Moist Channel, isolated pools, no flow (Intermittent)
☐ Dry channel, no water (Ephemeral)

COMMENTS: _____

SINUOSITY (Number of bends per 61 m (200 ft) of channel) (Check *ONLY* one box):

☐ None ☐ 1.0 ☐ 2.0 ☐ 3.0
☑ 0.5 ☐ 1.5 ☐ 2.5 ☐ >3

STREAM GRADIENT ESTIMATE

☐ Flat (0.5 ft/100 ft) ☑ Flat to Moderate ☐ Moderate (2 ft/100 ft) ☐ Moderate to Severe ☐ Severe (10 ft/100 ft)

ADDITIONAL STREAM INFORMATION (This Information Must Also be Completed):

QHEI PERFORMED? - ☐ Yes ☑ No QHEI Score _____ (If Yes, Attach Completed QHEI Form)

DOWNSTREAM DESIGNATED USE(S)

☐ WWH Name: _____ Distance from Evaluated Stream _____

☐ CWH Name: _____ Distance from Evaluated Stream _____

☐ EWH Name: _____ Distance from Evaluated Stream _____

MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION

USGS Quadrangle Name: **Mt. Sterling, Ohio** NRCS Soil Map Page: _____ NRCS Soil Map Stream Order _____

County: **Madison** Township / City: _____

MISCELLANEOUS

Base Flow Conditions? (Y/N): **N** Date of last precipitation: _____ Quantity: **0.00**

Photograph Information: _____

Elevated Turbidity? (Y/N): **N** Canopy (% open): **0%**

Were samples collected for water chemistry? (Y/N): **N** (Note lab sample no. or id. and attach results) Lab Number: _____

Field Measures: Temp (°C) _____ Dissolved Oxygen (mg/l) _____ pH (S.U.) _____ Conductivity (µmhos/cm) _____

Is the sampling reach representative of the stream (Y/N) **N** If not, please explain: _____

Additional comments/description of pollution impacts: _____

BIOTIC EVALUATION

Performed? (Y/N): **N** (If Yes, Record all observations. Voucher collections optional. NOTE: all voucher samples must be labeled with the site ID number. Include appropriate field data sheets from the Primary Headwater Habitat Assessment Manual)

Fish Observed? (Y/N) **Y** Voucher? (Y/N) **N** Salamanders Observed? (Y/N) **N** Voucher? (Y/N) **N**

Frogs or Tadpoles Observed? (Y/N) **Y** Voucher? (Y/N) **N** Aquatic Macroinvertebrates Observed? (Y/N) **Y** Voucher? (Y/N) **N**

Comments Regarding Biology: _____

DRAWING AND NARRATIVE DESCRIPTION OF STREAM REACH (This must be completed):

Include important landmarks and other features of interest for site evaluation and a narrative description of the stream's location

FLOW →

Save as pdf Reset Form

APPENDIX F

December 16, 2020

Geenex Solar
1930 Abbott Street
Charlotte, North Carolina 28203

Attn: Mr. Juergen Fehr
E: juergen.fehr@geenexsolar.com

Re: Threatened and Endangered Species Report
Proposed Fox Squirrel Solar Farm – Additional Parcels
Yankeetown-Chenoweth Road
Mt. Sterling, Madison County, Ohio
Terracon Project No. N1207473

Dear Mr. Fehr:

Terracon is pleased to submit the Threatened and Endangered (T&E) Species Review report for the above referenced project. The purpose of our services was to characterize the existing site conditions in an effort to identify any potential habitat for T&E species and submit a report of the findings.

Terracon appreciates the opportunity to have worked for you on this project. If you have any questions regarding the content of this report, please contact me at (513) 612-9094 or via email at swest@terracon.com.

Sincerely,
TERRACON Consultants, Inc.

For

Cassie Brendel
Staff Scientist

Scott E. West
Group Manager

Threatened and Endangered Species Review

Proposed Fox Squirrel Solar Farm – Additional Parcels

Yankeetown-Chenoweth Road

Mt. Sterling, Madison County, Ohio

Date: December 16, 2020

Terracon Project No. N1207473

Prepared for:

Geenex Solar

Charlotte, North Carolina

Prepared by:

Terracon Consultants, Inc.

Cincinnati, Ohio

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APPENDIX C – IPAC DOCUMENTS

Threatened and Endangered Species Review
Proposed Fox Squirrel Solar Farm – Additional Parcels
YankeetownChenoweth Road
Mt. Sterling, Madison County, Ohio
Terracon Project No. N1207473
December 16, 2020

1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) was retained by Geenex (client) to perform a Threatened and Endangered (T&E) Species Review in an effort to identify any known occurrences of federally listed T&E species or any areas of designated critical habitat on or in the vicinity of the proposed, approximately 1,482-acre property, hereafter referred to as the project site. The project site is located between Yankeetown-Chenoweth Road and County Road 84 near Mt. Sterling, Madison County, Ohio. The project site location is depicted on Exhibit 1 in Appendix A.

The purpose of performing a threatened and endangered review at the project site was to characterize the existing site conditions, observe the project site for any potential habitat of federally listed T&E species, and provide recommendations regarding whether or not the T&E species are at risk of take, if potential habitat is observed.

It is important to note that the findings presented in this report represent Terracon's professional opinion, based upon field observations made during the site visit and our experience with current regulatory guidance under the Endangered Species Act. In order to verify the findings presented in this report, further consultation with the United States Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR) may be necessary.

2.0 SCOPE OF SERVICES

Terracon performed the following scope of work:

- Regulatory correspondence regarding the potential of threatened, endangered, and candidate species to be listed in the vicinity of the project site;
- Reviewed aerial photographs to assist with identifying existing project site conditions;
- Mobilized to the project site to conduct the preliminary site visit; and
- Completed a T&E Species Review that included project site characterization information, a discussion of applicable data, and recommendations for the project site.

3.0 THREATENED AND ENDANGERED SPECIES REVIEW

Terracon has requested a file review by the USFWS and the ODNR in an effort to identify any known occurrences of federally listed T&E species or any areas of designated critical habitat on or in the vicinity of the project site. Concurrence from the USFWS and ODNR has not been received. Additionally, Terracon has reviewed the USFWS Information for Planning and Conservation (IPAC) website for a list of threatened, endangered, and candidate to be listed species for Madison County, Ohio. The IPAC listed three species, which are discussed below. Critical habitat for these species was not identified within project site boundaries. The IPAC review has been included as Appendix C.

- The Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*) are federally-listed, endangered species known to occur in Madison County, Ohio. Potential summer roosting habitat for these species generally consists of sites that contain mature and/or standing dead trees with exfoliating bark, and/or stream/river corridors which serve as flight paths. Additionally, sites that contain caves could be used by the Indiana bat and Northern long-eared bat for winter hibernacula. In addition to on-site streams (ephemeral, intermittent, and perennial), forested areas containing mature trees and with relatively open understories were observed within the site boundaries. Therefore, it is Terracon's opinion that potential habitat was identified on the project site. Due to the presence of potential habitat, any tree clearing would need to be performed seasonally (between October 1st and March 31st) to avoid a potential take of the species. If seasonal tree clearing is not possible, additional investigations and consultation with regulatory agencies and may be necessary.

- The Scioto madtom (*Noturus trautmani*) is a federally-listed, endangered fish species listed as potentially occurring in Madison County, Ohio. This species was typically found in high quality water in stream riffles of moderate currents on gravel bottoms. Streams meeting these criteria were observed on site during the site reconnaissance. However, because madtom populations have not been observed since 1957, it is Terracon's opinion that this species is not present on the project site. Additionally, based on the proposed project activities that include avoidance of impacts to water features, it is Terracon's opinion that there is not likely to be an adverse effect on this species.

4.0 SITE RECONNAISSANCE

A site reconnaissance was performed on November 12, 2020, to determine if potential habitat for federally and/or state listed species was present at the project site. The project site consisted of agricultural land, with forested areas in the northern and southern portions. Ground photographs,

included in Appendix B, provide an indication of the physical characteristics observed during the site visit. Descriptions of the observed areas are listed in the following sections.

4.1 Plant Communities Found at Project Site

4.1.1 Emergent Wetlands

The dominant plant species observed in the two emergent wetland areas observed on the project site were reed canary grass (*Phalaris arundinacea*).

4.1.2 Forested Uplands

The dominant plant species observed in the forested upland areas were Osage orange (*Maclura pomifera*), white ash (*Fraxinus americana*), black locust (*Robinia pseudoacacia*), honeylocust (*G. tricanthos*), black walnut (*Juglans nigra*), eastern redcedar (*Juniperus virginiana*), honeysuckle (*Lonicera maackii*), white oak (*Quercus alba*), shagbark hickory (*Carya ovata*), and blackberry (*Rubus allegheniensis*). The forested upland areas contained snags, as well as numerous trees containing exfoliating bark and cracked branches.

4.1.3 Emergent Uplands

The dominant plant species observed in the emergent upland areas were yellow foxtail (*Setaria pumila*) and Canada wildrye (*Elymus canadensis*).

4.1.4 Agricultural Uplands

The dominant plant species observed in the agricultural upland areas were the remnants of corn (*Zea mays*).

5.0 SUMMARY AND CONCLUSION

A T&E species review of the approximately 1,482-acre project site located in Mt. Sterling, Ohio was conducted on November 12, 2020. The review utilized readily available information including, but not limited to, IPAC documentation, aerial imagery and other available data to assist with the findings. In addition, a preliminary site visit was performed to characterize the existing site conditions and observe the project site for potential T&E habitat.

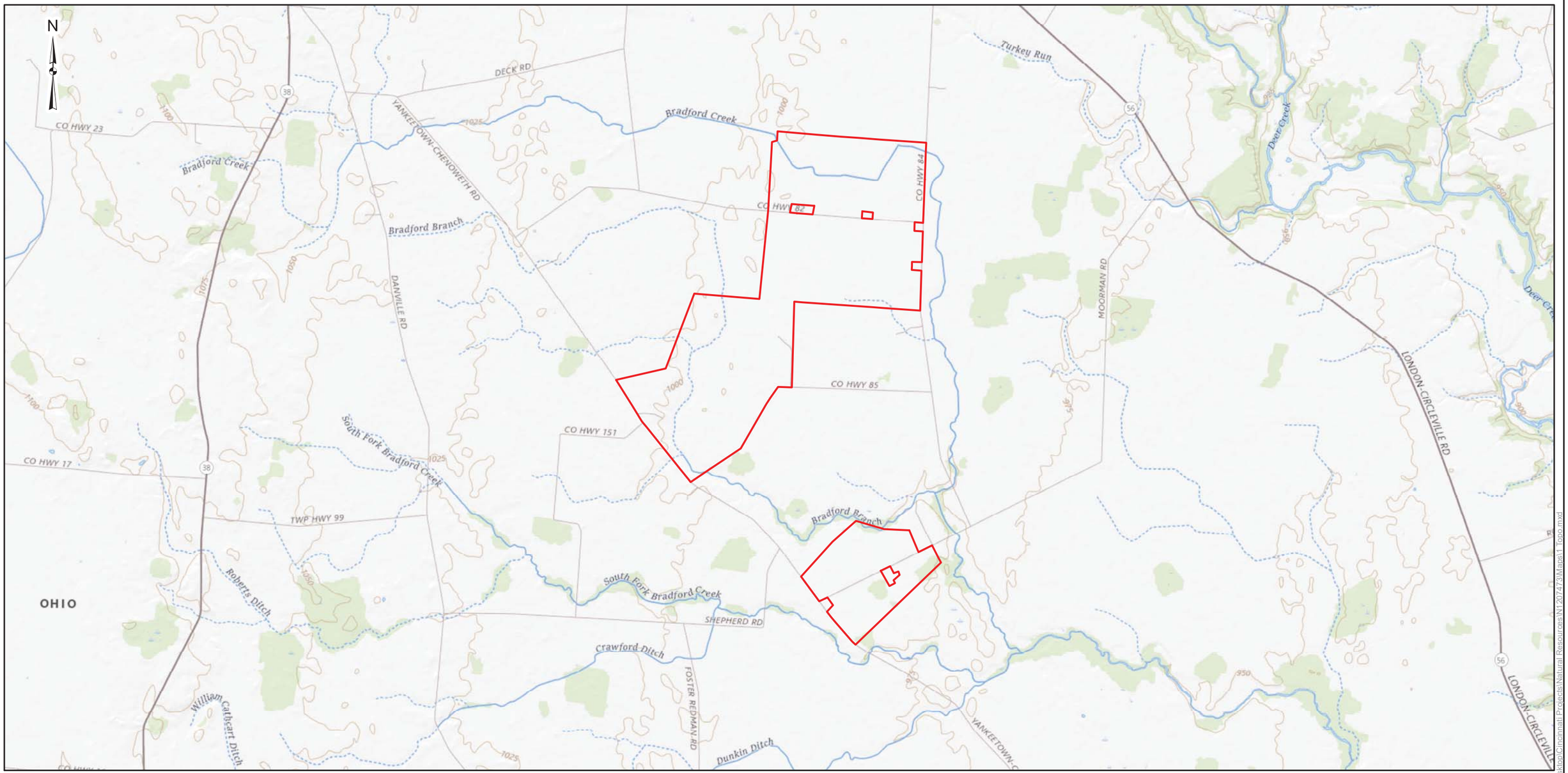
Terracon has reviewed the USFWS IPAC website for a list of threatened, endangered, and candidate species to be listed in the vicinity of the project site for Madison County, Ohio, which listed three species. In addition, a preliminary site visit was performed to characterize the existing site conditions and observe the project site for potential T&E species habitat. Potential habitat

was determined to be present for all three federally listed species. Due to the presence of potential habitat for the Indiana and Northern long-eared bats, any tree clearing would need to be performed seasonally to avoid a potential take of the species. If seasonal tree clearing is not possible, additional investigations and consultation with regulatory agencies may be necessary. Based on the proposed project activities that include avoidance of impacts to water features, it is Terracon's opinion that there is not likely to be an adverse effect on remaining listed species. If impacts to on-site waters are unavoidable as the project progresses, additional investigations and consultation with regulatory agencies may be necessary.

Therefore, it is Terracon's opinion that the proposed activities are not likely to adversely affect any listed species.

Appendices

APPENDIX A – EXHIBIT



Legend

Project Site Boundary

DATA SOURCES:
ESRI WMS - World Aerial Imagery, Maxar, GeoEye, OpenStreetMap, USDA, USGS

0 0.25 0.5 1 Miles

1:40,000

Project No.:	N1207473
Date:	11/16/2020
Drawn By:	MDP
Reviewed By:	SEW

Terracon
611 Lunken Park Drive Cincinnati, Ohio 45226
PH: (513) 321-5816 FAX: (513) 321-0294

USGS Topographic Map

Wetland Delineation Report
Fox Squirrel II Solar Project
Yanketown-Chenoweth Road
Madison County, Ohio

Exhibit

1

APPENDIX B – GROUND PHOTOGRAPHS

Terracon
Consulting Engineers & Scientists

Photographic Documentation

Client:	Fox Squirrel Additional Parcels	**Project Number:**	N1207473
Location:	Yankeetown Chenoweth Road Mt. Sterling, Ohio	**Photographer**:	C. Brendel

Photograph No. 1

Date: November 12, 2020

Direction: East

Description:
General view of the southern portion of the site.

Photograph No. 2

Date: November 12, 2020

Direction: West

Description:
General view of the northern portion of the site.

Terracon
Consulting Engineers & Scientists

Photographic Documentation

Client:	Fox Squirrel Additional Parcels	**Project Number:**	N1207473
Location:	Yankeetown Chenoweth Road Mt. Sterling, Ohio	**Photographer**:	C. Brendel

Photograph No. 3

Date: November 12, 2020

Direction: West

Description:
Bradford Creek

Photograph No. 4

Date: November 12, 2020

Direction: North

Description:
Bradford Branch (intermittent)

Terracon
Consulting Engineers & Scientists

Photographic Documentation

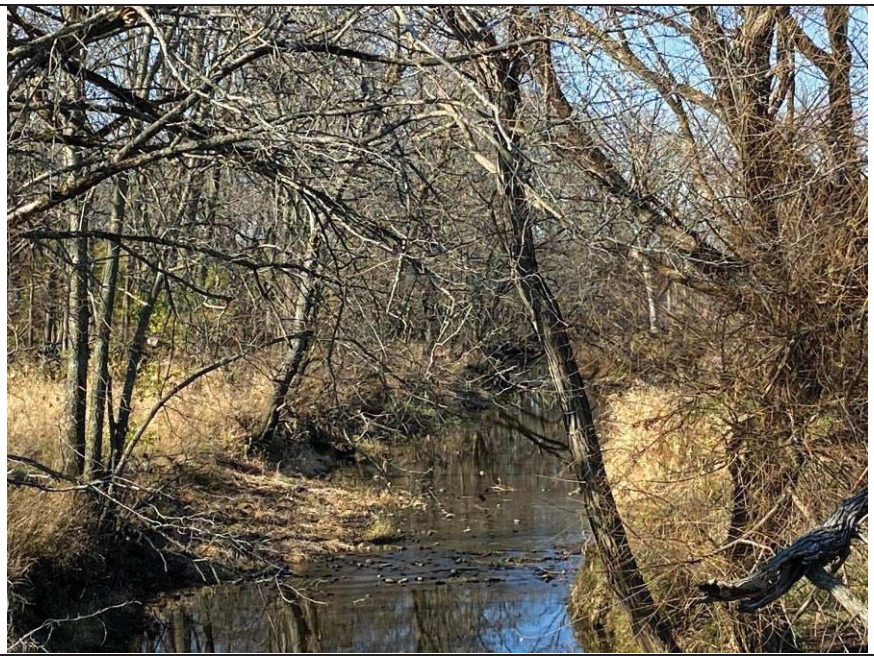
Client:	Fox Squirrel Additional Parcels	**Project Number:**	N1207473
Location:	Yankeetown Chenoweth Road Mt. Sterling, Ohio	**Photographer**:	C. Brendel

Photograph No. 5

Date: November 12, 2020

Direction: North

Description:
Bradford Branch (perennial) and potential roost trees



Photograph No. 6

Date: November 12, 2020

Direction: East

Description:
View of forested area and potential roost trees

APPENDIX C – IPAC DOCUMENTS

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
Phone: (614) 416-8993 Fax: (614) 416-8994

In Reply Refer To: March 09, 2021
Consultation Code: 03E15000-2021-SLI-0945
Event Code: 03E15000-2021-E-01314
Project Name: Fox Squirrel II - Additional Parcels

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 ECOS-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 ECOS-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.

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:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.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, intentional or unintentional, 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 http://www.fws.gov/migratorybirds/RegulationsandPolicies.html.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. 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 http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/BirdHazards.html.

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 http://www.fws.gov/migratorybirds/AboutUS.html.

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:

Ohio Ecological Services Field Office
4625 Morse Road, Suite 104
Columbus, OH 43230-8355
(614) 416-8993

Project Summary

Consultation Code: 03E15000-2021-SLI-0945
Event Code: 03E15000-2021-E-01314
Project Name: Fox Squirrel II - Additional Parcels
Project Type: POWER GENERATION
Project Description: Solar Energy Project
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.806181,-83.40925167186703,14z

Counties: Madison County, Ohio

Endangered Species Act Species

There is a total of 3 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. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Scioto Madtom *Noturus trautmani* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5395	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Summary: Application - 13 of 24 (Exhibit J – Ecological Resource Analysis Report) electronically filed by Christine M.T. Pirik on behalf of Fox Squirrel Solar, LLC