

**LAND APPLICATION SITE**

**ROBERT D. UPSHAW**

**CRRDU 1 - 19**

**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 5-29-19 between Robert Dwain Upshaw 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) with county documentation identifying owners, 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>99-A-5</u>			
<u>99-A-5A</u>			
<u>99-A-7</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

Printed name <u>Robert Dwain Upshaw</u>	Mailing Address <u>25500 Gether Lane Milford, Va. 22514</u>	Landowner Signature <u>R D Upshaw</u>
By: <u>Owner</u>	Phone No. <u>804-994-1497</u>	
* <input type="checkbox"/> I certify that I have authority to sign for the landowner as indicated by my title as executor, Trustee or Power of attorney, etc.		
* <input type="checkbox"/> I certify that I am a responsible official [or officer] authorized to act on behalf of the following corporation, partnership, proprietorship, LLC, municipality, state or federal agency, etc.		

**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 filed 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.

Printed name <u>Susan Trumbo</u>	Mailing Address <u>PO Box 562, Remington Virginia 22734</u>	Permittee- Authorized Representative Signature <u>S Trumbo</u>
Title <u>Technical Manager</u>	Phone No. <u>540-547-3300</u>	

Permittee: Recyc Systems, Inc County or City: Caroline Co.  
Landowner: Robert Duwain Upshaw

**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).

RD Upshaw \_\_\_\_\_ 5-29-19  
Landowner's Signature Date

RD Upshaw \_\_\_\_\_ 5-29-19  
Operator's Signature mailing address & phone Date

# FARM DATA SHEET

<b>SITE NAME:</b>	Robert D. Upshaw	<b>COUNTY:</b>	Caroline
<b>OWNER:</b>	Robert Dwain Upshaw	<b>OPERATOR:</b>	Robert D. Upshaw
<b>OWNER'S ADDRESS:</b>	25500 Gether Lane Milford, VA 22514	<b>OPERATOR'S ADDRESS:</b>	25500 Gether Lane Milford, VA 22514
<b>OWNER'S TELEPHONE:</b>	-	<b>OPERATOR'S TELEPHONE:</b>	-
<b>GENERAL FARM TYPE:</b>	Row Crops/ Pasture/ Hay	<b>CELL PHONE:</b>	804-994-1497
<b># CATTLE:</b>	40	<b>EMAIL:</b>	-
<b>LAGOON or SLURRY:</b>	N/A	<b>LATITUDE:</b>	37.901
<b>TOPO QUAD:</b>	Sparta	<b>LONGITUDE:</b>	-77.193
<b>COMMENTS:</b>		<b>METHOD OF DETERMINATION:</b>	Online Maps

SDA

7-16-19

**NEW FIELD CHANGES**

**ROBERT D. UPSHAW**

**CAROLINE COUNTY**

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**THIS FARM IS A PART OF THE OLD ROBERT F. UPSHAW SITE.**

**FIELD 1 IS THE SAME AS OLD FIELD 1.**

**FIELDS 2, 3 ARE PART OF OLD FIELD 20.**

**FIELD 4 IS THE SAME AS OLD FIELD 21.**

**FIELD 5 IS A PART OF OLD FIELD 17.**

**FIELD 6 IS THE SAME AS OLD FIELD 16.**

**FIELD 7 IS A PART OF OLD FIELD 18.**

**FIELD 8 IS A PART OF OLD FIELD 17.**

**FIELD 9 IS THE SAME AS OLD FIELD 22**

**FIELD 10 IS THE SAME AS OLD FIELD 15.**

**FIELD 11 IS A PART OF OLD FIELD 18.**

**FIELD 12 IS A NEW FIELD.**

**FIELD 13 IS THE SAME AS OLD FIELD 23.**

**FIELD 14 IS THE SAME AS OLD FIELD 19.**

**FIELD 15 IS THE SAME AS OLD FIELD 24.**

**FIELD 16 IS THE SAME AS OLD FIELD 25.**

**FIELD 17 IS THE SAME AS OLD FIELD 26.**

**FIELD 18 IS THE SAME AS OLD FIELD 27.**

**FIELD 19 IS THE SAME AS OLD FIELD 28.**

# RECYC SYSTEMS, INC

## FIELD DATA SHEET

Field Identification	DEQ Control ID	Gross Acres	Environmentally Sensitive Soils				Hydro Map	Tax Map #	FSA Tract #
			Water Table	Bed Rock/ Shallow	Surf/ Leach	Freq Flood			
CRRDU 1	51033-00433-0000	12.4	-	-	-	-	YO 53	99-A-7	T 1242 F 2
CRRDU 2	51033-00452-0000	12.3	-	-	-	-	YO 53	99-A-5	T 1208 F 1
CRRDU 3	51033-00452-0000	26.8	-	-	-	-	YO 53	99-A-5	T 1208 F 2
CRRDU 4	51033-00453-0000	64.6	-	-	-	-	YO 53	99-A-5	T 1208 F 4
CRRDU 5	51033-00449-0000	22.1	-	-	-	-	YO 50	99-A-5	T 1208 F 3
CRRDU 6	51033-00448-0000	22.7	-	-	-	-	YO 50	99-A-5 99-A-5A	T 1208 F 6
CRRDU 7	51033-00450-0000	12.8	-	-	-	-	YO 50	99-A-5 99-A-5A	T 1208 F 7
CRRDU 8	51033-00449-0000	2.5	-	-	-	-	YO 50	99-A-5	T 1208 F 8
CRRDU 9	51033-00454-0000	9.1	-	-	-	-	YO 53	99-A-5	T 1208 F 9
CRRDU 10	51033-00447-0000	12.0	-	-	-	-	YO 50	99-A-5	T 1208 F 10

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CRRDU 11	51033-00450-0000	1.9	-	-	-	-	YO 50	99-A-5 99-A-5A	T 1208 F 11
CRRDU 12	New	2.1	-	-	-	-	YO 50	99-A-5 99-A-5A	T 1208 F 12
CRRDU 13	51033-00455-0000	4.6	-	-	-	-	YO 50	99-A-5	T 1208 F 13
CRRDU 14	51033-00451-0000	20.5	1A Dec.-Apr.	-	-	-	YO 50	99-A-5	T 1208 F 18
CRRDU 15	51033-00456-0000	30.2	1A Dec.-Apr.	-	-	-	YO 50	99-A-5	T 1208 F 19
CRRDU 16	51033-00457-0000	32.5	1A Dec.-Apr.	-	-	-	YO 50	99-A-5	T 1208 F 14, 15
CRRDU 17	51033-00458-0000	28.2	1A Dec.-Apr.	-	-	-	YO 53	99-A-5	T 1208 F 5
CRRDU 18	51033-00459-0000	39.4	1A Dec.-Apr.	-	-	-	YO 50	99-A-5	T 1208 F 16
CRRDU 19	51033-00460-0000	13.8	4A Nov.-July	-	-	4A Nov.-June	YO 50 YO 53	99-A-5	T 1208 F 17
TOTAL ACRES IN SITE		370.5							

7-16-19

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: Robert D. Upshaw

County or City: Caroline Co.

Please Print

Signature not required on this page

<u>Tax Parcel ID(s)</u>	<u>Landowners (s)</u>
99-A-5	Robert Dwain Upshaw
99-A-5A	Robert Dwain Upshaw
99-A-7	Robert Dwain Upshaw

Report Number: 18-100-0502

Account Number: 70594



"Every acre...Every year."™

7621 Whitepine Road, Richmond, VA 23237  
 Main 804-743-9401 ° Fax 804-271-6446  
 www.waypointanalytical.com

Send To: Recyc Systems Inc  
 Susan Trumbo  
 8455 Whiteshop Road  
 Culpepper VA 22701

Grower: Robert Upshaw

**SOIL ANALYSIS REPORT**

Analytical Method(s): SMP Buffer pH Mehlich 3 Loss On Ignition Water pH

Date Received: 04/10/2018

Date Of Analysis: 04/11/2018

Date Of Report: 04/11/2018

Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C		
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g		
<del>14</del>	12812	1.5 L		75	109	VH		94	H	63	M	506	H	6.5		0.3	3.6
<del>18</del> 14	12813	2.2 L		88	97	H		101	H	34	L	759	VH	6.9		0.1	4.4

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts			
	K %	Mg %	Ca %	Na %	H %	NO <sub>3</sub> N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate			
14	6.7	14.6	70.3		8.3			3.1	M	19	M					
19	5.9	6.4	86.3		2.3			5.5	H	20	M					

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: *Paucic McGeary*

Paucic McGroary

Report Number: 18-345-0506

Account Number: 70594



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"Every acre...Every year."™

Grower: Robert Upshaw  
 Caroline Co

### SOIL ANALYSIS REPORT

Analytical Method(s): SMP Buffer pH Mehlich 3 Loss On Ignition Water pH

Date Received: 12/11/2018 Date Of Analysis: 12/12/2018 Date Of Report: 12/12/2018

Sample ID Field ID	Lab Number	OM	W/V	ENR	Phosphorus			Potassium	Magnesium	Calcium	Sodium	pH		Acidity	C.E.C			
		% Rate	Soil Class	lbs/A	M3 ppm Rate	ppm Rate	ppm Rate	K ppm Rate	Mg ppm Rate	Ca ppm Rate	Na ppm Rate	Soil pH	Buffer Index	H meq/100g	meq/100g			
<del>27A</del> 18	04584	1.7 L		78	181	VH		86	M	86	H	581	H		6.5		0.3	4.1
<del>27B</del> 18	04585	1.5 L		74	161	VH		95	H	87	H	546	M		6.6		0.2	3.9
<del>28</del> 19	04586	2.4 L		91	287	VH		95	H	80	M	674	H		6.4	6.89	0.4	4.7

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts
	K %	Mg %	Ca %	Na %	H %	NO <sub>3</sub> N ppm Rate	S ppm Rate	Zn ppm Rate	Mn ppm Rate	Fe ppm Rate	Cu ppm Rate	B ppm Rate	SS ms/cm Rate
27A	5.4	17.5	70.9		7.3			3.9	H	12	M		
27B	6.2	18.6	70.0		5.1			3.3	M	11	M		
28	5.2	14.2	71.7		8.5			3.7	H	23	H		

Values on this report represent the plant available nutrients in the soil. Rating after each value: VL (Very Low), L (Low), M (Medium), H (High), VH (Very High). ENR - Estimated Nitrogen Release. C.E.C. - Cation Exchange Capacity.

Explanation of symbols: % (percent), ppm (parts per million), lbs/A (pounds per acre), ms/cm (milli-mhos per centimeter), meq/100g (milli-equivalent per 100 grams). Conversions: ppm x 2 = lbs/A, Soluble Salts ms/cm x 640 = ppm.

This report applies to sample(s) tested. Samples are retained a maximum of thirty days after testing.

Analysis prepared by: Waypoint Analytical Virginia, Inc.

by: *Paucic McGeary*

Paucic McGeary

THE PLANNER IS NOT STATE CERTIFIED

**Nutrient Management Plan Balance Sheet**  
**(Fall, 2019-Winter, 2021)**  
**Robert D. Upshaw**  
**Planner: John Doe**

Tract: 1208 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/CRRDU 2(N)	12/12	2019 2020	Wheat (grain) ... ..	100-60-60 --- --	20/0				80-60-60	N/A		
2/CRRDU 3(N)	27/27	2019 2020	Wheat (grain) ... .. Soybeans (DC)	100-60-60 --- -- 0-60-60	20/0 0/0				80-60-60 0-120-120	N/A N/A		
4/CRRDU 4(N)	65/65	2019 2020	Wheat (grain) ... .. Soybeans (DC)	100-60-60 --- -- 0-60-60	20/0 0/0				80-60-60 0-120-120	N/A N/A		
3/CRRDU 5(N)	22/22	2019	Grass Pasture	50-80-80	0/0				50-80-80	N/A		
6/CRRDU 6(N)	23/23	2019 2020	Wheat (grain) ... .. Soybeans (DC)	100-60-60 --- -- 0-60-60	20/0 0/0				80-60-60 0-120-120	N/A N/A		
7/CRRDU 7(N)	13/13	2019	Grass Pasture	50-80-80	0/0				50-80-80	N/A		
8/CRRDU 8(N)	3/3	2019	Grass Pasture	50-80-80	0/0				50-80-80	N/A		
9/CRRDU 9(N)	9/9	2019 2020	Wheat (grain) ... .. Soybeans (DC)	100-60-60 --- -- 0-60-60	20/0 0/0				80-60-60 0-120-120	N/A N/A		
10/CRRDU 10(N)	12/12	2019 2020	Wheat (grain) ... ..	100-60-60 --- --	0/0				100-60-60	N/A		
11/CRRDU 11(N)	2/2	2019 2020	Wheat (grain) ... .. Soybeans (DC)	100-60-60 --- -- 0-60-60	20/0 0/0				80-60-60 0-120-120	N/A N/A		
12/CRRDU 12(N)	2/2	2019	Grass Pasture	50-30-40	0/0				50-30-40	N/A		
13/CRRDU 13(N)	5/5	2019	Fescue grass hay mt.	70-50-95	0/0				70-50-95	N/A		
18/CRRDU 14(N)	21/21	2019 2020	Wheat (grain) ... .. Soybeans (DC)	100-60-60 --- -- 0-60-60	20/0 0/0				80-60-60 0-120-120	N/A N/A		

Tract: 1208

Location: Caroline

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 - applied N-P-K (lbs/ac)	Sum P rem cred	Commercial N-P-K (lbs/ac)	Notes
19/CRRDU 15(N)	30/30	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	... .. Soybeans (DC)	-- -- -- 0-60-60	0/0				0-120-120	N/A		
14, 15/CRRDU 16(N)	33/33	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	... .. Soybeans (DC)	-- -- -- 0-60-60	0/0				0-120-120	N/A		
5/CRRDU 17(N)	28/28	2019	Wheat (grain)	100-60-60	20/0				80-60-60	N/A		
		2020	... .. Soybeans (DC)	-- -- -- 0-60-60	0/0				0-120-120	N/A		
16/CRRDU 18(N)	39/39	2019 2020	Wheat (grain) ... ..	100-60-60 -- -- --	0/0				100-60-60	N/A		
17/CRRDU 19(N)	14/14	2019 2020	Wheat (grain) ... ..	100-60-60 -- -- --	0/0				100-60-60	N/A		

**Commercial Application Methods:**

br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 1242 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/Biosid 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	
2/CRRDU 1(N)	12/12	2019 2020	Wheat (grain) ... ..	100-60-60 -- -- --	20/0				80-60-60	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
1208	CRRDU 2	12	[No Test]						
1208	CRRDU 3	27	[No Test]						
1208	CRRDU 4	65	[No Test]						
1208	CRRDU 5	22	[No Test]						
1208	CRRDU 6	23	[No Test]						
1208	CRRDU 7	13	[No Test]						
1208	CRRDU 8	3	[No Test]						
1208	CRRDU 9	9	[No Test]						
1208	CRRDU 10	12	[No Test]						
1208	CRRDU 11	2	[No Test]						
1208	CRRDU 12	2	[No Test]						
1208	CRRDU 13	5	[No Test]						
1208	CRRDU 14	21	[No Test]						
1208	CRRDU 15	30	[No Test]						
1208	CRRDU 16	33	[No Test]						
1208	CRRDU 17	28	[No Test]						
1208	CRRDU 18	39	[No Test]						
1208	CRRDU 19	14	[No Test]						

1242

CRRDU 1

12

[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
1208	1208/1	CRRDU 2	12	Slagle	IIIa	II	III	II	
	1208/2	CRRDU 3	27	Slagle	IIIa	II	III	II	
	1208/4	CRRDU 4	65	Kempsville	IIIa	II	Not Suited	II	
	1208/3	CRRDU 5	22	Slagle	IIb	I	III	I	
	1208/6	CRRDU 6	23	Slagle	IIb	I	III	I	
	1208/7	CRRDU 7	13	Slagle	IIIa	II	III	II	
	1208/8	CRRDU 8	3	Slagle	IIIa	II	III	II	
	1208/9	CRRDU 9	9	State1	Ia	I	II	I	
	1208/10	CRRDU 10	12	Slagle	IIb	I	III	I	
	1208/11	CRRDU 11*	2	Kempsville	IIIa	II	Not Suited	II	High Leaching, High Slope
	1208/12	CRRDU 12*	2	Kempsville	IIIb	II	Not Suited	III	High Leaching, High Slope
	1208/13	CRRDU 13*	5	Kempsville	IIIb	II	Not Suited	III	High Leaching, High Slope
	1208/18	CRRDU 14	21	State1	Ib	I	III	I	
	1208/19	CRRDU 15*	30	Bojac1	IIIb	II	III	II	High Leaching
	1208/14, 15	CRRDU 16*	33	State1	IIb	I	III	II	High Leaching
	1208/5	CRRDU 17	28	Altavista	Ia	I	II	I	
	1208/16	CRRDU 18*	39	Bojac1	IVb	II	Not Suited	III	High Leaching
	1208/17	CRRDU 19*	14	Bojac1	IVb	II	Not Suited	III	High Leaching, Poor Drain
	1242	1242/2	CRRDU 1	12	Bama	IIIa	II	III	II

\* Do not apply manure or biosolids more than 30 days prior to planting. Apply commercial fertilizer nitrogen to row crops in split spring applications.

### 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: Robert D. Upshaw

Location: Caroline

Specialist: John Doe

N-based Acres: 370.5

P-based Acres: 0.0

Tract Name: 1208

FSA Number: 1208

Location: Caroline

Field Name: CRRDU 2

Total Acres: 12.30 Usable Acres: 12.30

FSA Number: 1

Tract: 1208

Location: Caroline

Slope Class: A 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
60	11A	Emporia Kempsville
40	22A	Slagle

**Field Warnings:**

**Field Name:** CRRDU 3  
Total Acres: 26.80 Usable Acres: 26.80  
FSA Number: 2  
Tract: 1208  
Location: Caroline  
Slope Class: A 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
40	22B	Slagle
60	11A	Emporia Kempsville

**Field Warnings:**

**Field Name:** CRRDU 4  
Total Acres: 64.60 Usable Acres: 64.60  
FSA Number: 4  
Tract: 1208  
Location: Caroline  
Slope Class: B Hydrologic Group: B

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



**Soils:**

PERCENT	SYMBOL	SOIL SERIES
5	11A	Emporia Kempsville
4	11B	Emporia Kempsville
50	22A	Slagle
42	22B	Slagle

**Field Warnings:**

**Field Name:** CRRDU 6

Total Acres: 22.70 Usable Acres: 22.70

FSA Number: 6

Tract: 1208

Location: Caroline

Slope Class: A Hydrologic Group: C

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
33	11A	Emporia Kempsville
52	22A	Slagle
16	22B	Slagle

**Field Warnings:**

**Field Name:** CRRDU 7

Total Acres: 12.80 Usable Acres: 12.80

FSA Number: 7

Tract: 1208  
Location: Caroline  
Slope Class: A 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

**Soil Test Results:**  
DATE PH P K Lab  
[NO TEST]

**Soils:**

PERCENT	SYMBOL	SOIL SERIES
59	11A	Emporia Kempsville
29	22A	Slagle
13	22B	Slagle

**Field Warnings:**

**Field Name:** CRRDU 8  
Total Acres: 2.50 Usable Acres: 2.50  
FSA Number: 8  
Tract: 1208  
Location: Caroline  
Slope Class: B Hydrologic Group: C

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

**Conservation Practices:**



**Soils:**

PERCENT	SYMBOL	SOIL SERIES
100	23A State1	

**Field Warnings:**

**Field Name: CRRDU 10**

Total Acres: 12.00 Usable Acres: 12.00

FSA Number: 10

Tract: 1208

Location: Caroline

Slope Class: B Hydrologic Group: C

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
97	22B Slagle	
3	10E Emporia Kempsville Remlik	

**Field Warnings:**

**Field Name: CRRDU 11**

Total Acres: 1.90 Usable Acres: 1.90

FSA Number: 11

Tract: 1208

Location: Caroline

Slope Class: C 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
29	10E	Emporia Kempsville Remlik
63	11A	Emporia Kempsville
8	22B	Slagle

**Field Warnings:**

*Environmentally Sensitive Soils due to:*

*Soils with potential for leaching based on soil texture or excessive drainage*

*Soils with percent slope in excess of 15%*

**Field Name:** CRRDU 12

Total Acres: 2.10 Usable Acres: 2.10

FSA Number: 12

Tract: 1208

Location: Caroline

Slope Class: E 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

**Soil Test Results:**

DATE	PH	P	K	Lab
	[NO TEST]			

**Soils:**

PERCENT	SYMBOL	SOIL SERIES
100	10E	Emporia Kempsville Remlik

**Field Warnings:**

*Environmentally Sensitive Soils due to:*

*Soils with potential for leaching based on soil texture or excessive drainage*

*Soils with percent slope in excess of 15%*

**Field Name:** CRRDU 13

Total Acres: 4.60 Usable Acres: 4.60

FSA Number: 13

Tract: 1208

Location: Caroline

Slope Class: D 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



PERCENT	SYMBOL	SOIL SERIES
6	1A	Altavista
2	5B	Bojac1
23	10E	Emporia Kempsville Remlik
69	23A	State1

**Field Warnings:**

**Field Name:** CRRDU 15

Total Acres: 30.20 Usable Acres: 30.20

FSA Number: 19

Tract: 1208

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
1	23A	State1
62	5B	Bojac1
36	1A	Altavista

**Field Warnings:**

*Environmentally Sensitive Soils due to:*

*Soils with potential for leaching based on soil texture or excessive drainage*

**Field Name: CRRDU 16**

Total Acres: 32.50 Usable Acres: 32.50

FSA Number: 14, 15

Tract: 1208

Location: Caroline

Slope Class: A 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
27	1A	Altavista
29	5B	Bojac1
39	23A	State1
6	25B	Bojac1 Tarboro

**Field Warnings:**

*Environmentally Sensitive Soils due to:*

*Soils with potential for leaching based on soil texture or excessive drainage*

**Field Name: CRRDU 17**

Total Acres: 28.20 Usable Acres: 28.20

FSA Number: 5

Tract: 1208

Location: Caroline

Slope Class: A Hydrologic Group: C

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
11	23A	State1
87	1A	Altavista
2	11C	Emporia Kempsville

**Field Warnings:**

**Field Name:** CRRDU 18

Total Acres: 39.40 Usable Acres: 39.40

FSA Number: 16

Tract: 1208

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
13	1A	Altavista
76	5B	Bojac1
11	26A	Roanoke Tomotley

**Field Warnings:**

*Environmentally Sensitive Soils due to:*

*Soils with potential for leaching based on soil texture or excessive drainage*

**Field Name: CRRDU 19**

Total Acres: 13.80 Usable Acres: 13.80

FSA Number: 17

Tract: 1208

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
4	26A	Roanoke Tomotley
15	4A	Bibb Chastain
79	5B	Bojac1
2	18A	Riverview

**Field Warnings:**

*Environmentally Sensitive Soils due to:*

*Soils with potential for leaching based on soil texture or excessive drainage*

*Soils with high potential for subsurface lateral flow based on soil texture and poor drainage*

**Tract Name:** 1242  
**FSA Number:** 1242  
**Location:** Caroline

**Field Name:** CRRDU 1  
**Total Acres:** 12.40 **Usable Acres:** 12.40  
**FSA Number:** 2  
**Tract:** 1242  
**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

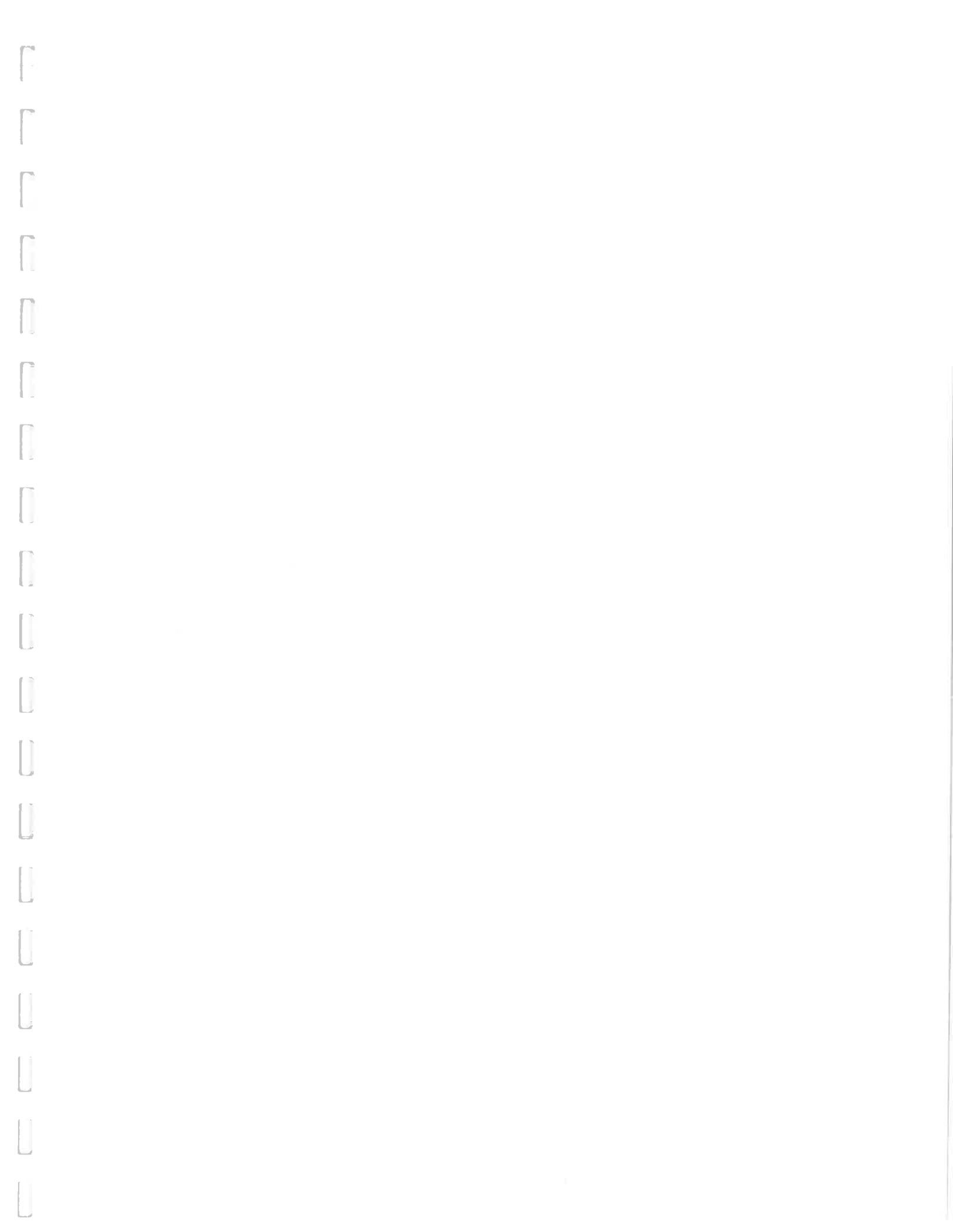
**Soil Test Results:**

DATE	PH	P	K	Lab
[NO TEST]				

**Soils:**

PERCENT	SYMBOL	SOIL SERIES
97	3B	Bama
1	10E	Emporia Kempsville Remlik
3	11B	Emporia Kempsville

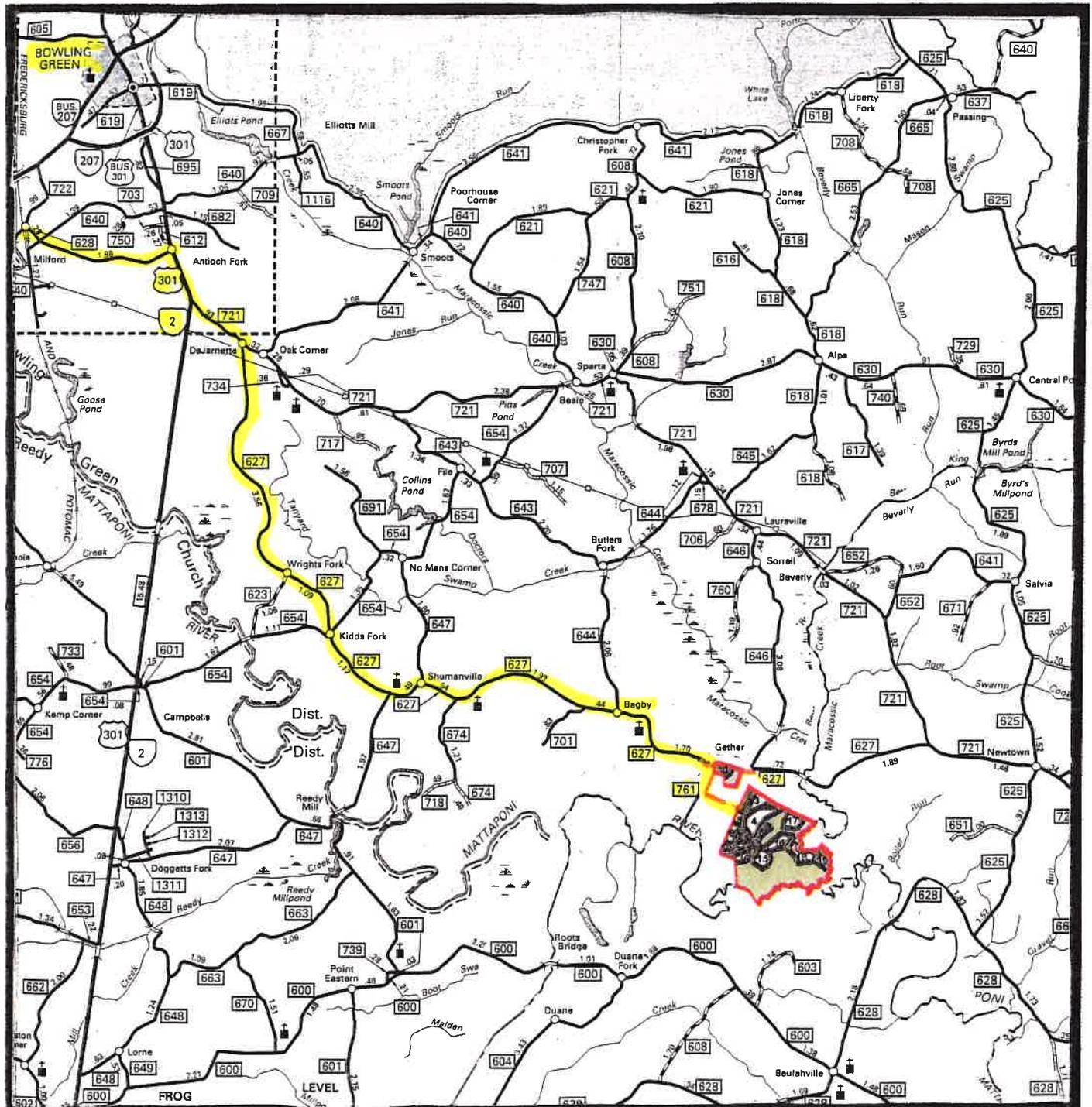
**Field Warnings:**



# MAPS

# Recyc Systems™ Inc.

(Biosolids Land Application)



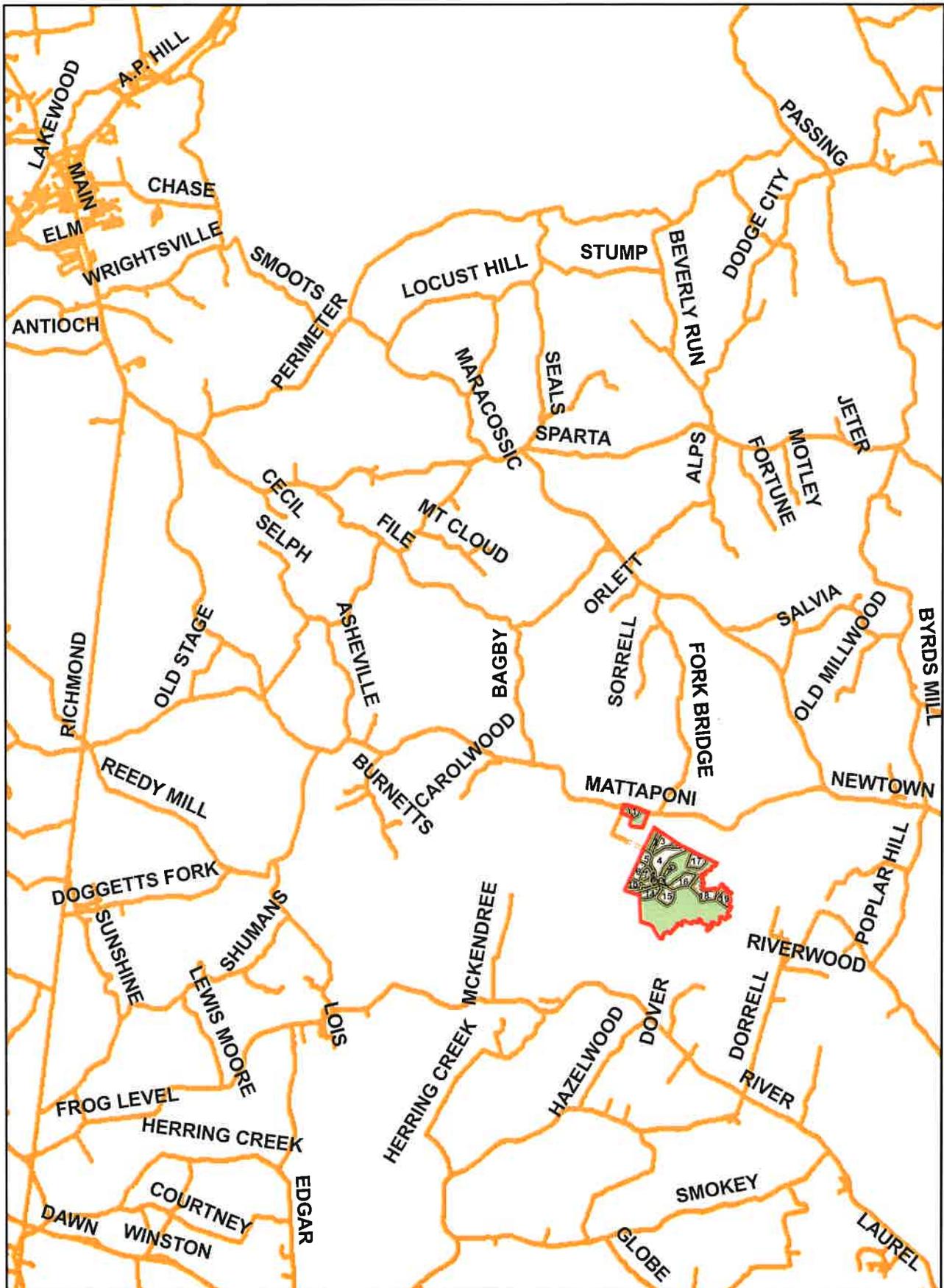
Scale: 1" = 2 Miles

Truck Route marked  
in Yellow

VICINITY MAP



7-16-19

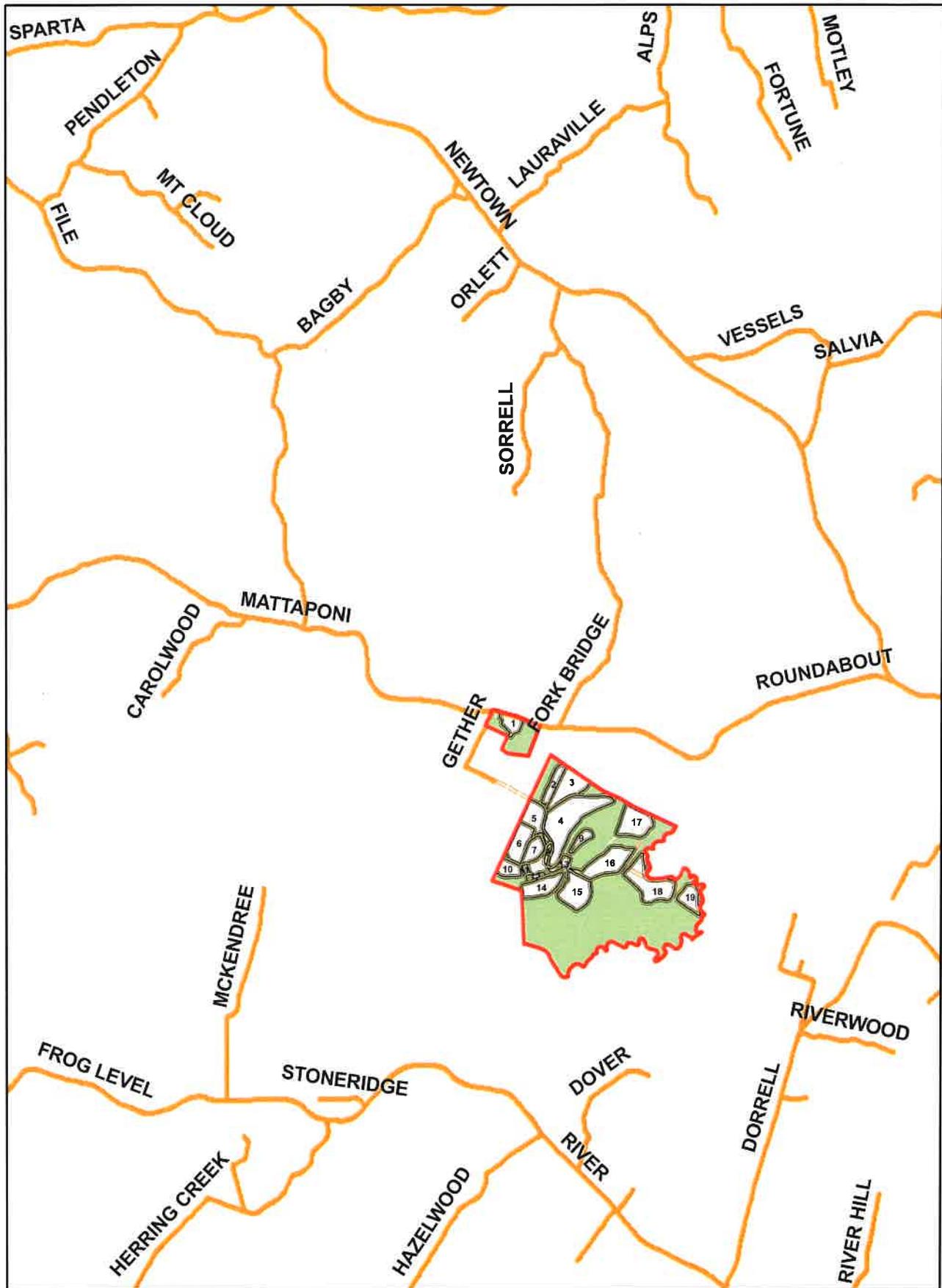


7-16-19

**VICINITY MAP**

1 in = 2 miles





7-16-19

**VICINITY MAP**

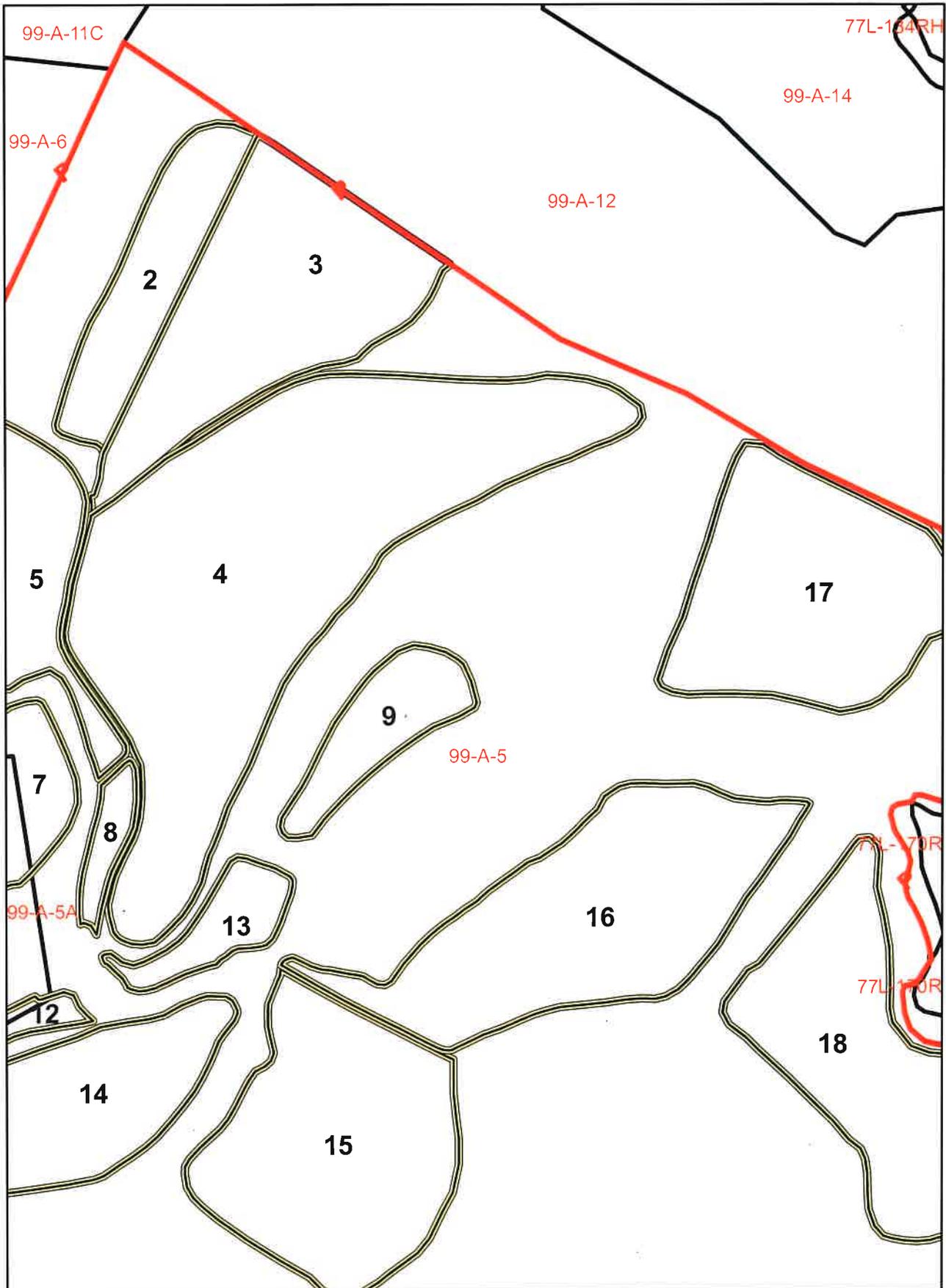
1 in = 1 mile.







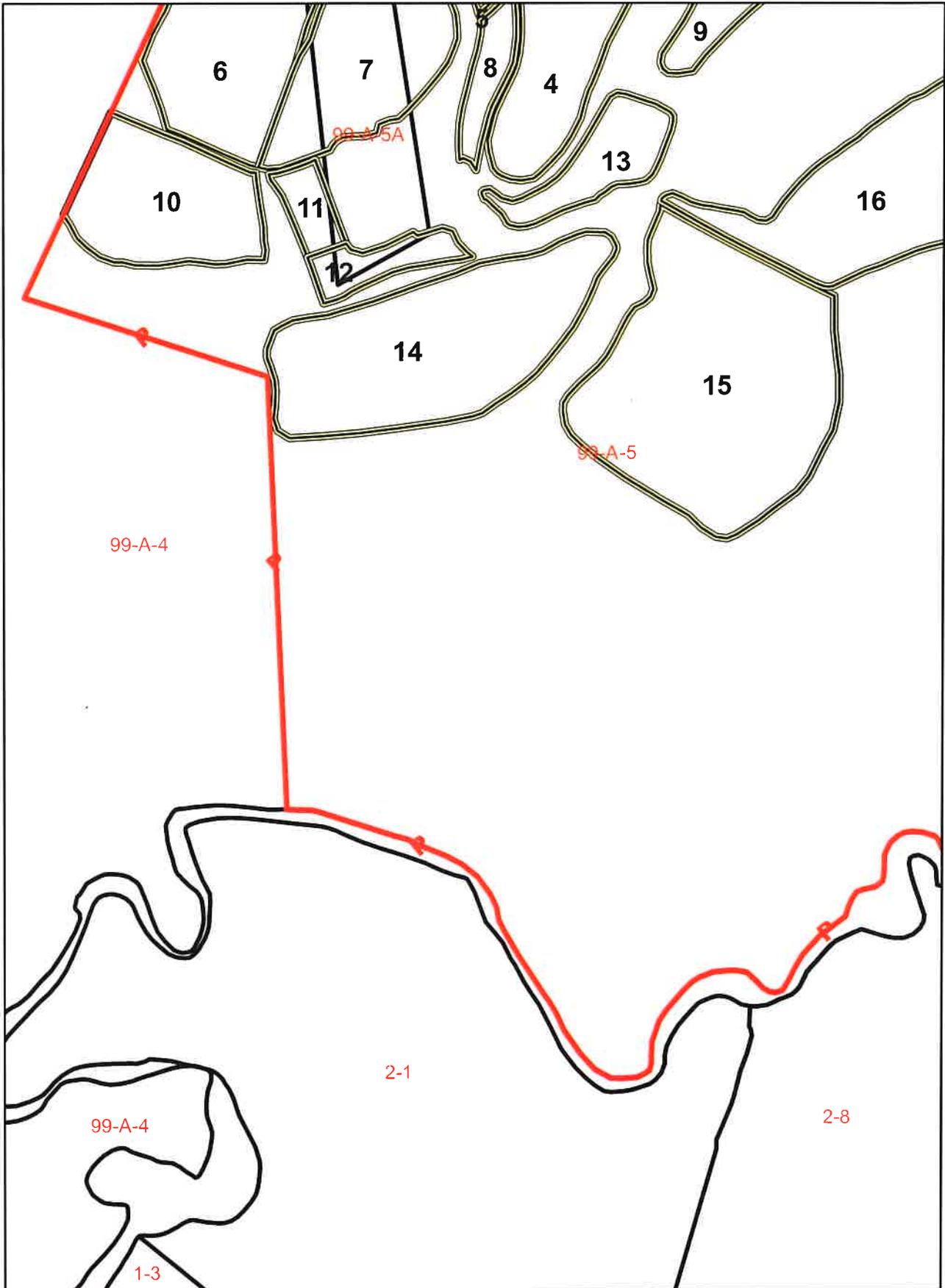




7-16-19

**TAX MAP**

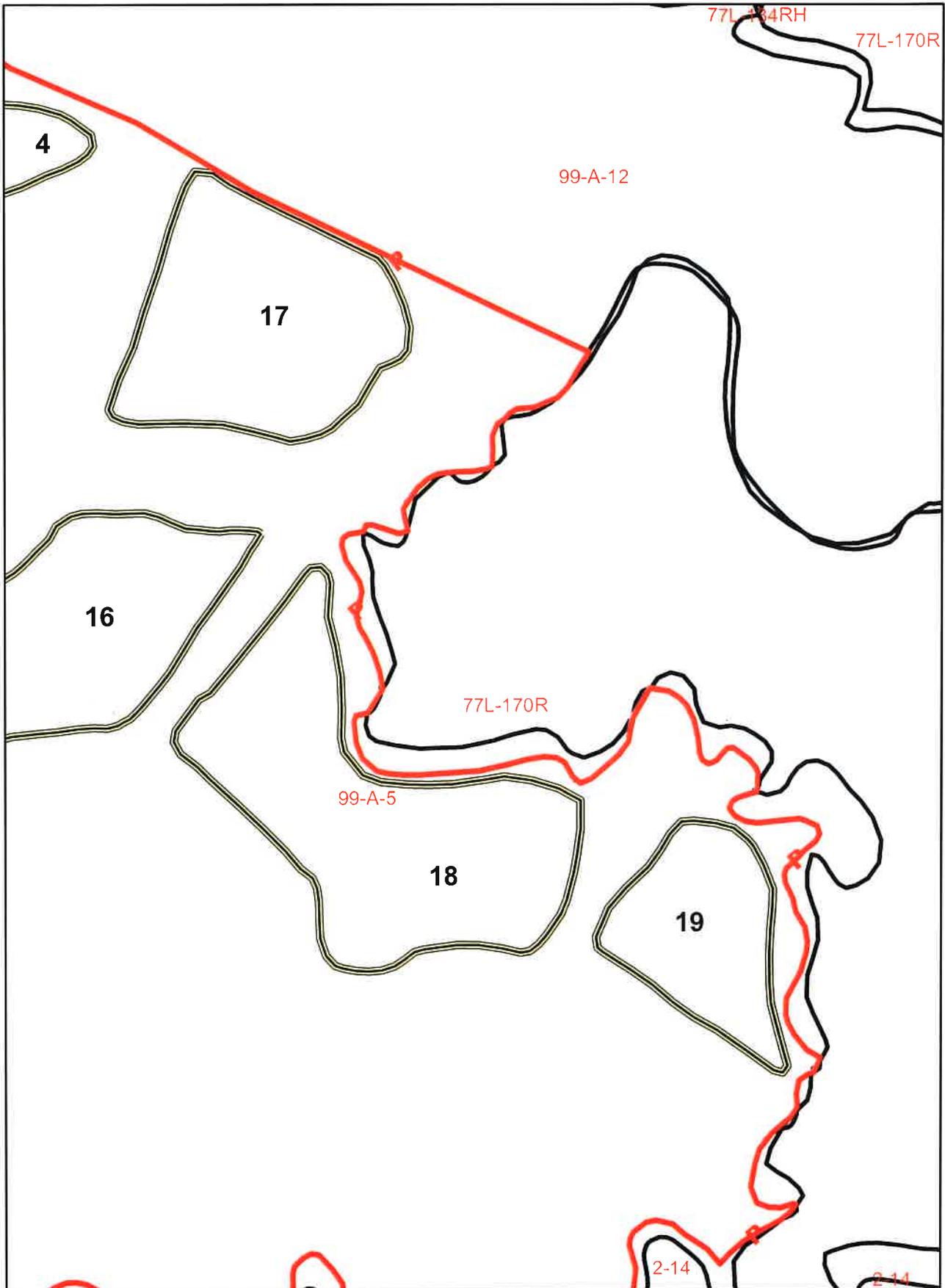
1 in = 660 feet



7-16-19

**TAX MAP**

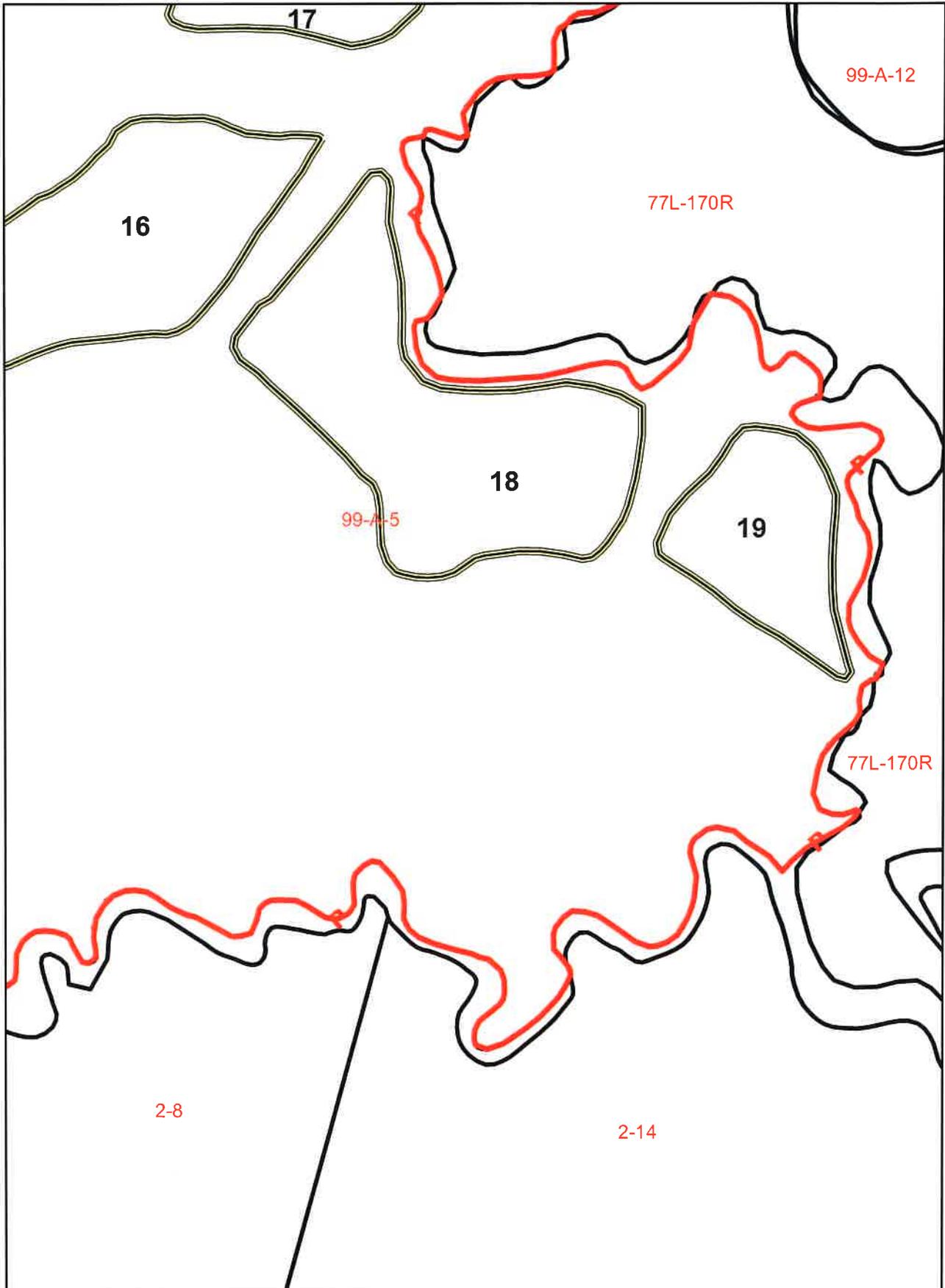
1 in = 660 feet



7-16-19

**TAX MAP**

1 in = 660 feet



7-16-19

**TAX MAP**

1 in = 660 feet

# ADJOINING LANDOWNERS

## ROBERT D. UPSHAW

### CAROLINE COUNTY

Tax Map	Parcel #	Owner Name(s)
88-A	49	Edwin T. Upshaw III and Sally W. Upshaw Trustees
98-A	7	Woodford B. Broaddus Estate
	8	Lynwood D. Broaddus et. als.
99-A	1	Gary L. Payne
	2	Jeffrey W. Smith
	4	John Carroll Broaddus et. als.
	6	Henry W. and Zelma Chenault
	7	Robert Dwain Upshaw
	8	Robert Dwain Upshaw
	9	Ellis R. Lowry, Jr.
	11C	Henry E. and Zelma Chenault
	12	Robert U. and Linda S. Guiles Trs.
	16	Edward L. and Susan C. Upshaw Trs.
	17	Edwin T. Upshaw III and Sally W. Upshaw Trs.

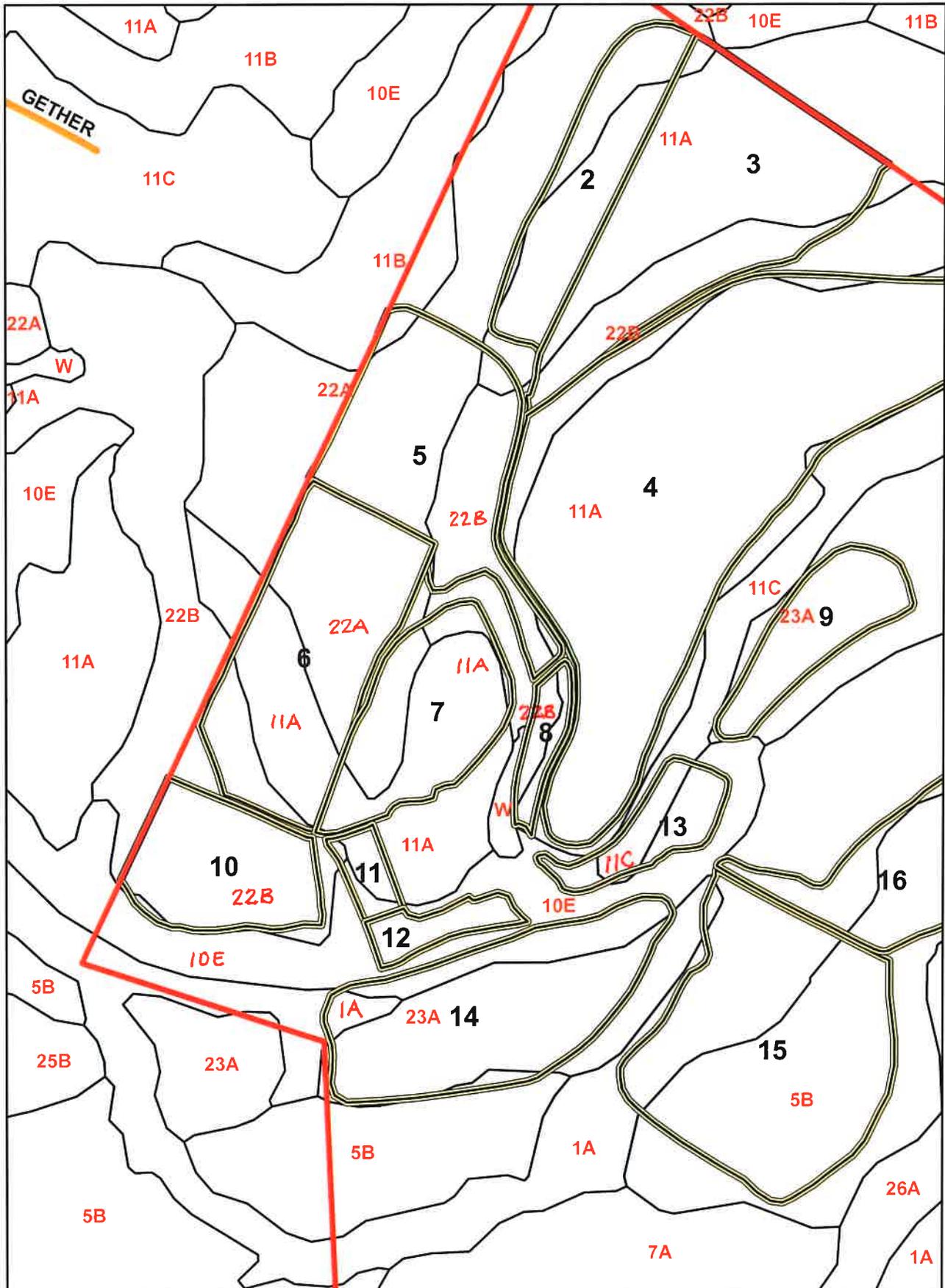
### KING AND QUEEN COUNTY

77L	170R	Cherry Tree Timber LLC
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### KING WILLIAM COUNTY

2	1	John H. Foxwell Family
	8	CCG Timber LLC
	14	Cherry Tree Timber LLC
	18B	Kenneth H. Carroll and Joyce
	19	Bruce Gerber

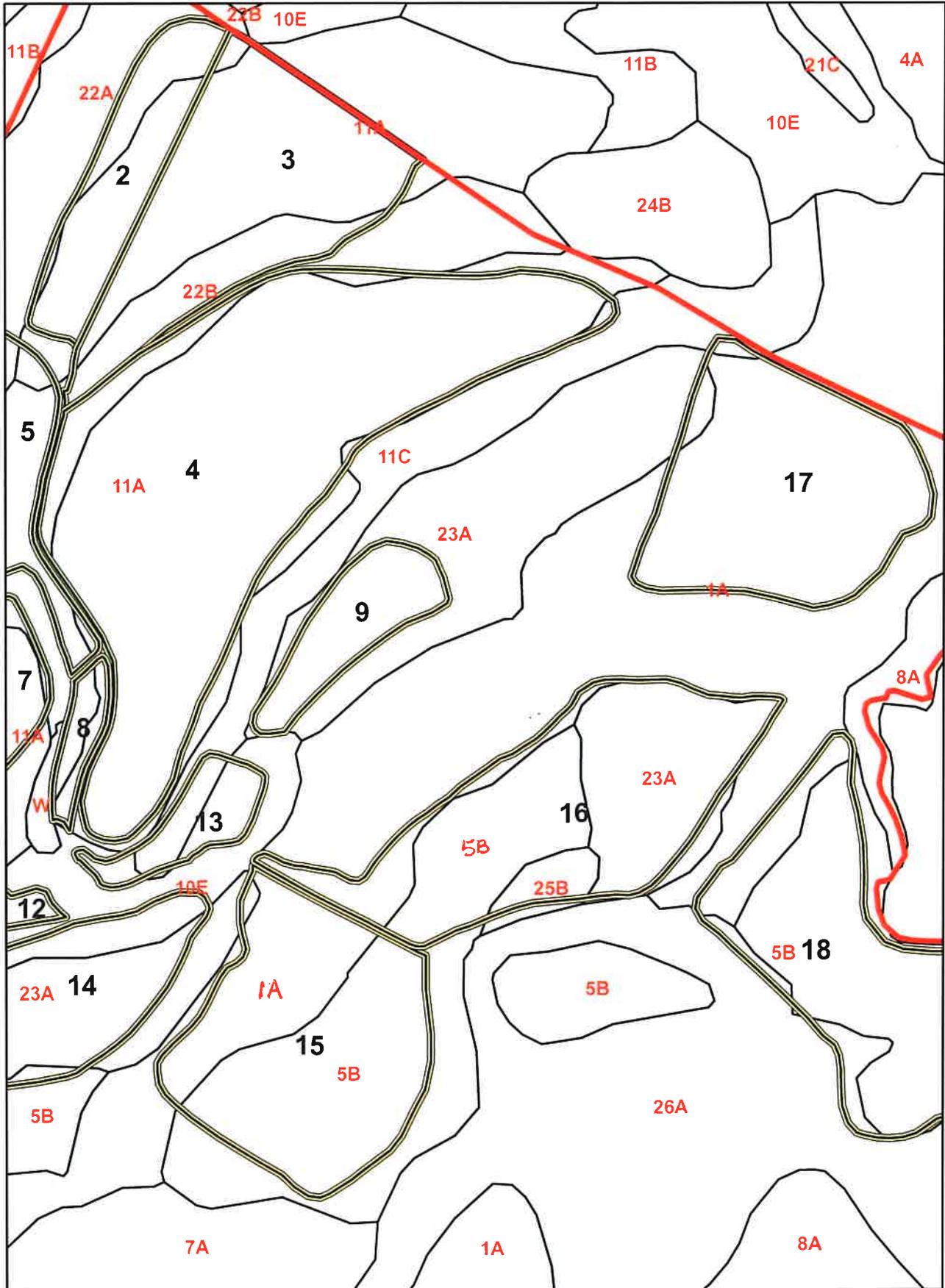




7-16-19

**SOIL MAP**

1 in = 660 feet

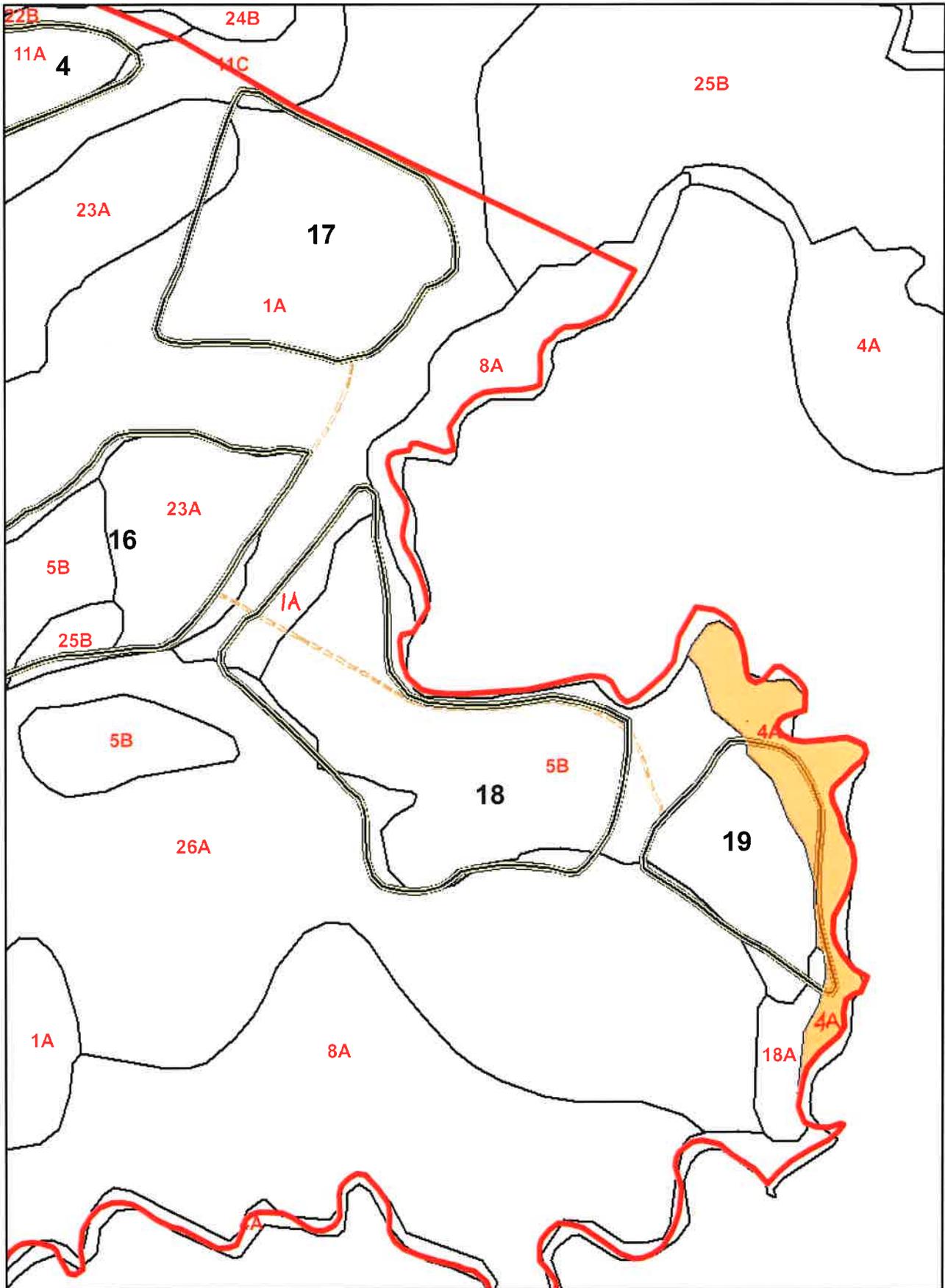


7-16-19

**SOIL MAP**

1 in = 660 feet



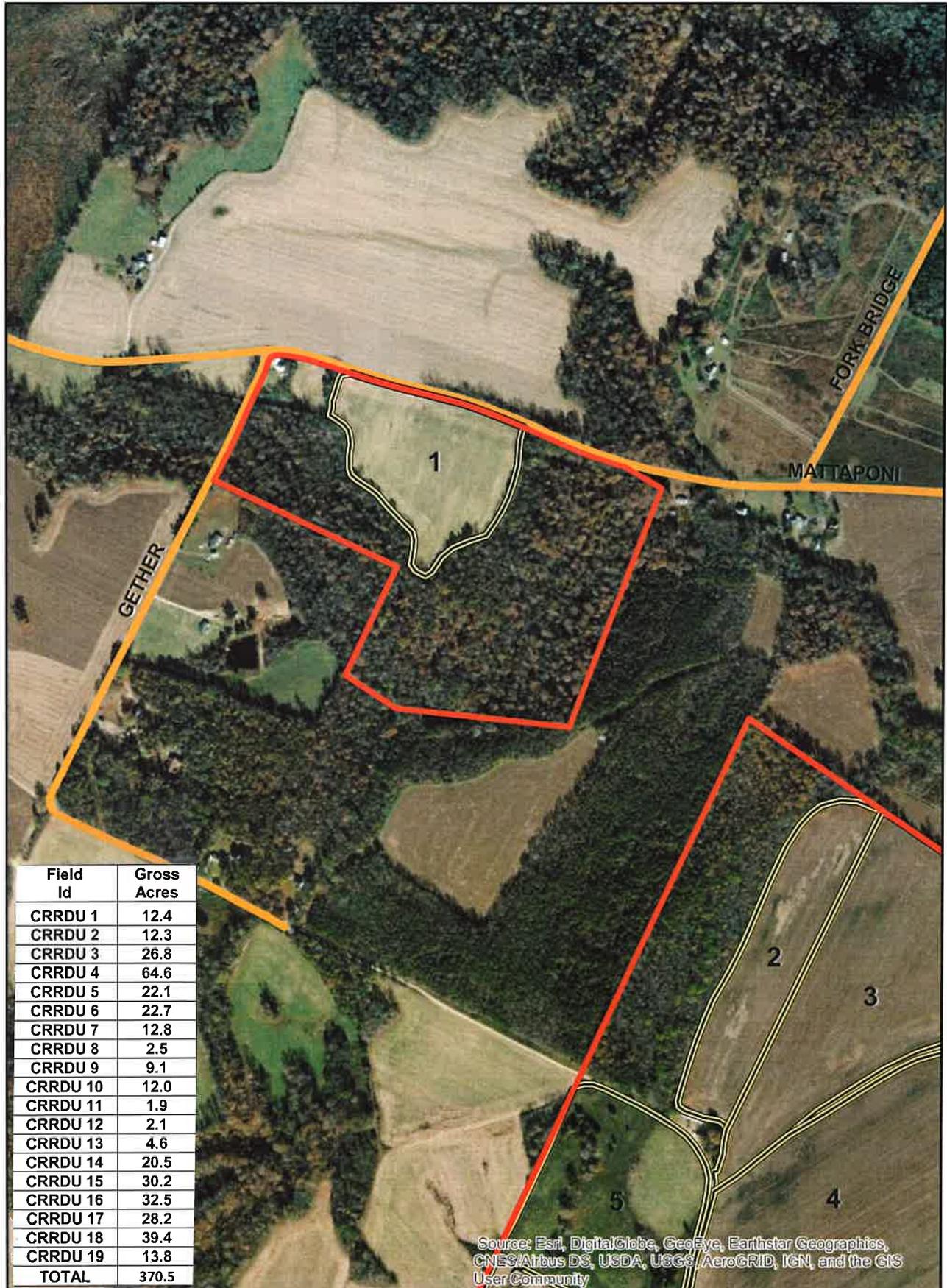


Frequent Flooding  
marked in Orange

7-16-19

# SOIL MAP

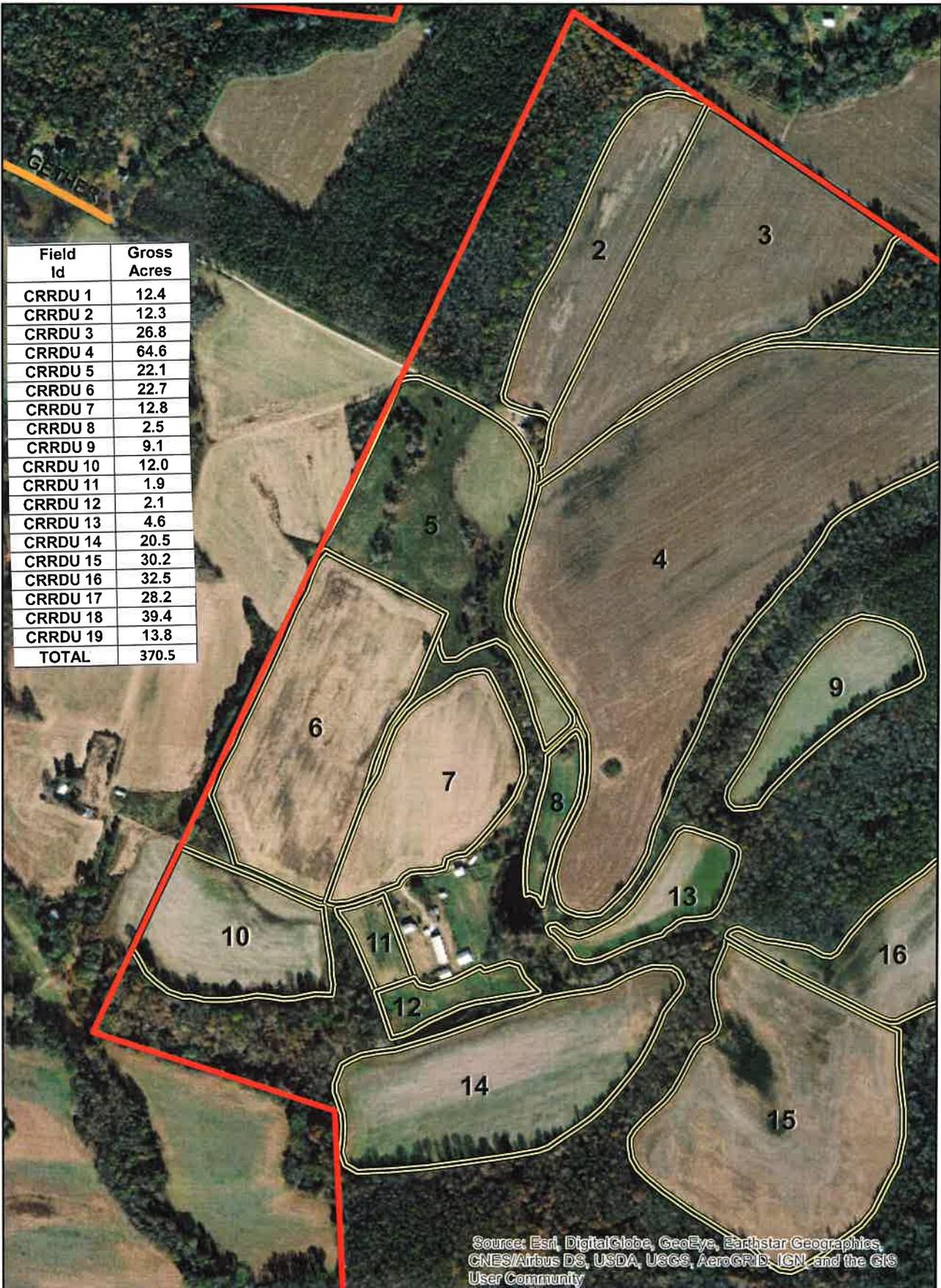
1 in = 660 feet



7-16-19

**AERIAL MAP**

1 in = 660 feet



7-16-19

## AERIAL MAP

1 in = 660 feet



Field Id	Gross Acres
CRRDU 1	12.4
CRRDU 2	12.3
CRRDU 3	26.8
CRRDU 4	64.6
CRRDU 5	22.1
CRRDU 6	22.7
CRRDU 7	12.8
CRRDU 8	2.5
CRRDU 9	9.1
CRRDU 10	12.0
CRRDU 11	1.9
CRRDU 12	2.1
CRRDU 13	4.6
CRRDU 14	20.5
CRRDU 15	30.2
CRRDU 16	32.5
CRRDU 17	28.2
CRRDU 18	39.4
CRRDU 19	13.8
<b>TOTAL</b>	<b>370.5</b>

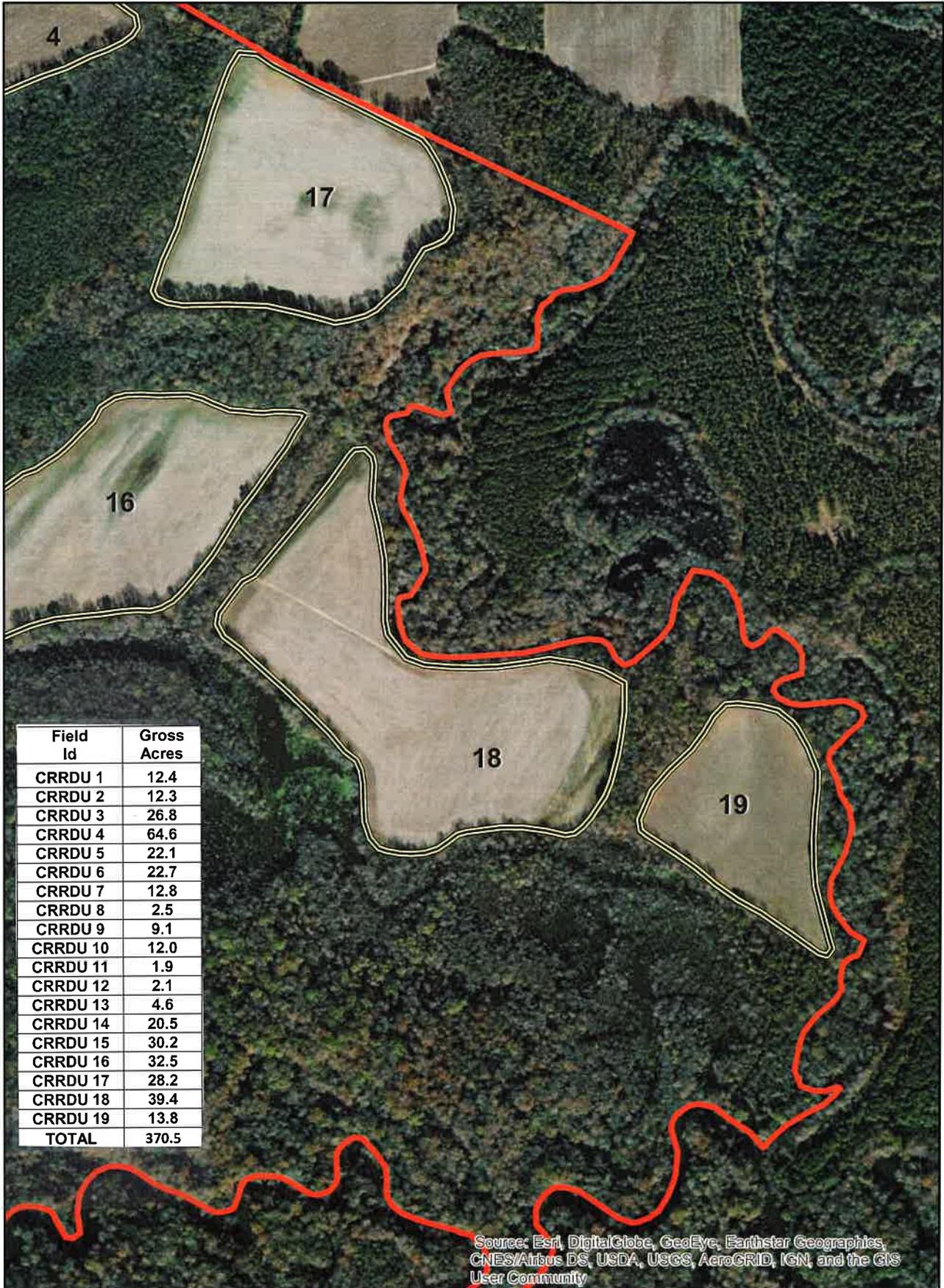


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

7-16-19

**AERIAL MAP**

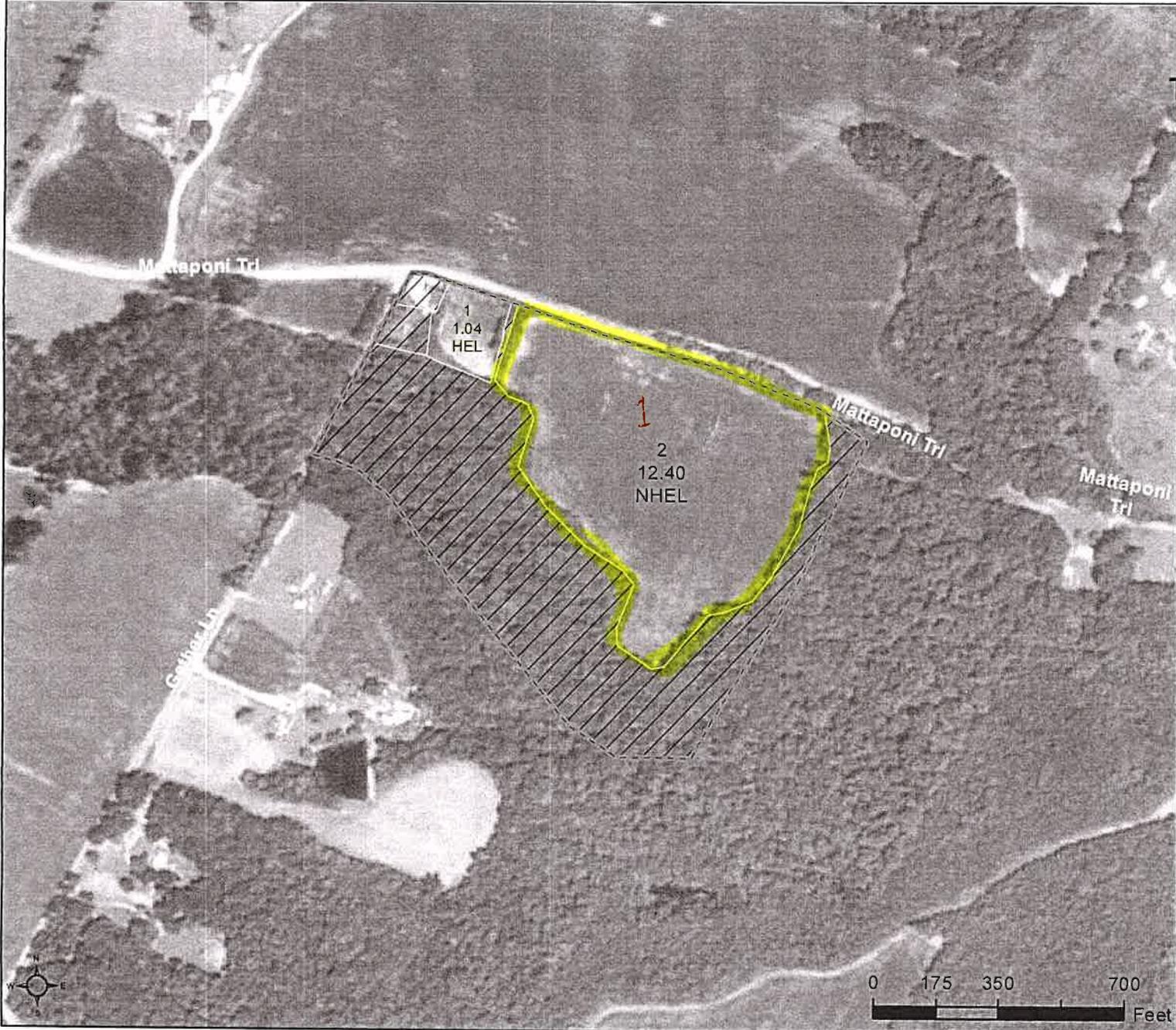
1 in = 660 feet



7-16-19

**AERIAL MAP**

1 in = 660 feet



Farm 3119

Tract 1242

2019 Program Year

Map Created June 05, 2019

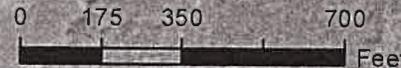
**Common Land Unit**

-  Non-Cropland
-  Cropland
-  rcl\_va033
-  Tract Boundary

**Wetland Determination Identifiers**

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

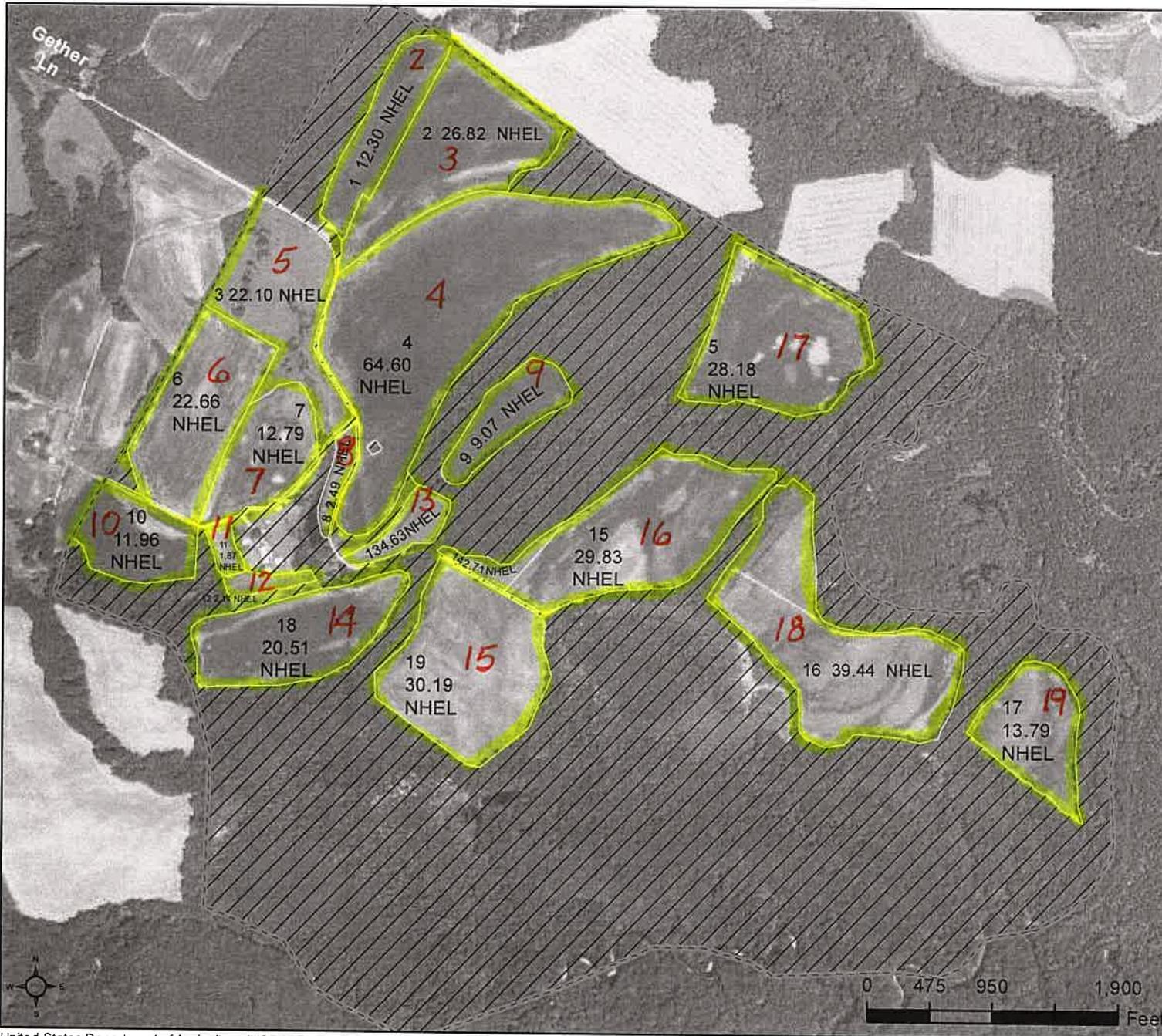
Tract Cropland Total: 13.44 acres



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).

Farm 3117

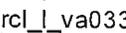
Tract 1208



2019 Program Year

Map Created June 05, 2019

**Common Land Unit**

-  Non-Cropland
-  Cropland
-  rcl\_va033
-  Tract Boundary

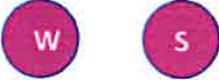
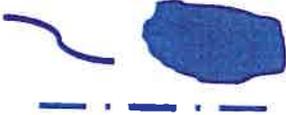
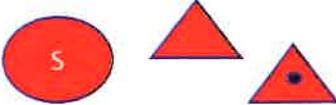
**Wetland Determination Identifiers**

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

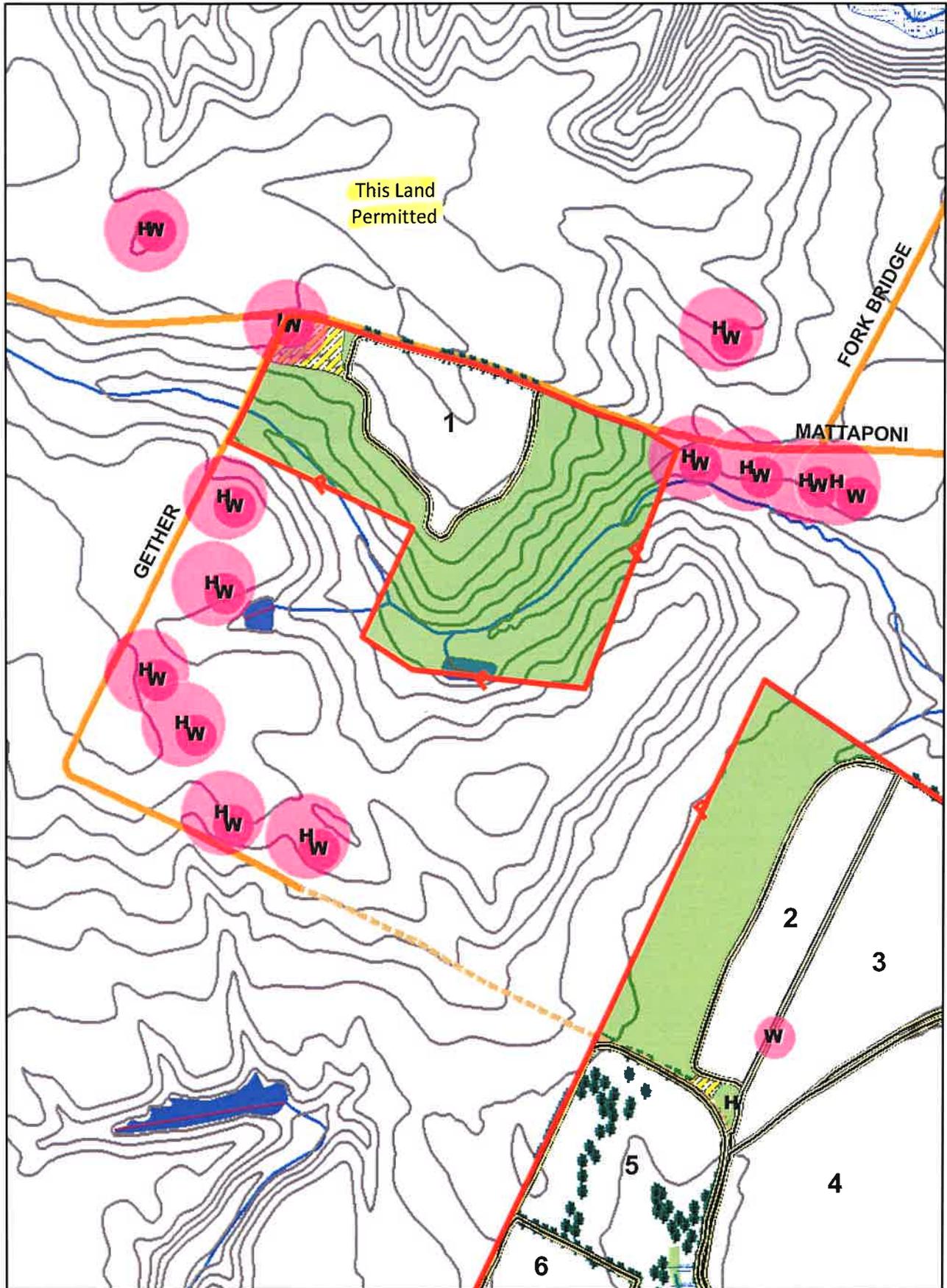
Tract Cropland Total: 358.08 acres

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.

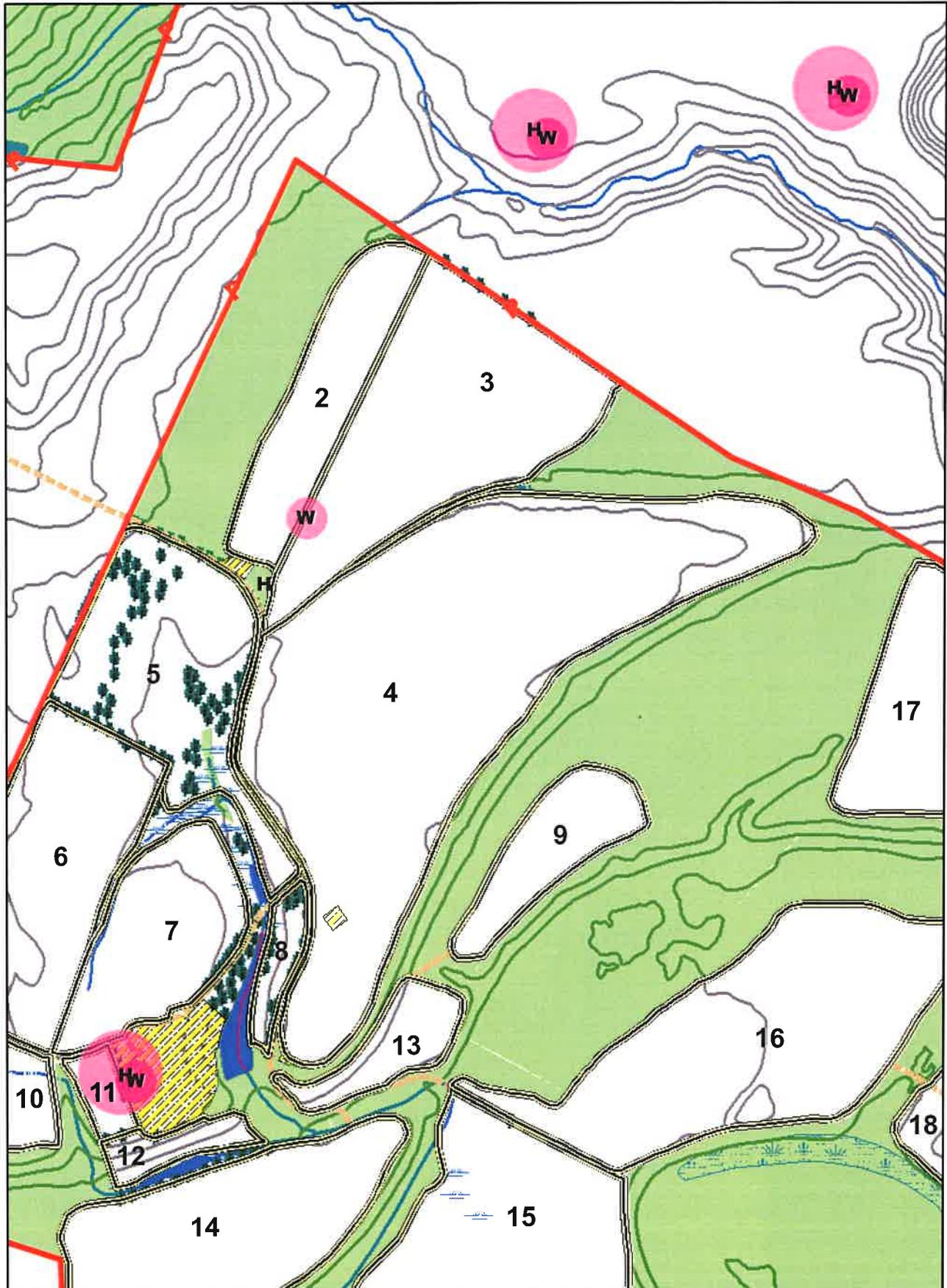


7-16-19

**SITE PLAN**

1 in = 660 feet

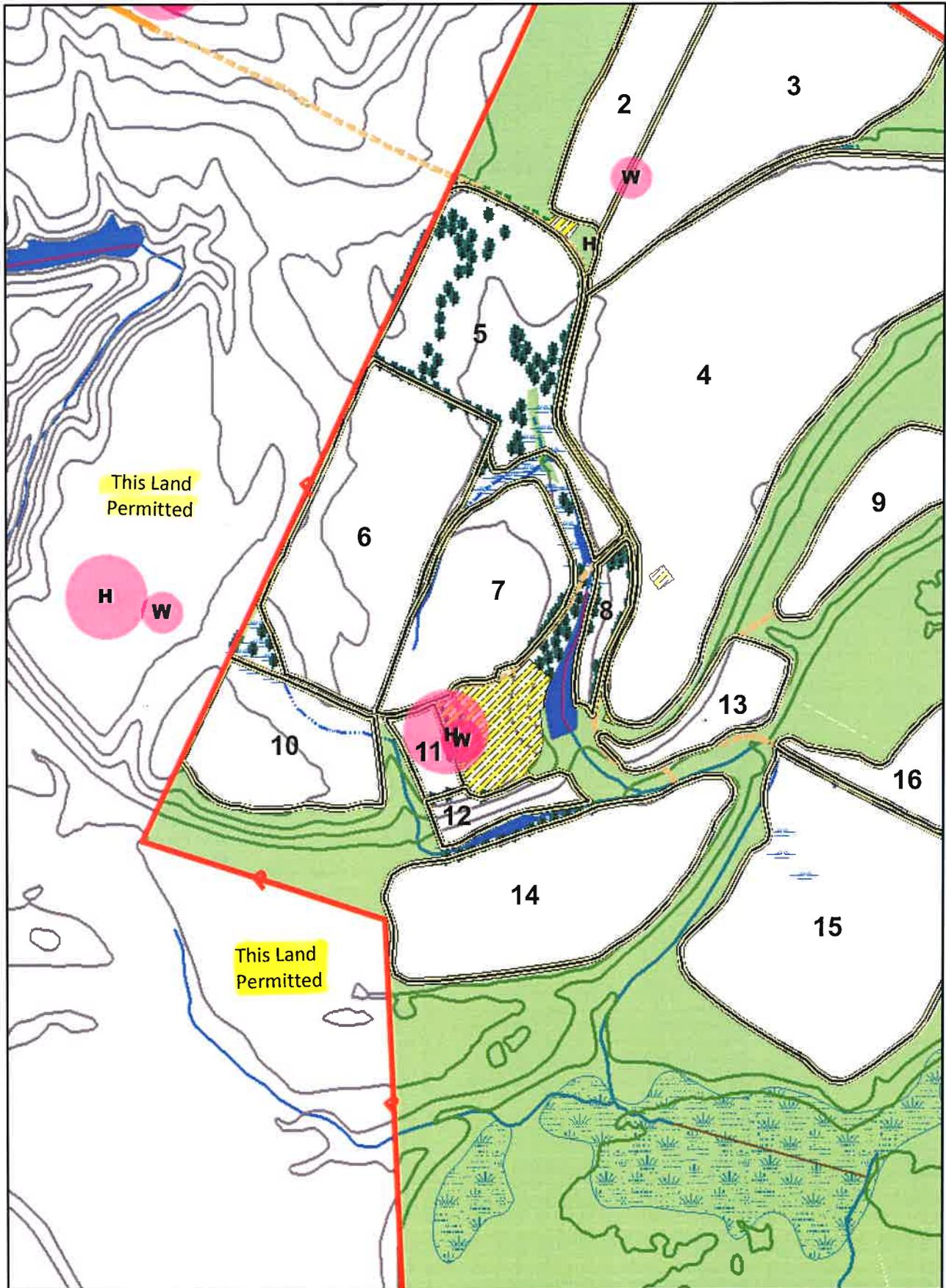




7-16-19

**SITE PLAN**

1 in = 660 feet

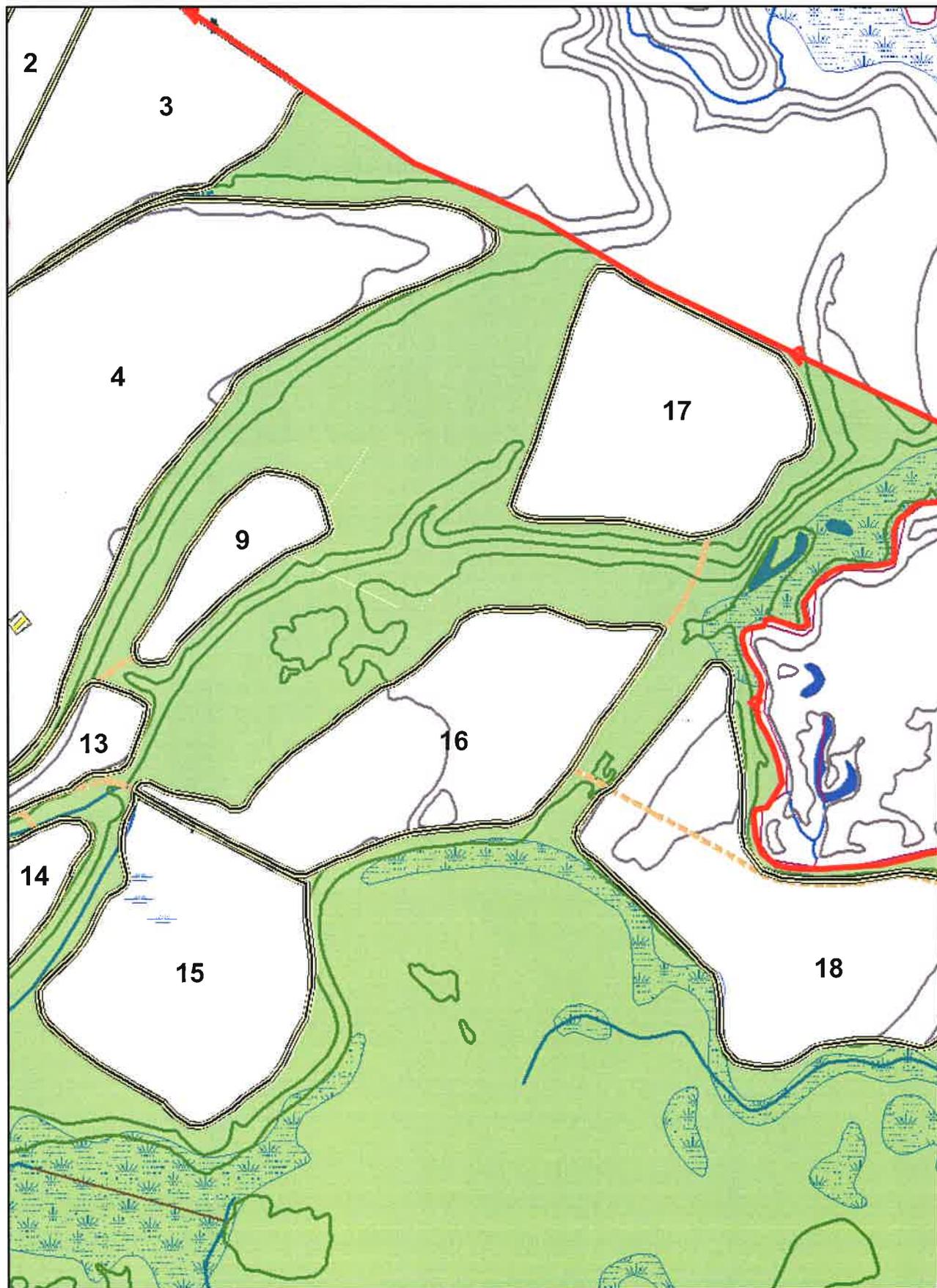


7-16-19

**SITE PLAN**

1 in = 660 feet

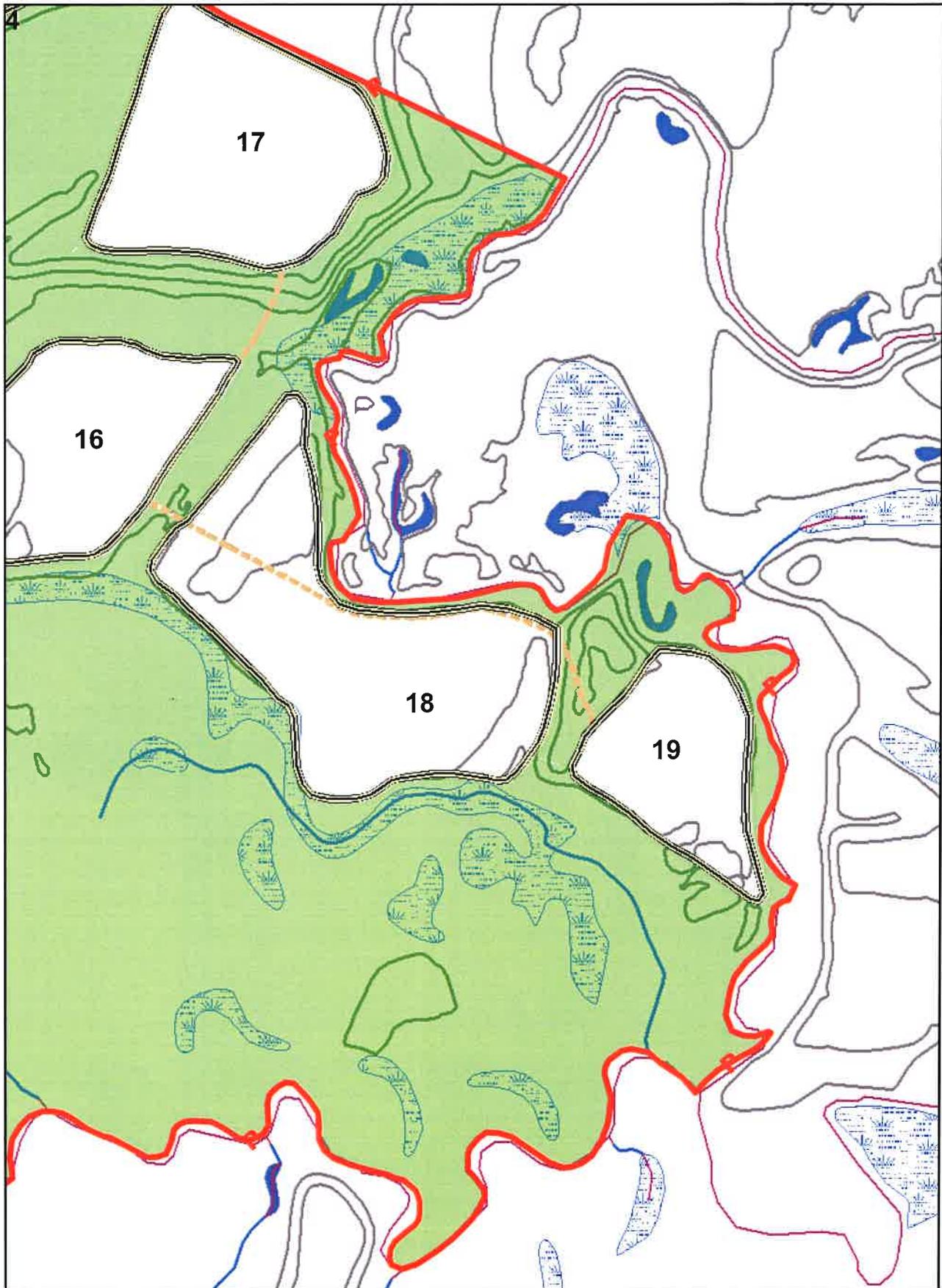




7-16-19

**SITE PLAN**

1 in = 660 feet

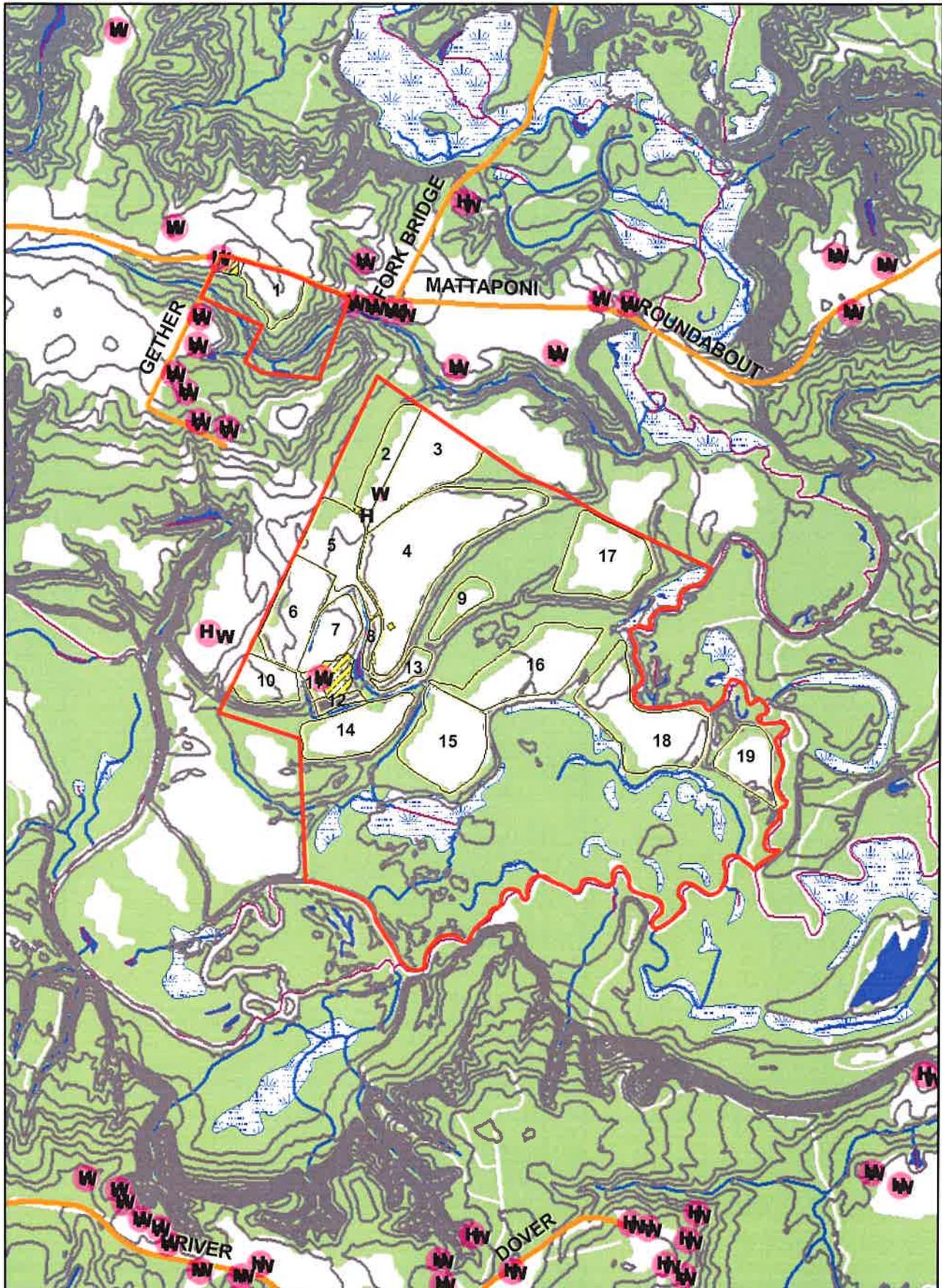


7-16-19

**SITE PLAN**

1 in = 660 feet





7-16-19

**TOPOGRAPHIC MAP**

1 in = 2,000 feet