

LAND APPLICATION SITE

CHARLES W. DAVIS

KQCWD 1 – 2

KING & QUEEN 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 7-16-18 between Charles W. Davis 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 King & Queen 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>32-8R-1024</u>			
<u>32-8R-1025B</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.

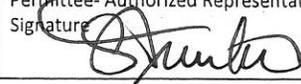
Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
 Yes No Yes No Yes No Yes No

Printed name <u>Charles W. Davis</u>	Mailing Address <u>929 Lewis Level Road</u> <u>Tappahannock Va. 22560</u>	Landowner Signature 
By: <u>Owner</u>	Phone No. <u>804 443 35015</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 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.

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

Permittee: Recyc Systems, Inc
Landowner: Charles W. Davis

County or City: King & Queen Co.

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).

Charles W. Davis
Landowner's Signature

7/16/18
Date

Operator's Signature mailing address & phone Date

**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 7-16-18 between Patricia F. Davis 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 King & Queen 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.

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<u>32-8R-1025B</u>			

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

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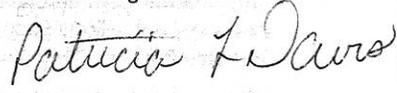
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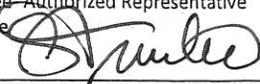
<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

Printed name <u>Patricia F. Davis</u>	Mailing Address <u>929 Lewis Level Road</u>	Landowner Signature 
By: <u>Patricia F. Davis</u>	<u>Tappahannock Va. 22560</u>	
Title* <u>Owner</u>	Phone No. <u>804-443-5015</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.		

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

Permittee: Recyc Systems, Inc
Landowner: Patricia F. Davis

County or City: King & Queen Co.

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Patricia F. Davis
Landowner's Signature

7-16-18
Date

Operator's Signature

mailing address & phone

Date

FARM DATA SHEET

SITE NAME:	Charles W. Davis	COUNTY:	King & Queen
OWNER:	Charles W. and Patricia F. Davis	OPERATOR:	Terry Davis
OWNER'S ADDRESS:	929 Lewis Level Road Tappahannock, VA 22560	OPERATOR'S ADDRESS:	P.O. Box 1588 Tappahannock, VA 22560
OWNER'S TELEPHONE:	804-443-5015	OPERATOR'S TELEPHONE:	804-443-9621
GENERAL FARM TYPE:	Row Crops	CELL PHONE:	804-445-5438
# CATTLE:	None	EMAIL:	-
LAGOON or SLURRY:	N/A	LATITUDE:	37.909
TOPO QUAD:	Cauthornville	LONGITUDE:	- 77.069
COMMENTS:	METHOD OF DETERMINATION: Online Maps		
<p>Field 1 was old Field 12. Field 2 was old Field 11.</p>			

SD 

7-25-18

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			
KQCWD 1	8.3	5D Nov.-Apr.	-	-	-	YO 54	32-8R-1025B	T 1988 F 1
KQCWD 2	6.7	5D Nov.-Apr.	-	-	-	YO 54	32-8R-1024	T 1988 F 2
TOTAL ACRES IN SITE	15.0							

s/s/a

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: Charles W. Davis

County or City: King & Queen

Please Print

Signature not required on this page

<u>Tax Parcel ID(s)</u>	<u>Landowners (s)</u>
32-8R-1024	Charles W. and Patricia F. Davis
32-8R-1025B	Charles W. and Patricia F. Davis

NUTRIENT MANAGEMENT PLAN IDENTIFICATION

Operator

Terry Davis
P.O. Box 1588
Tappahannock, VA 22560
804-445-5438

Integrator:None

Farm Coordinates

Easting: 0, Northing: 0, zone: 17

Watershed Summary

watershed: YO54
county: King & Queen

Nutrient Management Planner

John Doe
123 Main St.
Suite #5
Blacksburg, VA 24060

Certification Code: 103

Acreage Use Summary

Total Acreage in this plan: 15.

Cropland: 15.
Hayland: 0.
Pasture: 0.
Specialty: 0.

Livestock Summary

Beef Cattle 0
Dairy Cattle 0
Poultry 0
Swine 0
Other 0

Manure Production Balance

	Imported	Produced	Exported	Used	Net
kgals	0.	0.	0.	0.	0.
tons	0.	0.	0.	0.	0.

Plan written 7/25/2018
Valid until 7/25/2020

Signature: _____
Planner date

**Nutrient Management Plan Balance Sheet
(Fall, 2018-Winter, 2020)**

Charles W. Davis

Planner: John Doe (cert. No. 103)

Tract: 1988 Location: King & Queen
(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/KQCWD 1(N)	8/8	2018 2019	Wheat (grain)	100-20-40 --- --	20/0				80-20-40	N/A		
2/KQCWD 2(N)	7/7	2018 2019	Wheat (grain)	100-40-40 --- --	20/0				80-40-40	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
1988	KQCWD 1	8	2014-Fa	H+ (113 P ppm)	M+ (106 K ppm)	A&L MIII	5.8		
1988	KQCWD 2	7	2014-Fa	H- (57 P ppm)	H- (127 K ppm)	A&L MIII	5.9		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
1988	1988/1	KQCWD 1	8	Emporia	IIIa	II	III	II	
	1988/2	KQCWD 2	7	Emporia	IIIa	II	III	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, 2018 - Winter, 2020

Farm Name: Charles W. Davis

Location: King & Queen

Specialist: John Doe

N-based Acres: 15.3

P-based Acres: 0.0

Tract Name: 1988

FSA Number: 1988

Location: King & Queen

Field Name: KQCWD 1

Total Acres: 8.00 Usable Acres: 8.00

FSA Number: 1

Tract: 1988

Location: King & Queen

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
Fa-2014	5.8	H+(113 P ppm)	M+(106 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
87	4B	Emporia
13	5D	Emporia Slagle

Field Warnings:

Field Name: KQCWD 2

Total Acres: 7.30 Usable Acres: 7.30

FSA Number: 2

Tract: 1988

Location: King & Queen

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
Fa-2014	5.9	H-(57 P ppm)	H-(127 K ppm)	A&L MIII	

Soils:

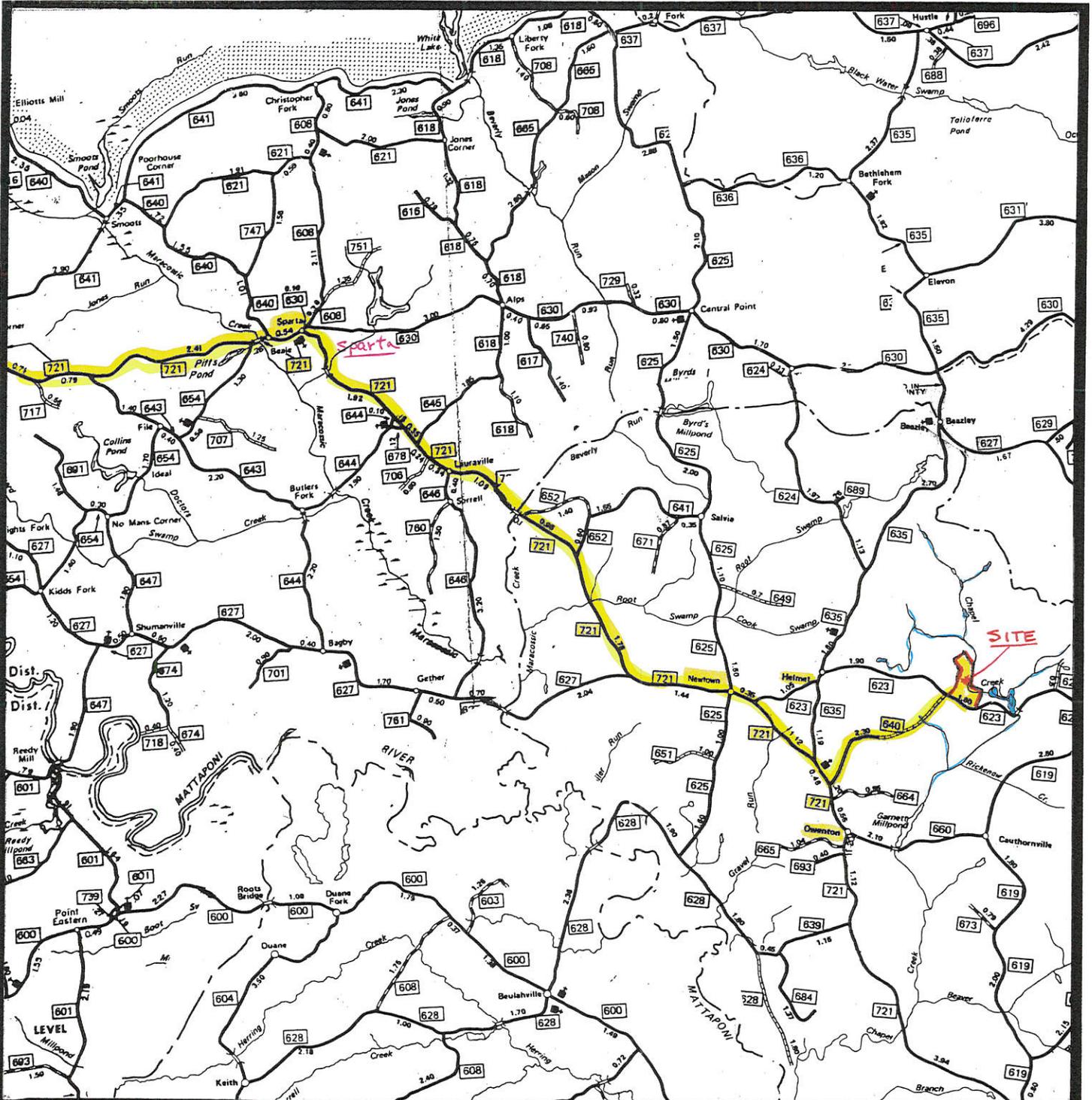
PERCENT	SYMBOL	SOIL SERIES
12	5D	Emporia Slagle
88	4B	Emporia

Field Warnings:

MAPS

Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1" = 2 miles

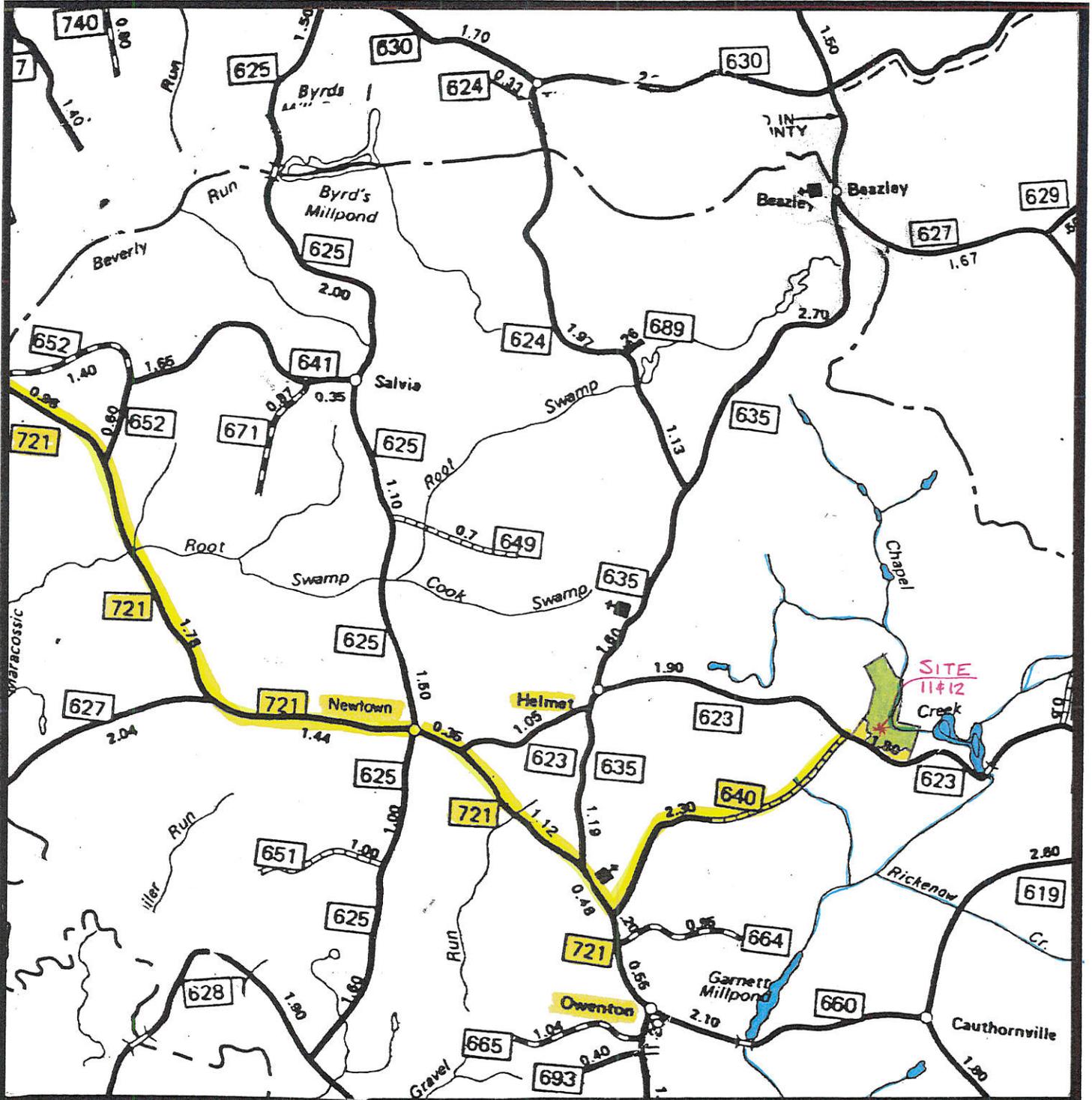
7-25-18

VICINITY MAP



Recyc SystemsTM Inc.

(Biosolids Land Application)

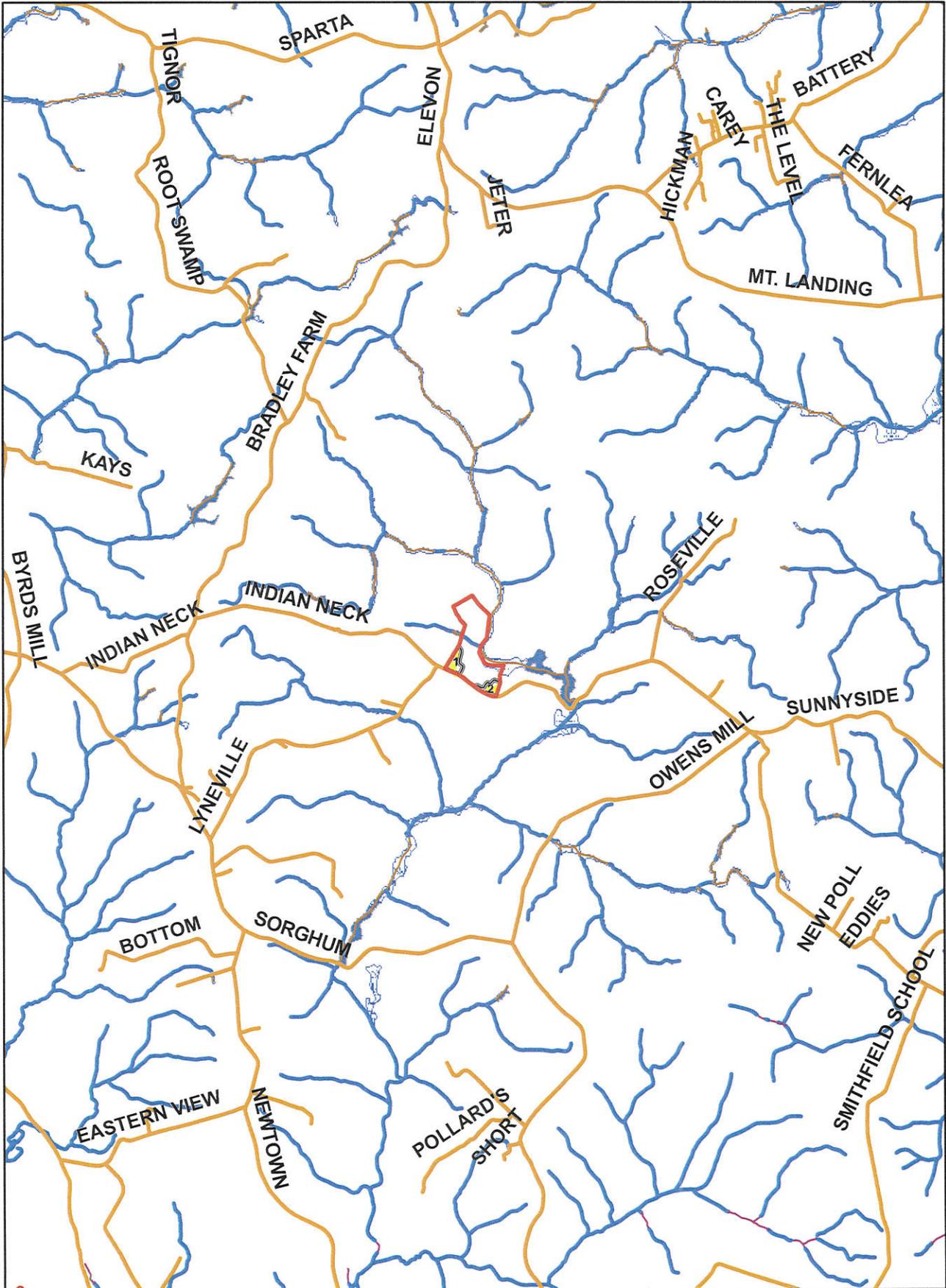


Scale: 1" = 1 mile

7-25-18

VICINITY MAP



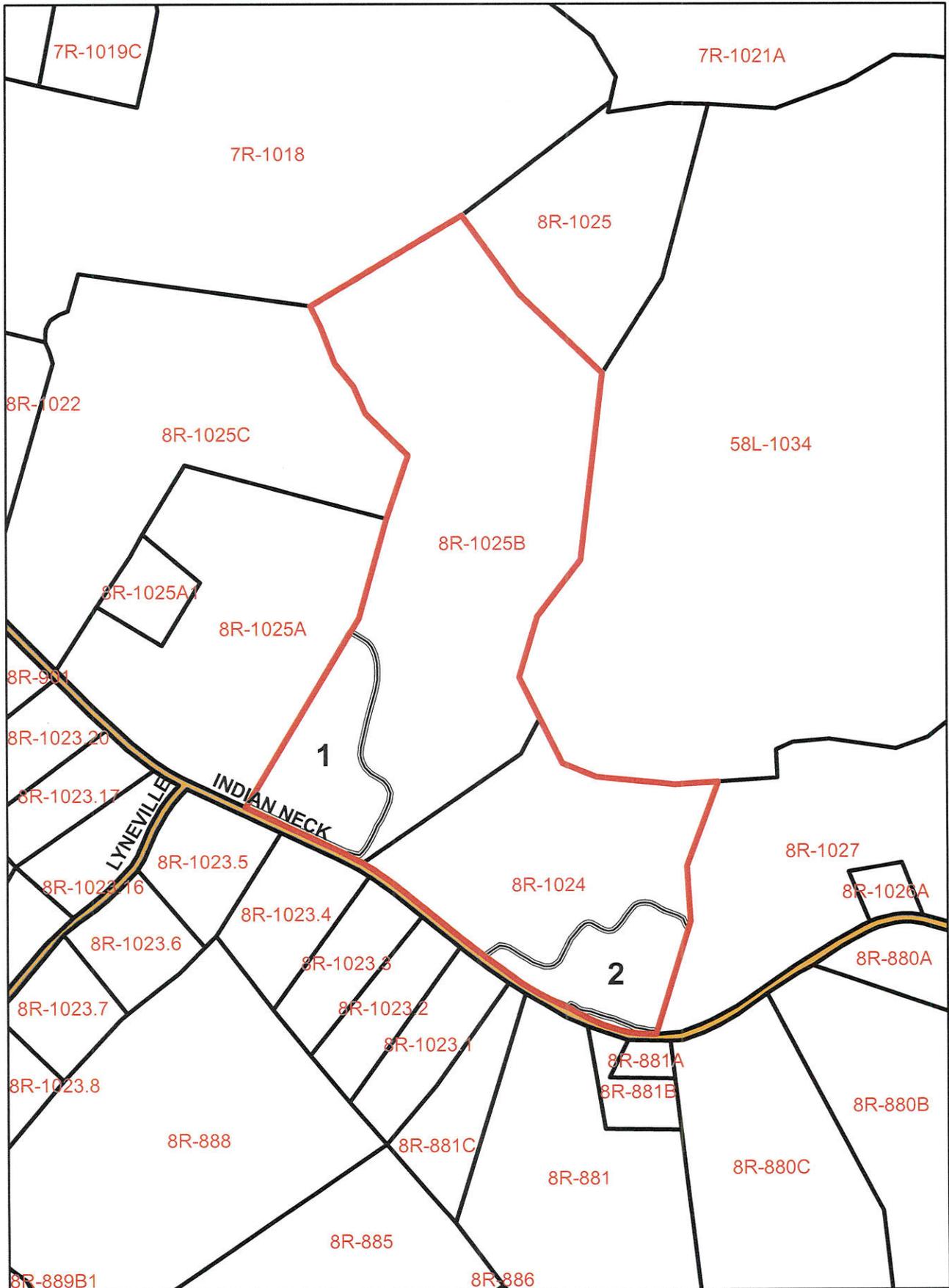


7-25-18

VICINITY MAP

1 in = 1 miles





7-25-18

TAX MAP

1 in = 660 feet

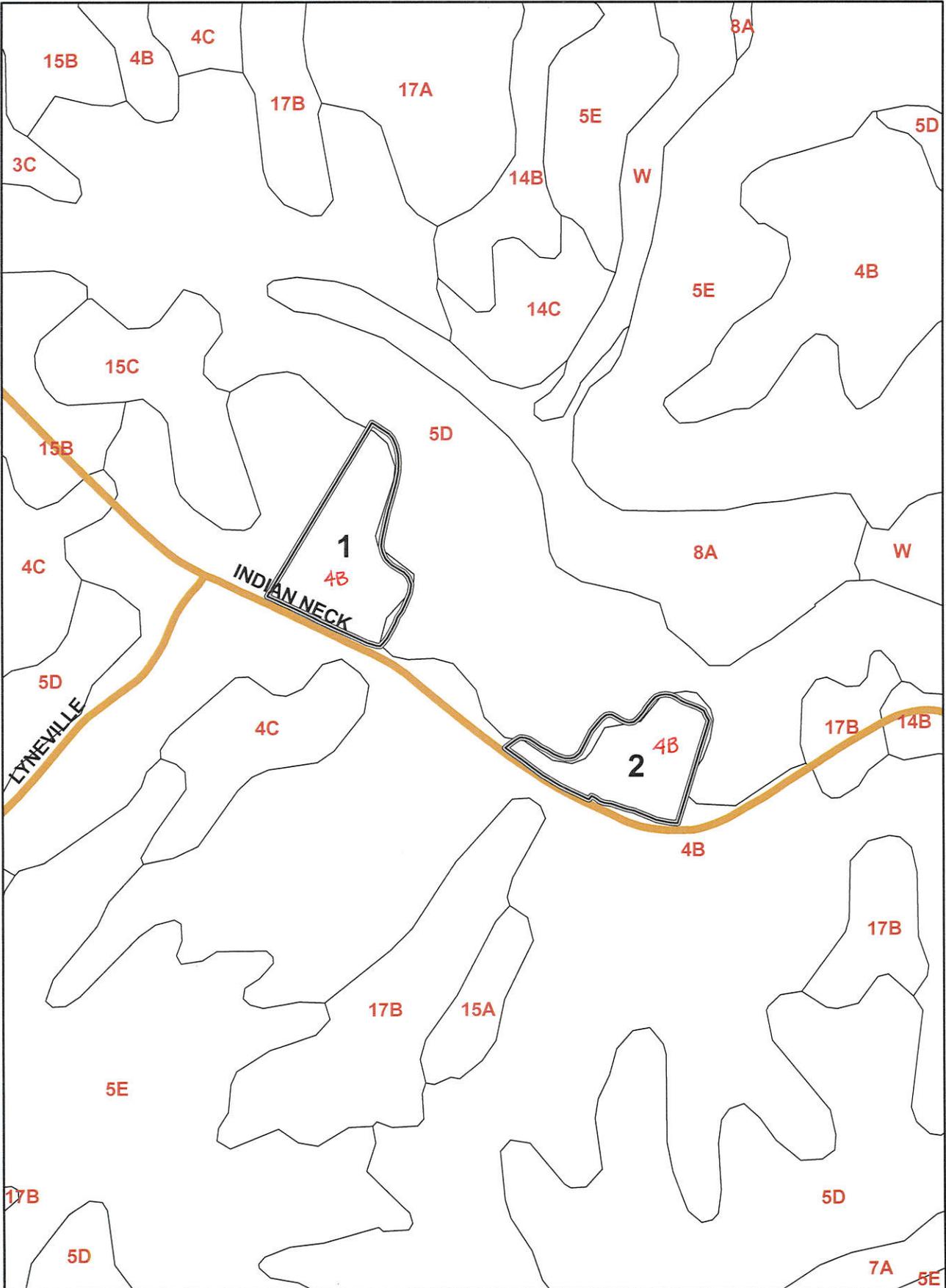


ADJOINING LANDOWNERS

CHARLES W. DAVIS

KING & QUEEN COUNTY

Tax Map Parcel #	Owner Name(s)
32-7R-1018	James M. Fogg Farms Inc.
32-8R-880C	Jean B. Ball Forest LLC
32-8R-881	Jean B. Ball Forest LLC
32-8R-881A	Shirley Johnson
32-8R-881B	Margaret Johnson
32-8R-881C	Martha and Jackson Kinzer
32-8R-1023-1	Marvin R. Lumpkin
32-8R-1023-2	James and Patricia Meacham
32-8R-1023-3	Sherron G. Benefield, Jr. and Melissa Ann Windsor
32-8R-1023-4	Stephen Detrick and Angela Skelton
32-8R-1023-5	Lewis E. Shelton, Jr. et. ux.
32-8R-1025	Charles W. Davis et. ux.
32-8R-1025A	Eric C. Oord
32-8R-1025C	Charles W. and Patricia F. Davis
32-8R-1027	Richard M. Schools et. ux.
32-58L-1034	Gilman Land and Timber LLC



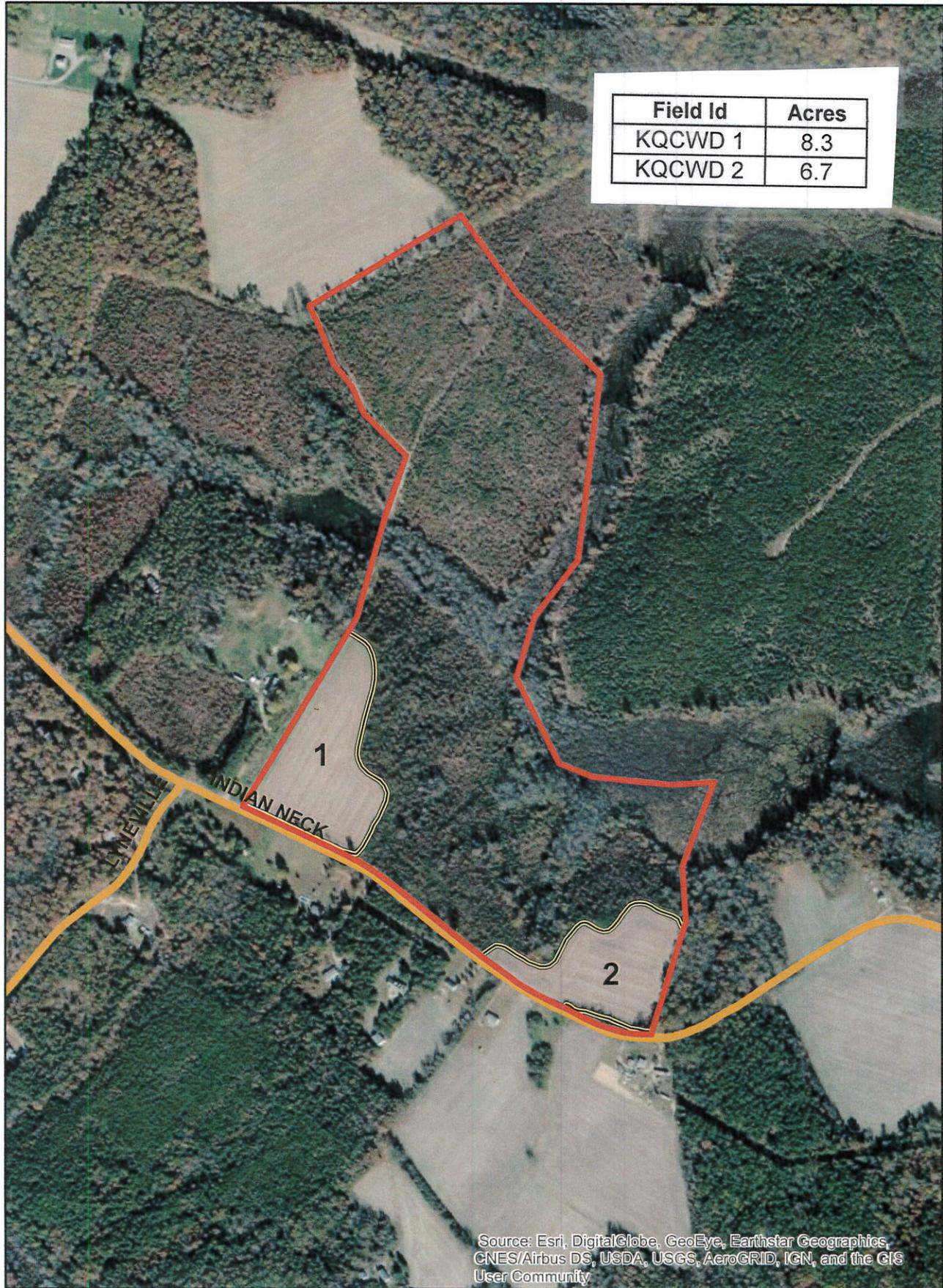
7-25-18

SOIL MAP

1 in = 660 feet



 Frequent Flooding



7-25-18

AERIAL MAP

1 in = 660 feet



2018 Program Year

Map Created May 15, 2018

- Common Land Unit**
- Non-Cropland
 - Cropland
 - rcl_va097
 - Tract Boundary
- NAIPUSDA_CONUS_PRIME**
- RGB**
- Red: Band_1
 - Green: Band_2
 - Blue: Band_3

- Wetland Determination Identifiers**
- Restricted Use
 - Limited Restrictions
 - Exempt from Conservation
 - Compliance Provisions

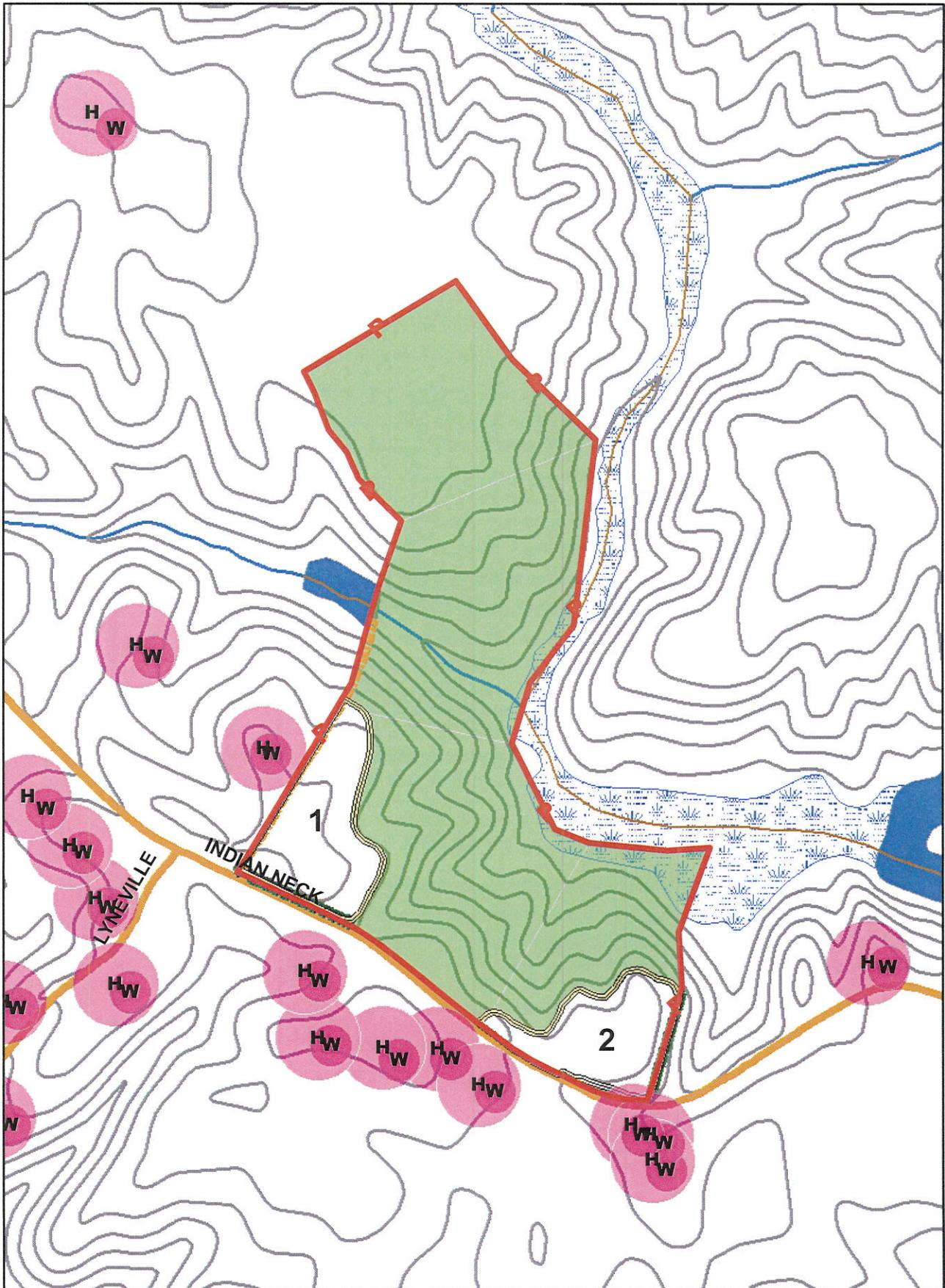
Tract Cropland Total: 15.33 acres

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

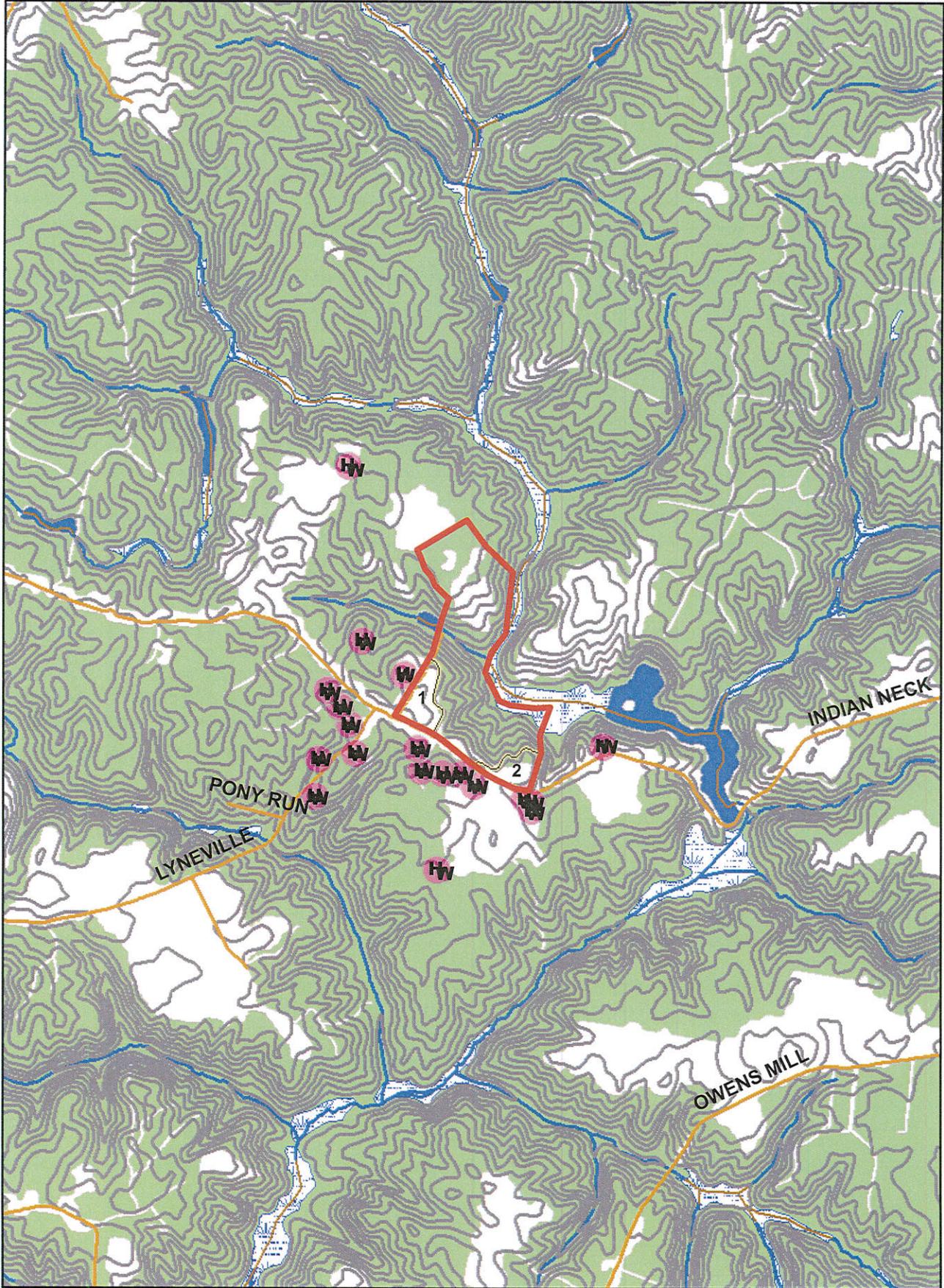
*Buffer can be reduced or waived upon written consent from landowner.



7-25-18

SITE PLAN

1 in = 660 feet



7-25-18

TOPOGRAPHIC MAP

1 in = 2,000 feet

