DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SAVANNAH DISTRICT
4751 BEST ROAD, SUITE 140
COLLEGE PARK, GEORGIA 30337

CESAS – RDP 20 February 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) ,[1] SAS-2022-00681[2]

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[3] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[4] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[5] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 "Revised Definition of 'Waters of the United States,'" as

[1] While the Supreme Court's decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.
[2] When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, interstate water, or territorial seas that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).
[3] 33 CFR 331.2.
[4] Regulatory Guidance Letter 05-02.
[5] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in this state due to litigation.

1. SUMMARY OF CONCLUSIONS.

   a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

Name of Aquatic Resource	JD or Non-JD	Section 404/Section 10
PA002	Non-JD	NA
PA003	Non-JD	NA
PA004	Non-JD	NA
WA007	Non-JD	NA
WA008	Non-JD	NA
WA009	Non-JD	NA
WA010	Non-JD	NA

   i. PA002, Pond, Non-jurisdictional

   ii. PA003, Pond, Non-jurisdictional

   iii. PA004, Pond, Non-jurisdictional

   iv. WA007, Wetland, Non-jurisdictional

   v. WA008, Wetland, Non-jurisdictional

   vi. WA009, Wetland, Non-jurisdictional

   vii. WA010, Wetland, Non-jurisdictional

2. REFERENCES.

   a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

   b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

   c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

   d. *Sackett v. EPA*, 598 U.S. _, 143 S. Ct. 1322 (2023)

3. REVIEW AREA.

   A. Project Area Size (in acres): 1,567
   B. Center Coordinates of the Project Site (in decimal degrees)
   Latitude: 32.280423, Longitude: -83.976552
   C. Nearest City or Town: Montezuma
   D. County: Macon
   E. State: Georgia

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED.

   A. Name of nearest downstream TNW, Territorial Sea or interstate water: Flint River, 2.56 miles to the west of the AJD review area.

   B. Determination based on: This determination was made based on a review of desktop data resources listed in Section 9 of this memorandum and a field visit conducted on 4/25/2023), a review of the SAS Section 10 list (for a water body that is navigable-in-fact under federal law for any purpose (such as Section 10, RHA), that water body categorically qualifies as a Section 404 "traditional navigable water" subject to CWA jurisdiction under 33 CFR 328.3(a)(1)), and documented (include in AR) occurrences of boating traffic on the identified water.

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS

   Features PA002, PA003, PA004 are pond features located within farmland, constructed in uplands, and have no outlet pipes. Therefore, has no connection to a TNW.

   Features WA007, WA008, WA009, and WA010 are wetlands that lack a surface flow connection to a tributary that would then connect to a TNW. The wetlands meet the hydrophytic vegetation, wetland hydrology, and hydric soil criteria of the 1987 Corps of Engineers Wetland Delineation Manual and the Eastern Mountains and Piedmont Regional Supplement.

6. SECTION 10 JURISDICTIONAL WATERS[6]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.[7] N/A

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

    a. TNWs (a)(1): N/A

    b. Interstate Waters (a)(2): N/A

    c. Other Waters (a)(3): N/A

    d. Impoundments (a)(4): N/A

    e. Tributaries (a)(5): N/A

    f. The territorial seas (a)(6): N/A

    g. Adjacent wetlands (a)(7): N/A

[6] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.

[7] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[8] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water.

Name of excluded feature	Size (in acres)	Specific exclusion a-e
PA002	1.14	Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
PA003	2.66	Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
PA004	0.74	Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance. N/A

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional

[8] 51 FR 41217, November 13, 1986.

based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*. N/A

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Name of excluded feature	Size (in acres)	Type of resource generally not jurisdictional
WA007	2.73	Wetland lacks a continuous surface connection to water of the US
WA008	3.86	Wetland lacks a continuous surface connection to water of the US
WA009	1.61	Wetland lacks a continuous surface connection to water of the US
WA010	1.21	Wetland lacks a continuous surface connection to water of the US

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

a. 1. Date of Office (desktop review): 2/20/2024 – CESAS-RDP
   2. Date(s) of Field Review (if applicable): 4/25/2023 – CESAS -RDP
b. Data sources used to support this determination (included in the administrative record).
   ☒ Aquatic Resources delineation submitted by, or on behalf of, the requestor: AJD Request - Brenneman Solar Site, received on July 6, 2022, PDF page 33, Figure 4, Brenneman Solar Farm Project, Index Map, Macon County, Georgia; PDF pages 41-48, Figure 5, Brenneman Solar Farm Project, Index Map and Sheets 1 - 7 Aquatic Resources Delineation Maps, Macon County, Georgia
   ☐ Aquatic Resources delineation prepared by the USACE: [redacted]
   ☐ Wetland field data sheets prepared by the Corps: [redacted]
   ☐ OHWM data sheets prepared by the USACE: [redacted]
   ☐ Previous JDs (AJD or PJD) addressing the same (or portions of the same) review area: ORM Numbers and Dates
   ☒ Photographs: AJD Request - Brenneman Solar Site, received on July 6, 2022, PDF pages 244-254, Photographic Log, Site Photographs 1 through 50, Brenneman Solar Farm Project, Macon County, Georgia

☒ Aerial Imagery: AJD Request - Brenneman Solar Site, received on July 6, 2022, PDF page 31, Figure 2, Brenneman Solar Farm Project, 2016 Aerial Imagery, Macon County, Georgia with project boundary
☒ LIDAR: National Regulatory Viewer utilizing LiDAR and hillshade layers accessed March 17, 2023, April 24, 2023 and utilizing filedmaps on April 25, 2023 and April 26, 2023
☐ USDA NRCS Soil Survey: [redacted]
☒ USFWS NWI maps: AJD Request - Brenneman Solar Site, received on July 6, 2022, PDF page 32, Figure 3, Brenneman Solar Farm Project, USGS National Hydrography Dataset Map, with USFWS National Wetlands Inventory and FEMA Flood Hazard Area, Macon County, Georgia
☒ USGS topographic maps: AJD Request - Brenneman Solar Site, received on July 6, 2022, PDF page 30, Figure 1, Brenneman Solar Farm Project, 7.5-minute USGS Topographic Map, Marshallville SW Quadrangle, Macon County, Georgia
☒ USGS NHD data/maps: AJD Request - Brenneman Solar Site, received on July 6, 2022, PDF page 32, Figure 3, Brenneman Solar Farm Project, USGS National Hydrography Dataset Map, with USFWS National Wetlands Inventory and FEMA Flood Hazard Area, Macon County, Georgia
☐ Section 10 resources used: [redacted]
☐ NCDWR stream identification forms
☐ Antecedent Precipitation Tool Analysis: [redacted]
☐ Other sources of Information: [redacted]

10. OTHER SUPPORTING INFORMATION.

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.

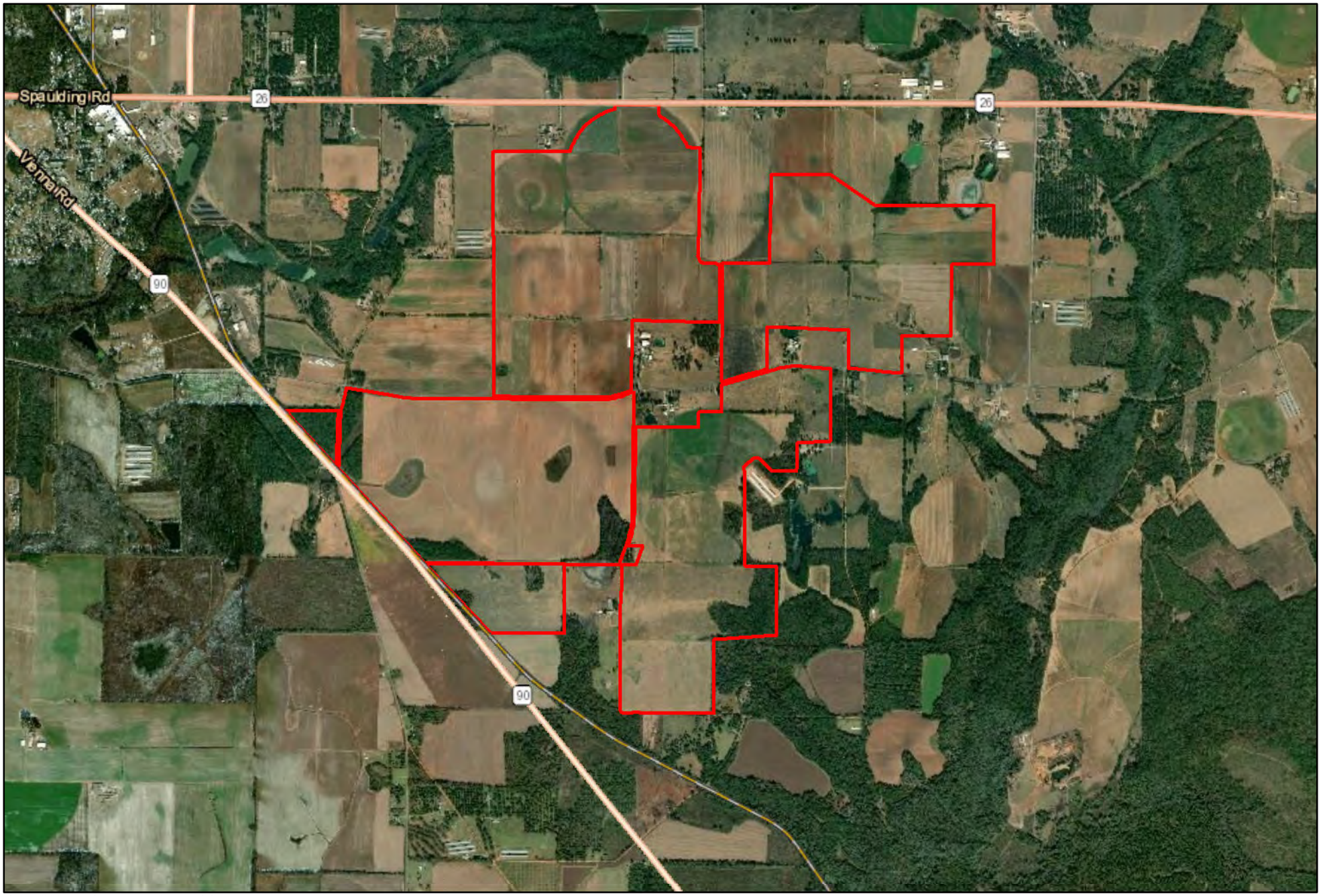
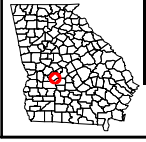


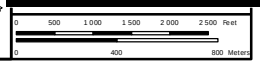
FIGURE 2

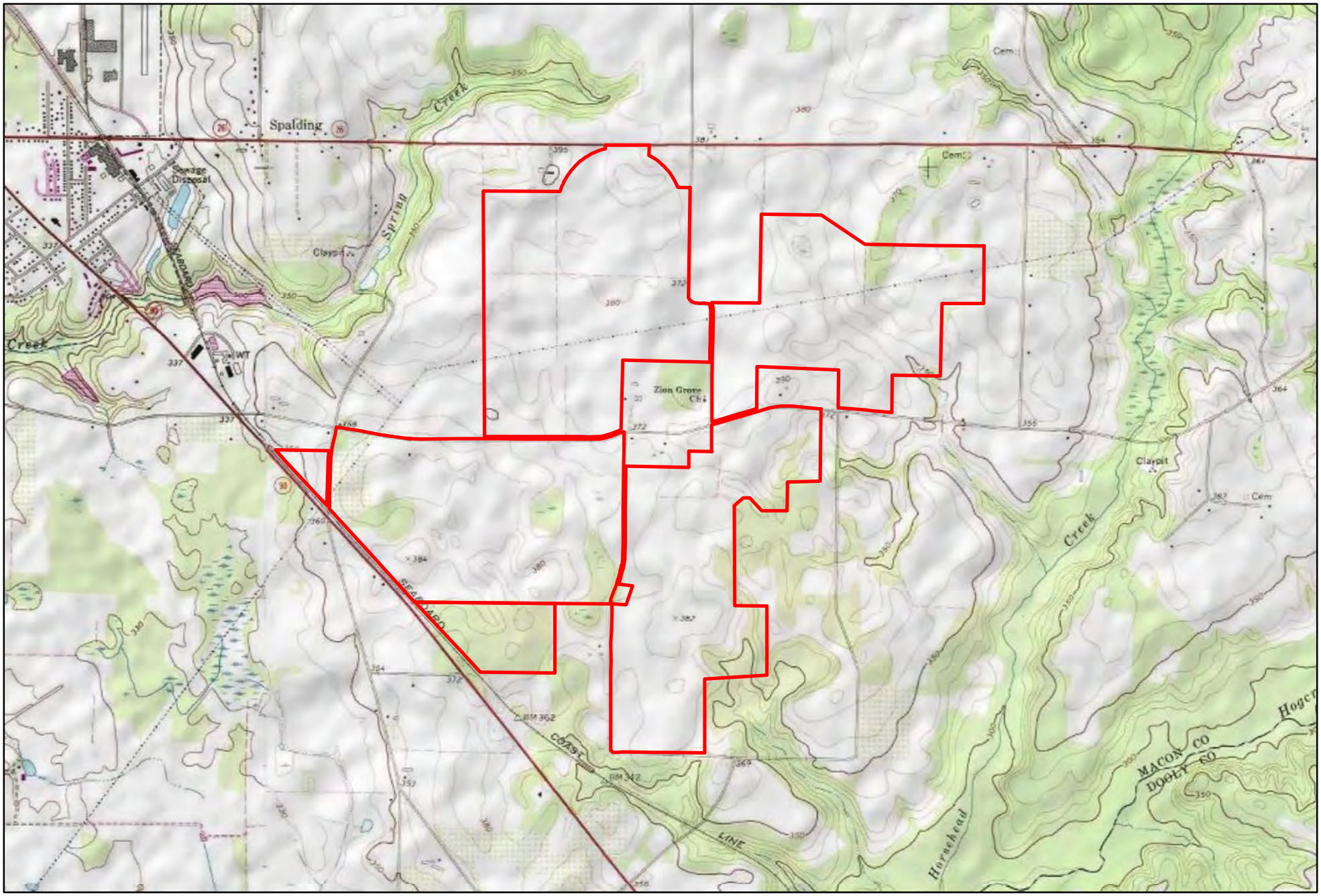
BRENNEMAN SOLAR FARM PROJECT

2016 AERIAL IMAGERY
MACON COUNTY, GEORGIA

Project Boundary







SWCA ENVIRONMENTAL CONSULTANTS

FIGURE 1

BRENNEMAN SOLAR FARM PROJECT

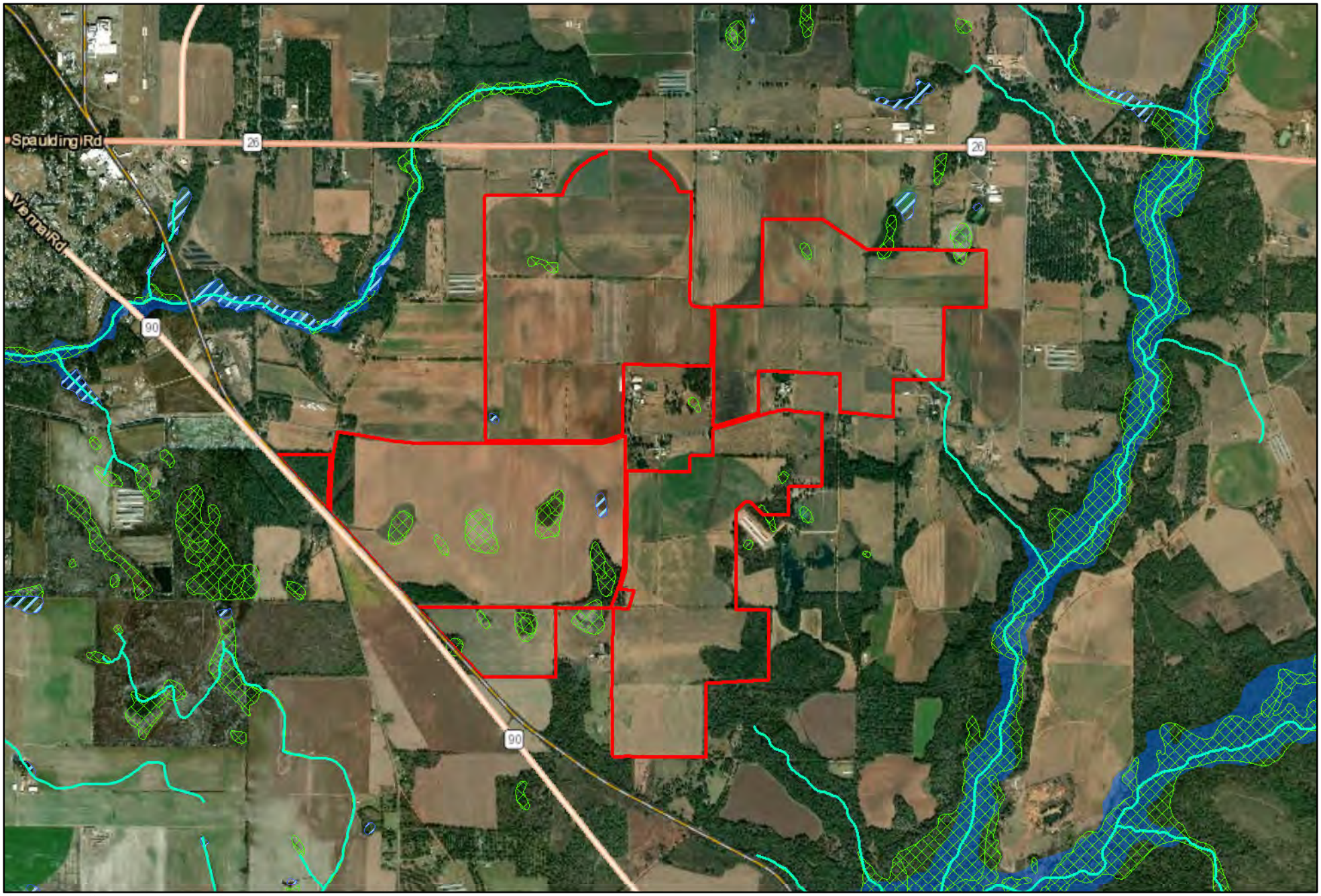
7.5-MINUTE USGS TOPOGRAPHIC
MARSHALLVILLE SW (1981) QUADRANGLE
MACON COUNTY, GEORGIA

Project Boundary

1:30,000

Created By: AB
Project Number: 60080
Date: 6/11/2020
NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 500 1 000 1 500 2 000 2 500 Feet
0 400 800 Meters



[redacted]

FIGURE 3

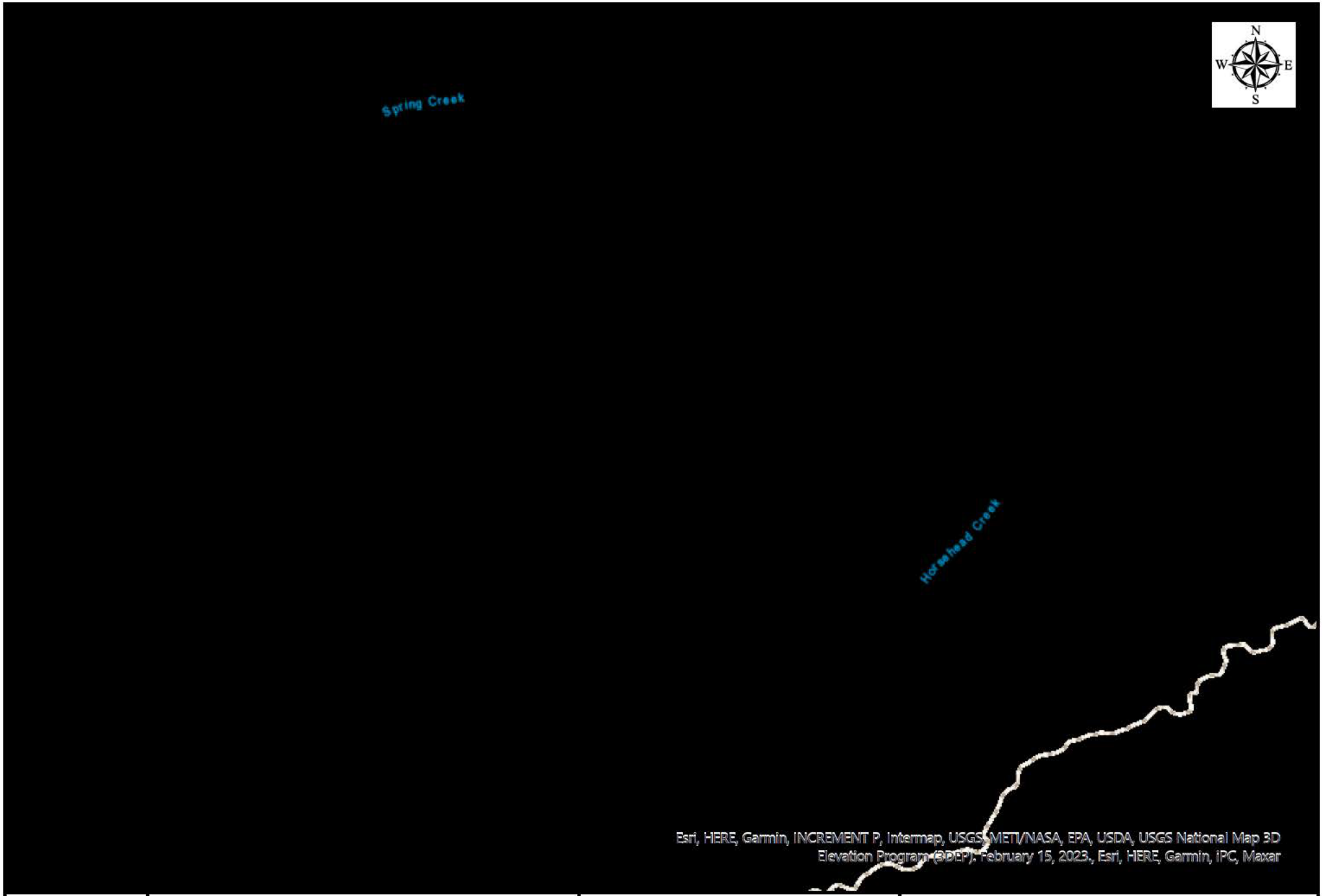
BRENNEMAN SOLAR FARM PROJECT

USGS NATIONAL HYDROGRAPHY DATASET
USFWS NATIONAL WETLANDS INVENTORY
FEMA FLOOD HAZARD AREA
MACON COUNTY, GEORGIA

Project Boundary
NHD Stream
100-Year Floodplain
NWI Wetland
NWI Lake/Pond

[redacted]

0 400 800 Meters



SAS-2022-00681 Brenneman Solar -Macon County AJD

0 0.28 0.55 1.1

mi

Map Center: 83.968935°W 32.276906°N

Map Created by: [redacted]

Date: 3/17/2023

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

Legend

N
W E
S

Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA, USGS National Map 3D Elevation Program (3DEP). April 13, 2023.

ABV-XXXX-XXXXX

0 0.5 1 2
mi

Map Center: 83.967379°W 32.275669°N

Map Created by: [redacted]

Date: 4/24/2023

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Projection: Mercator Auxiliary Sphere

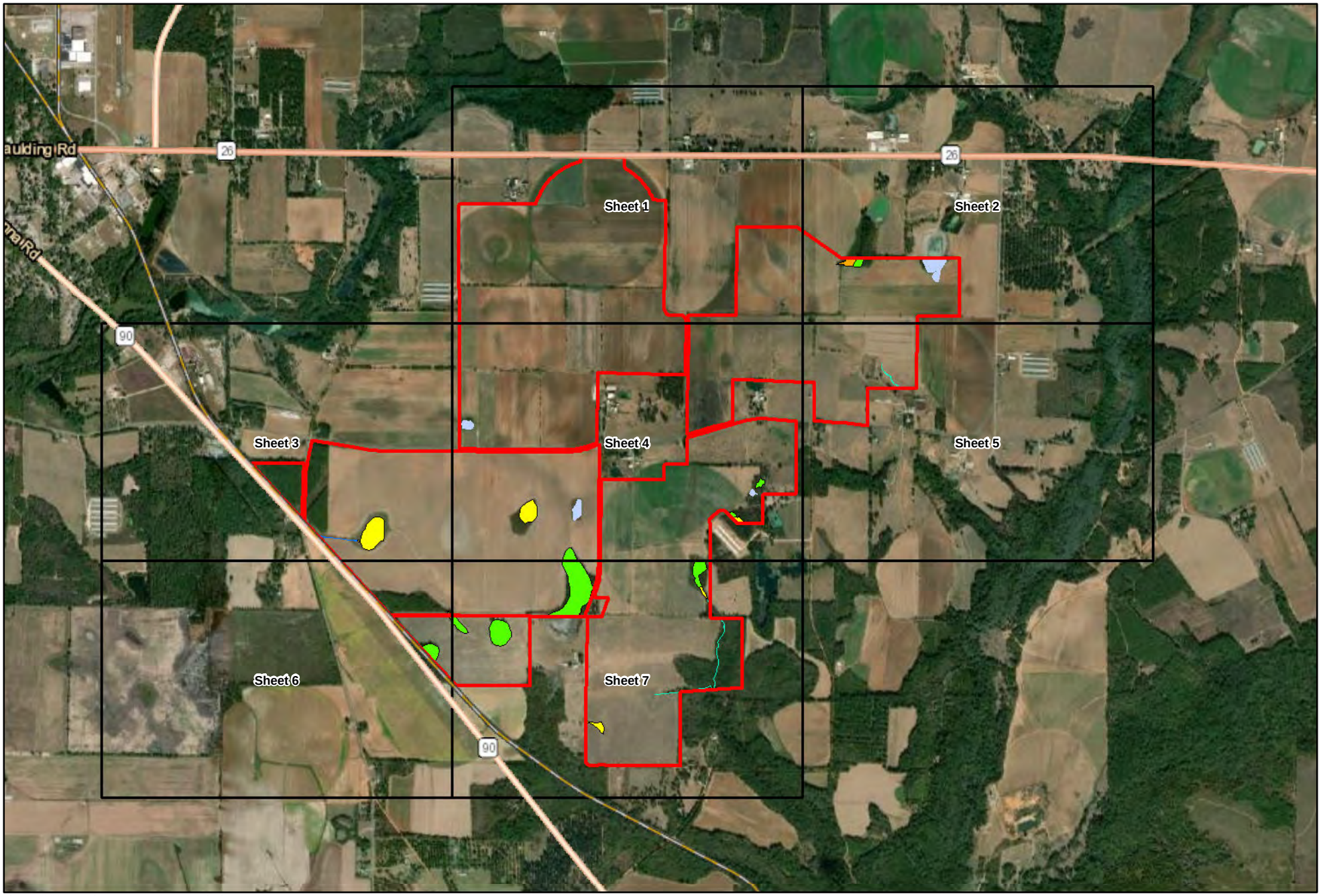
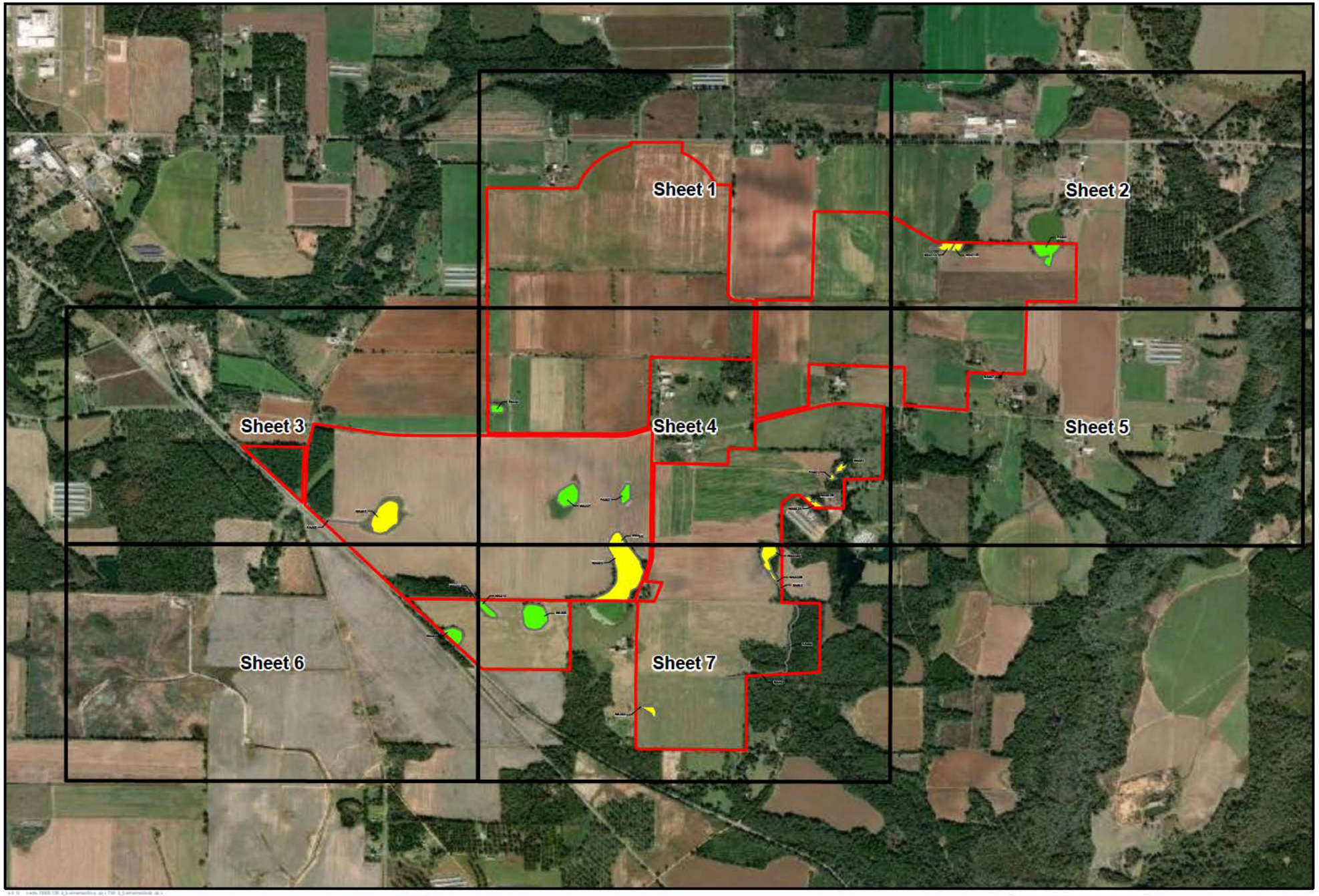


FIGURE 5

BRENNEMAN SOLAR FARM PROJECT

INDEX MAP
MACON COUNTY, GEORGIA



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BRENNEMAN SOLAR PROJECT
INDEX MAP
MACON COUNTY, GEORGIA

- Project Boundary
- Aquatic Resources Delineation Review (ARDR)
- Approved Jurisdictional Determination (AJD)
- Map Sheet

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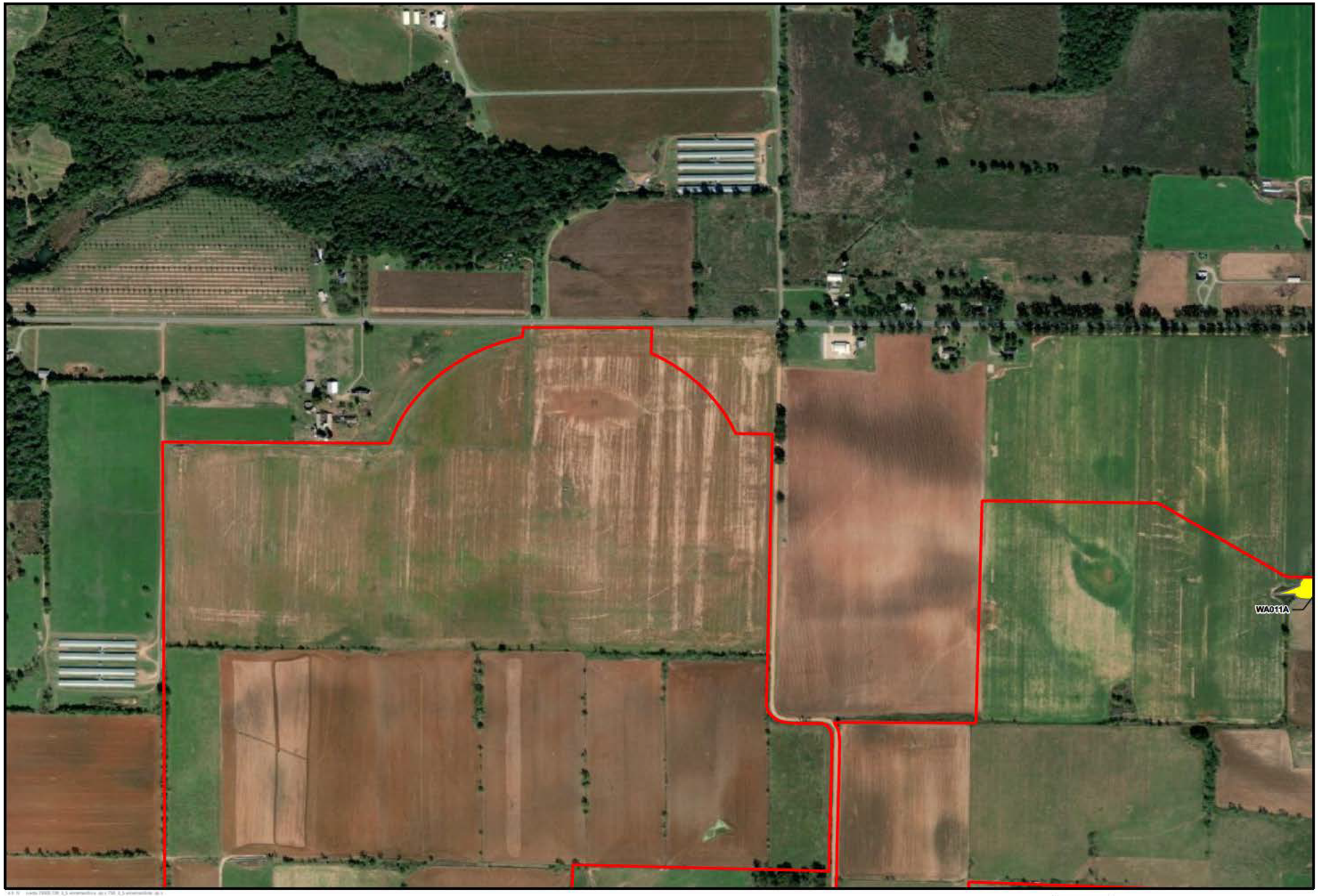

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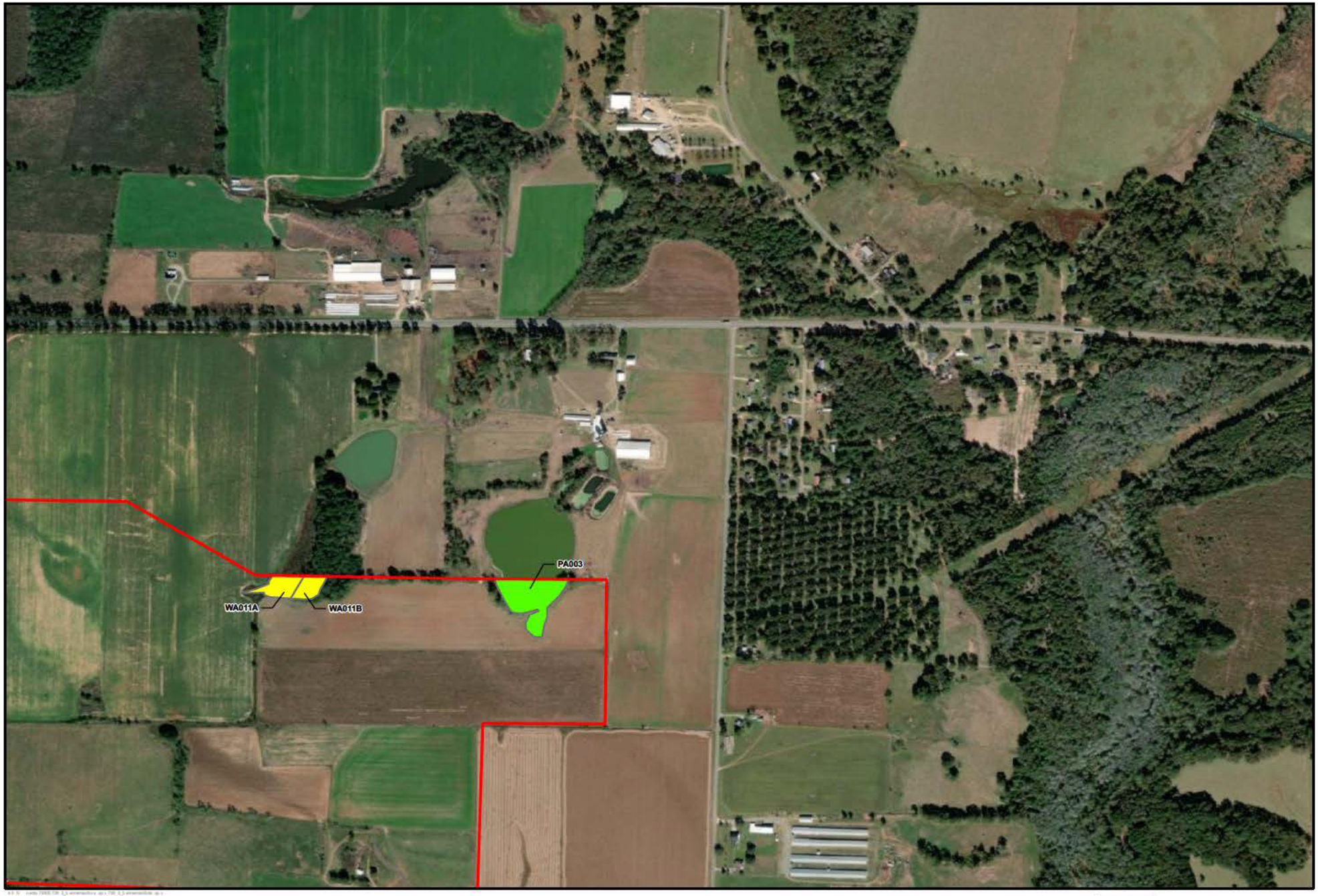
BRENNEMAN SOLAR PROJECT
SHEET 1 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

Project Boundary
Aquatic Resources Delineation Review (ARDR)
Approved Jurisdictional Determination (AJD)

1:12,000



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BRENNEMAN SOLAR PROJECT
SHEET 2 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

Project Boundary
Aquatic Resources Delineation Review (ARDR)
Approved Jurisdictional Determination (AJD)

1:12,000

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BRENNEMAN SOLAR PROJECT
SHEET 3 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

Project Boundary
Aquatic Resources Delineation Review (ARDR)
Approved Jurisdictional Determination (AJD)

1:12,000

[redacted]

[redacted]

BRENNEMAN SOLAR PROJECT
SHEET 4 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

Project Boundary
Aquatic Resources Delineation Review (ARDR)
Approved Jurisdictional Determination (AJD)

1:12,000

[redacted]
Date: /28/2023

0 340 680 1,020 Feet
0 120 240 Meters

[redacted]

BRENNEMAN SOLAR PROJECT
SHEET 5 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

Project Boundary
Aquatic Resources Delineation Review (ARDR)
Approved Jurisdictional Determination (AJD)

1:12,000

[redacted]
Date: 2/6/2023

0 340 680 1,020 Feet
0 120 240 Meters

[redacted]

BRENNEMAN SOLAR PROJECT
SHEET 6 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

Project Boundary
Aquatic Resources Delineation Review (ARDR)
Approved Jurisdictional Determination (AJD)

1:12,000

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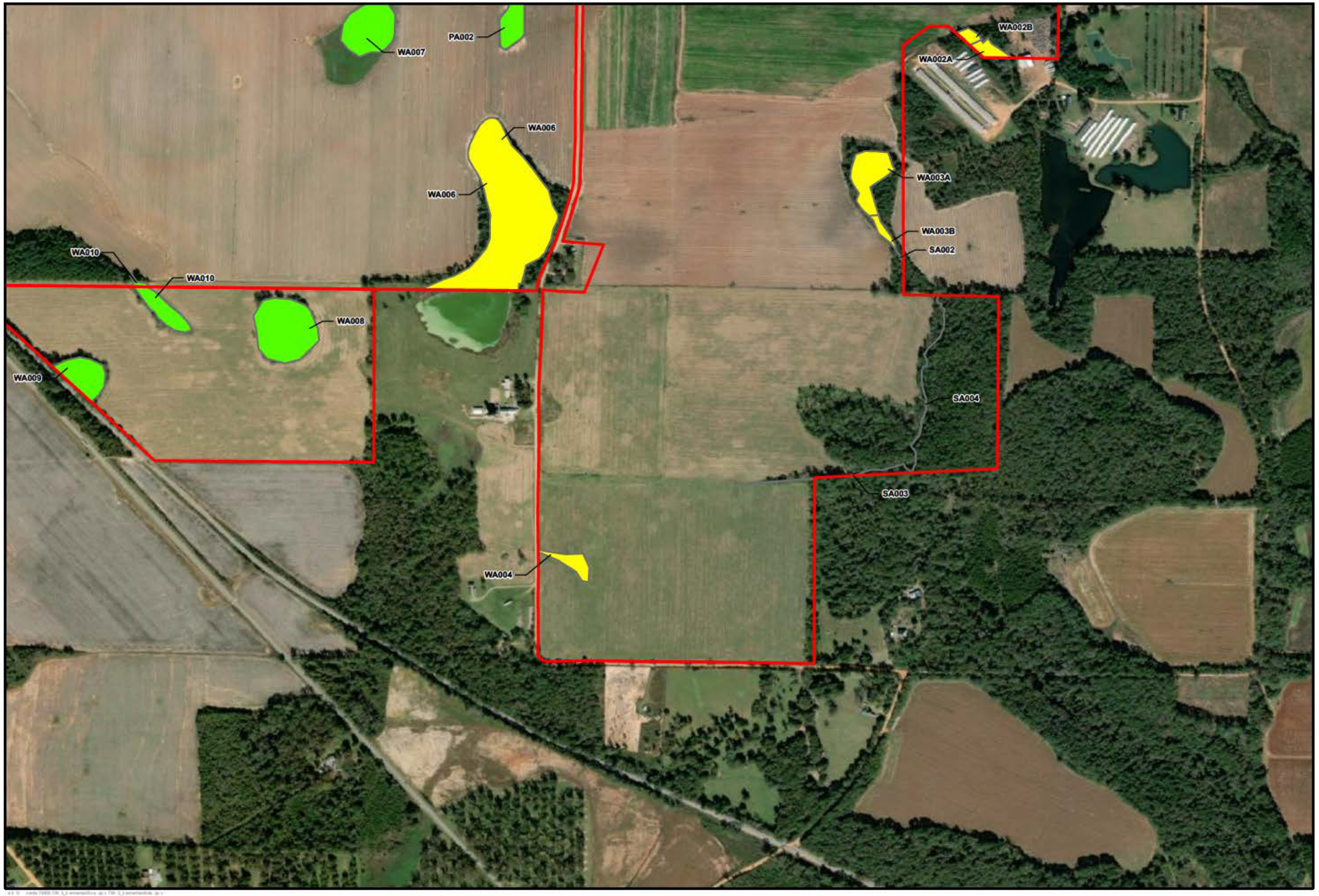

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BRENNEMAN SOLAR PROJECT
SHEET 7 OF 7
WETLAND DELINEATION MAP
MACON COUNTY, GEORGIA

- Project Boundary
- Aquatic Resources Delineation Review (ARDR)
- Approved Jurisdictional Determination (AJD)

1:12,000

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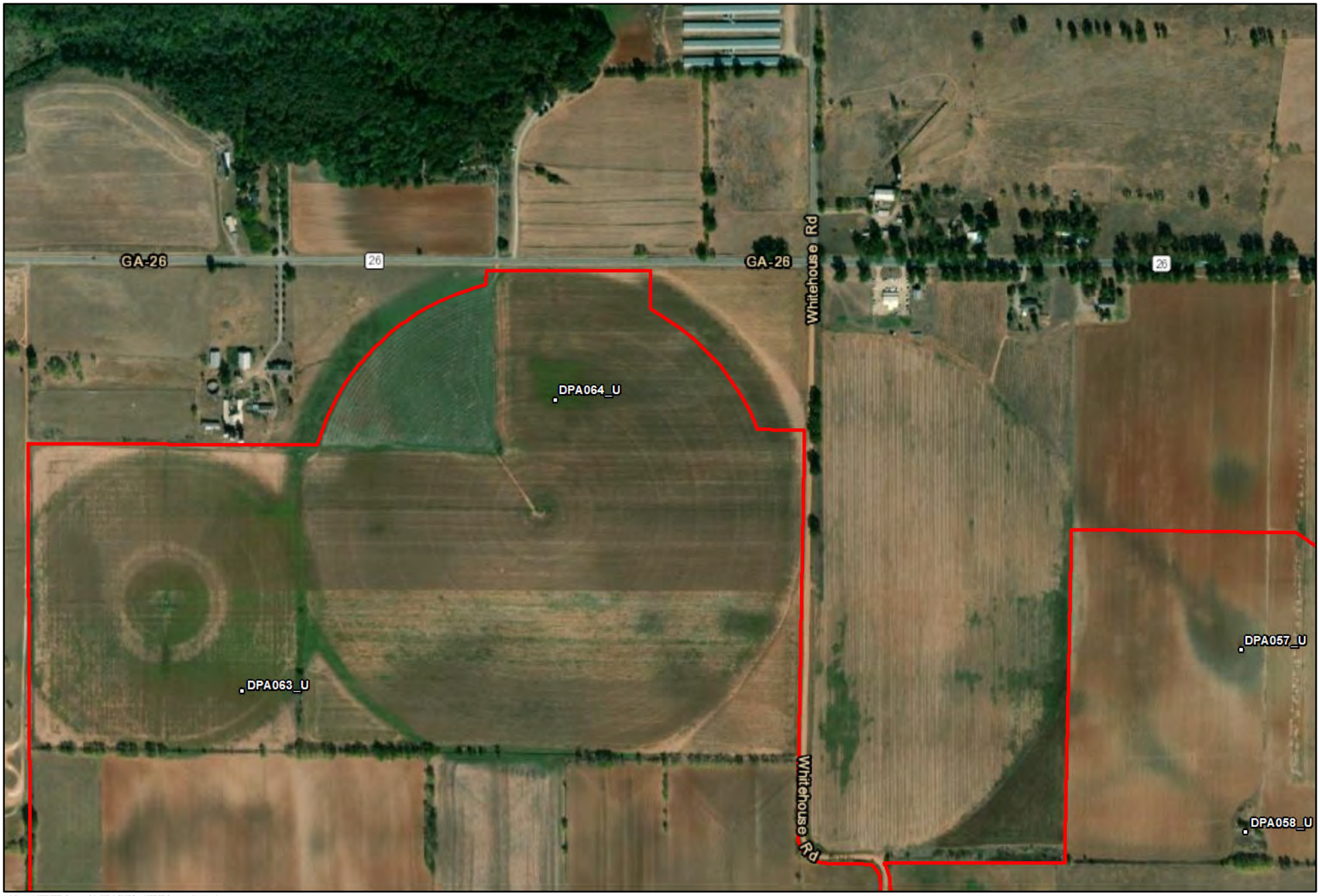

FIGURE 5

BRENNEMAN SOLAR FARM PROJECT
SHEET 1 OF 7

AQUATIC RESOURCES MAP
MACON COUNTY, GEORGIA

Project Boundary
Data Point

Waterbodies
Ephemeral Stream
Ephemeral Ditch
Pond

Wetlands
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scrub-Shrub Wetland (PSS)

1:8,000

NAD 1983 StatePlane Ge st FIPS 1002 Feet

0 200 400 600 Feet

0 100 200 Meters

FIGURE 5

BRENNEMAN SOLAR FARM PROJECT
SHEET 2 OF 7

AQUATIC RESOURCES MAP
MACON COUNTY, GEORGIA

Project Boundary
Data Point

Waterbodies
Ephemeral Stream
Ephemeral Ditch
Pond

Wetlands
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scrub-Shrub Wetland (PSS)

1:8,000

NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 200 400 600 Feet

0 100 200 Meters

[redacted]

FIGURE 5

BRENNEMAN SOLAR FARM PROJECT
SHEET 3 OF 7

AQUATIC RESOURCES MAP
MACON COUNTY, GEORGIA

Project Boundary
Data Point

Waterbodies
Ephemeral Stream
Ephemeral Ditch
Pond

Wetlands
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scrub-Shrub Wetland (PSS)

1:8,000

Date: 7/10/2020
NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 200 400 600 Feet
0 100 200 Meters

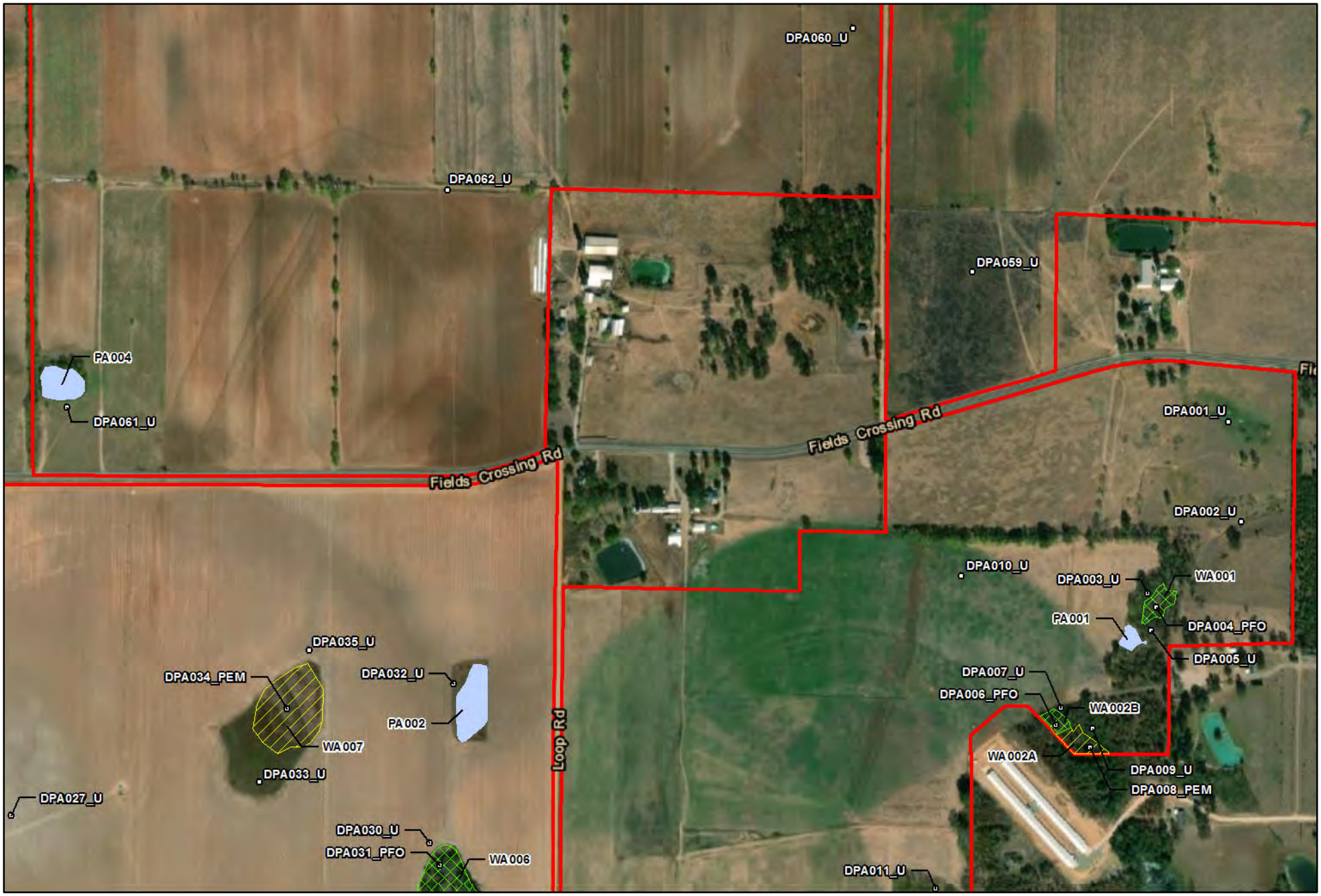

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FIGURE 5

BRENNEMAN SOLAR FARM PROJECT

SHEET 4 OF 7

AQUATIC RESOURCES MAP

MACON COUNTY, GEORGIA

Project Boundary

Data Point

Waterbodies

Ephemeral Stream

Ephemeral Ditch

Pond

Wetlands

Emergent Wetland (PEM)

Forested Wetland (PFO)

Scrub-Shrub Wetland (PSS)

1:8,000

Date: 7/10/2020

NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 200 400 600 Feet

0 100 200 Meters

FIGURE 5

BRENNEMAN SOLAR FARM PROJECT
SHEET 5 OF 7

AQUATIC RESOURCES MAP
MACON COUNTY, GEORGIA

Project Boundary
Data Point

Waterbodies
Ephemeral Stream
Ephemeral Ditch
Pond

Wetlands
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scrub-Shrub Wetland (PSS)

1:8,000

NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 200 400 600 Feet

0 100 200 Meters

FIGURE 5

BRENNEMAN SOLAR FARM PROJECT
SHEET 6 OF 7

AQUATIC RESOURCES MAP
MACON COUNTY, GEORGIA

Project Boundary
Data Point

Waterbodies
Ephemeral Stream
Ephemeral Ditch
Pond

Wetlands
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scrub-Shrub Wetland (PSS)

1:8,000

NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 200 400 600 Feet

0 100 200 Meters

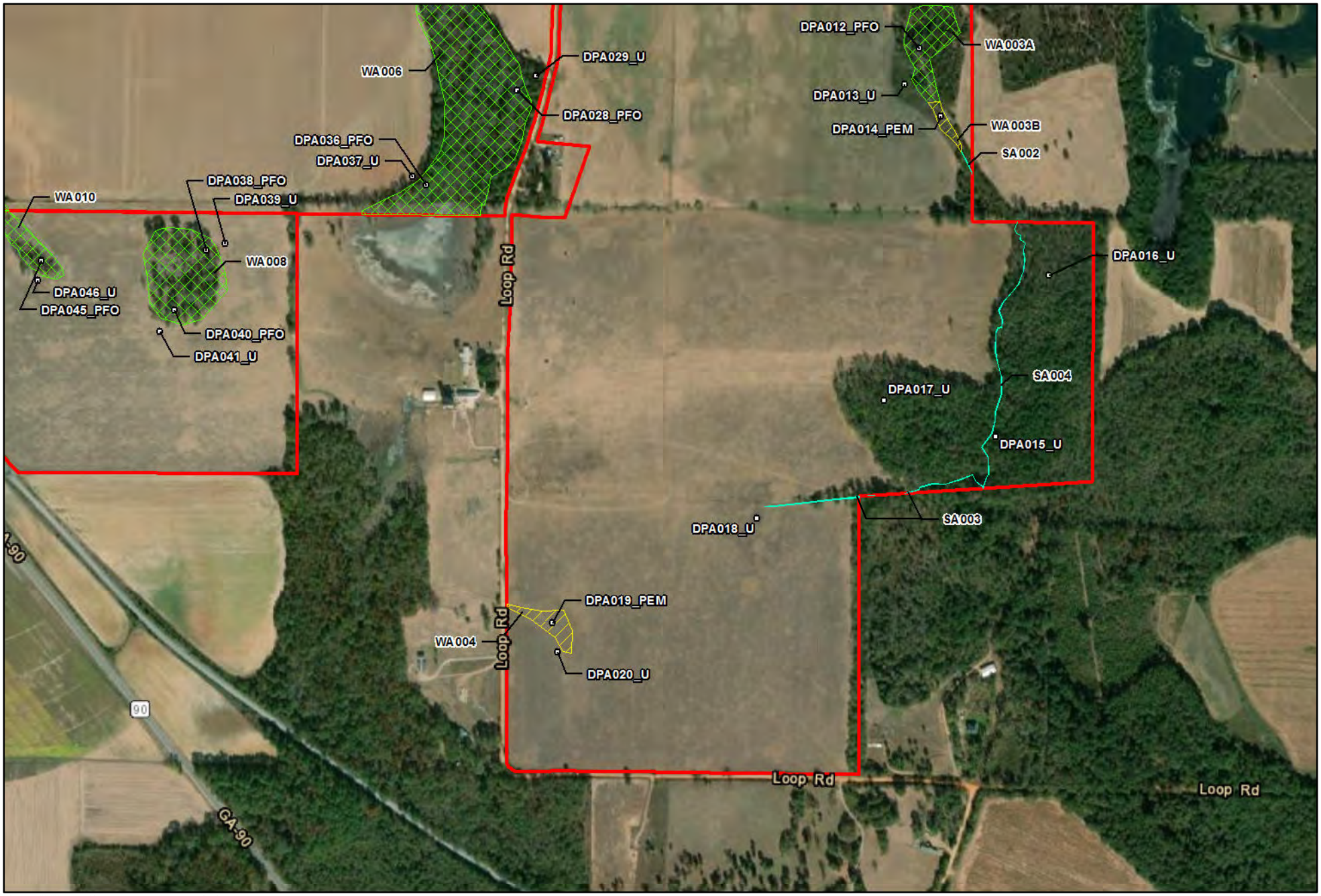

FIGURE 5

BRENNEMAN SOLAR FARM PROJECT
SHEET 7 OF 7

AQUATIC RESOURCES MAP
MACON COUNTY, GEORGIA

Project Boundary
Data Point

Waterbodies
Ephemeral Stream
Ephemeral Ditch
Pond

Wetlands
Emergent Wetland (PEM)
Forested Wetland (PFO)
Scrub-Shrub Wetland (PSS)

1:8,000

NAD 1983 StatePlane Georg a West FIPS 1002 Feet

0 200 400 600 Feet

0 100 200 Meters

Wetland Vegetation Communities – Palustrine Emergent (PEM) Wetlands

Figure 1. PEM wetland WA002A as viewed from DPA008; view facing east.

Figure 2. PEM wetland WA002A as viewed from DPA014; view facing north.

Figure 3. PEM wetland WA003B as viewed from DPA019; view facing north.

Figure 4. PEM wetland WA004 as viewed from DPA022; view facing west.

Figure 5. PEM wetland WA004 as viewed from DPA024; view facing north.

Figure 6. PEM wetland WA005 as viewed from DPA034; view facing west.

Wetland Vegetation Communities – Palustrine Scrub-Shrub (PSS) Wetlands

Figure 7. PSS wetland WA0011A as viewed from DPA055; view facing south.

Wetland Vegetation Communities – Palustrine Forested (PFO) Wetlands

Figure 8. PFO wetland WA001 as viewed from DPA004; view facing east.

Figure 9. PFO wetland WA002B as viewed from DPA006; view facing west.

Figure 10. PFO wetland WA003A as viewed from DPA012; view facing south.

Figure 11. PFO wetland WA006 as viewed from DPA028; view facing west.

Figure 12. PFO wetland WA008 as viewed from DPA031; view facing south.

Figure 13. PFO wetland WA008 as viewed from DPA036; view facing north.

Wetland Vegetation Communities – Palustrine Emergent (PEM) Wetlands

Figure 1. PEM wetland WA002A as viewed from DPA008; view facing east.

Figure 2. PEM wetland WA002A as viewed from DPA014; view facing north.

Figure 3. PEM wetland WA003B as viewed from DPA019; view facing north.

Figure 4. PEM wetland WA004 as viewed from DPA022; view facing west.

Figure 5. PEM wetland WA004 as viewed from DPA024; view facing north.

Figure 6. PEM wetland WA005 as viewed from DPA034; view facing west.

Wetland Vegetation Communities – Palustrine Scrub-Shrub (PSS) Wetlands

Figure 7. PSS wetland WA0011A as viewed from DPA055; view facing south.

Wetland Vegetation Communities – Palustrine Forested (PFO) Wetlands

Figure 8. PFO wetland WA001 as viewed from DPA004; view facing east.

Figure 9. PFO wetland WA002B as viewed from DPA006; view facing west.

Figure 10. PFO wetland WA003A as viewed from DPA012; view facing south.

Figure 11. PFO wetland WA006 as viewed from DPA028; view facing west.

Figure 12. PFO wetland WA008 as viewed from DPA031; view facing south.

Figure 13. PFO wetland WA008 as viewed from DPA036; view facing north.

Wetland Vegetation Communities – Palustrine Forested (PFO) Wetlands (cont.)

Figure 14. PFO wetland WA009 as viewed from DPA038; view facing west.

Figure 15. PFO wetland WA009 as viewed from DPA040; view facing north.

Figure 16. PFO wetland WA010 as viewed from DPA043; view facing west.

Figure 17. PFO wetland WA010 as viewed from DPA045; view facing east.

Figure 18. PFO wetland WA011B as viewed from DPA054; view facing west.

Non-wetland Vegetation Communities – Herbaceous Uplands

Figure 19. Herbaceous upland as viewed from DPA023; view facing north.

Figure 20. Herbaceous upland as viewed from DPA007; view facing north.

Figure 21. Herbaceous upland as viewed from DPA010; view facing east.

Figure 22. Herbaceous upland as viewed from DPA013; view facing south.

Figure 23. Herbaceous upland as viewed from DPA020; view facing south.

Figure 24. Herbaceous upland as viewed from DPA025; view facing east.

Non-wetland Vegetation Communities – Herbaceous Uplands (cont'd)

Figure 25. Herbaceous upland as viewed from DPA026; view facing north.

Figure 26. Herbaceous upland as viewed from DPA027; view facing north.

Figure 27. Herbaceous upland as viewed from DPA057; view facing east.

Figure 28. Herbaceous upland as viewed from DPA033; view facing north.

Figure 29. Herbaceous upland as viewed from DPA052; view facing west.

Figure 30. Herbaceous upland as viewed from DPA039; view facing north.

Non-wetland Vegetation Communities – Scrub-shrub Uplands

Figure 31. Scrub-shrub upland as seen from DPA002; view facing east.

Non-wetland Vegetation Communities – Forested Uplands

Figure 32. Forested upland as seen from DPA003; view facing south.

Figure 33. Forested upland as seen from DPA005; view facing south.

Figure 34. Forested upland as seen from DPA017; view facing north.

Figure 35. Forested upland as seen from DPA011; view facing west.

Figure 36. Forested upland as seen from DPA015; view facing west.

Figure 37. Forested upland as seen from DPA016; view facing west.

Non-wetland Vegetation Communities – Forested Uplands (cont'd)

Figure 38. Forested upland as seen from DPA029; view facing south.

Figure 39. Forested upland as seen from DPA049; view facing south.

Figure 40. Forested upland as seen from DPA050; view facing east.

Figure 41. Forested upland as seen from DPA053; view facing south.

Waterbodies – Ephemeral Flow Waterbodies

Figure 42. Ephemeral stream SA002; view facing downstream.

Figure 43. Ephemeral stream SA003; view facing upstream.

Figure 44. Ephemeral stream SA004; view facing upstream.

Figure 45. Ephemeral stream SA005; view facing downstream.

Figure 46. Ephemeral stream SA006; view facing upstream.

Figure 47. Ephemeral stream SA007; view facing upstream.

Waterbodies – Intermittent Flow Waterbodies

Figure 48. Intermittent stream SA001; view facing upstream.

Waterbodies – Ponded Waterbodies

Figure 49. Pond PA001; view facing south.

Figure 50. Pond PA002; view facing north.