

LAND APPLICATION SITE

JAMES L. RYLAND

KQJLR 1 - 4

KING & QUEEN COUNTY

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

Permittee: Recyc Systems, Inc
Landowner: James Howell Ryland

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).

James Beed
Landowner's Signature

6-20-18
Date

Richard Schools Jr
Farm Operator Signature
James Fogg Farms Inc.

8299 Newtown Road
St. Stephens Church, Va. 23148
Mailing Address & Phone Number

FARM DATA SHEET

SITE NAME:	James L. Ryland	COUNTY:	King & Queen
OWNER:	James L. Ryland	OPERATOR:	James M. Fogg Farms Inc. Richard Schools, Jr.
OWNER'S ADDRESS:	6011 Owens Mill Road Indian Neck, VA 23148	OPERATOR'S ADDRESS:	8299 Newtown Road St. Stephens Church, VA 23148
OWNER'S TELEPHONE:	804-648-4525	OPERATOR'S TELEPHONE:	804-769-2575
GENERAL FARM TYPE:	Row Crops	CELL PHONE:	804-514-4236
# CATTLE:	None	EMAIL:	-
LAGOON or SLURRY:	N/A	LATITUDE:	37.897
TOPO QUAD:	Cauthornville	LONGITUDE:	- 77.051
COMMENTS:		METHOD OF DETERMINATION:	Online Maps
Fields # 1-3 was old Field #1.			
Field #4 was old Field #2.			

SD 
7-19-18

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			
KQJLR 1	32.6	15B Nov.-Apr.	-	-	-	YO 54	32-58L-870A	T 2424 F 4
KQJLR 2N	15.4	-	-	-	-	YO 54	32-58L-870A	T 2424 F 5
KQJLR 3N	10.7	-	-	-	-	YO 54	32-58L-870A	T 2424 F 7
KQJLR 4	22.9	5D Nov.-Apr.	-	-	-	YO 54	32-58L-870A	T 2424 F 8, 10
TOTAL ACRES IN SITE	81.6							

NUTRIENT MANAGEMENT PLAN IDENTIFICATION

Operator

Richard Schools
8299 Newtown Road
St. Stephens Church, VA 23148
804-514-4236

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: 81.6
Cropland: 81.6
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 7/19/2018
Valid until 7/19/2020

Signature: _____
Planner date

Nutrient Management Plan Balance Sheet
(Fall, 2018-Winter, 2020)
James L. Ryland
Planner: John Doe (cert. No. 103)

Tract: 2424 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
4/KQJLR 1(N)	33/33	2018 2019	Wheat (grain)	100-40-40 --- --	0/0				100-40-40	N/A		
5/KQJLR 2(N)	15/15	2018 2019	Wheat (grain)	100-40-40 --- --	0/0				100-40-40	N/A		
7/KQJLR 3(N)	11/11	2018 2019	Wheat (grain)	100-40-40 --- --	0/0				100-40-40	N/A		
8, 10/KQJLR 4(N)	23/23	2018 2019	Wheat (grain)	100-40-40 --- --	0/0				100-40-40	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
2424	KQJLR 1	33	2013-Fa	H- (51 P ppm)	H- (134 K ppm)	A&L MIII	6.2		
2424	KQJLR 2	16	2013-Fa	H- (51 P ppm)	H- (134 K ppm)	A&L MIII	6.2		
2424	KQJLR 3	11	2013-Fa	H- (51 P ppm)	H- (134 K ppm)	A&L MIII	6.2		
2424	KQJLR 4	24	2013-Fa	H- (56 P ppm)	H- (130 K ppm)	A&L MIII	6.		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
2424	2424/4	KQJLR 1	33	Emporia	IIIa	II	III	II	
	2424/5	KQJLR 2	16	Emporia	IIIa	II	III	II	
	2424/7	KQJLR 3	11	Emporia	IIIa	II	III	II	
	2424/8, 10	KQJLR 4	24	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: James L. Ryland

Location: King & Queen

Specialist: John Doe

N-based Acres: 82.7

P-based Acres: 0.0

Tract Name: 2424

FSA Number: 2424

Location: King & Queen

Field Name: KQJLR 1

Total Acres: 32.50 Usable Acres: 32.50

FSA Number: 4

Tract: 2424

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-2013	6.2	H-(51 P ppm)	H-(134 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
70	4B	Emporia
21	4C	Emporia
9	15B	Slagle

Field Warnings:

Field Name: KQJLR 2
Total Acres: 15.60 Usable Acres: 15.60
FSA Number: 5
Tract: 2424
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-2013	6.2	H-(51 P ppm)	H-(134 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
2	4A	Emporia
98	4B	Emporia

Field Warnings:

Field Name: KQJLR 3
Total Acres: 10.50 Usable Acres: 10.50
FSA Number: 7
Tract: 2424
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-2013	6.2	H-(51 P ppm)	H-(134 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
32	4A	Emporia
63	4B	Emporia
5	4C	Emporia

Field Warnings:

Field Name: KQJLR 4

Total Acres: 24.10 Usable Acres: 24.10

FSA Number: 8, 10

Tract: 2424

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-2013	6.0	H-(56 P ppm)	H-(130 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
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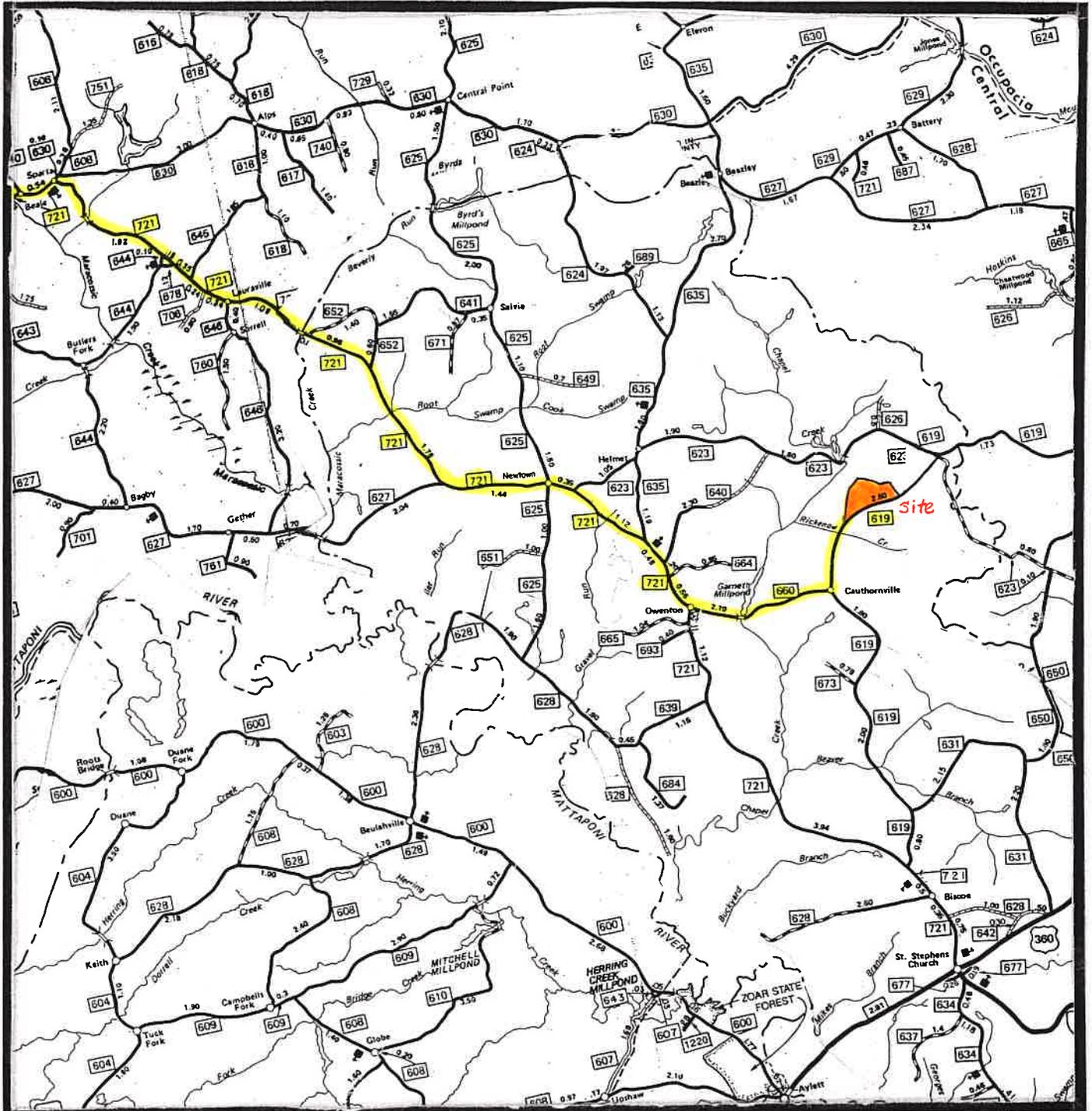
14	4A	Emporia
79	4B	Emporia
6	5D	Emporia Slagle
2	5E	Emporia Slagle

Field Warnings:

MAPS

Recyc SystemsTM Inc.

(Biosolids Land Application)



Scale: 1" = 2 Miles

VICINITY MAP

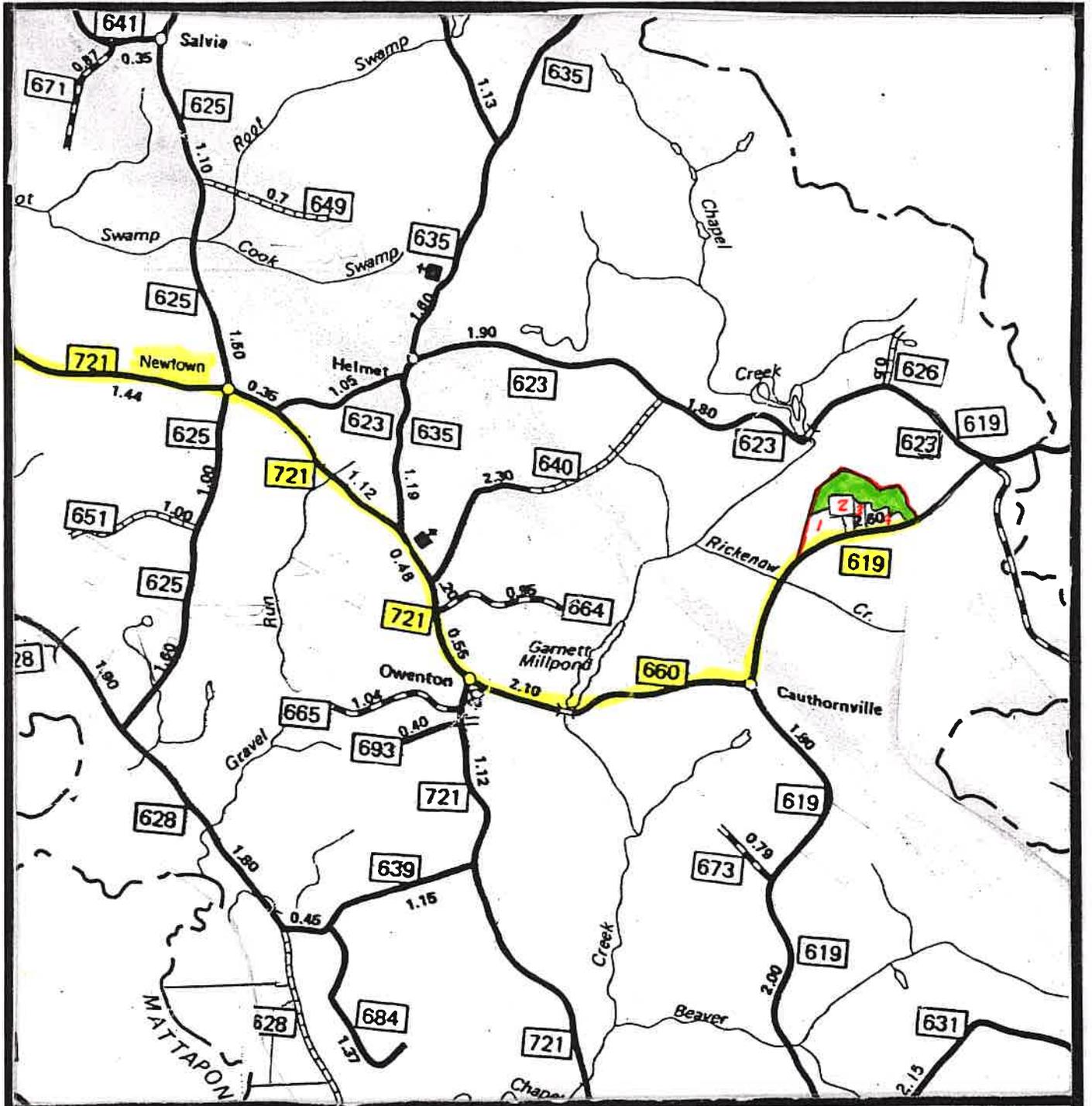
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Truck Route marked in Yellow

Recyc SystemsTM Inc.

(Biosolids Land Application)



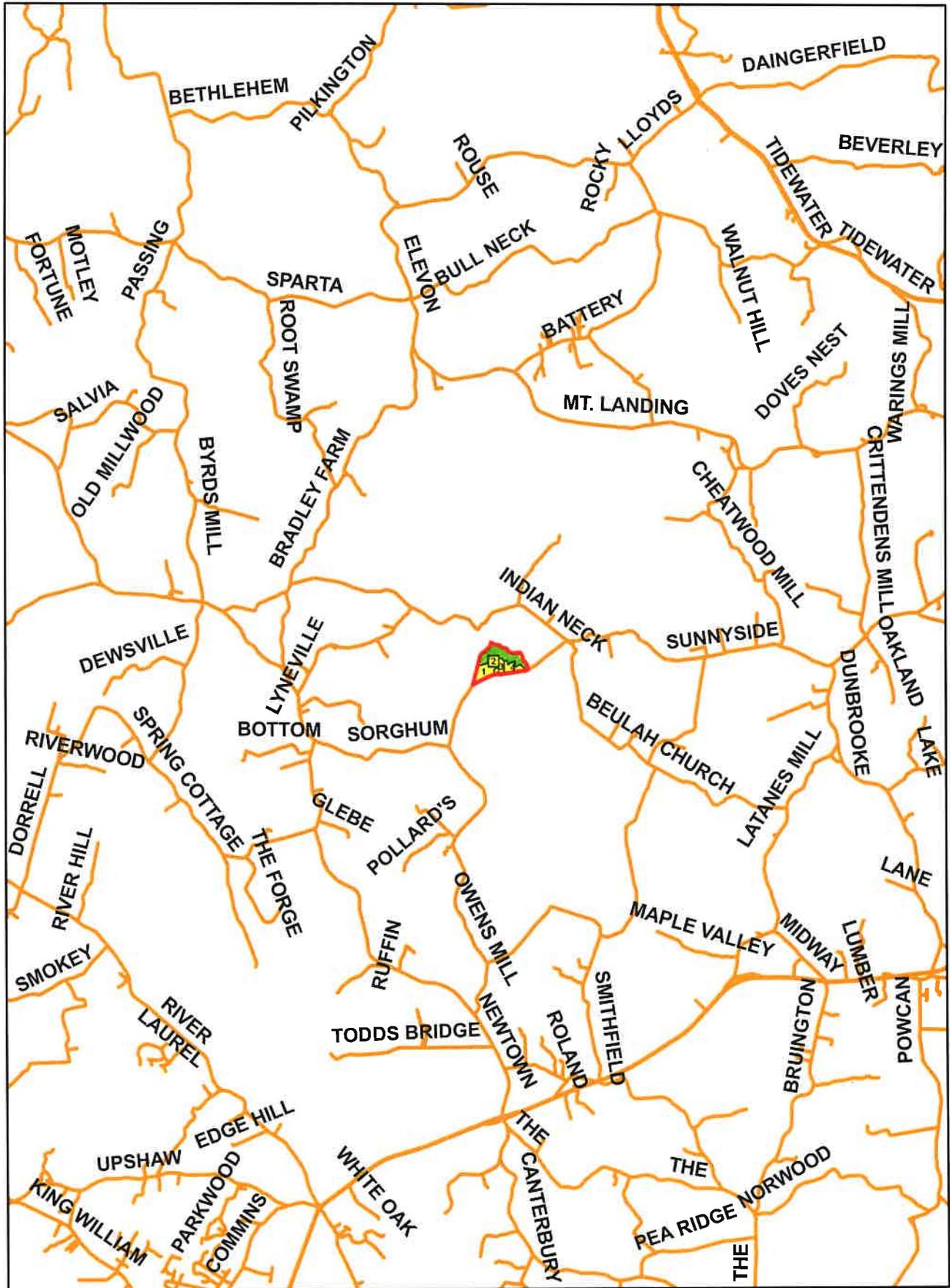
Scale: 1" = 1 Mile

VICINITY MAP

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Truck Route marked
in Yellow



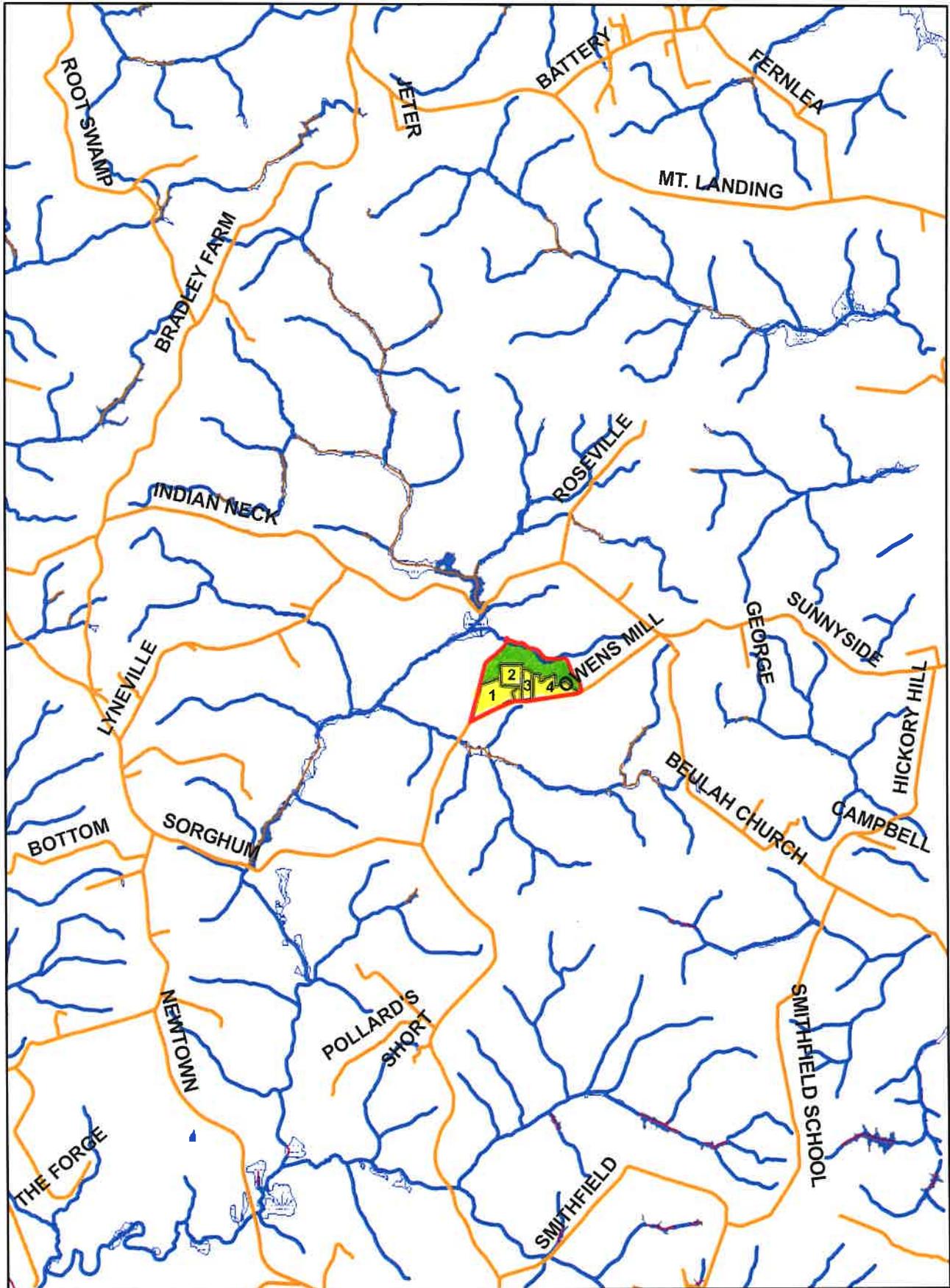


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VICINITY MAP

1 in = 2 miles



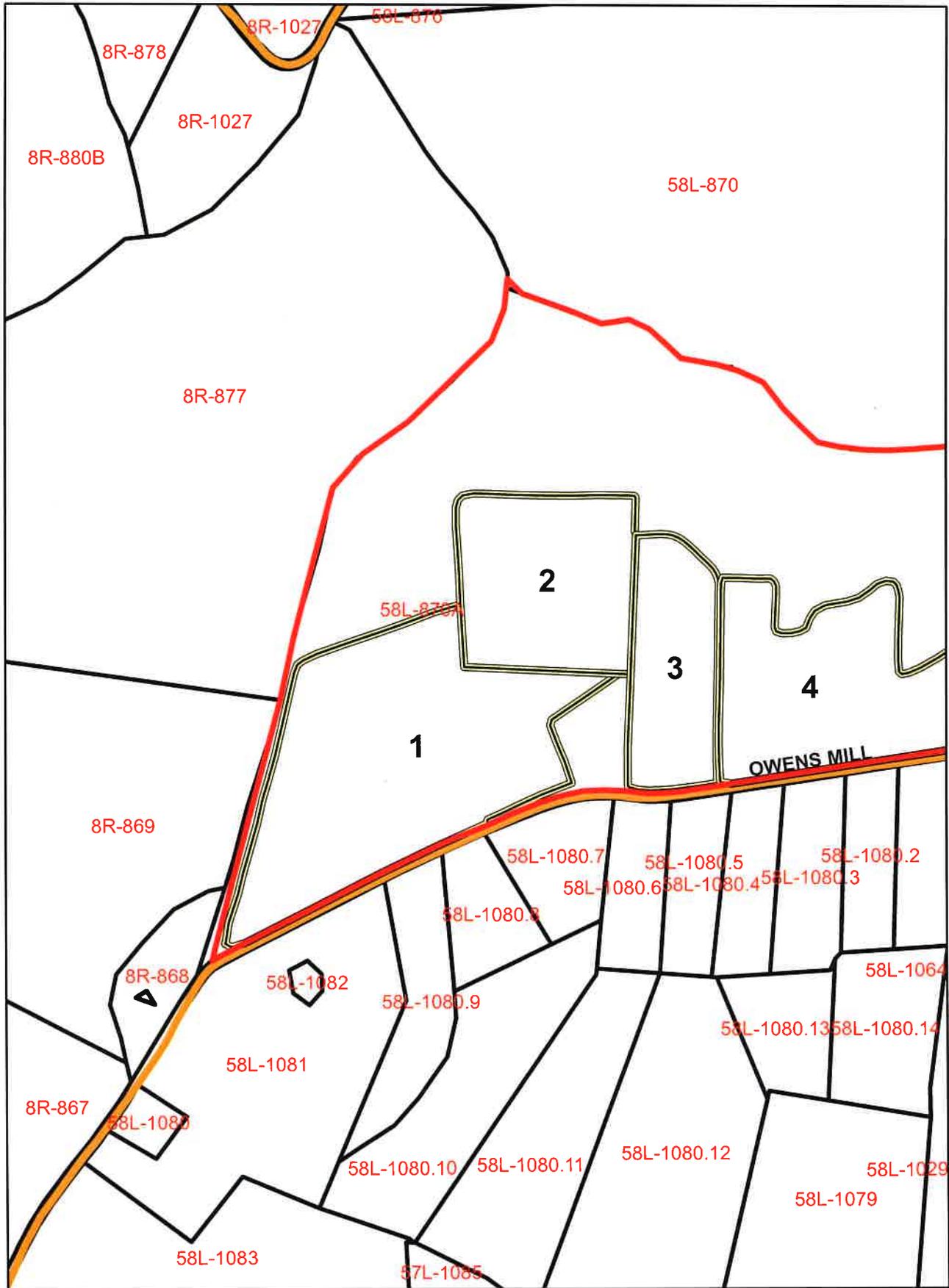


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VICINITY MAP

1 in = 1 miles



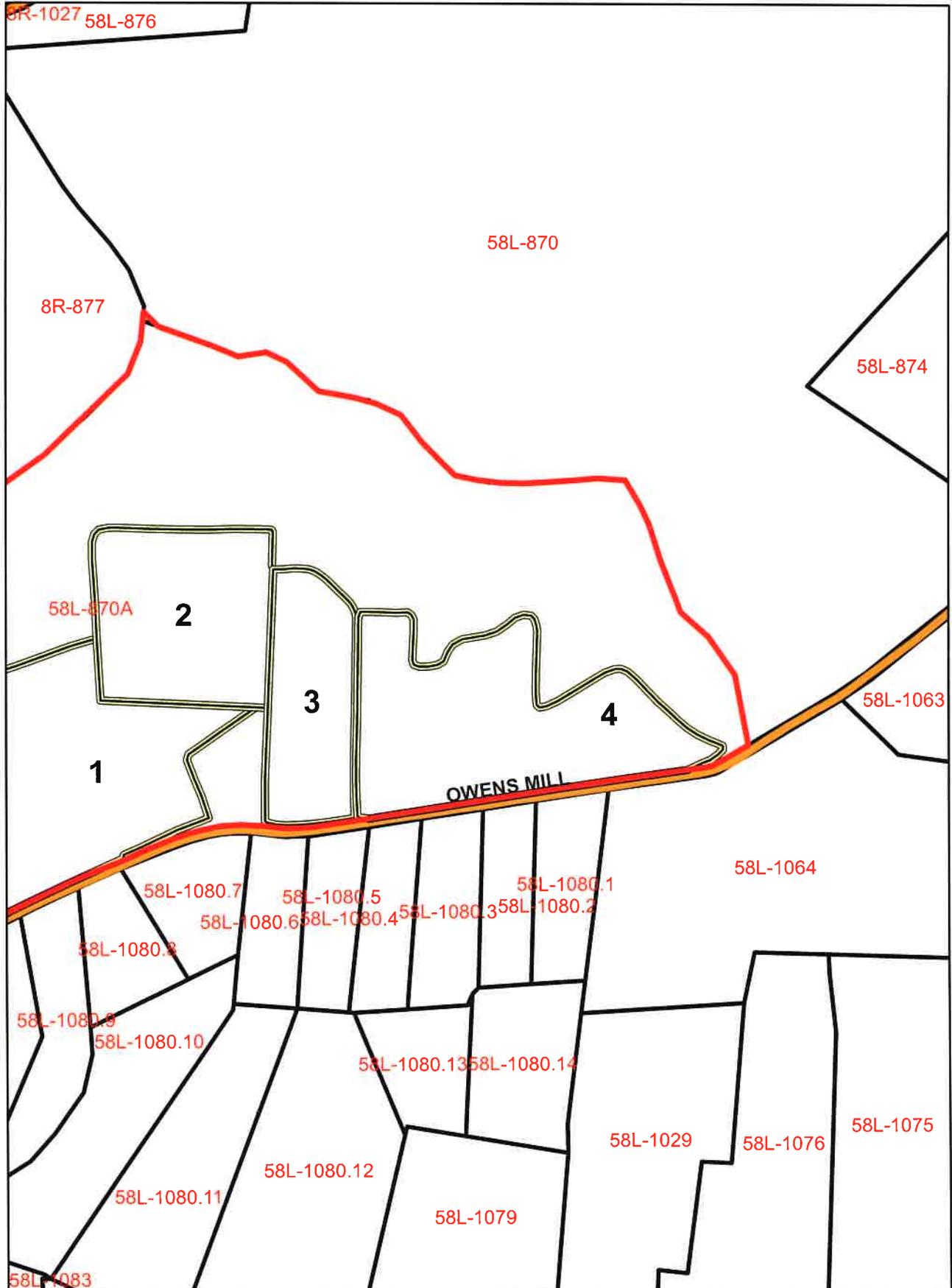


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TAX MAP

1 in = 660 feet





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TAX MAP

1 in = 660 feet

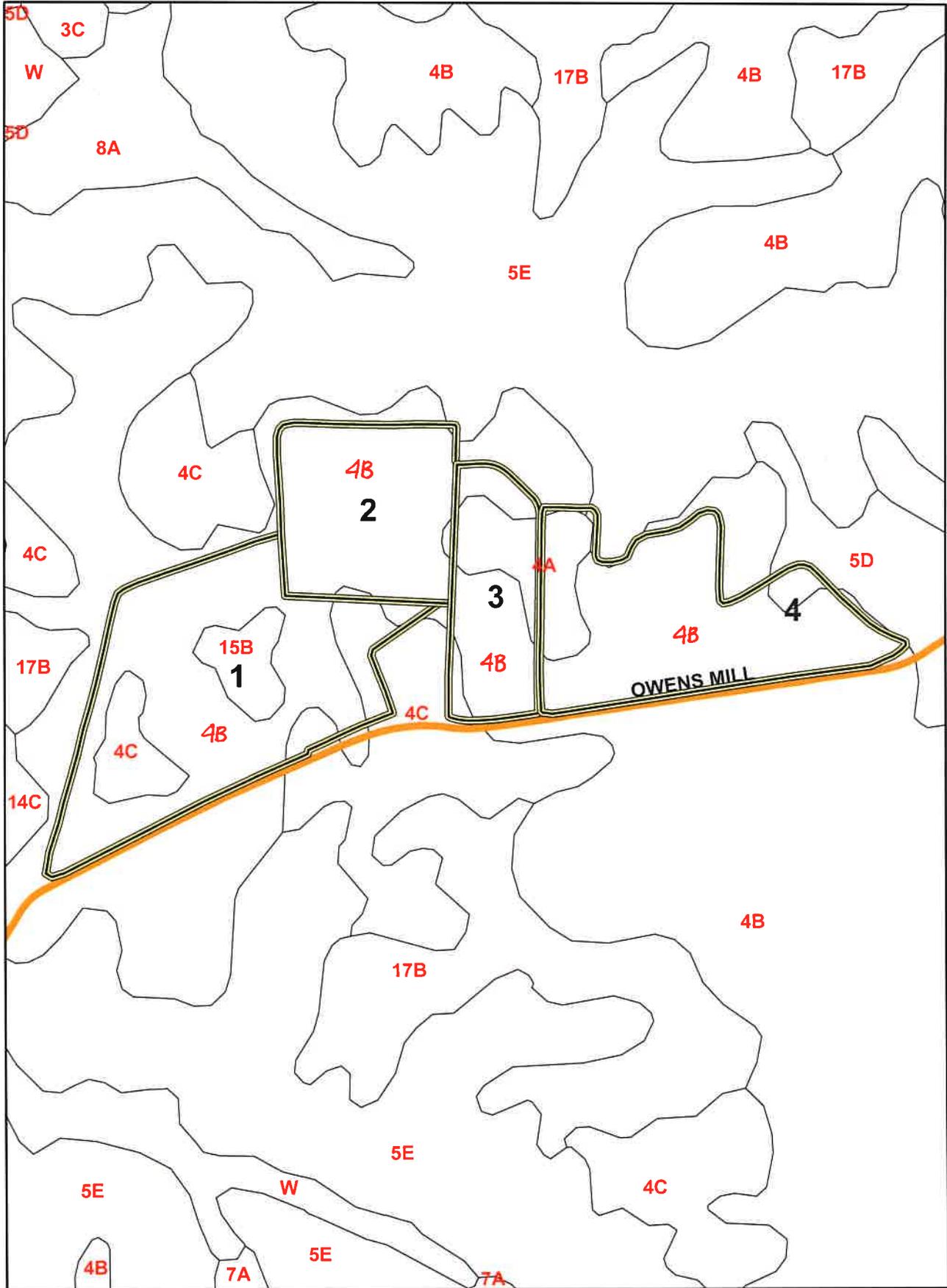


ADJOINING LANDOWNERS

James L. Ryland

KING & QUEEN COUNTY

Tax Map Parcel #	Owner Name(s)
32-8R-868	Laura K. McGee
32-8R-869	Eugene C. Longest Trustee
32-8R-877	L. P. Lanefield
32-58L-870	L. P. Lanefield
32-58L-1063	Catherine and John Taylor
32-58L-1064	L. P. Lanefield
32-58L-1080-1	Mylinda and Joel Wrigglesworth, Jr.
32-58L-1080-2	Ernest and Estella Christian
32-58L-1080-3	Joseph W. Landry Sr. and Joseph W. Landry, Jr.
32-58L-1080-4	Ryan S. Smith
32-58L-1080-5	Anthony and Carol Creasy
32-58L-1080-6	Jack and Vivian Bailey Living Trust
32-58L-1080-7	George and Beverly Edwards
32-58L-1080-8	Donald and Carla Fisher
32-58L-1080-9	Christopher Thomas Kennedy
32-58L-1081	Joe Jones Est. et. als.
32-58L-1082	Joe Jones Est. et. als.



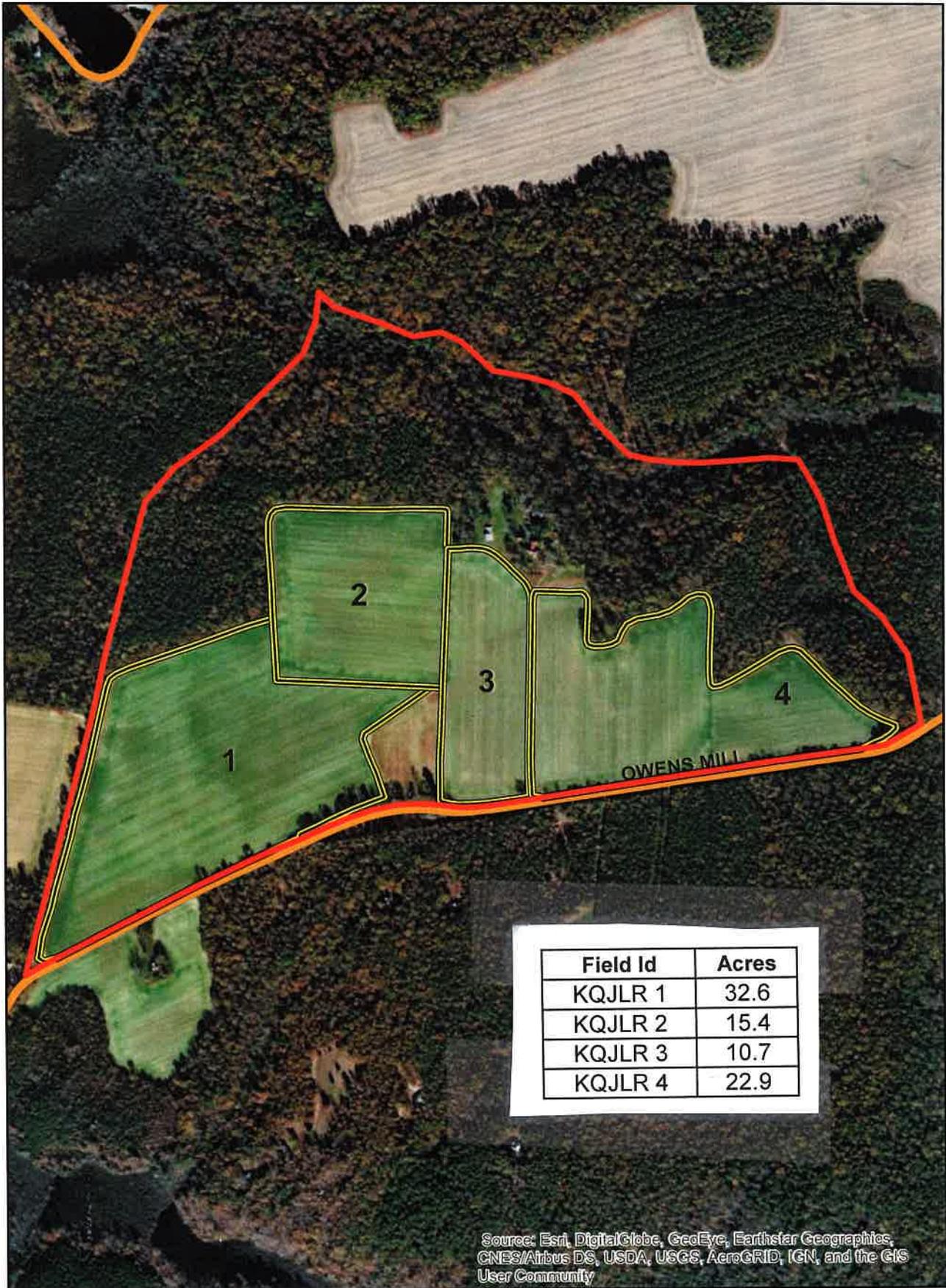
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Frequent
Flooding

SOIL MAP

1 in = 660 feet



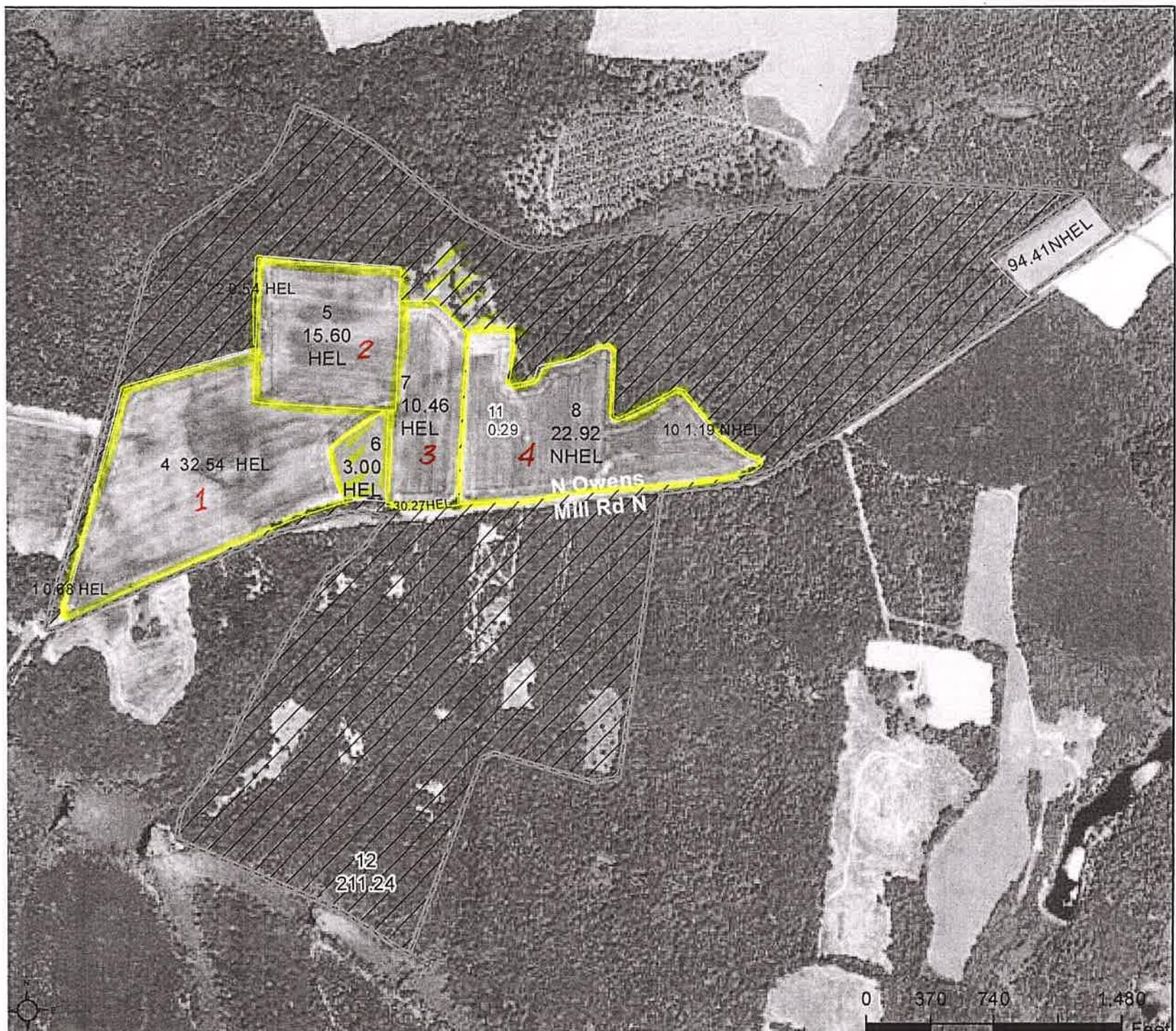
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



7-19-18

AERIAL MAP

1 in = 660 feet



2018 Program Year

Map Created May 15, 2018

Common Land Unit

- / / Non-Cropland
- Cropland
- rcl_L_va097
- Tract Boundary

NAIPUSDA_CONUS PRIM

- RGB**
- Red: Band_1
 - Green: Band_2
 - Blue: Band_3

Wetland Determination Identifiers

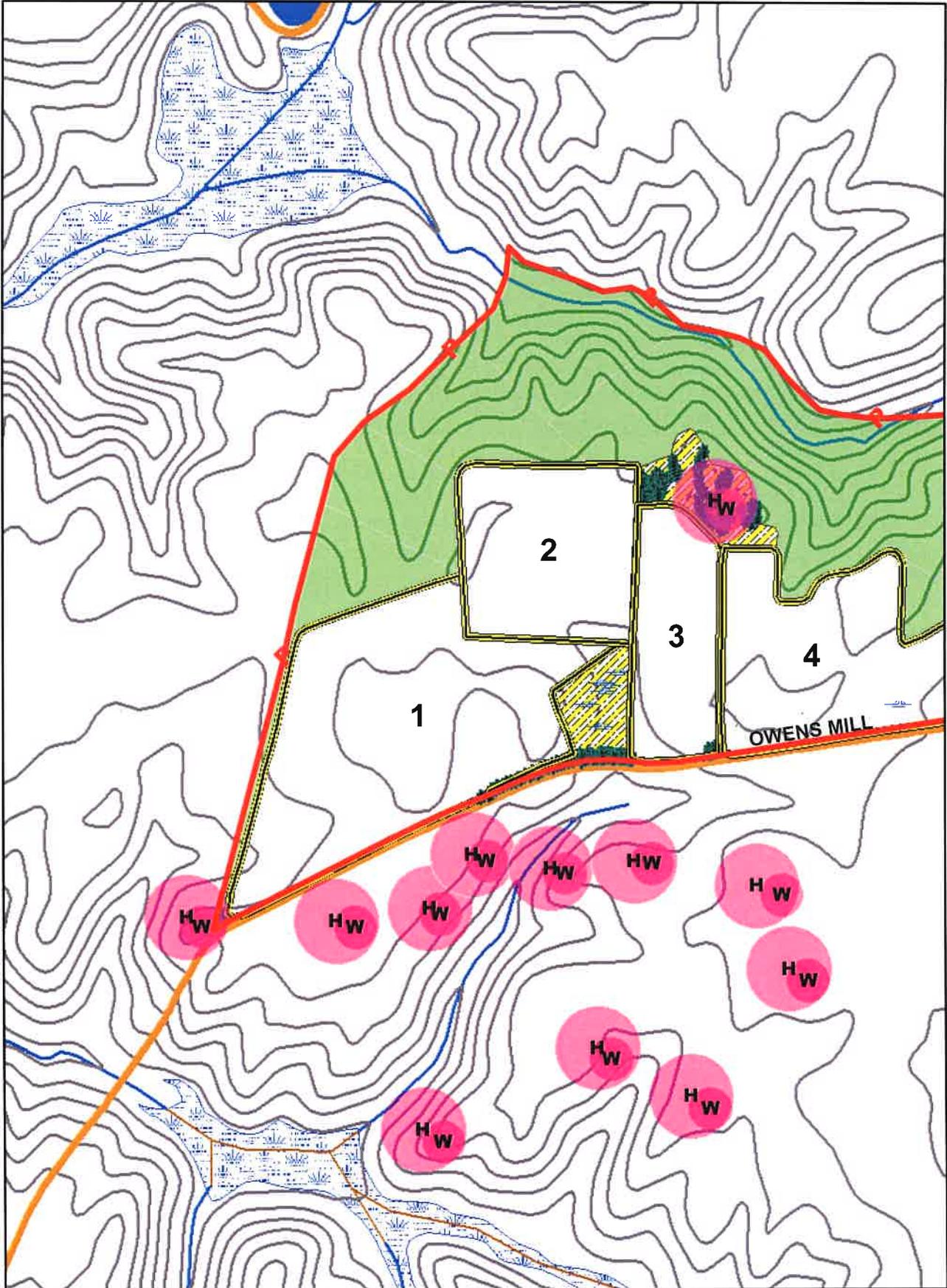
- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 91.61 acre

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

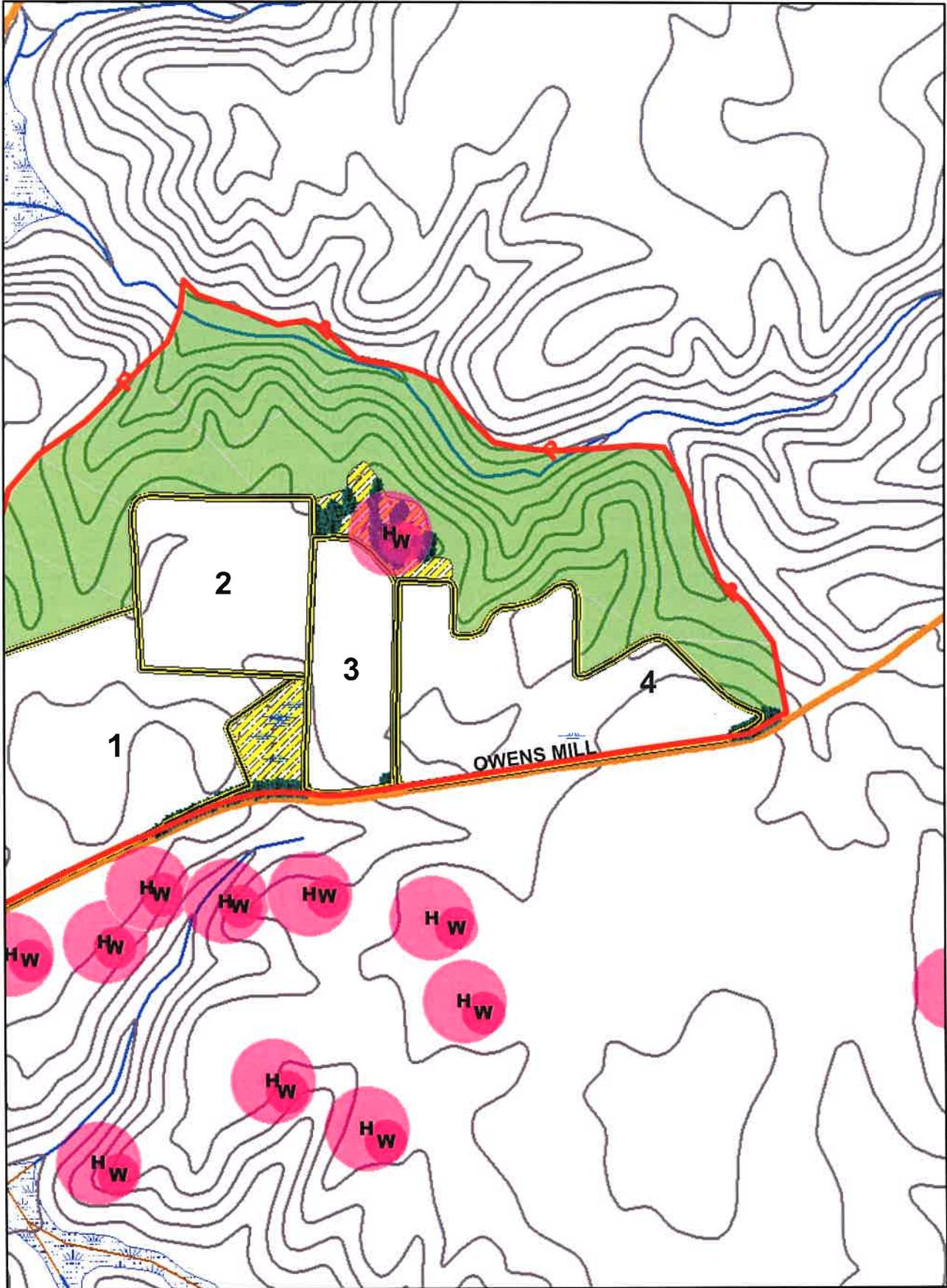
*Buffer can be reduced or waived upon written consent from landowner.



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SITE PLAN

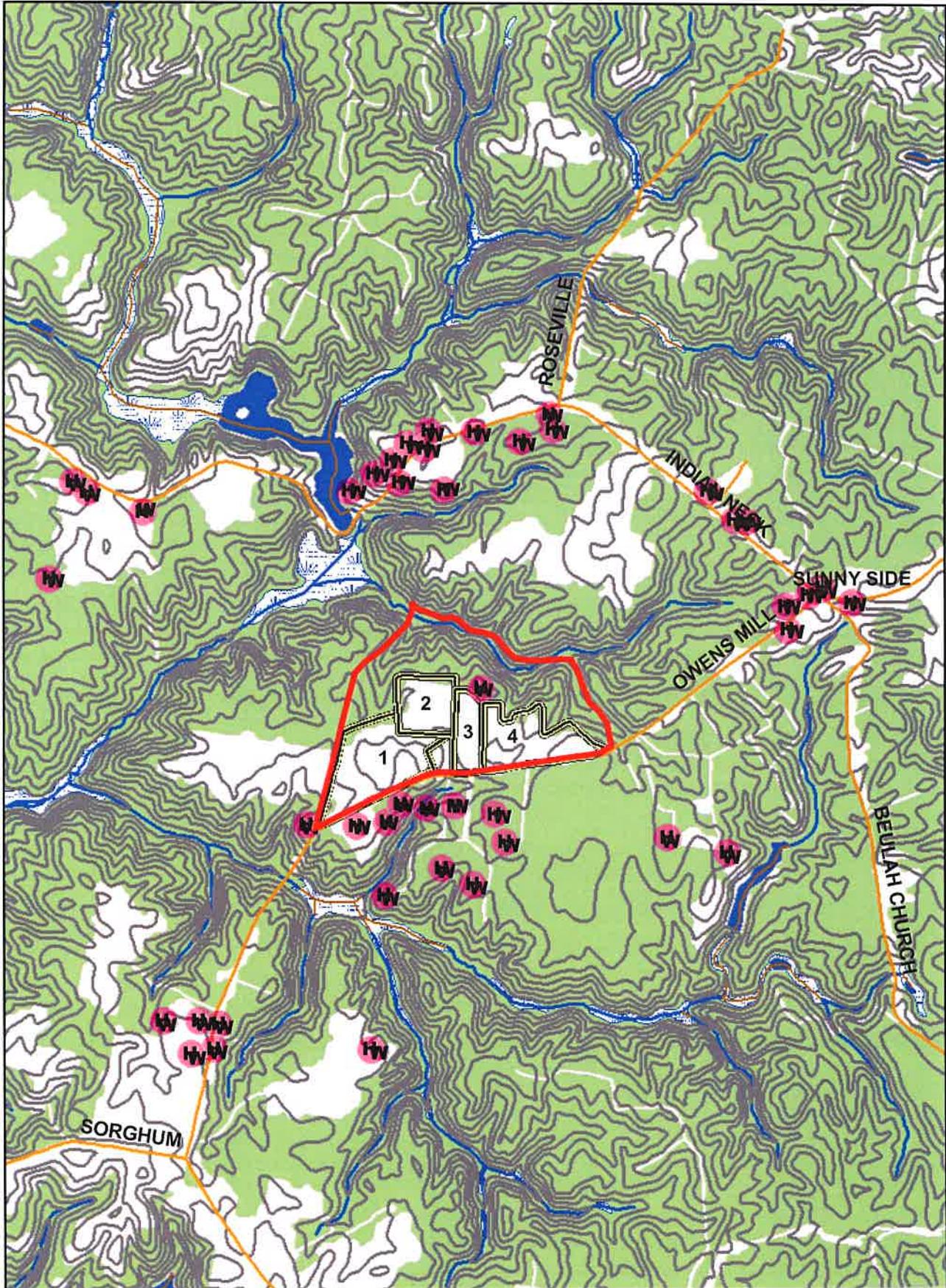
1 in = 660 feet



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SITE PLAN

1 in = 660 feet



7-19-18

TOPOGRAPHIC MAP

1 in = 2,000 feet

