

LAND APPLICATION SITE

FRANK P. ANDREWS

CRFPA 1

CAROLINE COUNTY

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 2-27-17 between ^{Frank P. Andrews} Kathryn H. Andrews referred to here as "Landowner", and Recyc Systems, Inc, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:

The Landowner is the owner of record of the real property located in Caroline Co, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
<u>Tax Map 76-A-20</u>			

Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: The Landowner is the sole owner of the properties identified herein.
 The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
 Yes No Yes No Yes No Yes No

KATHRYN H. ANDREWS Kathryn H. Andrews 540 825-4823
FRANK P. ANDREWS Frank P. Andrews 20070 Buck Run Ct.
 Landowner - Printed Name, Title Signature Mailing Address & Phone Number
CULPEPER, VA. 22701

Permittee:

Recyc Systems, Inc, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia.

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Strucko Strucko PO Box 562 Remington, Virginia 22734
 Permittee - Authorized Representative Signature Mailing Address
 Printed Name

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

Permittee: Recyc Systems, Inc County or City: Caroline Co.
Landowner: Frank P. & Kathryn H. Andrews

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).

KATHRYN H. ANDREWS Kathryn H. Andrews
FRANK P. ANDREWS Frank P. Andrews FEB. 27, 2017
Landowner's Signature Date

Benjamin A. Dignoffo 3139B SPARTA RD. MILFORD, VA 22514 804-633-9008
Farm Operator Signature Mailing Address & Phone Number

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: Frank P. Andrews

County or City: Caroline County

Please Print

Signature not required on this page

<u>Tax Parcel ID(s)</u>	<u>Landowners (s)</u>
TM 76- A-20	Frank P. and Kathryn H. Andrews

FARM DATA SHEET

SITE NAME:	Frank P. Andrews	COUNTY:	Caroline
OWNER:	Frank P. and Kathryn H. Andrews	OPERATOR:	B. A. Tignor Jr.
OWNER'S ADDRESS:	20070 Buck Run Ct. Culpeper, VA 22701	OPERATOR'S ADDRESS:	31398 Sparta Road Milford, VA 22514
OWNER'S TELEPHONE:	540-825-4823	OPERATOR'S TELEPHONE:	804-633-9008
GENERAL FARM TYPE:	Row Crop	CELL PHONE:	804-512-8992
# CATTLE:	None	EMAIL:	-
LAGOON or SLURRY:	None	LATITUDE:	37.984
TOPO QUAD:	Supply	LONGITUDE:	- 77.132
COMMENTS:		METHOD OF DETERMINATION:	Online Maps

SD ST
5-28-19

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
 (Spring, 2017-Summer, 2019)

Frank P. Andrews
 Planner: Recyc Systems, Inc

Tract: 3461 Location: Caroline
 (N = N based, 1P = P based, 1.5P = P based at 1.5 removal, 0P = No P allowed)

Field COSA No. /Name	Size (ac) Total/ Used	Yr.	Crop	Needs N-P-K (lbs/ac)	Leg /Man Resid	Manure/Biosid Rate & Type (season)	IT (d)	Man/Bios N-P-K (lbs/ac)	Net = Needs - appl'd N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes
1. 2/CRFPA 1(N)	46/46	2017	Soybeans (FS)	0-60-60	0/0				0-60-60	N/A		

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
3461	CRFPA 1	46	[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
3461	3461/1, 2	CRFPA 1	46	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 Spring, 2017 - Summer, 2019

Farm Name: Frank P. Andrews
Location: Caroline
Specialist: Recyc Systems, Inc
N-based Acres: 46.3
P-based Acres: 0.0

Tract Name: 3461
FSA Number: 3461
Location: Caroline

Field Name: CRFPA 1
Total Acres: 46.30 Usable Acres: 46.30
FSA Number: 1, 2
Tract: 3461
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
62	11B	Emporia Kempsville
8	11C	Emporia Kempsville
31	21C	Kempsville Slagle

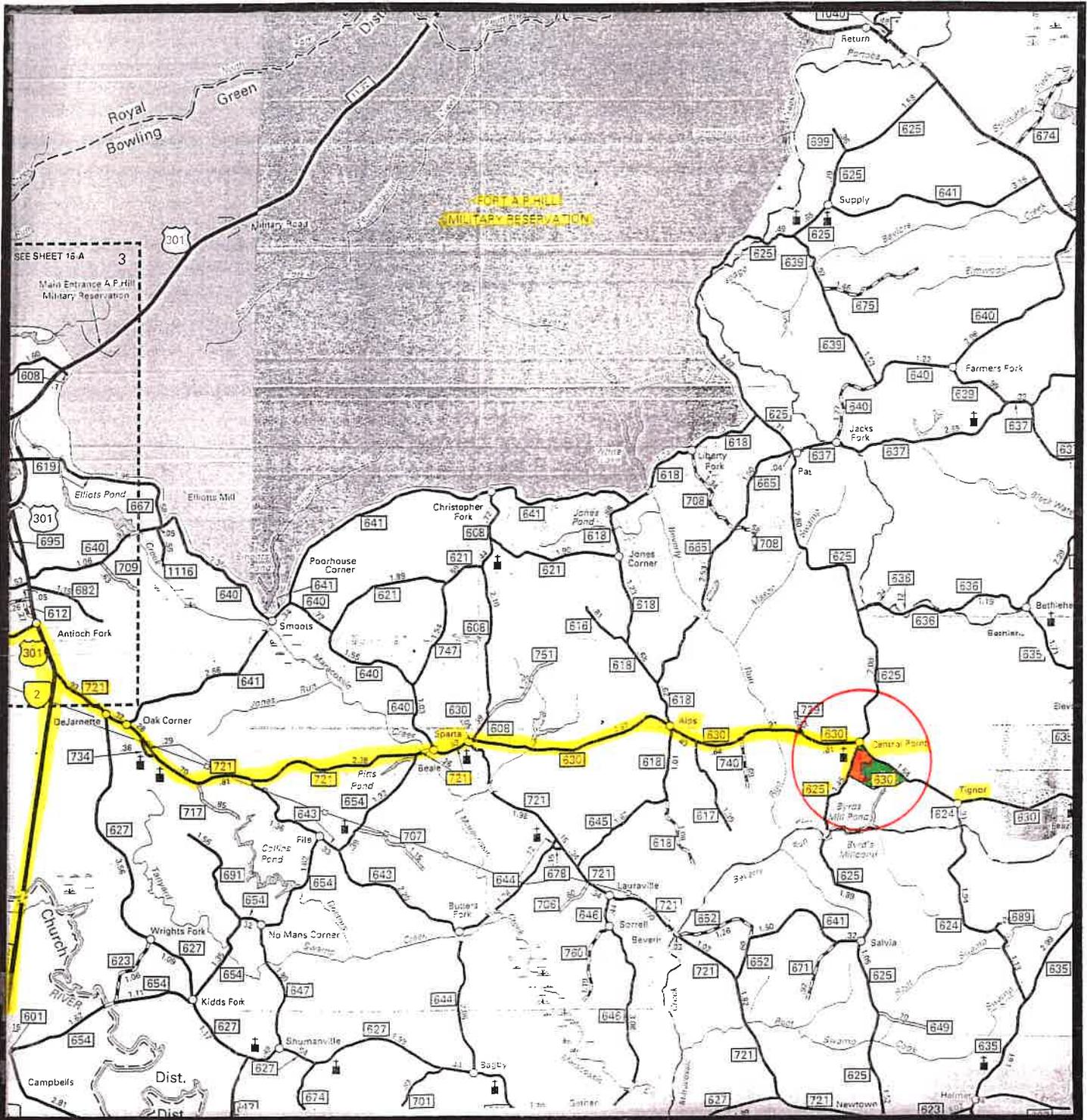
Field Warnings:

Crop Rotation:		
PLANTED	YIELD	CROP NAME
2017-Sp	40.0 bushel(s)	Soybeans (FS) - No Till

MAPS

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1" = 2 miles

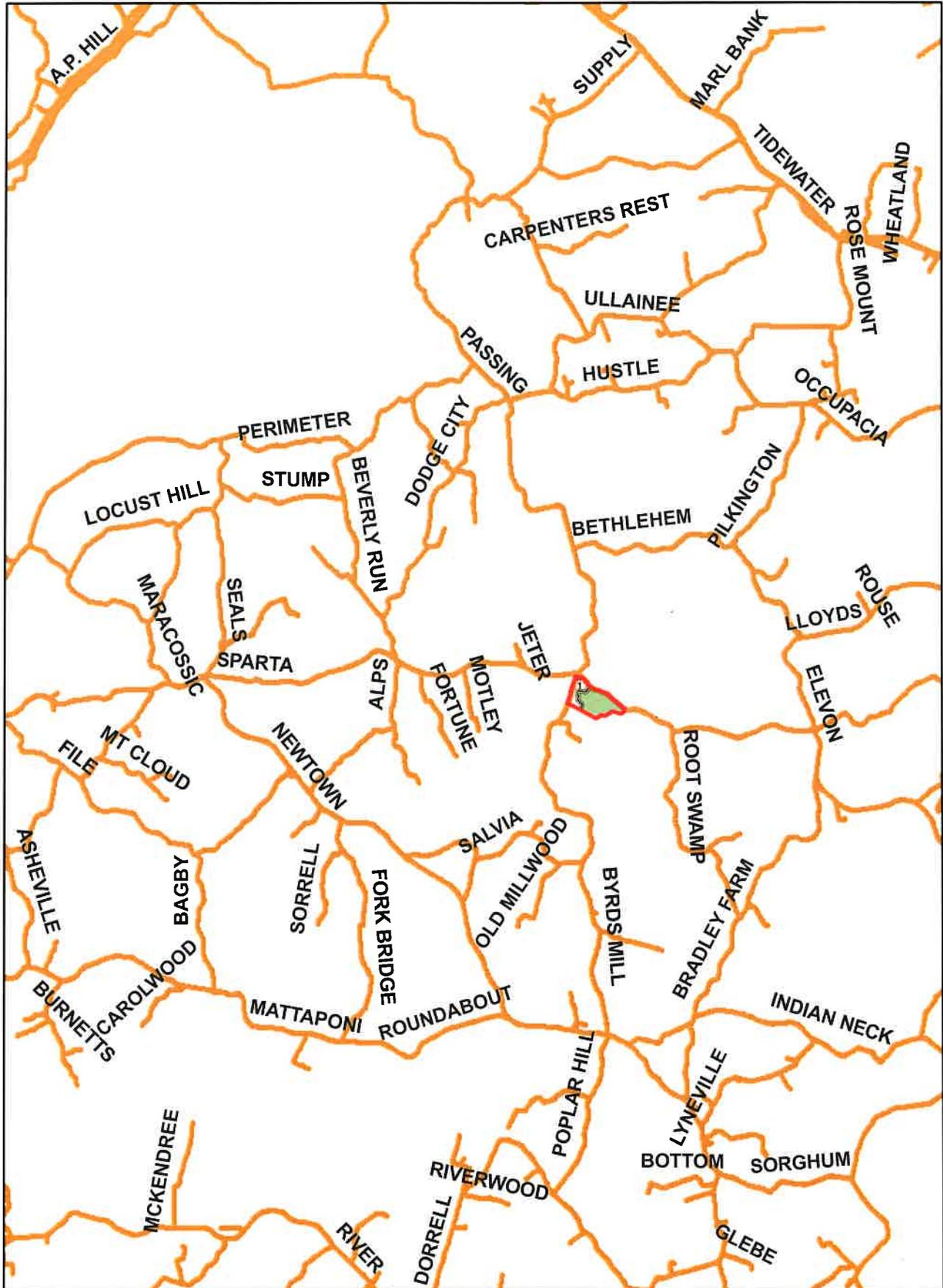
CRFPA 1

5-28-19

Truck Route marked
in Yellow

VICINITY MAP



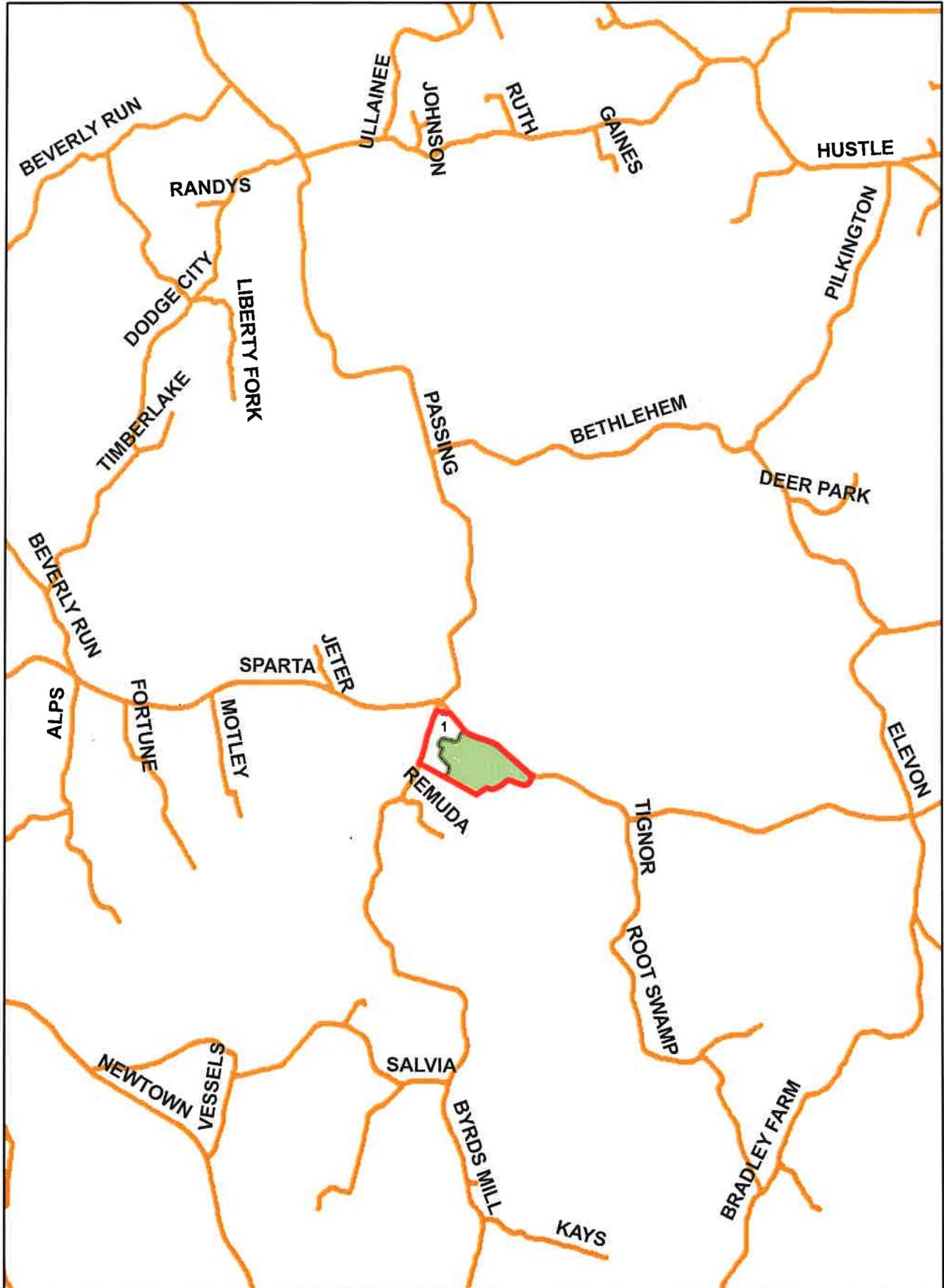


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VICINITY MAP

1 in = 2 miles

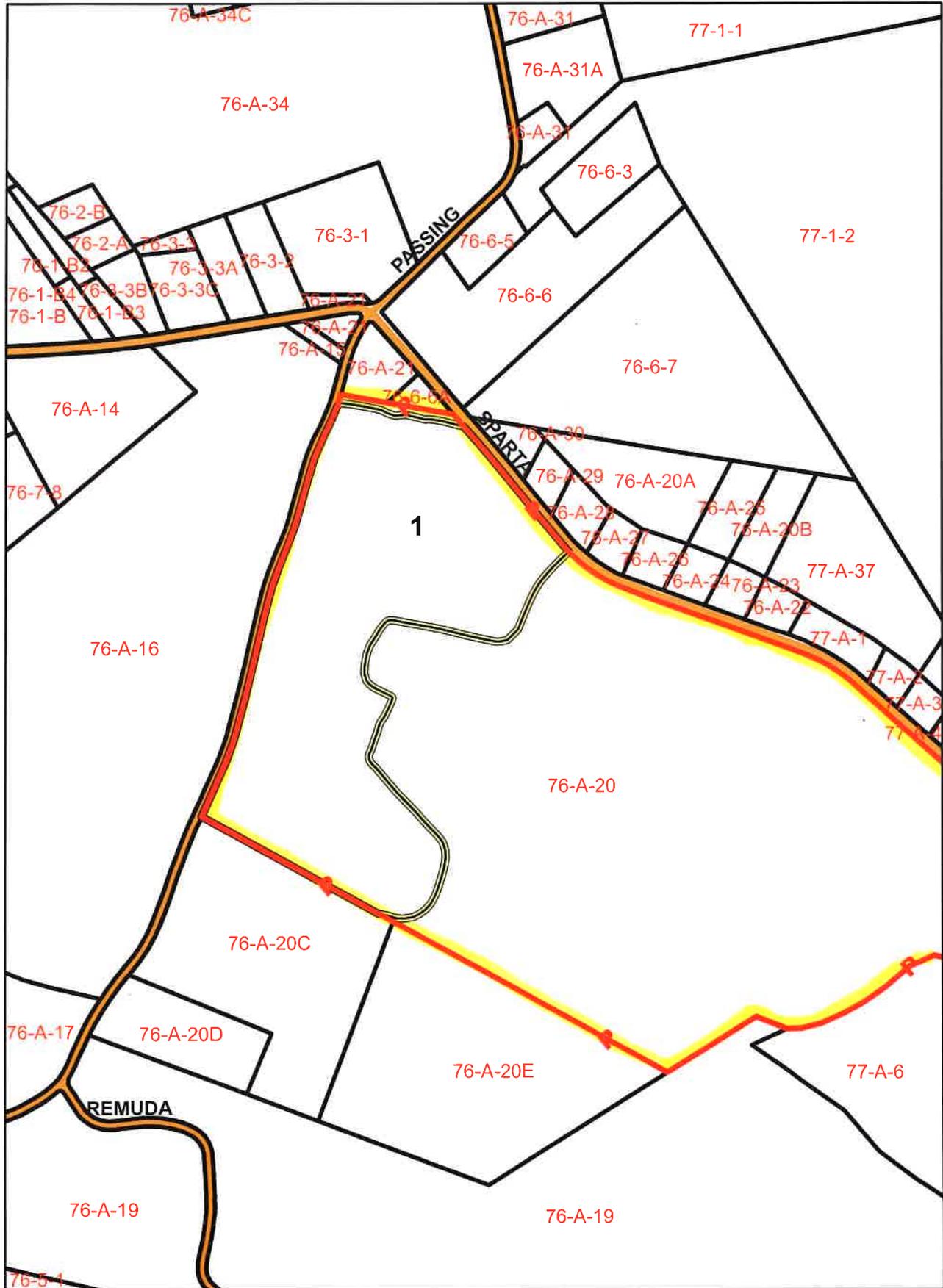




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VICINITY MAP

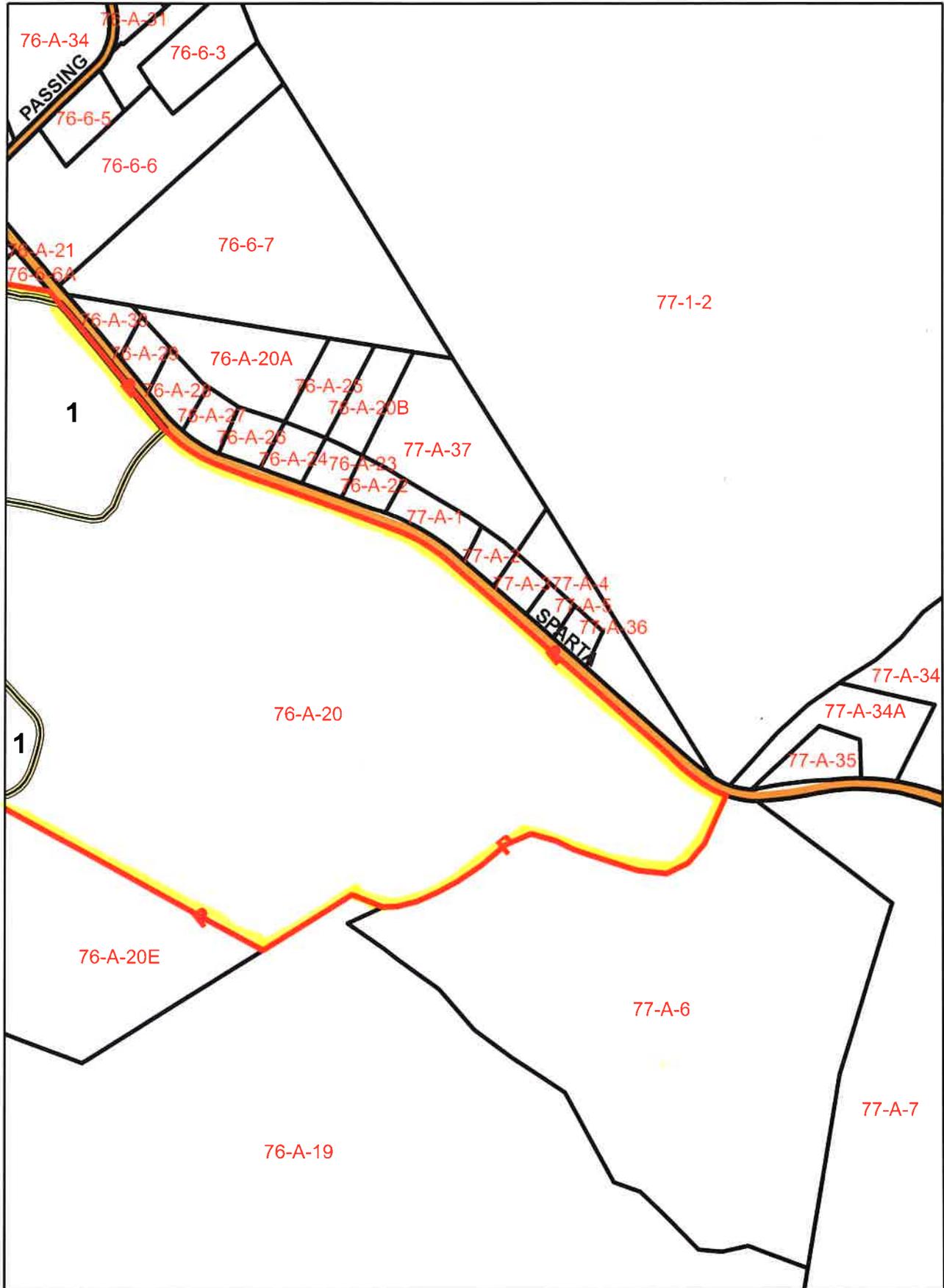
1 in = 1 mile:



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TAX MAP

1 in = 660 feet



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TAX MAP

1 in = 660 feet

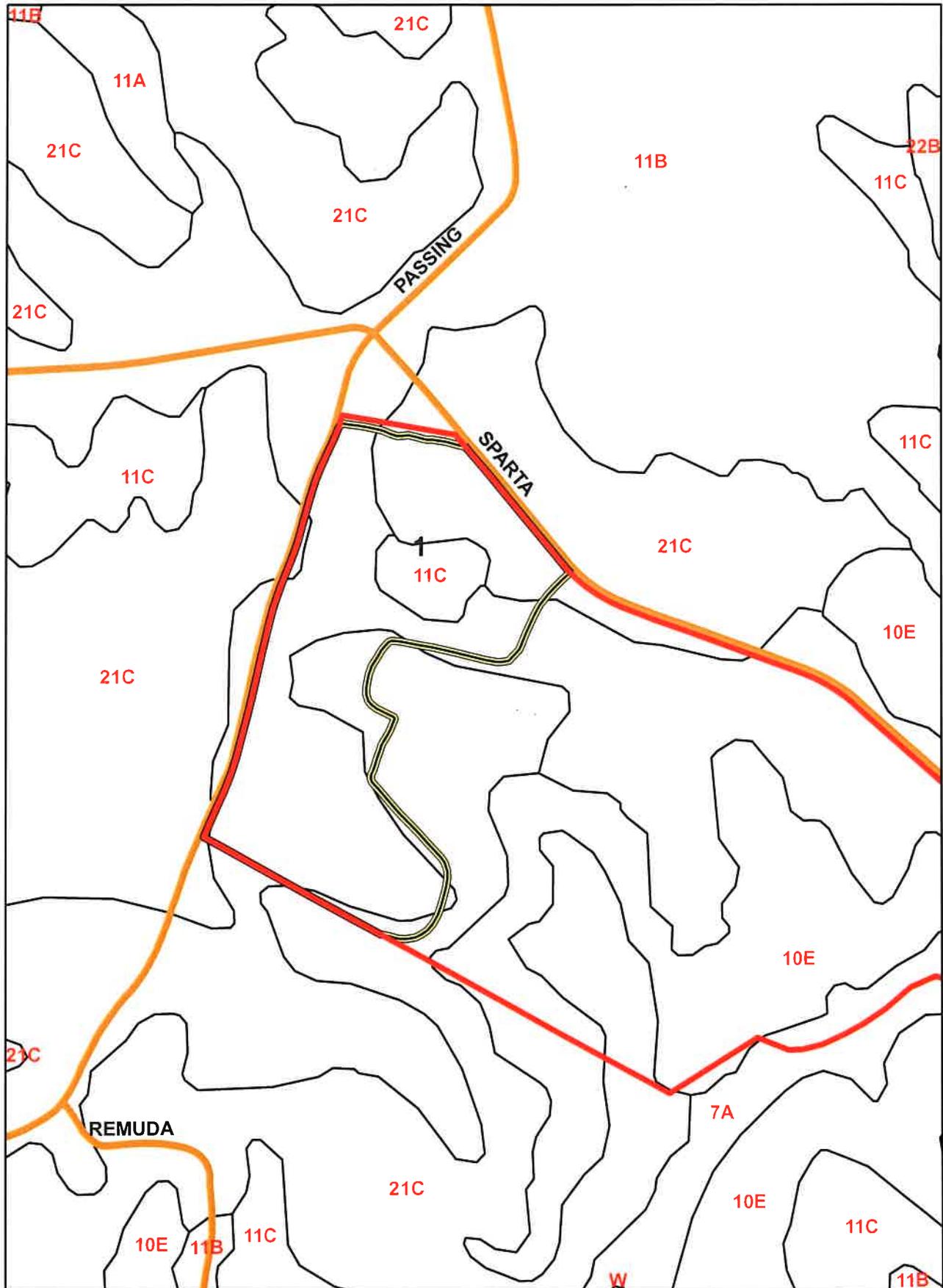


ADJOINING LANDOWNERS

Frank P. Andrews

CAROLINE COUNTY

Tax Map	Parcel #	Owner Name(s)
76	16	Ellen Potter Stevens & William D. Motley
	19	International Swamiwarayn
	20C	Charles F. Albert
	20D	Latimen Thomas Albert and Mary Kay Albert
	21	Trustees of Saint Stephens Baptist Church
	22	Kevin W. Mundy
	23	Everette Reynolds
	24	Clarence Reynolds
	25	Clarence Reynolds
	26	Clifton Martin
	27	Clifton Martin
	28	John R. Jr. and Wanda B. Fortune
	29	John R. Jr. and Wanda B. Fortune
30	John R. Jr. and Wanda B. Fortune	
76-6	6A	Trustees of Saint Stephens Baptist Church
	6	Wanda Fortune and Michael Byrd
	7	Caryle Byrd
77	1	Angela Johnson
	2	George C. Seal III
	3	Thelma Byrd
	4	Samantha Nelson
	5	Wiley Hall
	6	Clarence W. and Brandon Tignor
	36	Wiley Hall
77-1	2	Broaddus Properties LLC



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SOIL MAP

1 in = 660 feet

Frequent Flooding
marked in Orange



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AERIAL MAP

1 in = 660 feet

Farm 2714
Tract 3461

2019 Program Year
Map Created April 02, 2019

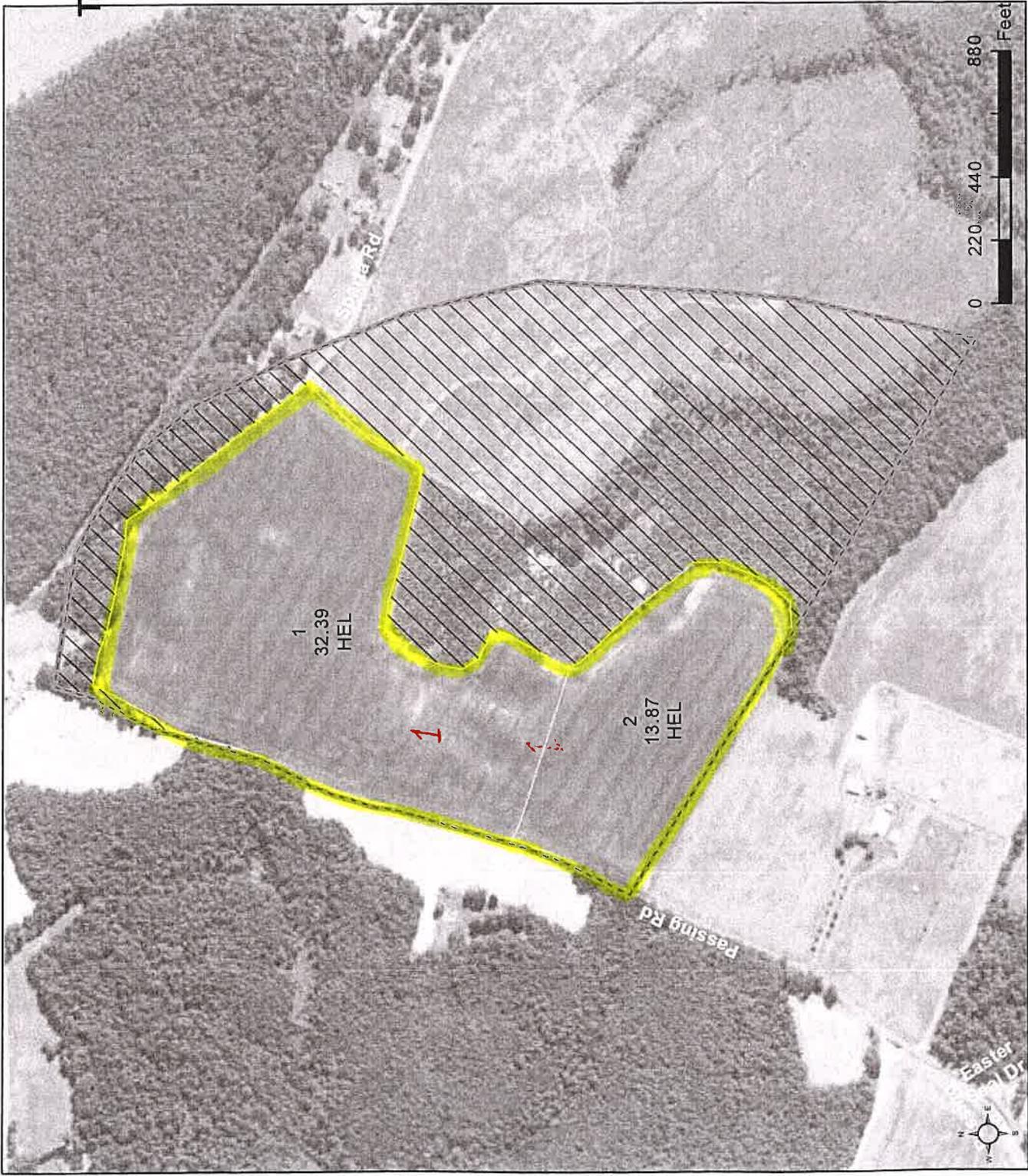
Common Land Unit

- /// Non-Cropland
- Cropland
- rcL_l_va033
- Tract Boundary

Wetland Determination
Identifiers

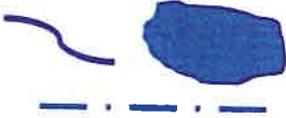
- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation
- Compliance Provisions

Tract Cropland Total: 46.26 acres

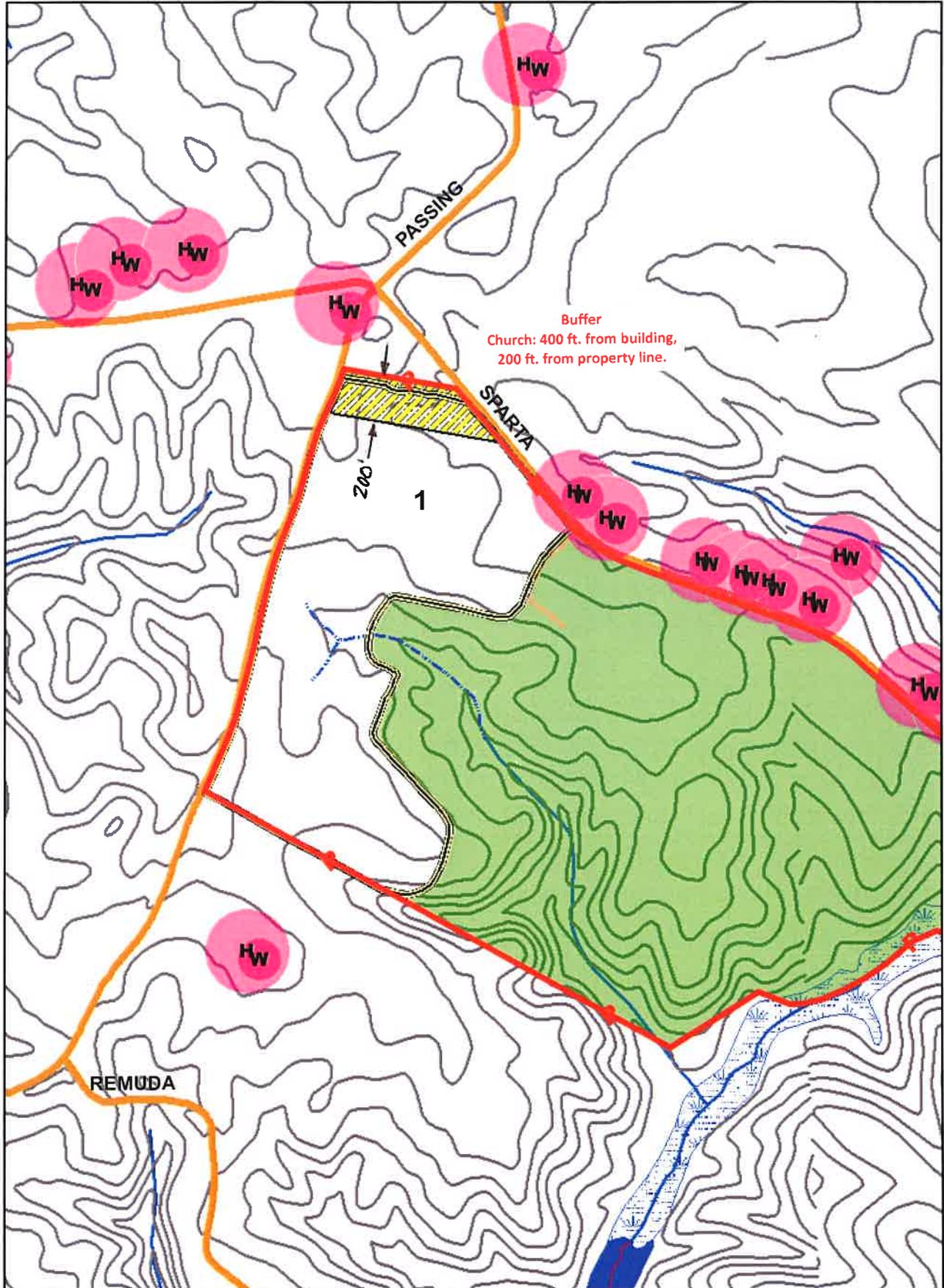


United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (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 P 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 (NRCSS).

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.

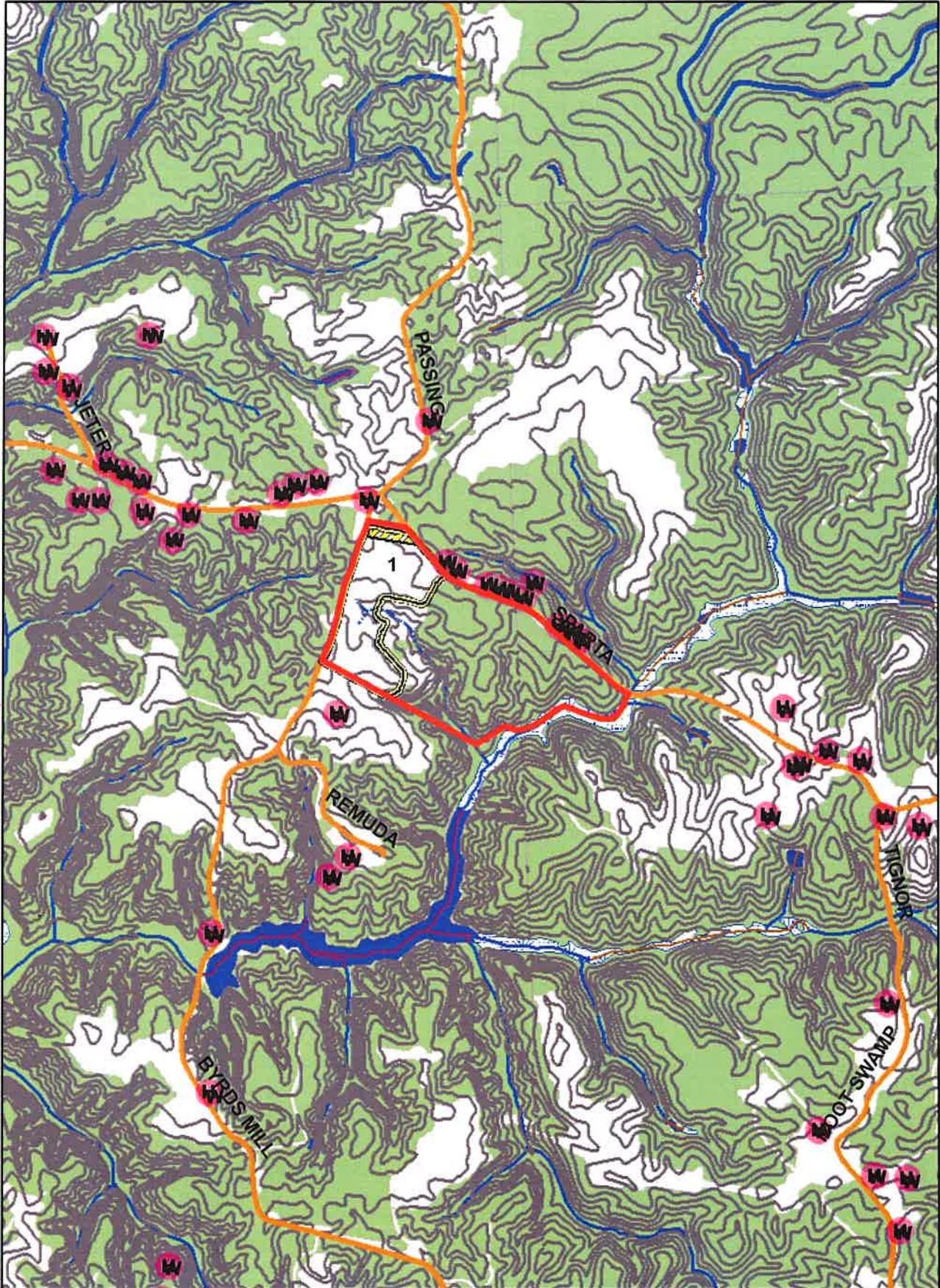


5-28-19

SITE PLAN

1 in = 660 feet





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TOPOGRAPHIC MAP

1 in = 2,000 feet