

LAND APPLICATION SITE

C. W. SMITH & SONS

CRCWS 1 - 9

CAROLINE COUNTY

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: Recyc Sytems, Inc. County or City: Caroline
Landowner: C. W. Smith & Sons, Inc.

Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

 - a. Meat producing livestock shall not be grazed for 30 days,
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Betty B. Smith - Pres.
Landowner's Signature

8/21/15
Date

NEW FIELD CHANGES

C. W. SMITH & SONS

CAROLINE COUNTY

NEW FIELDS 1 & 2 WAS OLD FIELD 7.

NEW FIELD 3 IS A PART OF OLD FIELD 4.

NEW FIELD 4 IS A PART OF OLD FIELDS 3 & 4.

NEW FIELD 5 IS A PART OF OLD FIELD 4.

NEW FIELD 6 WAS OLD FIELD 5.

NEW FIELD 7 WAS OLD FIELDS 1 & 2.

NEW FIELD 8 WAS OLD FIELD 6.

NEW FIELD 9 IS A PART OF OLD FIELD 4.

RECYC SYSTEMS, INC

FIELD DATA SHEET

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/ Shallow	Surf/ Leach	Freq Flood			
CRCWS-01N	5.8	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 1
CRCWS-02N	5.8	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 2
CRCWS-03N	7.9	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 3
CRCWS-04	40.5	12A Nov.-Apr.	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 4
CRCWS-05N	15.6	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 4
CRCWS-06N	24.2	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 6

statalad

Field Identification	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
		Water Table	Bed Rock/ Shallow	Surf/ Leach	Freq Flood			
CRCWS-07N	24.0	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 7
CRCWS 8	44.5	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 8
CRCWS 9	18.2	-	-	-	-	YO 26	81-A-105 81-A-106 81-A-107 81-A-108	T 502 F 9
TOTAL ACRES IN SITE	186.5							

5/22/2020

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Landowner Coordination Form

This form is used by the Permittee to identify properties (tax parcels) that are authorized to receive biosolids and/or industrial residuals, and each of the legal landowners of those tax parcels. A Land Application Agreement-Biosolids and Industrial Residuals from original signature must be attached for each legal landowner identified below prior to land application at the identified parcels.

Permittee: Recyc Systems, Inc

Site Name: C W. Smith & Sons.

County or City: Caroline Co.

Please Print

Signature not required on this page

<u>Tax Parcel ID(s)</u>	<u>Landowners (s)</u>
81-A-105	C. W. Smith & Sons Inc.
81-A-106	C. W. Smith & Sons Inc.
81-A-107	C. W. Smith & Sons Inc.
81-A-108	C. W. Smith & Sons Inc.

THE PLANNER IS NOT STATE CERTIFIED

**Nutrient Management Plan Balance Sheet
(Fall, 2019-Winter, 2021)
C. W. Smith & Sons
Planner: John Doe**

Tract: 502 Location: Caroline
(N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field CFSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosld Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appld N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes
1/CRCWS 1(N)	6/6	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								
2/CRCWS 2(N)	6/6	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								
3/CRCWS 3(N)	8/8	2019	Fescue grass hay mt.	90-80-170	0/0				90-80-170	N/A		
4/CRCWS 4(N)	41/41	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								
4/CRCWS 5(N)	16/16	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								
6/CRCWS 6(N)	24/24	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								
7/CRCWS 7(N)	24/24	2019	Fescue grass hay mt.	90-80-170	0/0				90-80-170	N/A		
8/CRCWS 8(N)	45/45	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								
9/CRCWS 9(N)	18/18	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	-- -- --								

Commercial Application Methods:
br - Broadcast ba - Banded sd - Sidedress

Notes:

Soil Test Summary

Tract	Field	Acre	Date	P2O5	K2O	Lab	Soil pH	Lime Date	rec. lime tons/Ac
502	CRCWS 1	6	[No Test]						
502	CRCWS 2	6	[No Test]						
502	CRCWS 3	8	[No Test]						
502	CRCWS 4	41	[No Test]						
502	CRCWS 5	16	[No Test]						
502	CRCWS 6	24	[No Test]						
502	CRCWS 7	24	[No Test]						
502	CRCWS 8	45	[No Test]						
502	CRCWS 9	18	[No Test]						

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
502	502/1	CRCWS 1	6	Kempsville	IIIa	II	Not Suited	II	
	502/2	CRCWS 2	6	Kempsville	IIIa	II	Not Suited	III	
	502/3	CRCWS 3	8	Kempsville	IIIa	II	Not Suited	II	
	502/4	CRCWS 4	41	Slagle	IIIa	II	III	II	
	502/4	CRCWS 5	16	Kempsville	IIIa	II	Not Suited	III	
	502/6	CRCWS 6	24	Kempsville	IIIa	II	Not Suited	II	
	502/7	CRCWS 7	24	Kempsville	IIIa	II	III	II	
	502/8	CRCWS 8	45	Kempsville	IIIa	II	III	II	
	502/9	CRCWS 9	18	Kempsville	IIIa	II	Not Suited	II	

Yield Range

Field Productivity Group	Corn Grain Bu/Acre	Barley/Intensive Wheat Bu/Acre	Std. Wheat Bu/Acre	Alfalfa Tons/Acre	Grass/Hay Tons/Acre
I	>170	>80	>64	>6	>4.0
II	150-170	70-80	56-64	4-6	3.5-4.0
III	130-150	60-70	48-56	<4	3.0-3.5
IV	100-130	50-60	40-48	NA	<3.0
V	<100	<50	<40	NA	NA

Farm Summary Report

Plan: New Plan Fall, 2019 - Winter, 2021

Farm Name: C. W. Smith & Sons

Location: Caroline

Specialist: John Doe

N-based Acres: 186.5

P-based Acres: 0.0

Tract Name: 502

FSA Number: 502

Location: Caroline

Field Name: CRCWS 1

Total Acres: 5.80 Usable Acres: 5.80

FSA Number: 1

Tract: 502

Location: Caroline

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
[NO TEST]				

Soils:

PERCENT	SYMBOL	SOIL SERIES
94	11B	Emporia Kempsville
6	22B	Slagle

Field Warnings:

Field Name: CRCWS 2

Total Acres: 5.80 Usable Acres: 5.80

FSA Number: 2

Tract: 502

Location: Caroline

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
100	11B	Emporia Kempsville

Field Warnings:

Field Name: CRCWS 3

Total Acres: 7.90 Usable Acres: 7.90

FSA Number: 3

Tract: 502

Location: Caroline

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

Conservation Practices:

Soils:

PERCENT	SYMBOL	SOIL SERIES
12	11A	Emporia Kempsville
43	11B	Emporia Kempsville
15	12A	Myatt Slagle
31	22A	Slagle

Field Warnings:

Field Name: CRCWS 5

Total Acres: 15.60 Usable Acres: 15.60

FSA Number: 4

Tract: 502

Location: Caroline

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft

Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
[NO TEST]				

Soils:

PERCENT	SYMBOL	SOIL SERIES
100	11B	Emporia Kempsville

Field Warnings:

Field Name: CRCWS 6

Total Acres: 24.20 Usable Acres: 24.20

FSA Number: 6

Tract: 502

Location: Caroline

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

DATE	PH	P	K	Lab
	[NO TEST]			

Soils:

PERCENT	SYMBOL	SOIL SERIES
78	11B	Emporia Kempsville
10	11C	Emporia Kempsville
12	22B	Slagle

Field Warnings:

Field Name: CRCWS 7

Total Acres: 24.00 Usable Acres: 24.00

FSA Number: 7

Tract: 502

Location: Caroline

Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

Conservation Practices:

Pasture (>75% cover)

P-Index Summary

N-based

Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Field Warnings:

Field Name: CRCWS 9
Total Acres: 18.20 Usable Acres: 18.20
FSA Number: 9
Tract: 502
Location: Caroline
Slope Class: B Hydrologic Group: B

Riparian buffer width: 0 ft
Distance to stream: 0 ft

P-Index Summary

N-based
Phosphorus Limit method: Phosphorus Environmental Threshold (PET) method

Soil Test Results:

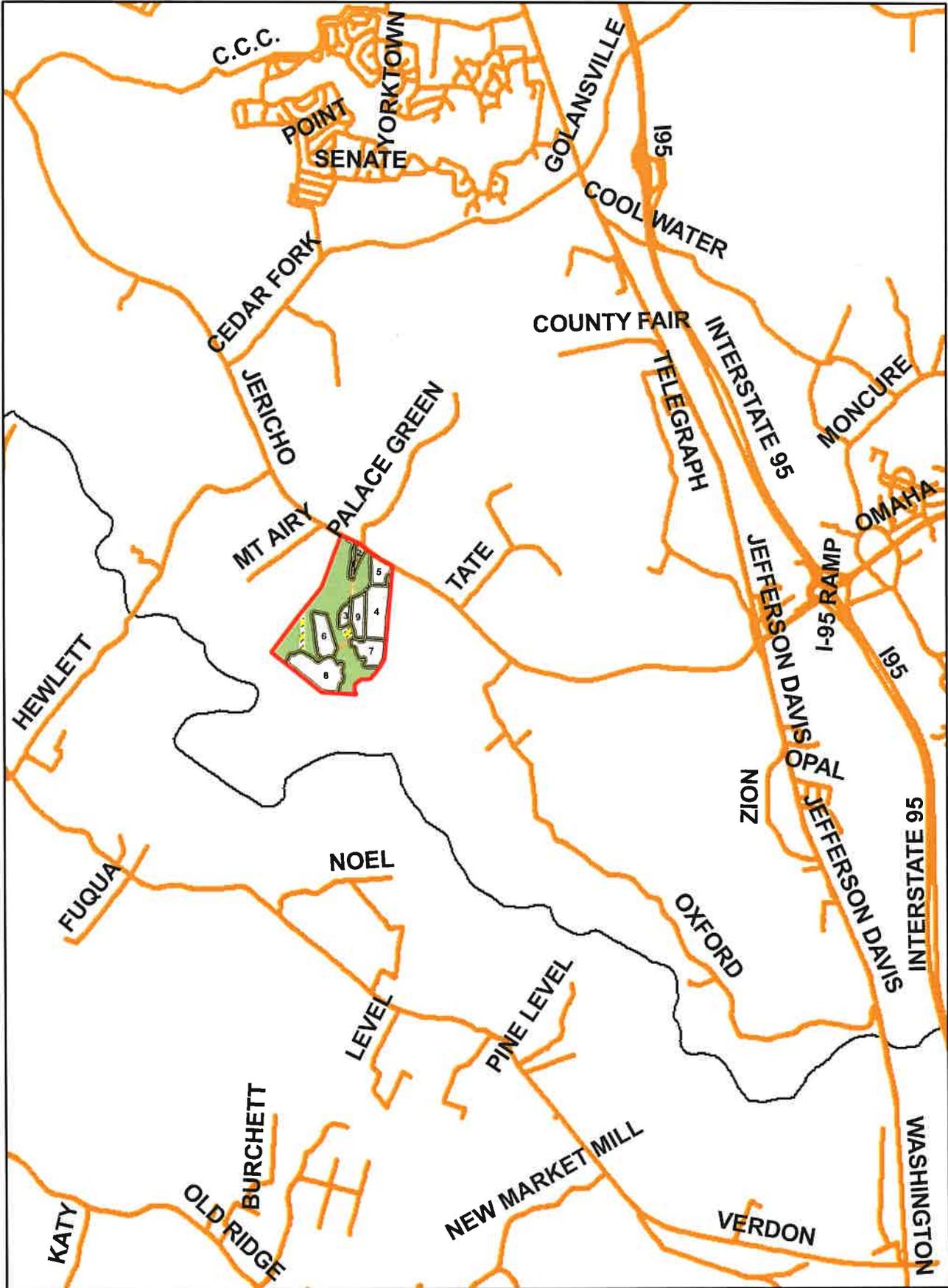
DATE	PH	P	K	Lab
[NO TEST]				

Soils:

PERCENT	SYMBOL	SOIL SERIES
7	22B	Slagle
54	11A	Emporia Kempsville
39	11B	Emporia Kempsville

Field Warnings:

MAPS



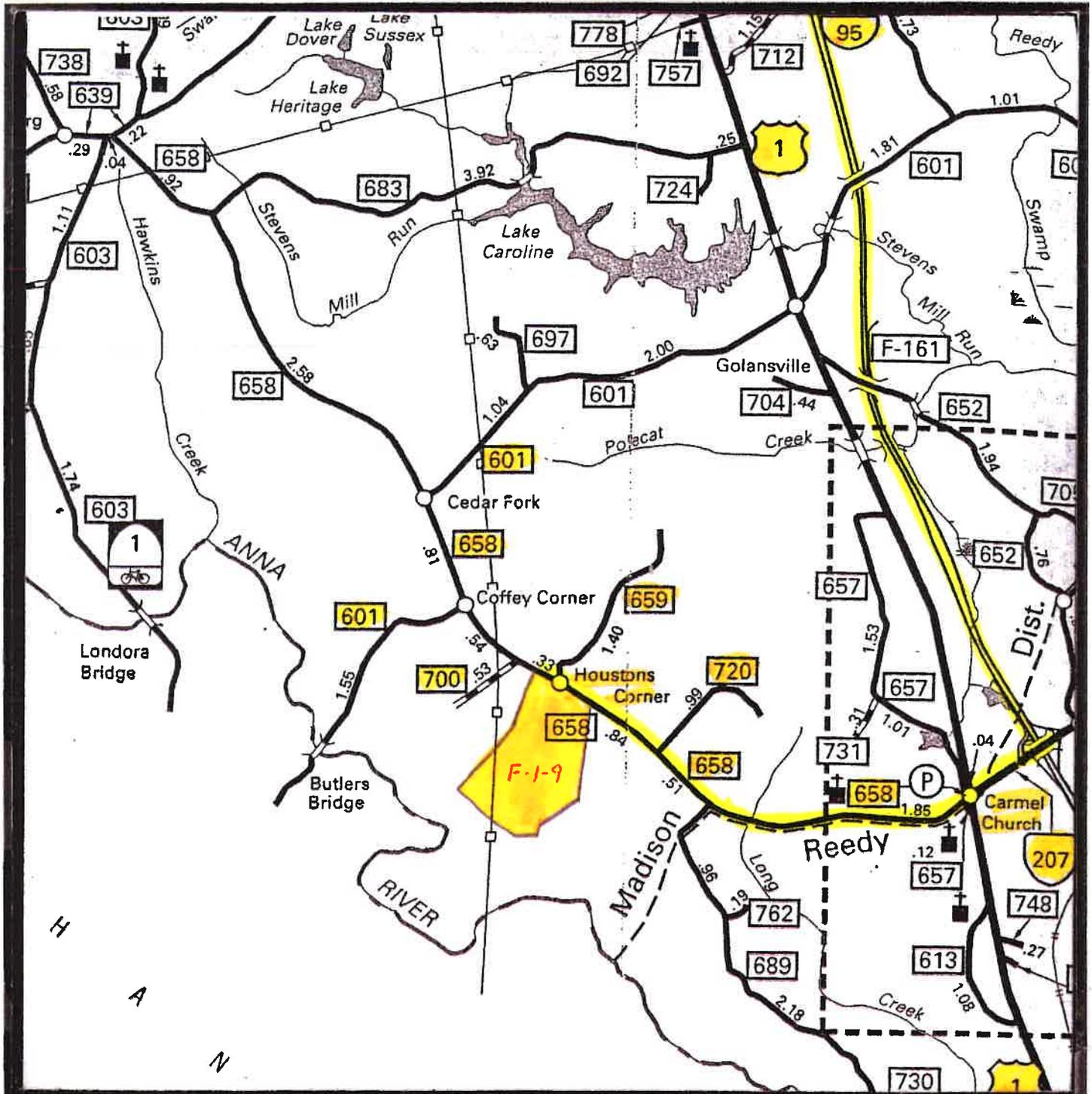
8-5-19

VICINITY MAP

1 in = 1 mile.

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1 Inch = 1 Mile

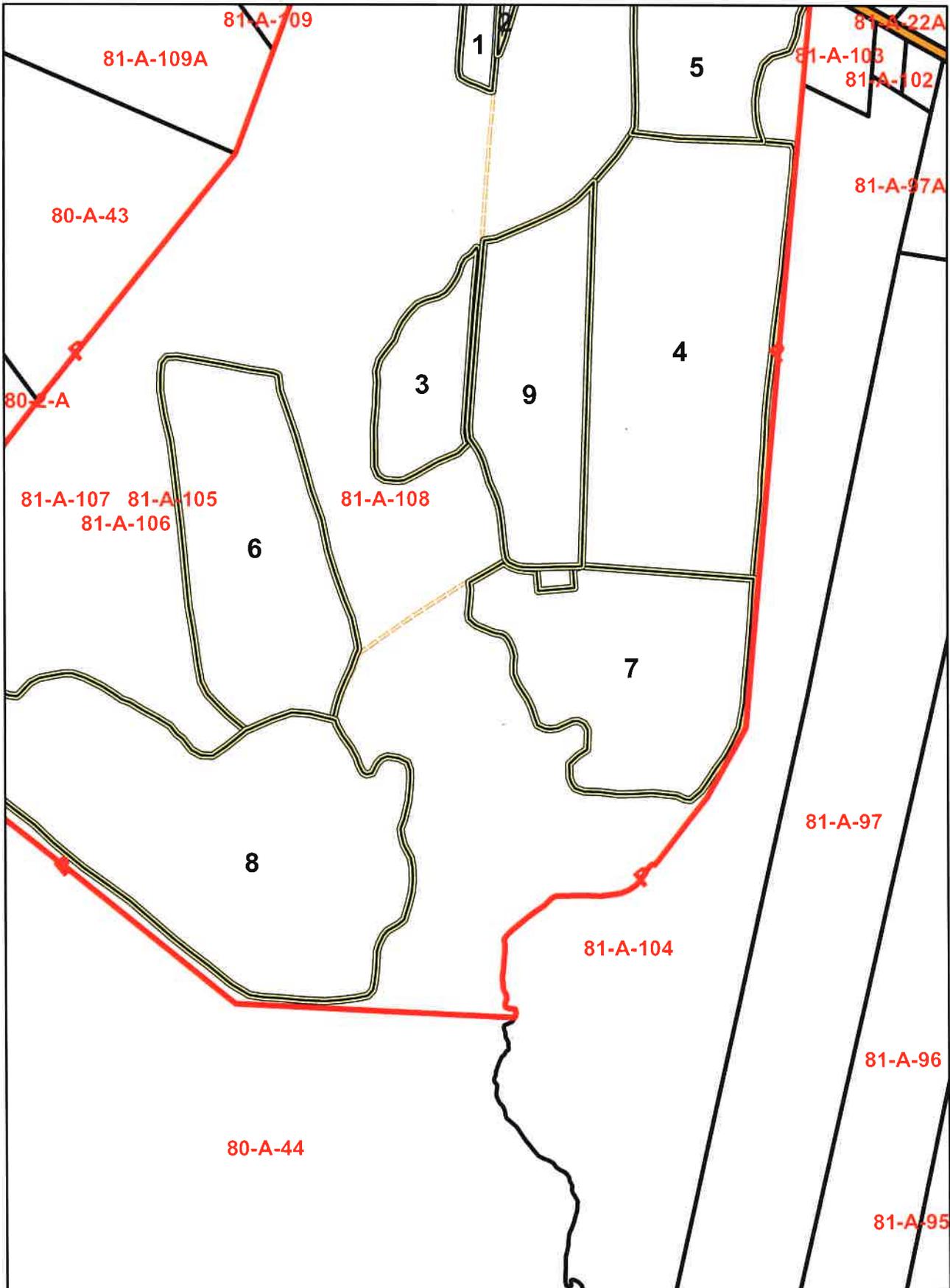
CRCWS 1-9

Truck Route marked
in Yellow

VICINITY MAP

8-5-19



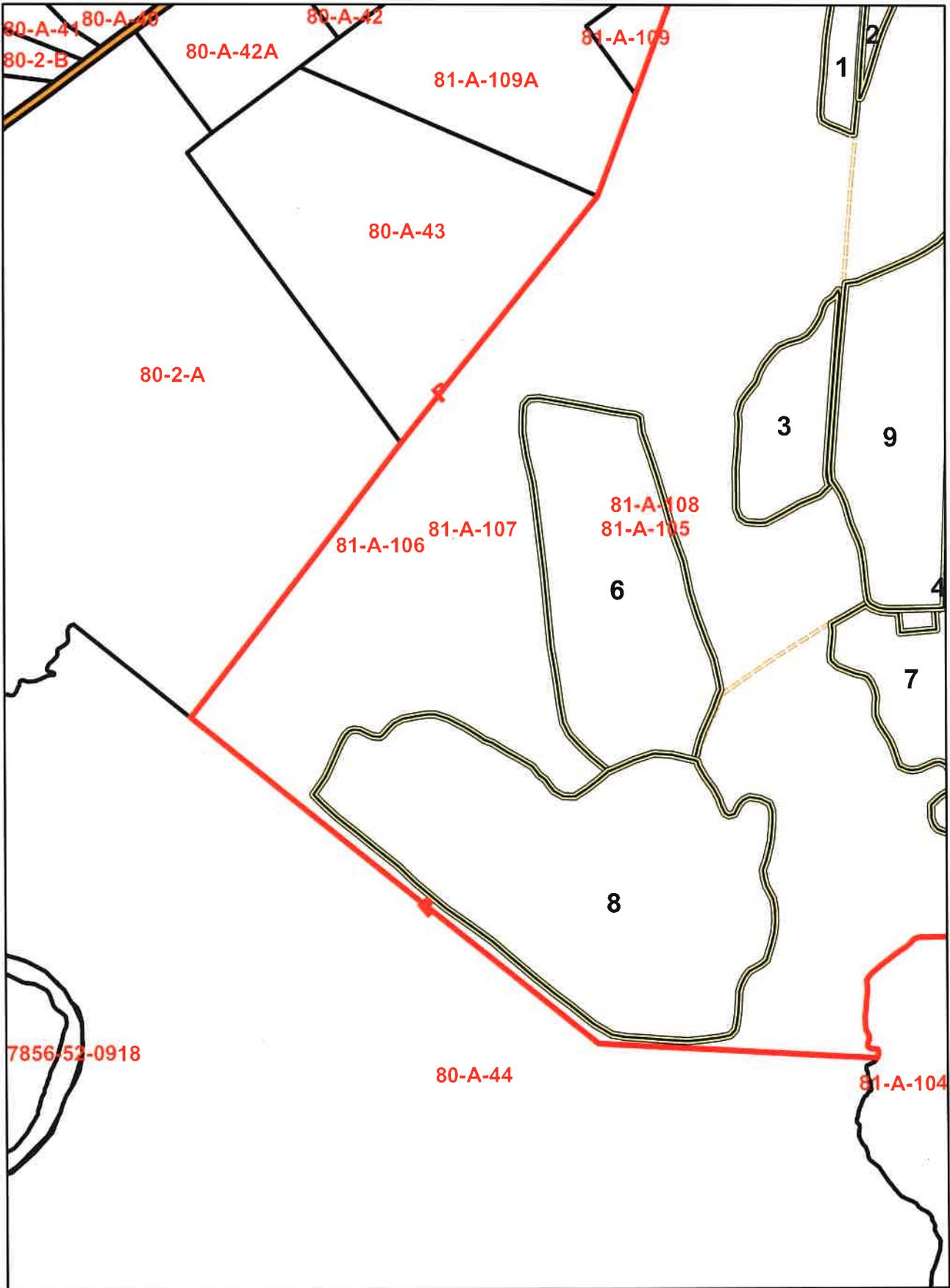


8-5-19

TAX MAP

1 in = 660 feet





8-5-19

TAX MAP

1 in = 660 feet

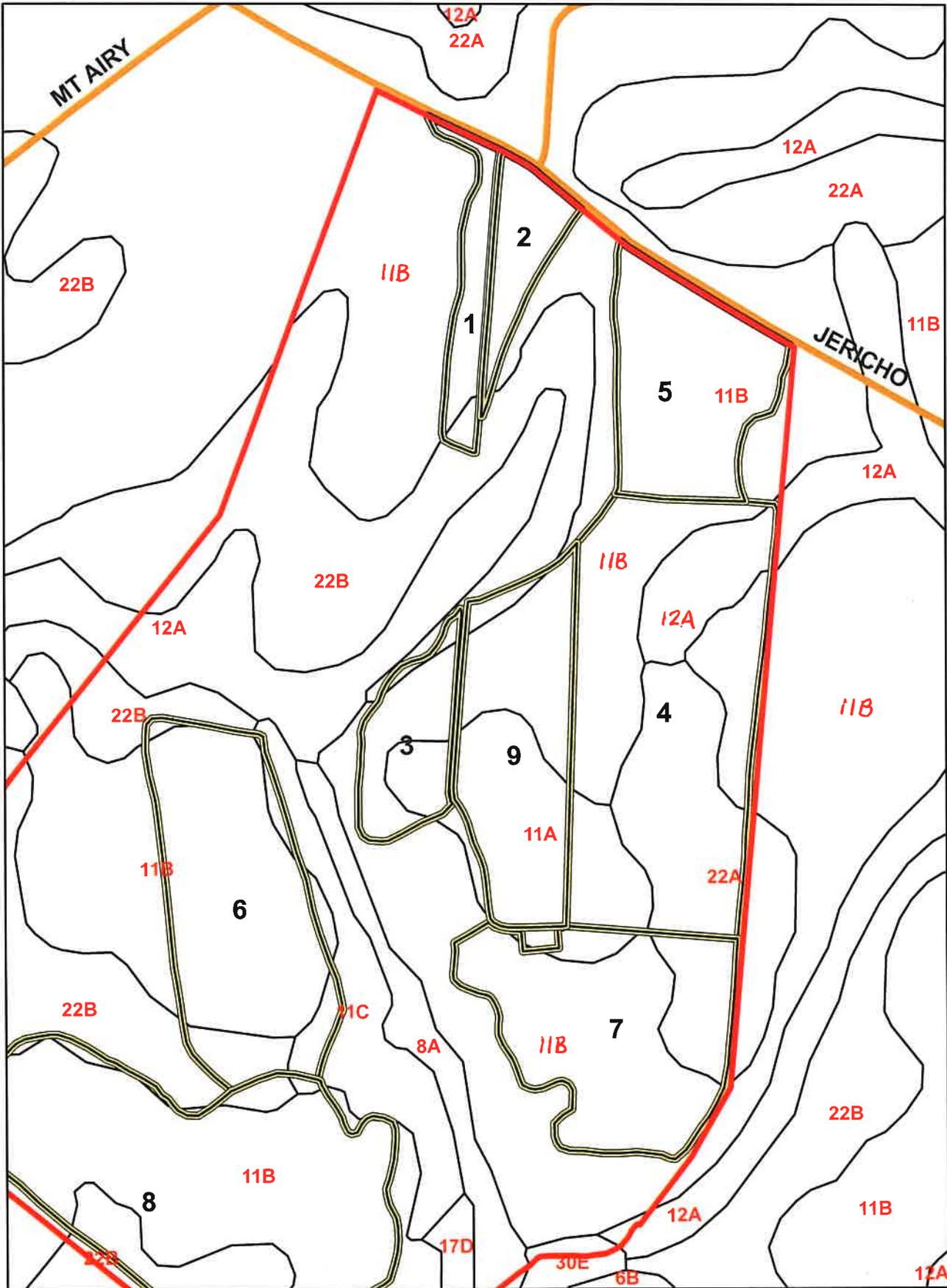


ADJOINING LANDOWNERS

C. W. SMITH & SONS

CAROLINE COUNTY

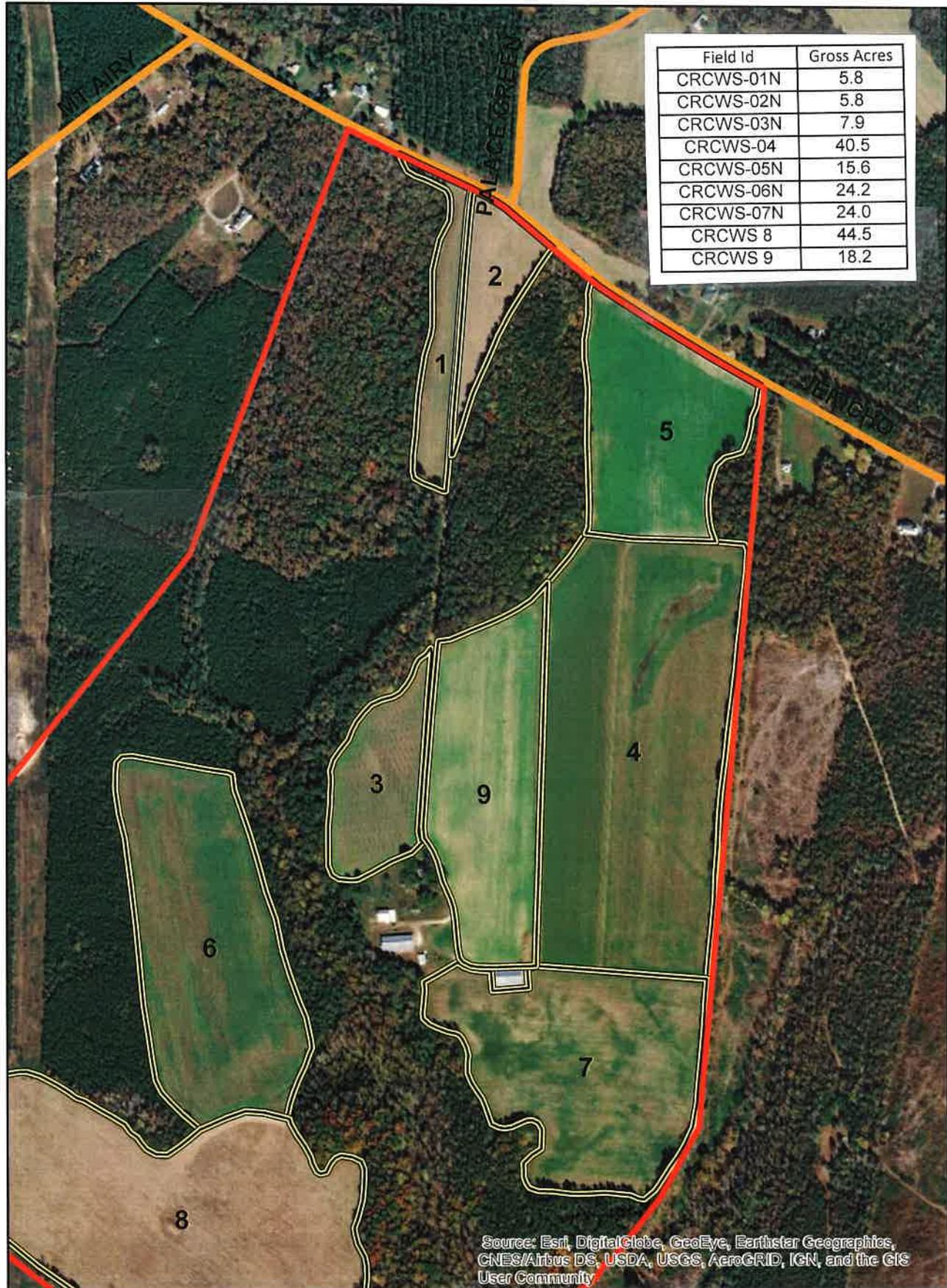
Tax Map	Parcel #	Owner Name(s)
80-A	43	Caroline 527 LLC
	44	Caroline 527 LLC
80-2	A	Mt. Airy Farm One LLC, Mt. Airy Farm Two LLC
81-A	8	Flippo Land and Timber Co. LLC
	20	Wendell Anderson
	21	William and Tiffany Bibber
	21A	Phillip C. Tate
	22	Charles A. Taylor, Jr.
	103	Joanne Keys Simms et. als.
	104	Joanne Keys Simms et. als.
	109	Marshall M. and Laurie D. Mitchell
81-2	109A	Caroline 527 LLC
	1	John A. and Sharon M. Sims
	2	Charles W. and Yvonne Sims
	3	James R. Sims



8-5-19

SOIL MAP

1 in = 660 feet



8-5-19

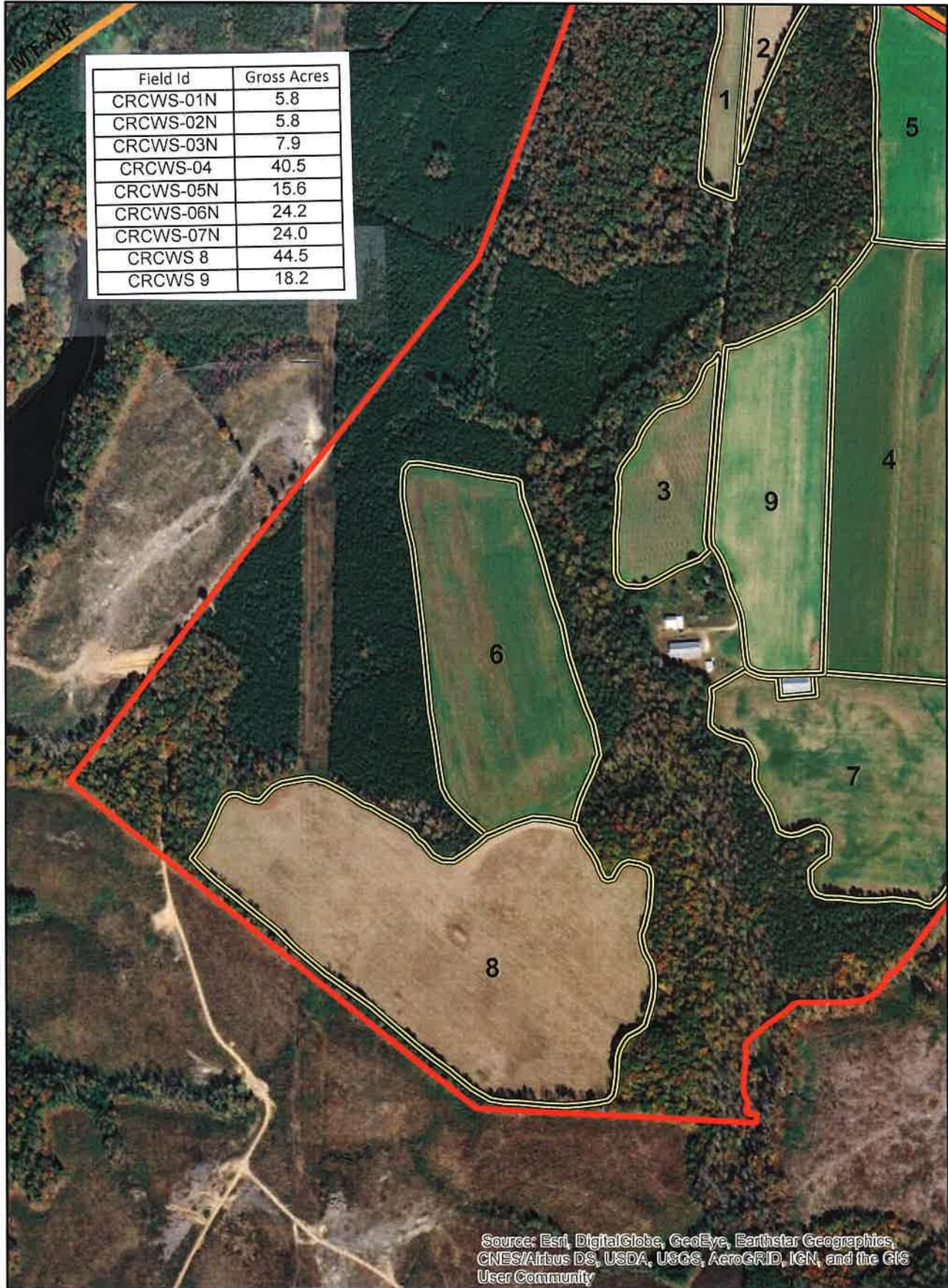


AERIAL MAP

1 in = 660 feet



Field Id	Gross Acres
CRCWS-01N	5.8
CRCWS-02N	5.8
CRCWS-03N	7.9
CRCWS-04	40.5
CRCWS-05N	15.6
CRCWS-06N	24.2
CRCWS-07N	24.0
CRCWS 8	44.5
CRCWS 9	18.2



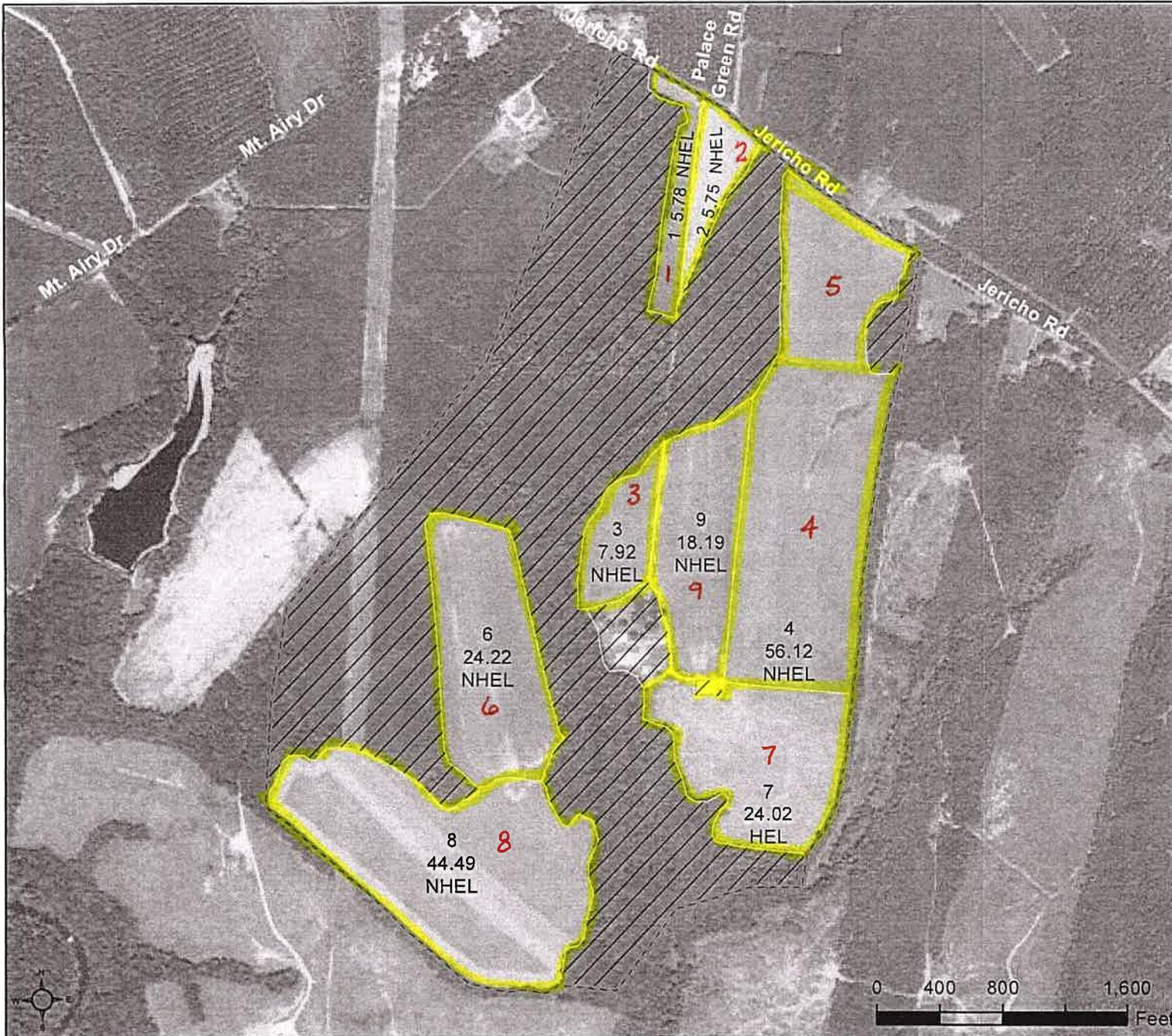
0-5-19

AERIAL MAP

1 in = 660 feet

Farm 181

Tract 502



2019 Program Year

Map Created June 05, 2019

Common Land Unit

- Non-Cropland
- Cropland
- rcl_l_va033
- Tract Boundary

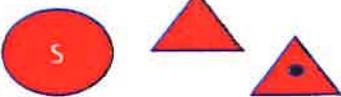
Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

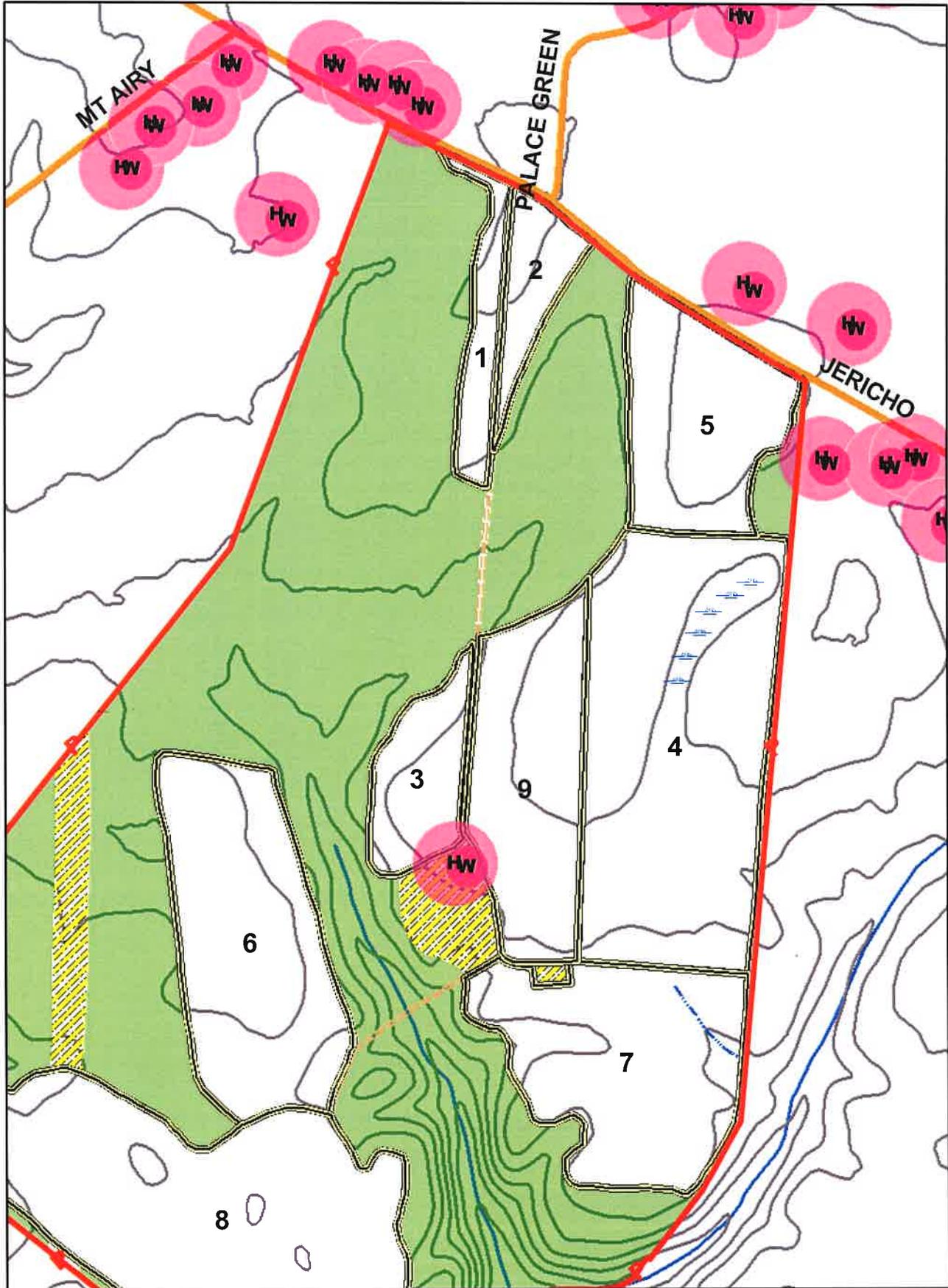
Tract Cropland Total: 186.49 acres

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

Legend For Site Plan

Symbol	Feature	Minimum Setback
	House and Well	200 feet from occupied dwelling * 100 feet from water supply wells or springs
	Well or Spring	100 feet from water supply wells or springs
	Streams or Surface Water	35 feet with 35 foot vegetated buffer 100 feet without vegetated buffer
	Wet Spot	
	Trees and Woods	
	Private Drive	
	Rock Area/Rock Outcrop	25 feet from rock outcrops 50 feet from limestone rock outcrops
	Severely Eroded Spot	18 Inch minimum depth of soil
	Sink Hole	100 feet from open sinkholes 50 feet from closed sinkholes
	State Road	10 feet from side of roadway
	Fence / Field Boundary	
	Property Line	100 feet from property line *
	Slope	15% maximum
	Hashed out Area	No application

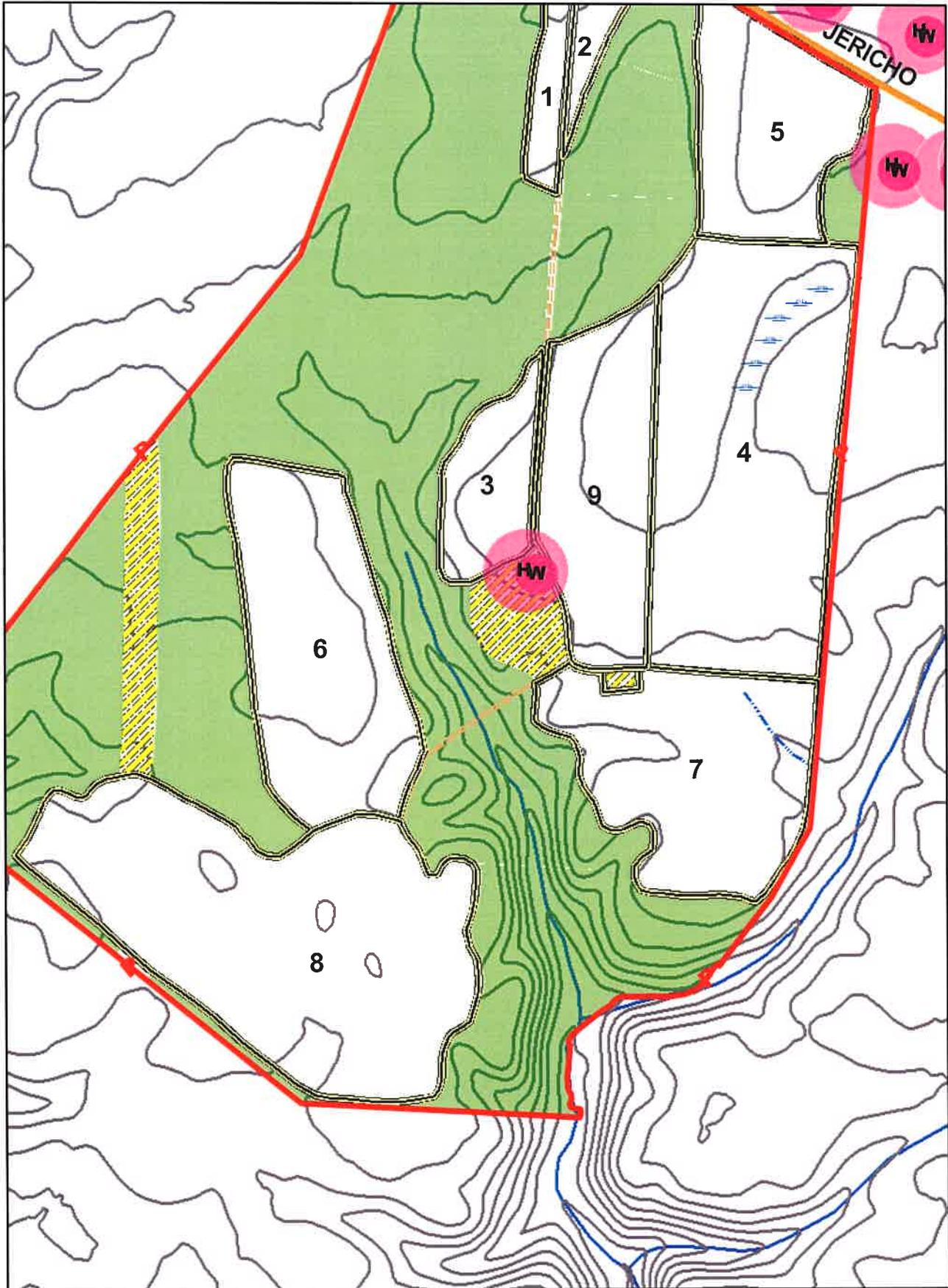
*Buffer can be reduced or waived upon written consent from landowner.



8-5-19

SITE PLAN

1 in = 660 feet

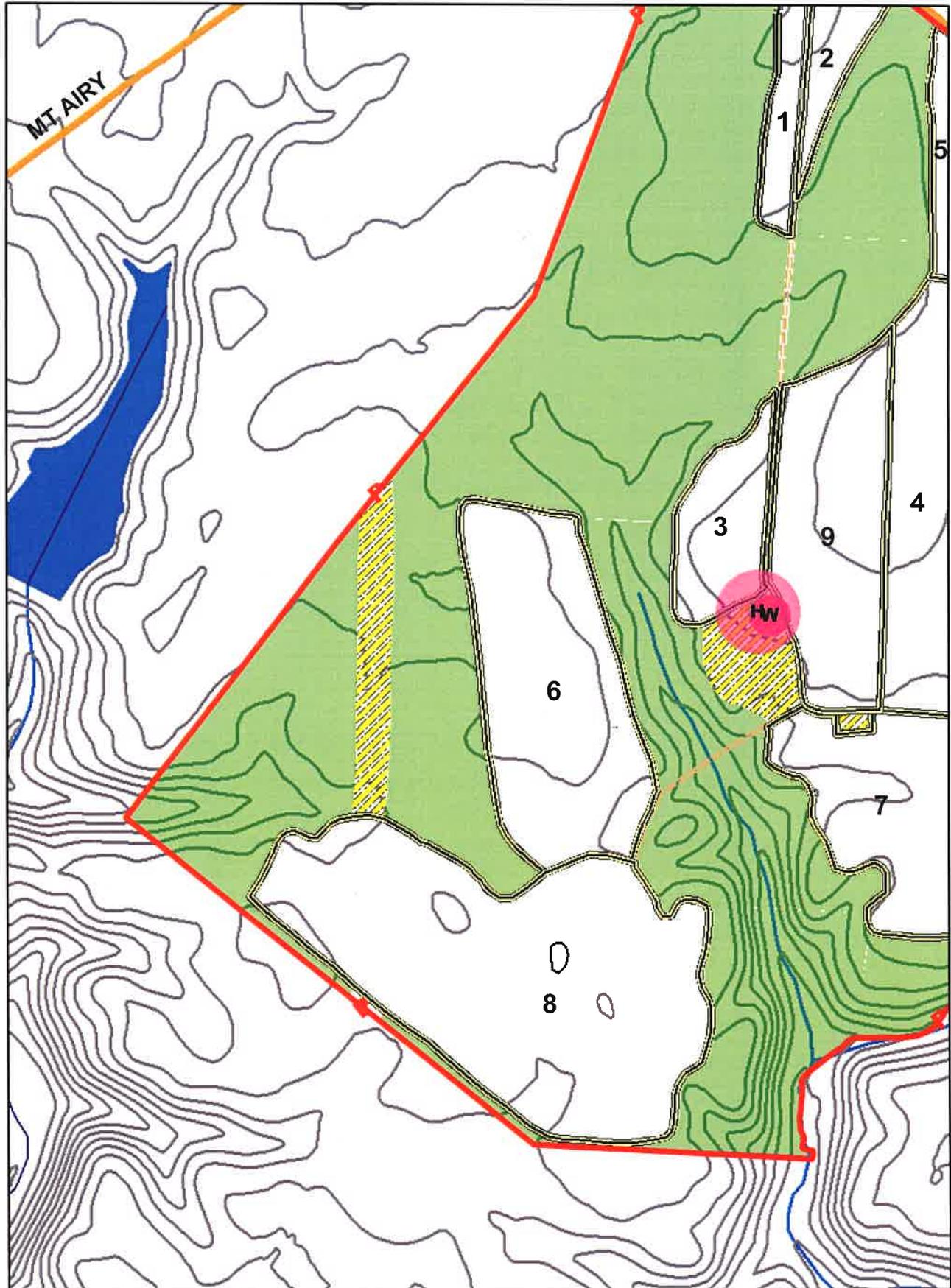


8-5-19

SITE PLAN

1 in = 660 feet



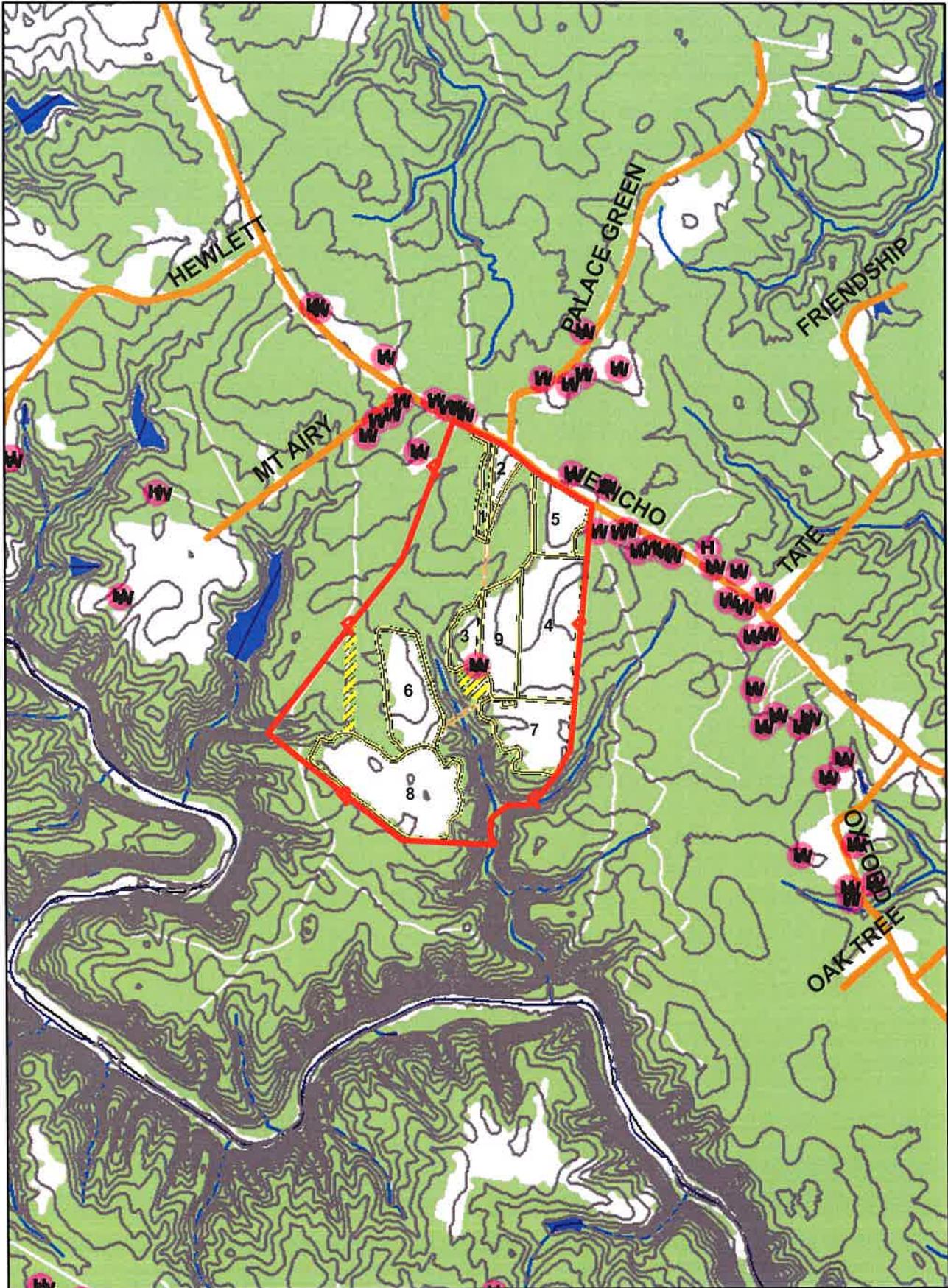


8-5-19

SITE PLAN

1 in = 660 feet





8-5-19

TOPOGRAPHIC MAP

1 in = 2,000 feet