

Environmental Constraints Mapping - Renewable Energy Development

- Legend**
- Site Boundary
 - Preliminary Site Layout
 - Limits of Disturbance
 - PV Modules
 - Substation & BESS Area
 - BESS PCS
 - Inverters
 - Roads
 - Road Crossing Impacts
 - Existing Overhead Line
- Waters of the U.S. & State Waters**
- Streams (Jurisdictional)
 - Streams (Non-J)
 - Wetlands (Jurisdictional)
 - Wetlands (Non-J)
 - Open Water (Jurisdictional)
 - Open Water (Non-J)
 - 100' Buffer (25')
 - FEMA Flood Zone A (100 year)

NOTES:

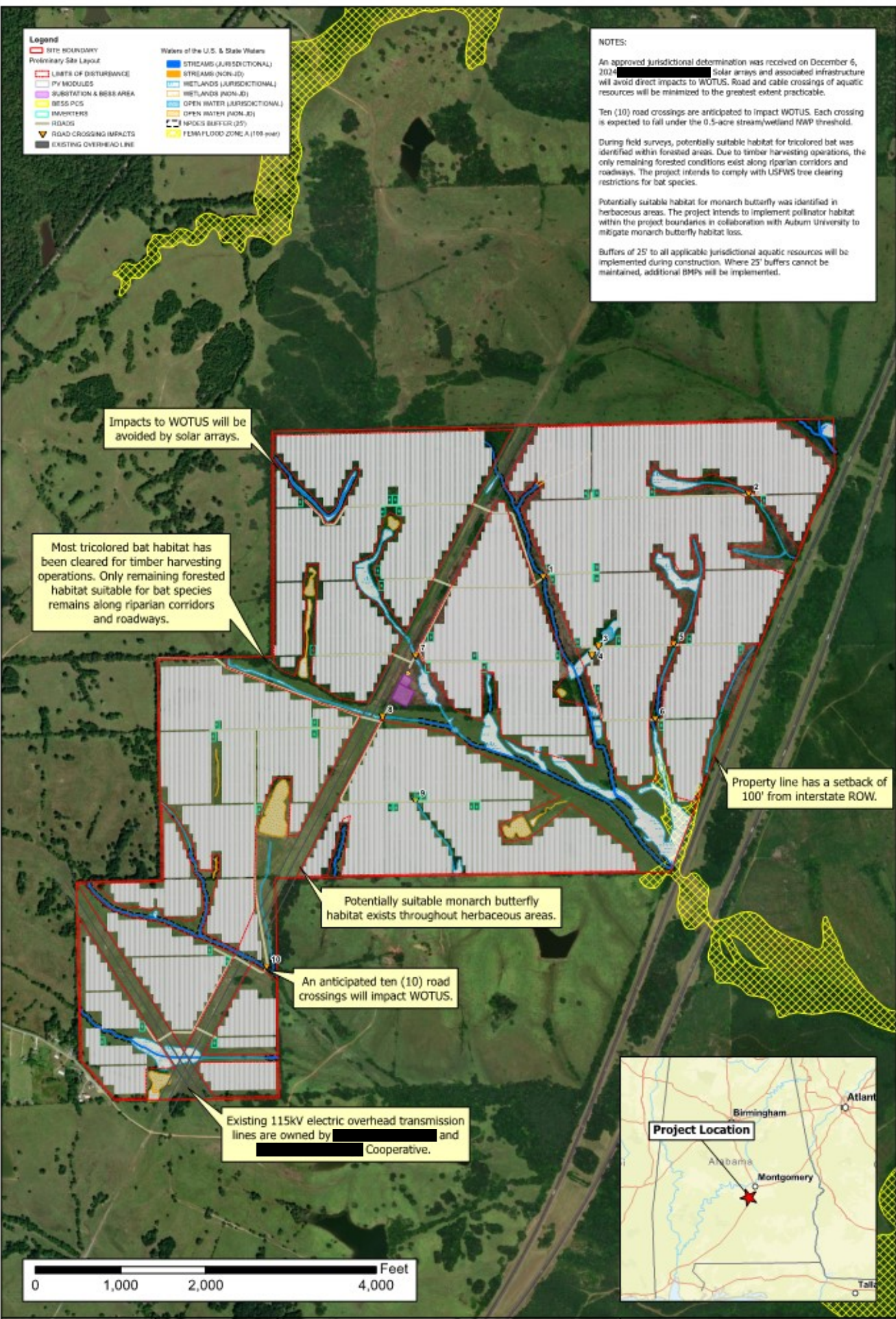
An approved jurisdictional determination was received on December 6, 2024. Solar arrays and associated infrastructure will avoid direct impacts to WOTUS. Road and cable crossings of aquatic resources will be minimized to the greatest extent practicable.

Ten (10) road crossings are anticipated to impact WOTUS. Each crossing is expected to fall under the 0.5-acre stream/wetland NWP threshold.

During field surveys, potentially suitable habitat for tricolored bat was identified within forested areas. Due to timber harvesting operations, the only remaining forested conditions exist along riparian corridors and roadways. The project intends to comply with USFWS tree clearing restrictions for bat species.

Potentially suitable habitat for monarch butterfly was identified in herbaceous areas. The project intends to implement pollinator habitat within the project boundaries in collaboration with Auburn University to mitigate monarch butterfly habitat loss.

Buffers of 25' to all applicable jurisdictional aquatic resources will be implemented during construction. Where 25' buffers cannot be maintained, additional BMPs will be implemented.



Impacts to WOTUS will be avoided by solar arrays.

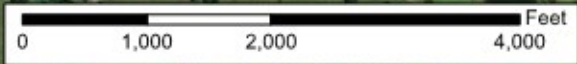
Most tricolored bat habitat has been cleared for timber harvesting operations. Only remaining forested habitat suitable for bat species remains along riparian corridors and roadways.

Potentially suitable monarch butterfly habitat exists throughout herbaceous areas.

An anticipated ten (10) road crossings will impact WOTUS.

Existing 115kV electric overhead transmission lines are owned by [redacted] and [redacted] Cooperative.

Property line has a setback of 100' from interstate ROW.



Environmental Constraints Map

[redacted]
December 2024

1 inch = 1,000 feet



Legend

- SITE BOUNDARY
- ROADS
- ▼ ROAD CROSSING IMPACTS
- WETLANDS (JURISDICTIONAL)
- WETLANDS (NON-JD)
- STREAMS (JURISDICTIONAL)
- STREAMS (NON-JD)
- OPEN WATER (JURISDICTIONAL)
- OPEN WATER (NON-JD)
- NPDES BUFFER (25')



Crossing Number	Resource Type	Resource Width (ft)	Impact w/ 20' Wide Road (sq ft)
1	Stream	5	100
2	Wetland	10	200
3	Wetland	120	2,400
4	Wetland	170	3,400
5	Wetland	9	180
6	Stream	5	100
7	Wetland	24	480
8	Wetland	26	520
9	Wetland	14	280
10	Stream	4	80
TOTAL			7,740



	Road Crossing Impacts	December 2024	1 inch = 1,250 feet

3D Shading Impacts

Legend

 Project Boundary

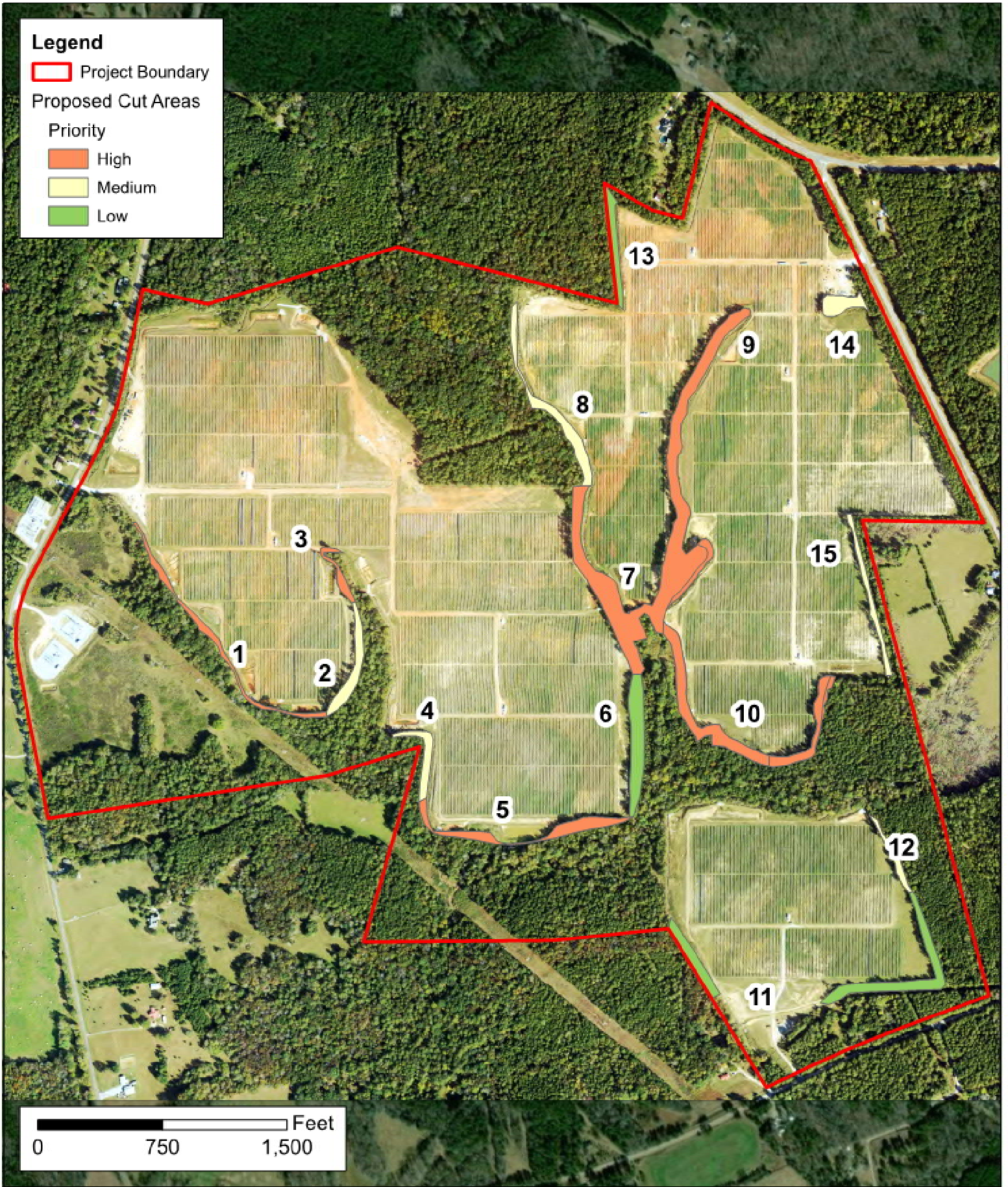
Proposed Cut Areas

Priority

 High

 Medium

 Low

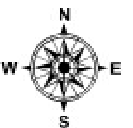


 Feet
0 750 1,500

**Overall
Figure**

 **Tree Trimming**
 **Georgia**
November 2024

1 inch = 750 feet



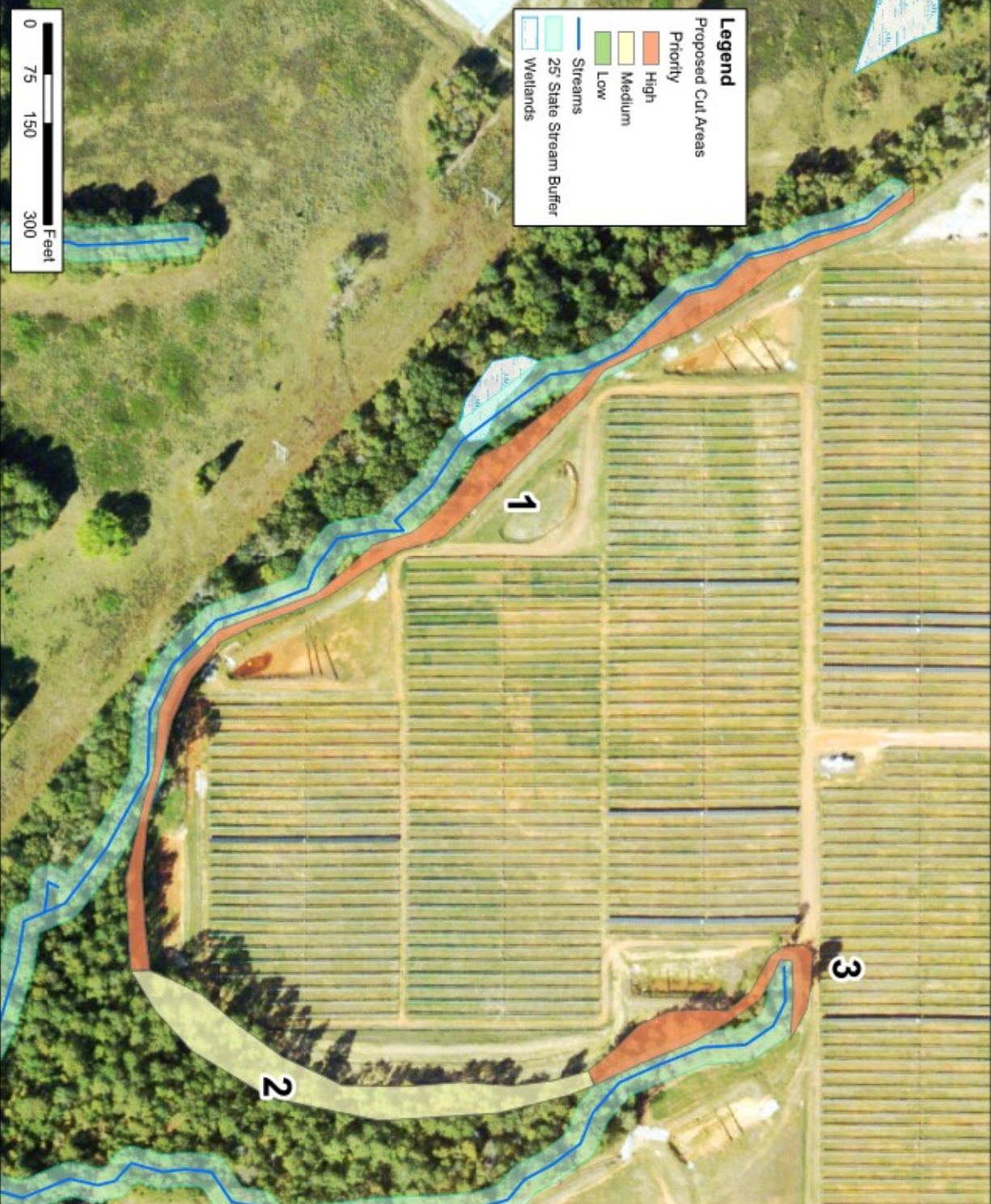


Figure A
(SW Corner of Site)

-Tree Trimming
Georgia
November 2024

NOTES:

1. High priority area. Individual trees are flagged and marked to cut. Flagging is blue and white stripe (see photo below). This stretch is entirely within a stream buffer and close to fence line. There is not a lot of room to operate and machinery is unlikely. Controlled dropping of limbs is necessary. Avoid soil disturbance and implement erosion BMPs.

2. Medium priority area. A storm water basin in this corner provides some space between trees and fence line, so shading is not a big issue. If needed, can cut as many trees as possible. There is no issue with buffers here. Trees are not flagged.

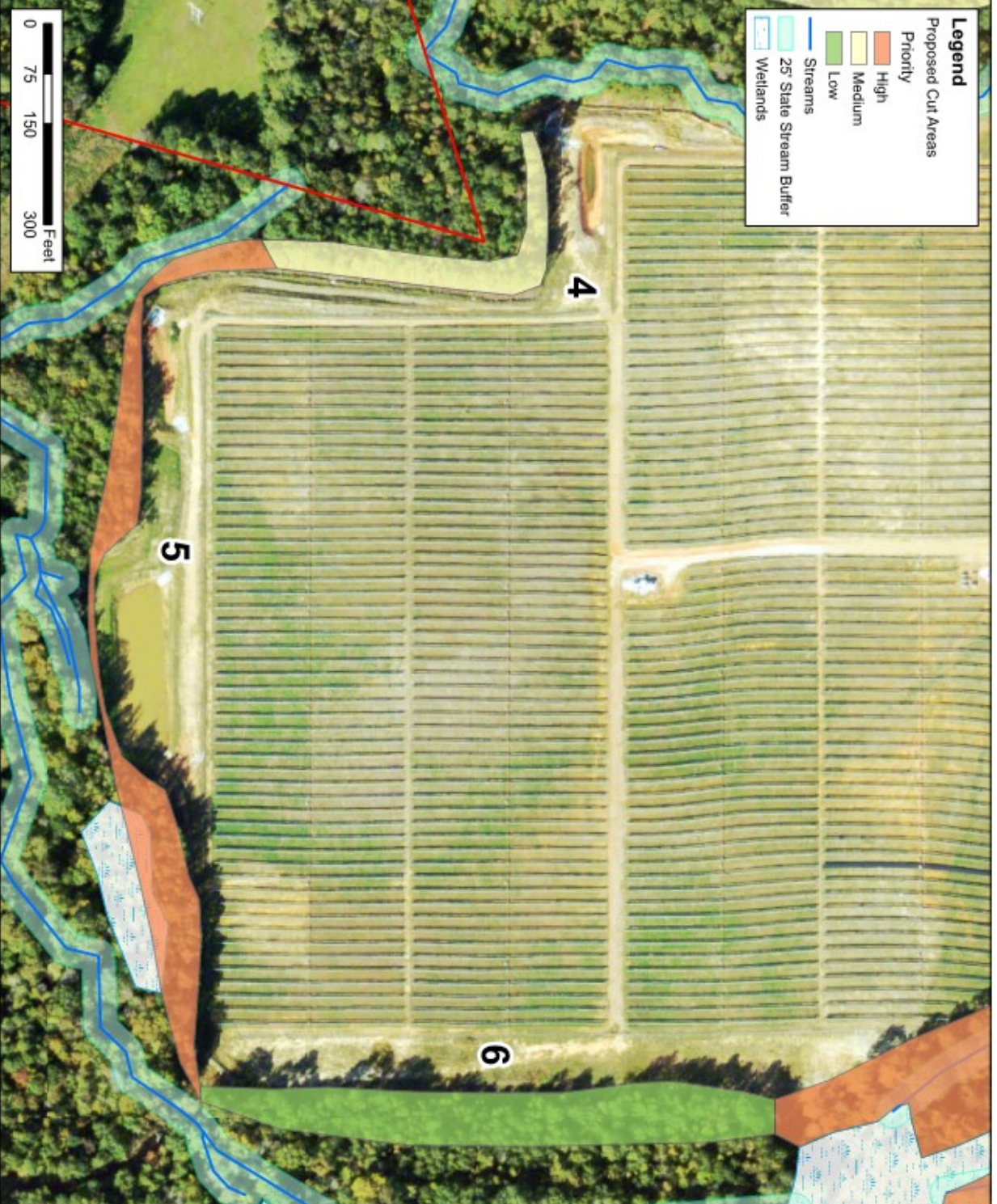
3. High priority area. Individual trees are flagged to cut. Tight quarters to fence line and entirely within stream buffer. Avoid soil disturbance and implement erosion BMPs.

Photo: Area 1 where individual trees are flagged for cutting.



1 inch = 150 feet





Legend

Proposed Cut Areas

Priority

- High
- Medium
- Low

Streams

25' State Stream Buffer

Wetlands



Figure B
(South-Central)

- Tree Trimming
Georgia
November 2024

NOTES:

4. Medium priority area. No flagging of trees. Can cut as many as needed and drop either direction with no impacts to buffers or wetland. Possibly enough space for machinery.

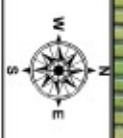
5. High priority area. Trees are not flagged, but stream buffer line and wetland line is flagged with pink delineation flagging (see photo below). Cut as many trees in this area and avoid soil disturbance and implement erosion BMPs if necessary.

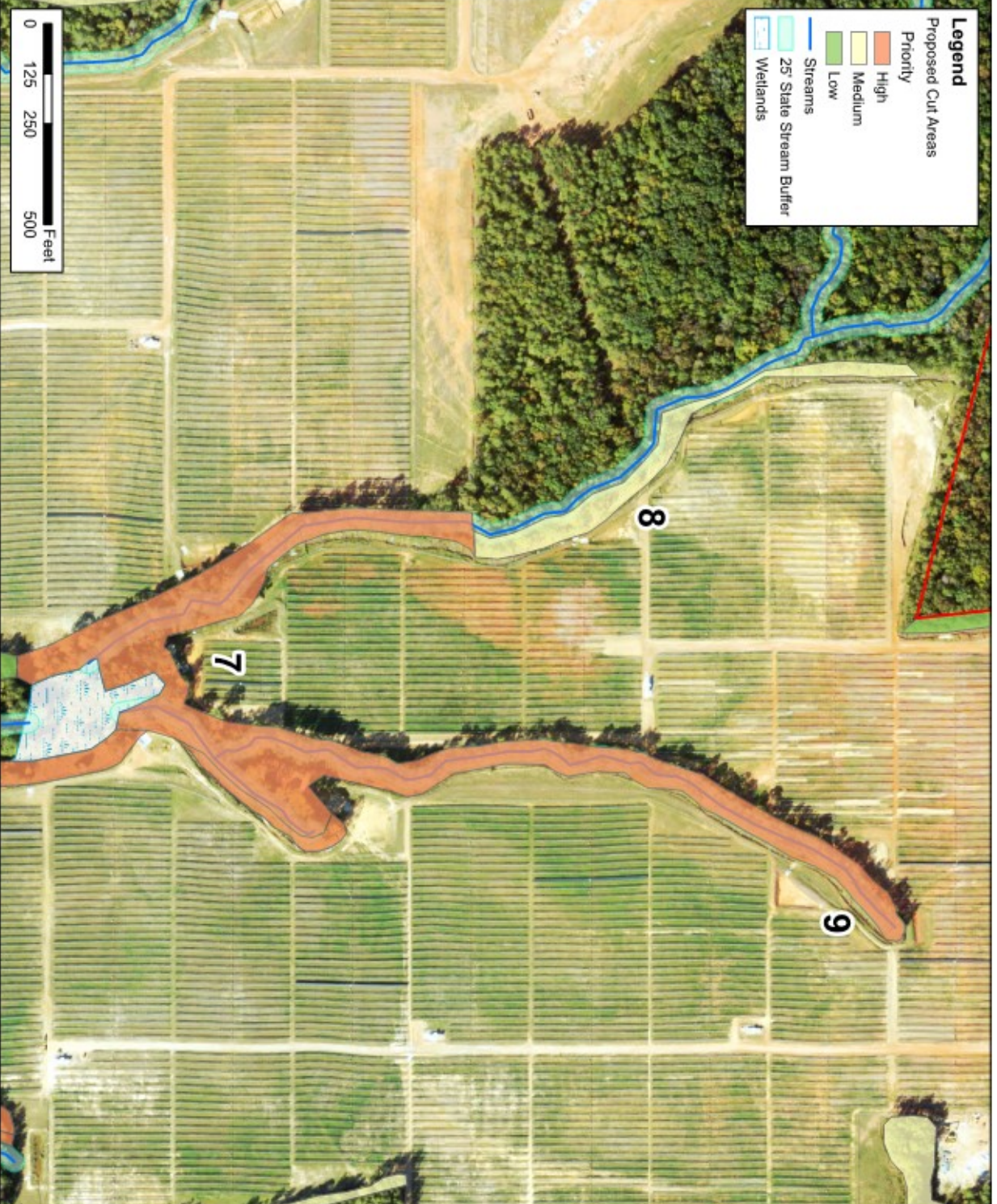
6. Low priority area. No flagging here, and enough space to cut and drop trees with no impacts to buffers or wetlands.

Photo: Area 5 where pink flagging marks the buffer/wetland boundary where soil disturbance is not permitted.



1 inch = 150 feet





Legend

Proposed Cut Areas

Priority

- High
- Medium
- Low

Streams

25' State Stream Buffer

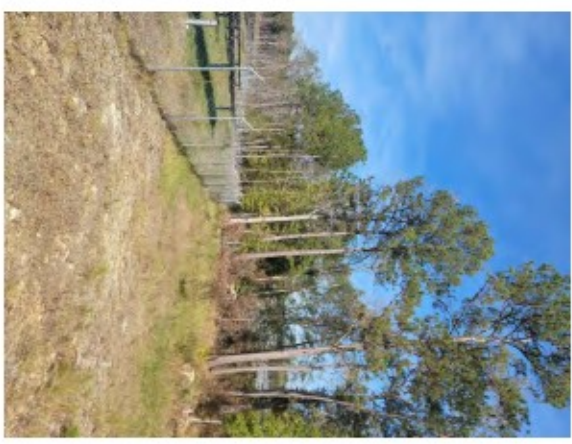
Wetlands

Figure C
(Central)

-Tree Trimming
Georgia
November 2024

NOTES:

- 7. High priority area. No flagging of trees or buffers. As many trees need to be cut as possible. Entire area is within stream buffer/wetland with tight quarters to the fence line. Avoid soil disturbance and implement erosion BMPs.
 - 8. Medium priority area. No flagging. Cut as many trees as possible. Area is within stream buffer. Avoid soil disturbance and implement erosion BMPs.
 - 9. High priority area. Entire stream reach needs to be cut. No flagging and all within stream buffer. Avoid soil disturbance and implement erosion BMPs.
- Photo: Area 7 where tree line and stream buffer abuts the fence line.



1 inch = 250 feet





Legend

Proposed Cut Areas

Priority

- High
- Medium
- Low

Streams

25' State Stream Buffer

Wetlands



Figure D
(East)

- Tree Trimming
Georgia
November 2024

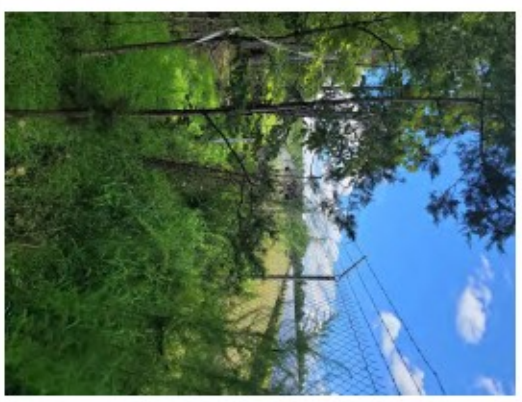
NOTES:

10. High priority area. Trees are not flagged. Wetland and buffer line is flagged pink. Cut as many trees as possible here with no soil disturbance within buffer/wetland and implement erosion BMPs if necessary. May be enough space toward the fence line for machinery or dropping of limbs.

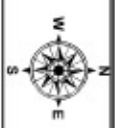
11. Low priority area. Minor shading impacts with plenty of space between trees and fence line. If needed, can cut up to site boundary with no concern for buffer or wetland impacts.

12. Medium priority area. Tight quarters between stream buffer and fence line. No flagging here. Cut as many trees as possible. Avoid soil disturbance and implement erosion BMPs.

Photo: Area 12 where trees and stream buffer about the fence line and shading impacts to arrays are a concern.



1 inch = 250 feet



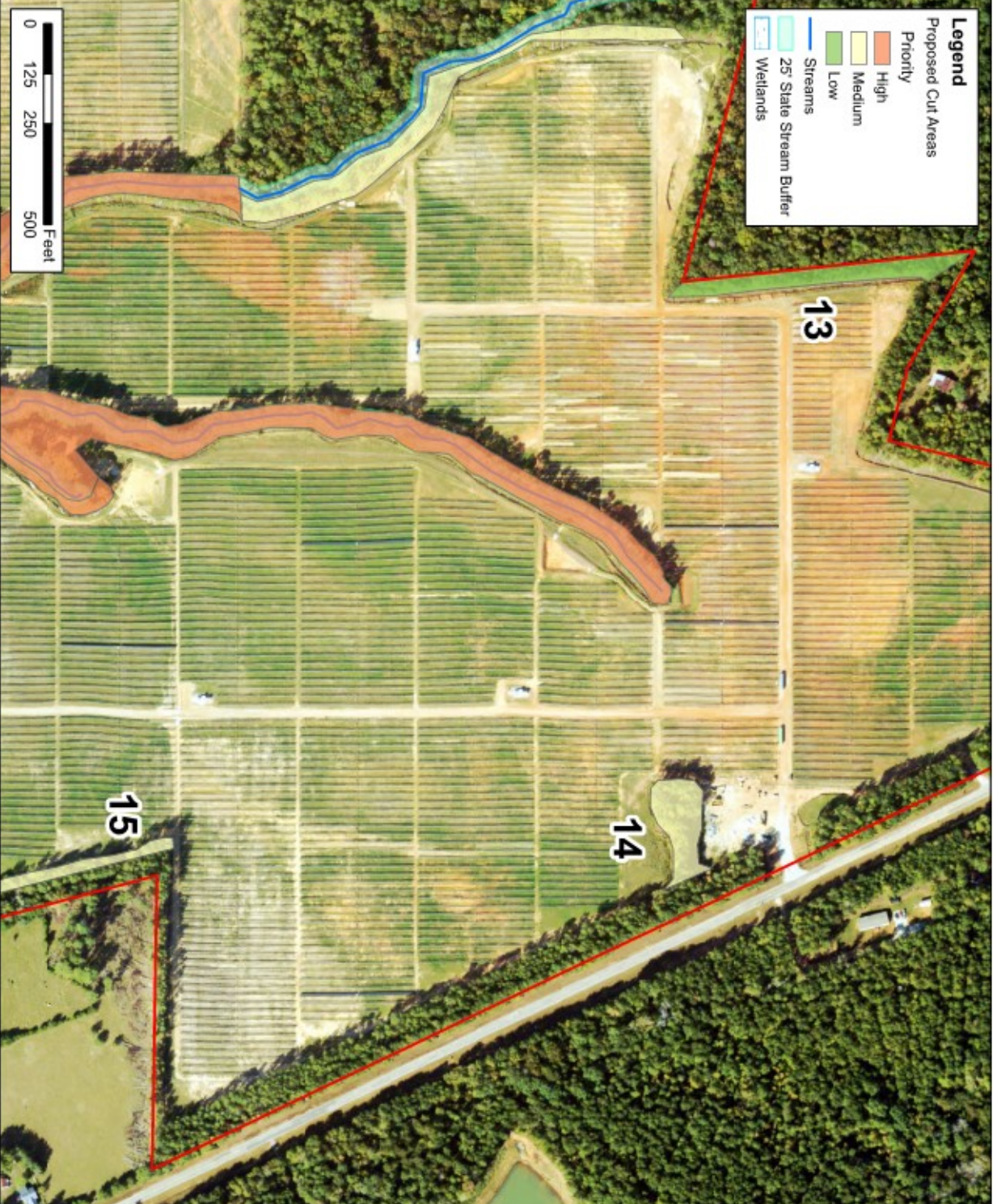


Figure E
(NE Corner of Site)

- Tree Trimming
Georgia
November 2024

NOTES:

- 13. Low priority area. Minor shading impacts to arrays. No flagging here. Can cut trees up to site boundary with no concern for buffer or wetland impacts.
- 14. Medium priority area. Pocket of trees adjacent to parking lot area that can be cut down with no concerns for buffer or wetland impacts.
- 15. Medium priority area. This stretch is a vegetative screen for the adjacent residential property. If possible to cut, can remove some of these trees with no concerns for buffer or wetland impacts.

Photo: Area 15 of the vegetative screen for the residential property.



1 inch = 250 feet

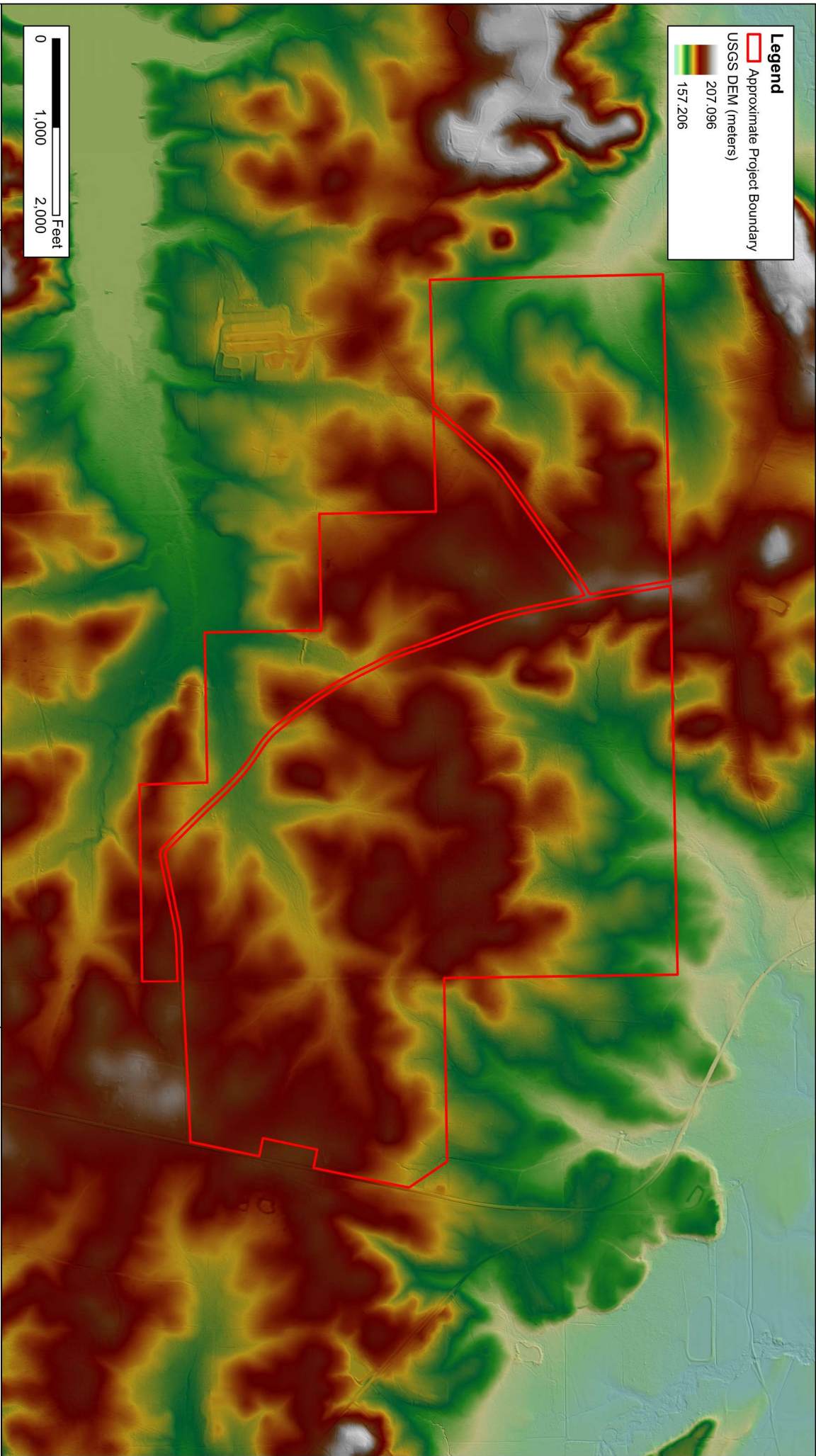


Shading Analysis Existing Conditions



Location: GA
Canopy Height: Variable (60'-100')
Panel Height: Mid-Panel (5')
Sun Position: September 22, 2024 (Fall Equinox)

Digital Elevation Models



Legend

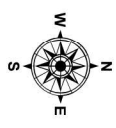
- Approximate Project Boundary
- USGS DEM (meters)
 - 207,096
 - 157,206






6. Digital Elevation Model Map

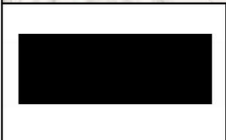
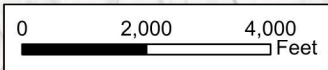
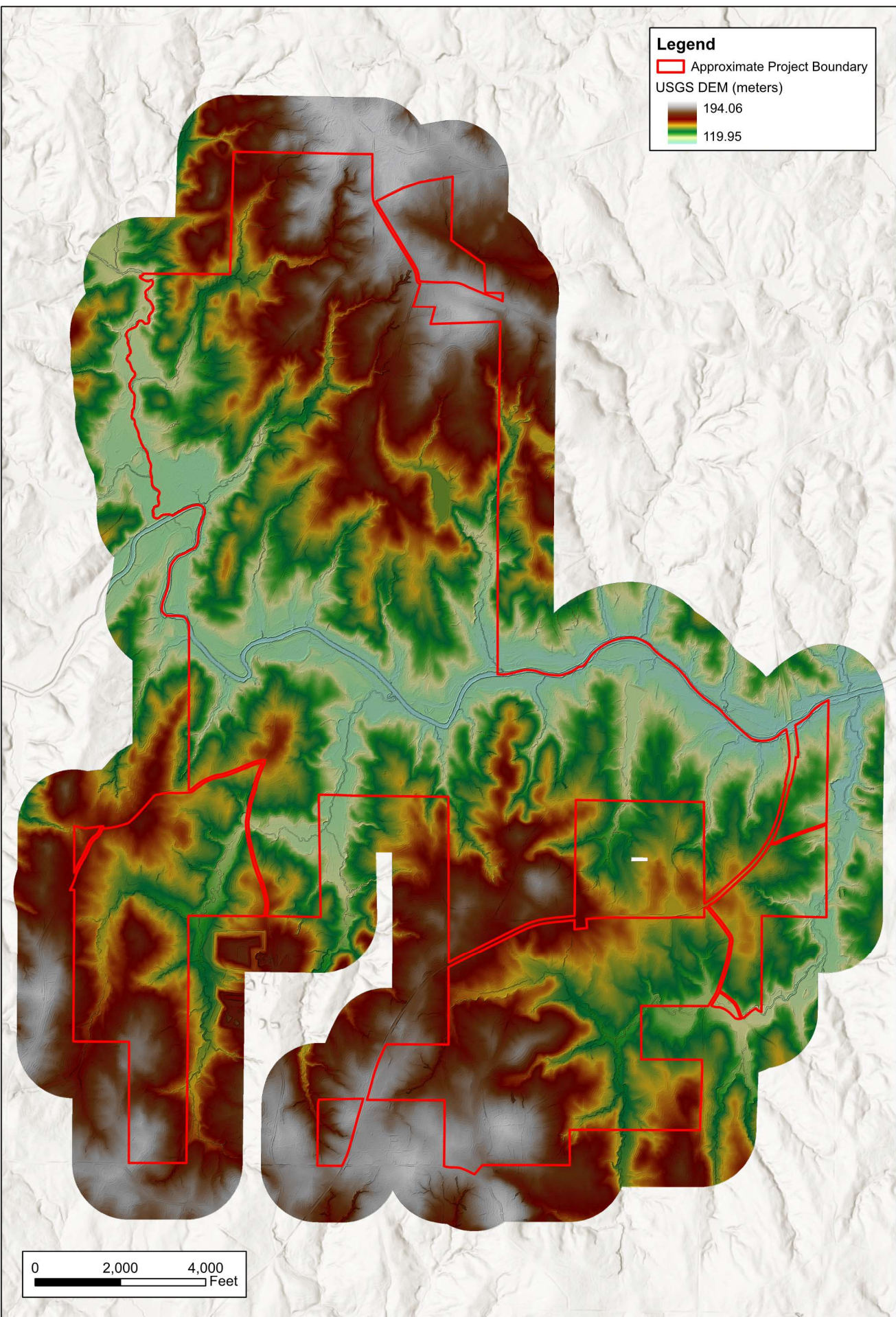
January 2025

1 inch = 1,000 feet



Legend

-  Approximate Project Boundary
- USGS DEM (meters)
-  194.06
-  119.95



6. USGS Digital
Elevation Model
Map

March 2025

1 inch = 2,000 feet

