

LAND APPLICATION SITE

MARK W. MILLER

KQMWM 1, 4, 6, 8

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 1-1-18 between Mark W. Miller Trustee 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) 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 1624-34L-337A</u>			
<u>Tax Map 1624-34R-597</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.

<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			

Mark W. Miller Trustee Mark W. Miller Trustee 2234 EX01 Road
 Landowner - Printed Name, Title Signature Mailing Address & Phone Number
Center Cross, Va. 22437

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)

[Signature] [Signature] 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: King & Queen Co.

Landowner: Mark W. Miller Trustee

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).

Mark W. Miller Trustee
Landowner's Signature

1-1-18
Date

Mark W. Miller Trustee
Farm Operator Signature

2234 Exo1 Road
Center Cross VA 22437
Mailing Address & Phone Number
(804) 512-8327

Mark W. Miller Trustee
Title of Landowner

Power, Capacity and Authority. Such Party has the right, power, legal capacity, and authority to execute and enter into this Agreement and to execute all other documents and perform all other acts as may be necessary in connection with the performance of this Agreement.

Mark W. Miller
Signature

Mark W. Miller
Printed Name of Signer

1/1/18
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 1-1-18 between Heather C. Miller, Trustee 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, 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			
<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>
<u>Tax Map 1624-34L-337A</u>			
<u>Tax Map 1624-34R-597</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 33 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.

<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			

Heather C. Miller, Trustee Heather C. Miller, Trustee 2234 Exo1 Road
 Landowner - Printed Name, Title Signature Mailing Address & Phone Number
Center Cross, Va. 22437

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)

[Signature] [Signature] 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: King & Queen Co.
Landowner: Heather C. Miller Trustee

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).

Heather C. Miller, Trustee
Landowner's Signature

1/1/18
Date

Monica Miller
Farm Operator Signature

2234 Exol Road
Center Cross VA 22437
Mailing Address & Phone Number
(804) 512-8327

Heather C. Miller Trustee
Title of Landowner

Power, Capacity and Authority. Such Party has the right, power, legal capacity, and authority to execute and enter into this Agreement and to execute all other documents and perform all other acts as may be necessary in connection with the performance of this Agreement.

Heather C. Miller
Signature

Heather C. Miller
Printed Name of Signer

1/1/18
Date

FARM DATA SHEET

SITE NAME:	Mark W. Miller	COUNTY:	King & Queen
OWNER:	Mark W. and Heather C. Miller Trustees	OPERATOR:	Mark W. Miller
OWNER'S ADDRESS:	2234 Exol Road Center Cross, VA 22437	OPERATOR'S ADDRESS:	2234 Exol Road Center Cross, VA 22437
OWNER'S TELEPHONE:	804-443-1002	OPERATOR'S TELEPHONE:	804-443-1002
GENERAL FARM TYPE:	Row Crops	CELL PHONE:	804-512-8327
# CATTLE:	None	EMAIL:	-
LAGOON or SLURRY:	None	LATITUDE:	37.757 F 1, 4, 6 37.763 F 8
TOPO QUAD:	Dunnsville	LONGITUDE:	-76.833 F 1, 4, 6 -76.855 F 8
COMMENTS:		METHOD OF DETERMINATION:	Online Maps
2-14-18 SD			

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			
KQMWM 1	51097-00162-0000	18.4	5D Nov.-Apr. 7A Dec.-May	-	5D, 7A	-	CB 07	1624-34R-597	T 1874 F 1
KQMWM 4	51097-00162-0000	58.0	5D Nov.-Apr.	-	5D	-	CB 07	1624-34R-597	T 1874 F 3
KQMWM 6	51097-00162-0000	14.8	5D Nov.-Apr.	-	5D, 14B	-	CB 07	1624-34R-597	T 1874 F 3
KQMWM 8	51097-00163-0000	42.5	15A Nov.-Apr. 15B Nov.-Apr. 20A Nov.-Apr.	-	-	-	CB 07	1624-34L-337A	T 2306 F 1
TOTAL ACRES IN SITE		133.7							

2-14-18

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: Mark W. Miller

County or City: King & Queen Co.

Please Print

Signature not required on this page

<u>Tax Parcel ID(s)</u>	<u>Landowners (s)</u>
1624-34L-337A	Mark W. and Heather C. Miller Trustees
1624-34R-597	Mark W. and Heather C. Miller Trustees

Report Number: 16-328-0717

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
Culpeper VA 22701

Grower: Mark W. Miller
K&Q Co

SOIL ANALYSIS REPORT

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

Date Received: 11/23/2016

Date Of Analysis: 11/28/2016

Date Of Report: 11/28/2016

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
KQMWM 1	24442	1.5 L		74	84 H			83 M	41 L	739 H		6.7		0.2	4.4
KQMWM 4A	24444	4.1 M		128	53 H			63 L	34 L	473 H		6.4	6.90	0.3	3.1
KQMWM 4B	24445	1.3 L		72	54 H			68 M	27 L	483 H		6.4	6.90	0.3	3.1
KQMWM 6	24446	1.8 L		82	29 L			75 M	26 L	397 H		6.0	6.89	0.4	2.8
KQMWM 8A	24447	1.9 L		83	65 H			99 H	72 H	537 H		6.6		0.2	3.7

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts		
	K %	Mg %	Ca %	Na %	H %	NO ₃ 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		
KQMWM 1	4.8	7.8	84.0		4.5			2.6 M	6 L						
KQMWM 4A	5.2	9.1	76.3		9.7			2.0 L	24 H						
KQMWM 4B	5.6	7.3	77.9		9.7			2.0 L	20 M						
KQMWM 6	6.9	7.7	70.9		14.3			0.9 VL	16 M						
KQMWM 8A	6.9	16.2	72.6		5.4			2.3 M	17 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 McGeary

Report Number: 16-328-0717

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
Culpeper VA 22701

Grower: Mark W. Miller
K&Q Co

SOIL ANALYSIS REPORT

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

Date Received: 11/23/2016 Date Of Analysis: 11/28/2016 Date Of Report: 11/28/2016

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
KQMWM 8B	24448	2.6 M		97	70 H			95 H	68 H	488 M		6.6		0.2	3.5

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts
	K %	Mg %	Ca %	Na %	H %	NO ₃ 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
KQMWM 8B	7.0	16.2	69.7		5.7			2.5 M	18 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 McGroary*

Paucic McGroary

Date Received: 11/23/2016

Date Of Report: 11/28/2016

SOIL FERTILITY RECOMMENDATIONS

Sample ID Field ID	Intended Crop	Yield Goal	Lime Tons/A	Nitrogen N lb/A	Phosphate P ₂ O ₅ lb/A	Potash K ₂ O lb/A	Magnesium Mg lb/A	Sulfur S lb/A	Zinc Zn lb/A	Manganese Mn lb/A	Iron Fe lb/A	Copper Cu lb/A	Boron B lb/A
KQMWM 8B	Adjust pH to 6.5	0	0.0				12			2			

Comments:

"The recommendations are based on research data and experience, but NO GUARANTEE or WARRANTY expressed or implied, concerning crop performance is made."

Our reports and letters are for the exclusive and confidential use of our clients, and may not be reproduced in whole or part, nor may any reference be made to the work, the results, or the company in any advertising, news release, or other public announcements without obtaining our prior written authorization. Copy right 1977.

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Spring, 2018-Summer, 2020)
Mark W. Miller
Planner: John Doe

Tract: 1874

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/KQMWM 1(N)	18/18	2018	Wheat (grain)	100-30-60	0/0				100-30-60	N/A			
3/KQMWM 4(N)	58/58	2018	Wheat (grain)	100-40-80	0/0				100-40-80	N/A			
3/KQMWM 6(N)	15/15	2018	Wheat (grain)	100-60-60	0/0				100-60-60	N/A			

Commercial Application Methods:

br - Broadcast ba - Banded sd - Sidedress

Notes:

Tract: 2306

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/KQMWM 8(N)	43/43	2018	Corn (grain)	140-40-60	20/0				120-40-60	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
1874	KQMWM 1	18	2016-Fa	H (84 P ppm)	M (83 K ppm)	A&L MIII	6.7		
1874	KQMWM 4	58	2016-Fa	H- (53 P ppm)	M- (63 K ppm)	A&L MIII	6.4		
1874	KQMWM 6	15	2016-Fa	M (29 P ppm)	M (75 K ppm)	A&L MIII	6.		
2306	KQMWM 8	43	2016-Fa	H- (65 P ppm)	M (99 K ppm)	A&L MIII	6.6		

Field Productivities for Major Crops

Tract Name	Tract/ Field	Field Name	Acres	Predominant Soil Series	Corn	Small Grain	Alfalfa	Grass Hay	Environmental Warnings
1874	1874/1	KQMWM 1	18	Emporia	IIIb	II	III	III	
	1874/3	KQMWM 4	58	Emporia	IIIa	II	III	II	
	1874/3	KQMWM 6*	15	Emporia	IVa	II	III	III	High Leaching, High Slope
2306	2306/1	KQMWM 8	43	Slagle	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** **Spring, 2018 - Summer, 2020**

Farm Name: **Mark W. Miller**

Location: King & Queen

Specialist: John Doe

N-based Acres: 133.7

P-based Acres: 0.0

Tract Name: **1874**

FSA Number: 1874

Location: King & Queen

Field Name: **KQMWM 1**

Total Acres: 18.40 Usable Acres: 18.40

FSA Number: 1

Tract: 1874

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-2016	6.7	H(84 P ppm)	M(83 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
52	4B	Emporia
21	5D	Emporia Slagle
1	7A	Bibb Kinston

25

17B Suffolk

Field Warnings:

Field Name: KQMWM 4

Total Acres: 58.00 Usable Acres: 58.00

FSA Number: 3

Tract: 1874

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-2016	6.4	H-(53 P ppm)	M-(63 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
81	4B	Emporia
19	5D	Emporia Slagle

Field Warnings:

Field Name: KQMWM 6

Total Acres: 14.80 Usable Acres: 14.80

FSA Number: 3

Tract: 1874

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-2016	6.0	M(29 P ppm)	M(75 K ppm)	A&L MIII	

Soils:

PERCENT	SYMBOL	SOIL SERIES
40	4B	Emporia
14	5D	Emporia Slagle
46	14B	Rumford

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%

Tract Name: 2306

FSA Number: 2306

Location: King & Queen

Field Name: KQMWM 8

Total Acres: 42.50 Usable Acres: 42.50

FSA Number: 1

Tract: 2306

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-2016	6.6	H-(65 P ppm)	M(99 K ppm)	A&L MIII	

Soils:

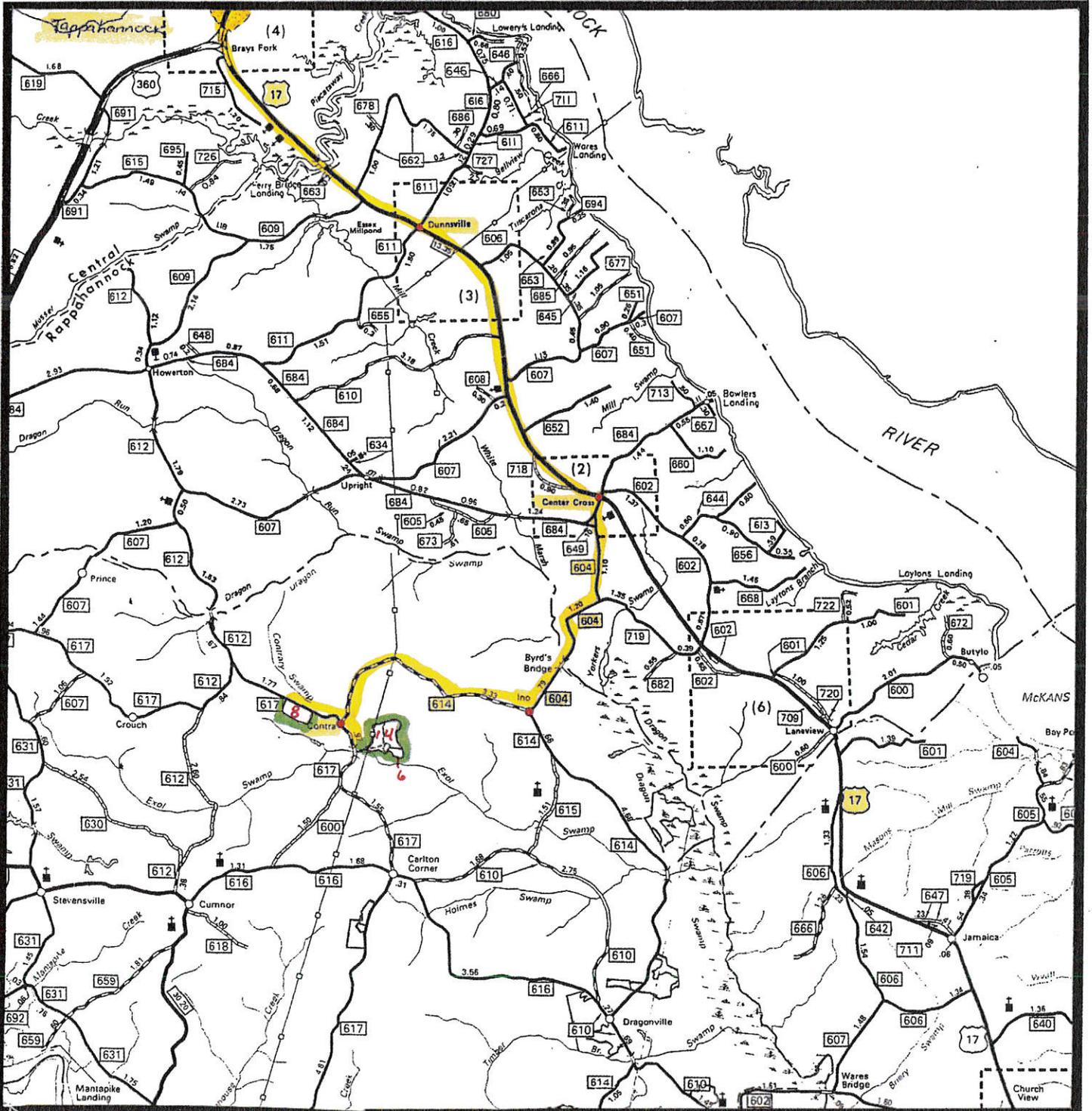
PERCENT	SYMBOL	SOIL SERIES
19	15A	Slagle
35	15B	Slagle
5	20A	Tomotley
41	4B	Emporia

Field Warnings:

MAPS

Recyc Systems™ Inc.

(Biosolids Land Application)

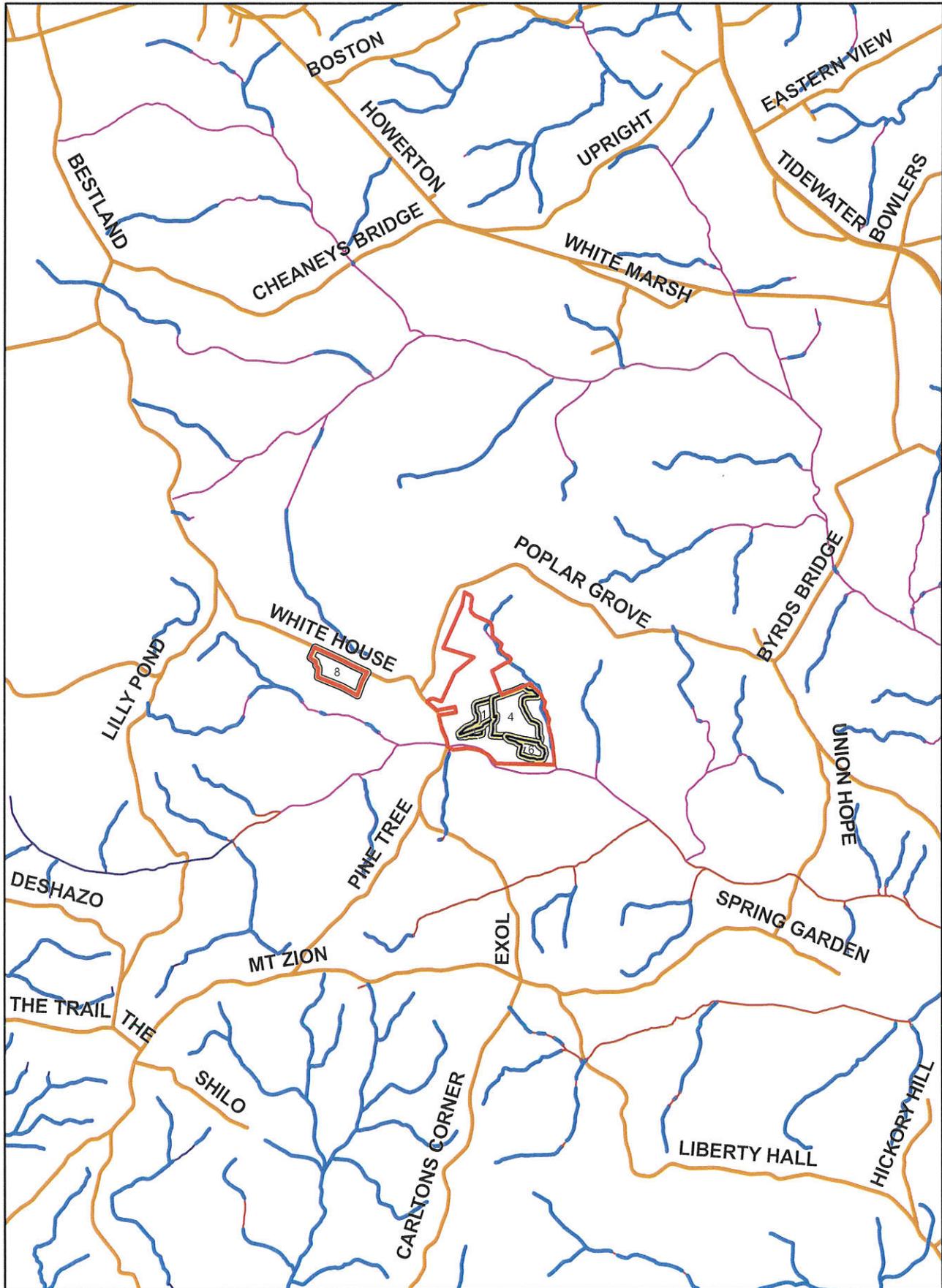


Scale: 1" = 2 miles

KQMWM 1,4,6,8

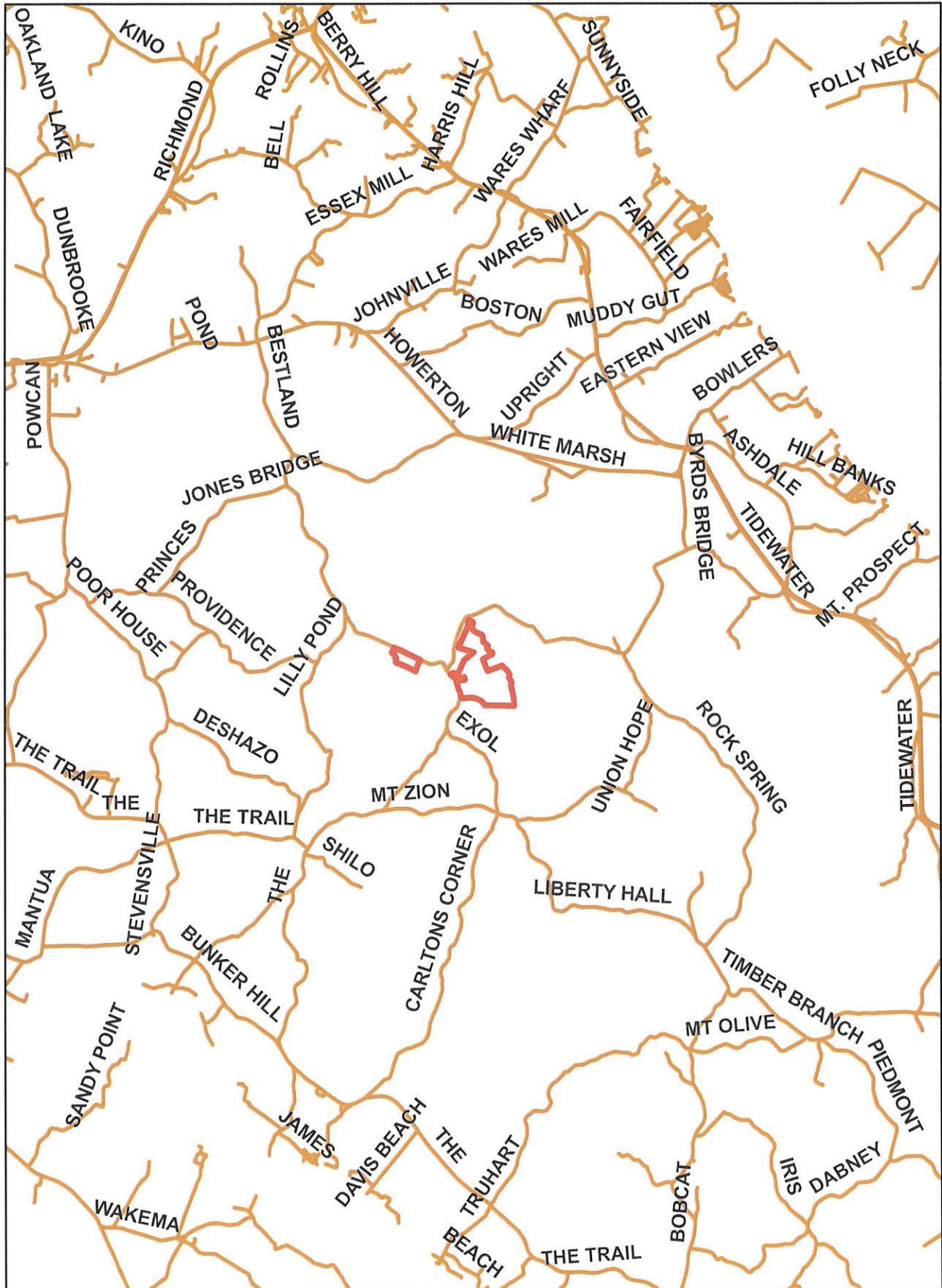
VICINITY MAP





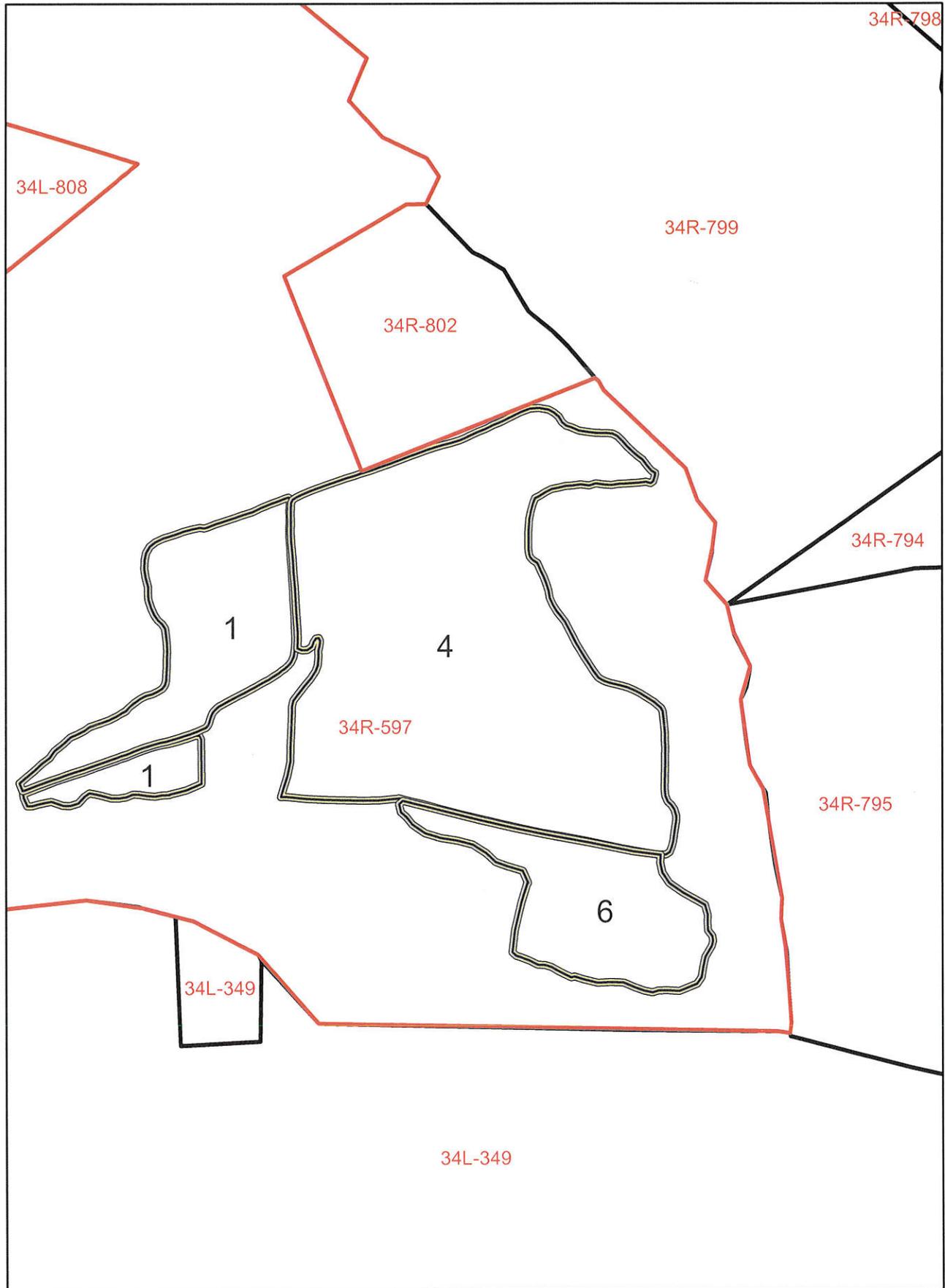
VICINITY MAP

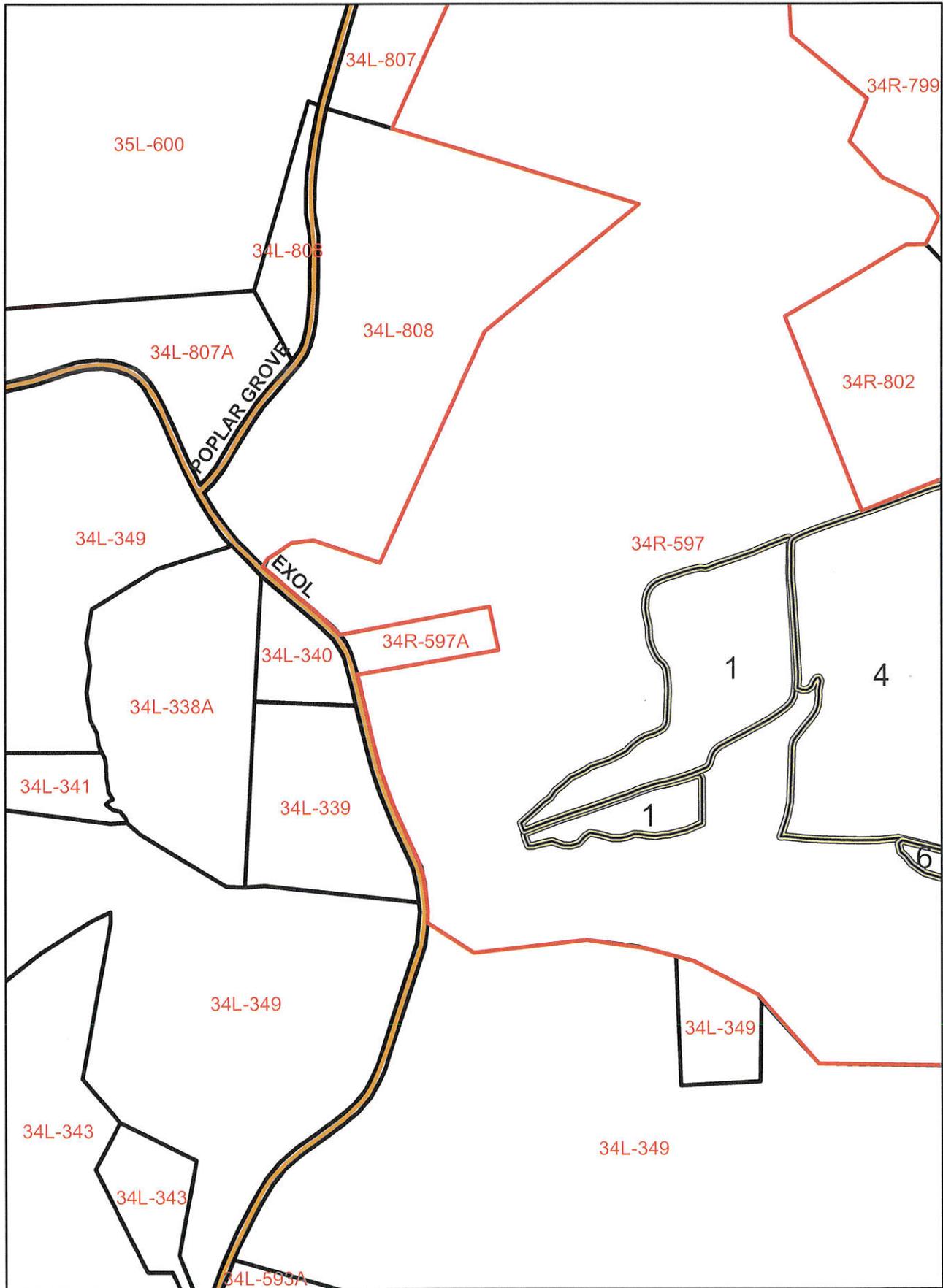
1 in = 1 miles



VICINITY MAP

1 in = 2 miles

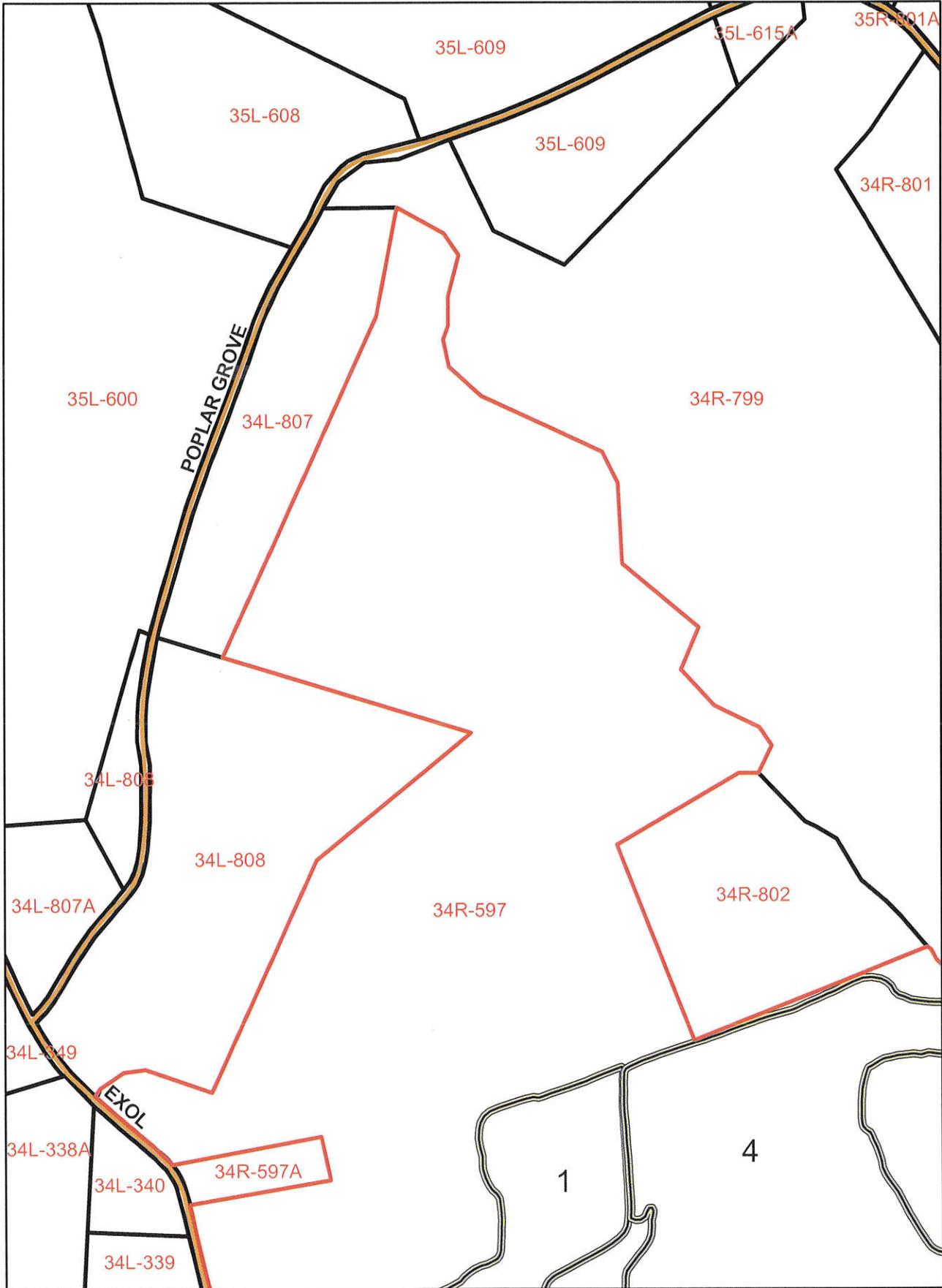




2-14-18

TAX MAP

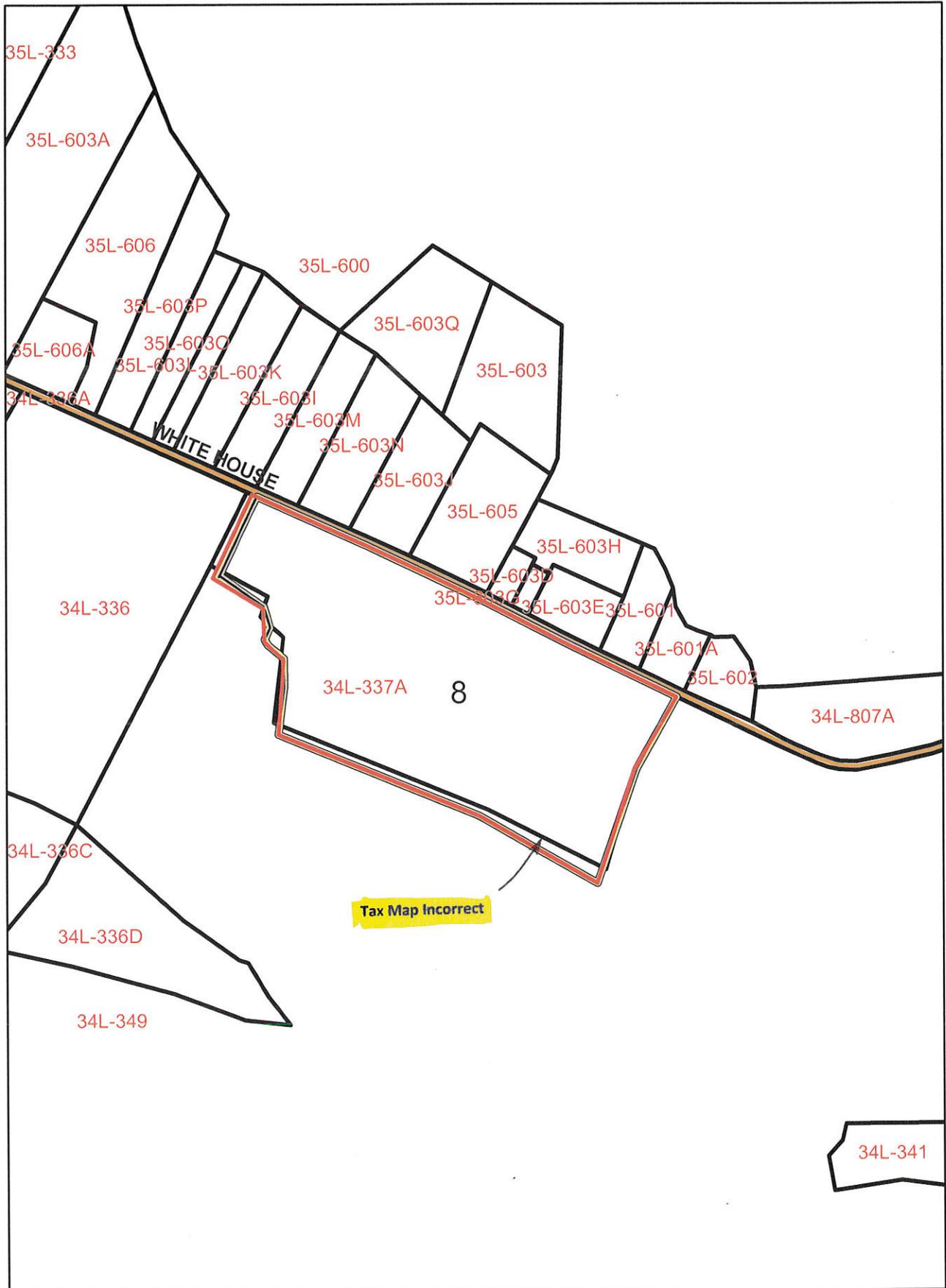
1 in = 660 feet



2-14-18

TAX MAP

1 in = 660 feet



Tax Map Incorrect



2-14-18

TAX MAP

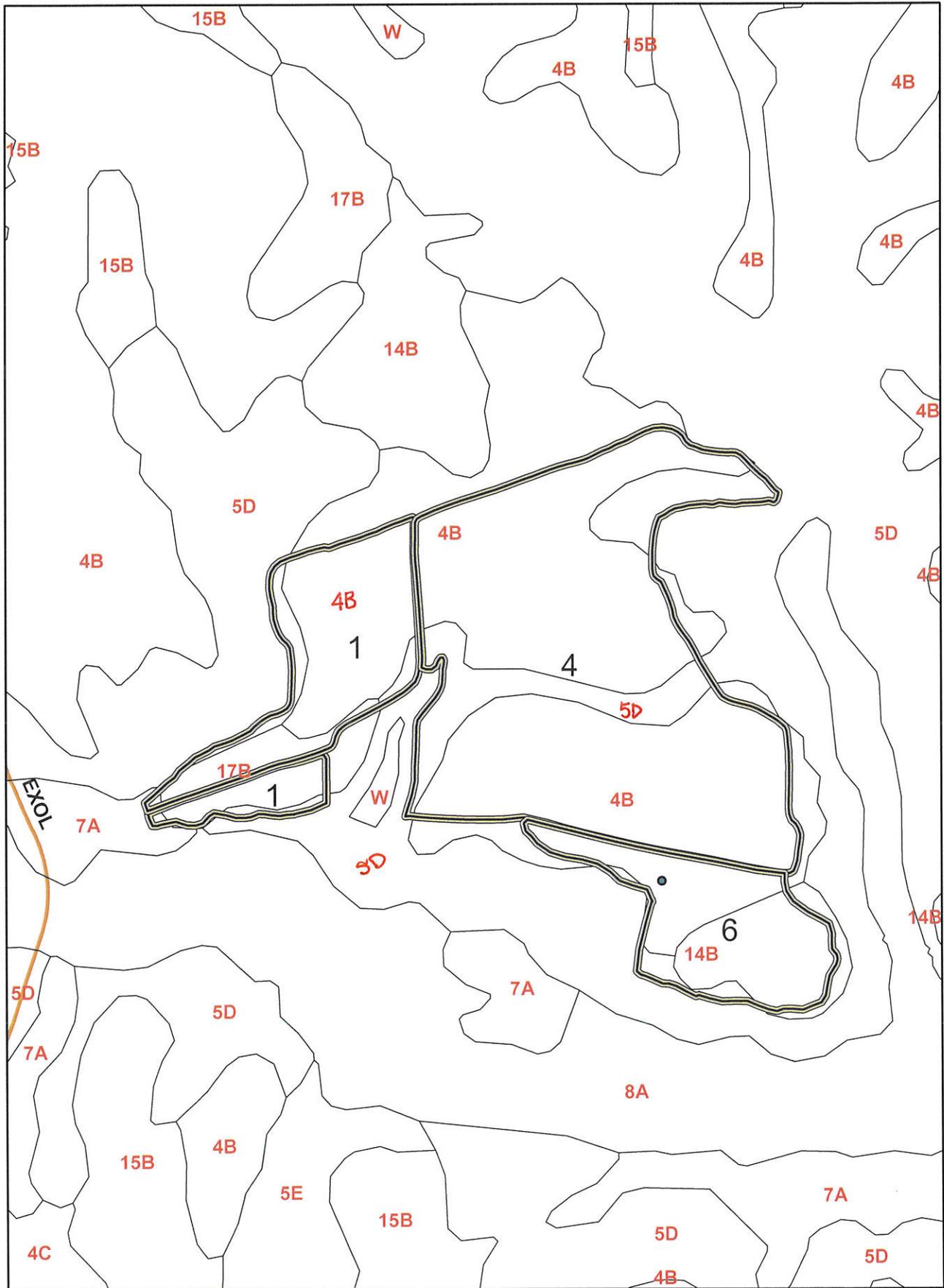
1 in = 660 feet

ADJOINING LANDOWNERS

Mark W. Miller

KING & QUEEN COUNTY

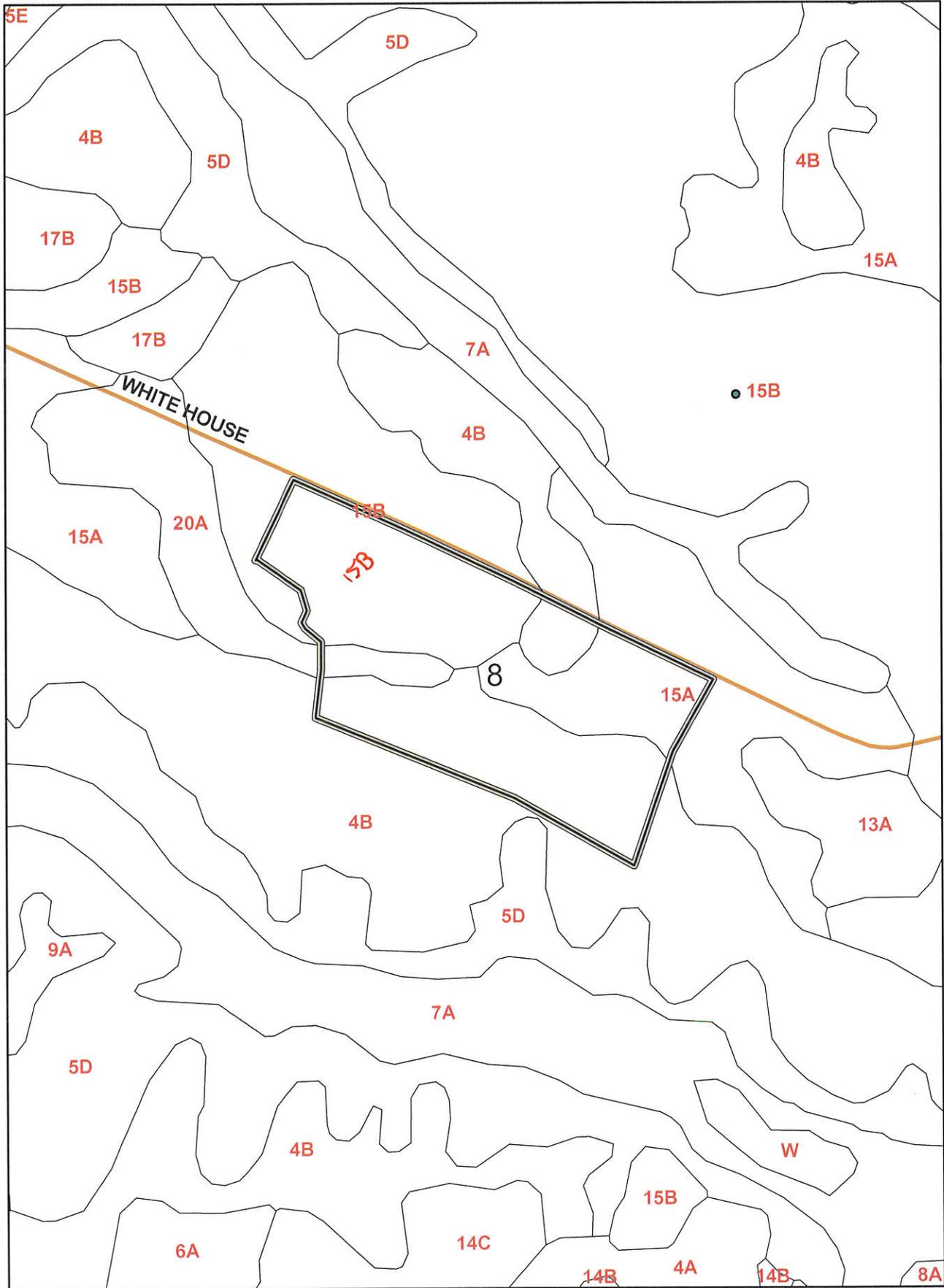
Tax Map	Parcel #	Owner Name(s)
1624-34L	336	Irma H. Kemp
	338A	Debra L. Cowan
	339	Todd W. Miller
	340	Timber Resources LLC
	349	Heartwood Forestland Fund VI LP
	807	Wood Preservers Inc.
	807A	Michael Wayne Greene
	808	Wood Preservers Inc.
1624-34R	597A	Ennis A. Moody, Jr.
	789	Heartwood Forestland Fund VI LP
	794	Heartwood Forestland Fund VI LP
	799	Henley Property LLC
1624-35L	600	Heartwood Forestland Fund VI LP
	601	John M. Gibson
	601A	John M. Gibson
	602	James Stone
	603	Bruce W. and Cheryl L. Casey
	603D	John R. and Susie E. Hence
	603E	James M. Gibson
	603G	James M. and Penny M. Gibson
	603J	Cheryl L. Jessie
	603M	Talbert Mitchelle
	603N	Ricky and Cheryl Jessie
	603I	John M. Bowden
	603K	Donald St.Pierre
	603H	James M. and Penny M. Gibson
	605	Alberta Majano-Chavez et. als.
609	Beverly L. Campbell Family LLC	



2-14-18

SOIL MAP

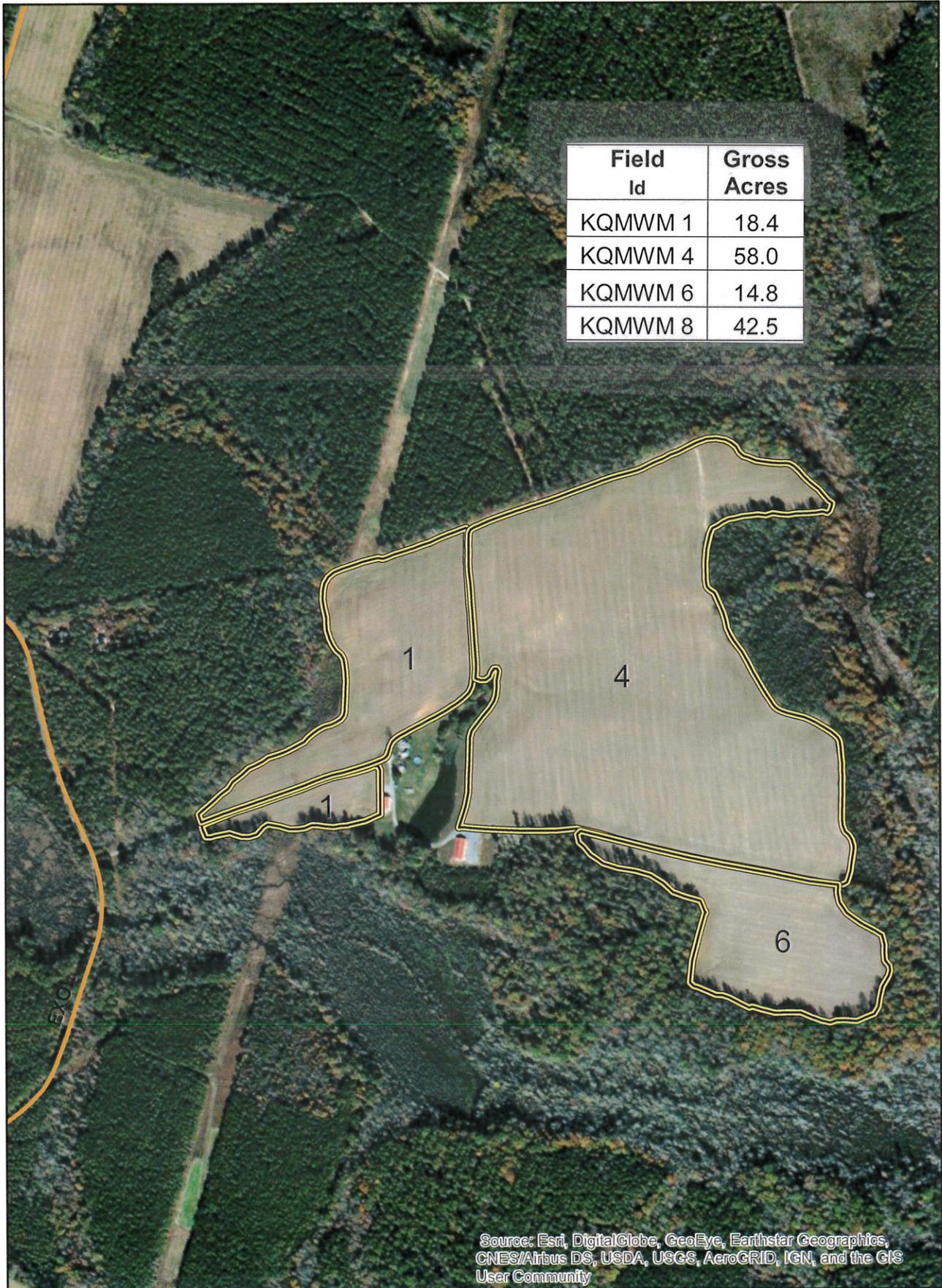
1 in = 660 feet



2-14-18

SOIL MAP

1 in = 660 feet



2-14-18

AERIAL MAP

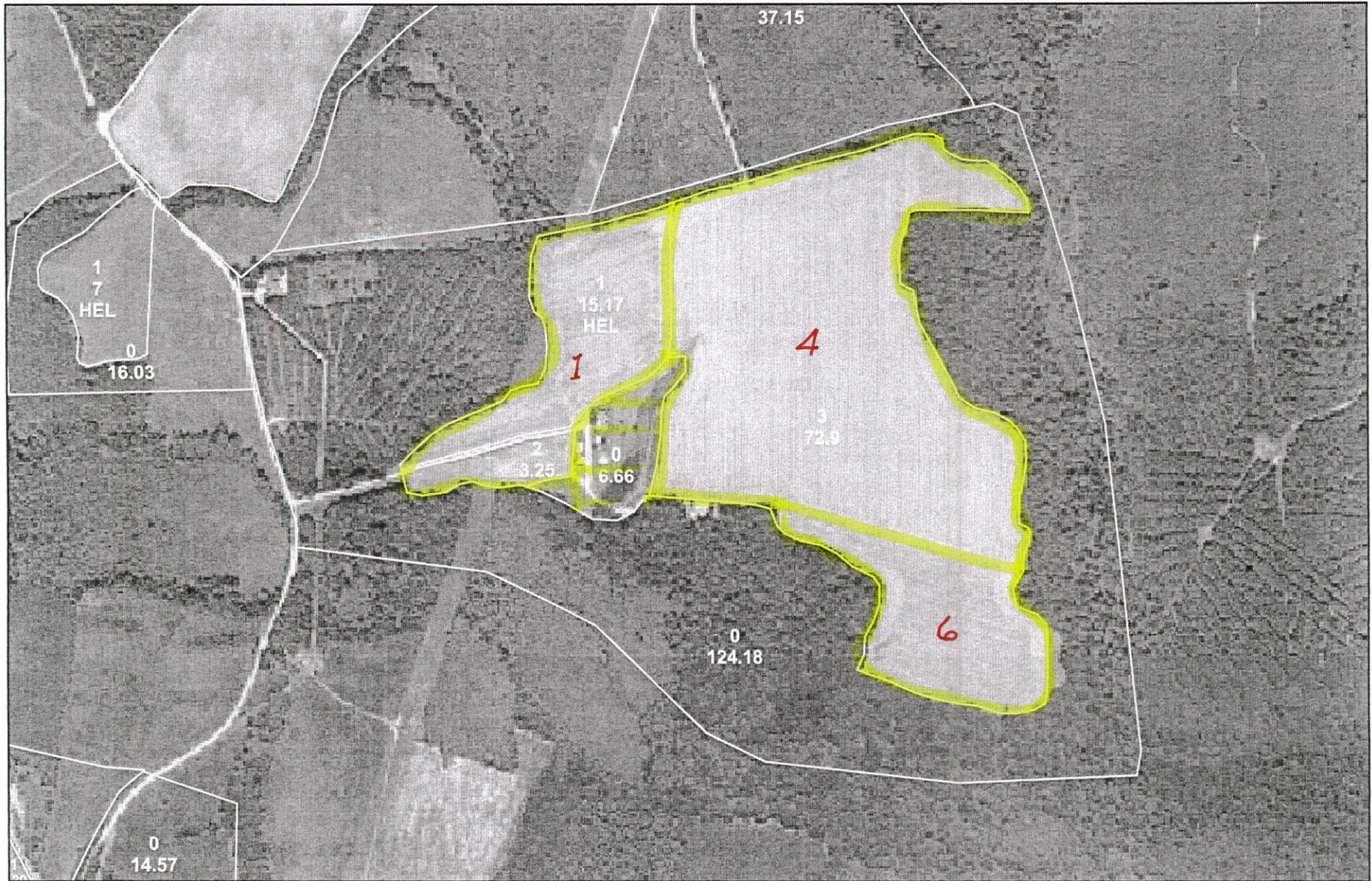
1 in = 660 feet



2-14-18

AERIAL MAP

1 in = 660 feet



Farm Number: 2969
Tract Number: 1874



King & Queen County, Virginia



Farm Service Agency
 772 Richmond Beach Road
 Tappahannock, VA 22560
 (804) 443-3571



Farm Number: 2969
Tract Number: 2306



UNITED STATES DEPARTMENT OF
AGRICULTURE

King & Queen County, Virginia

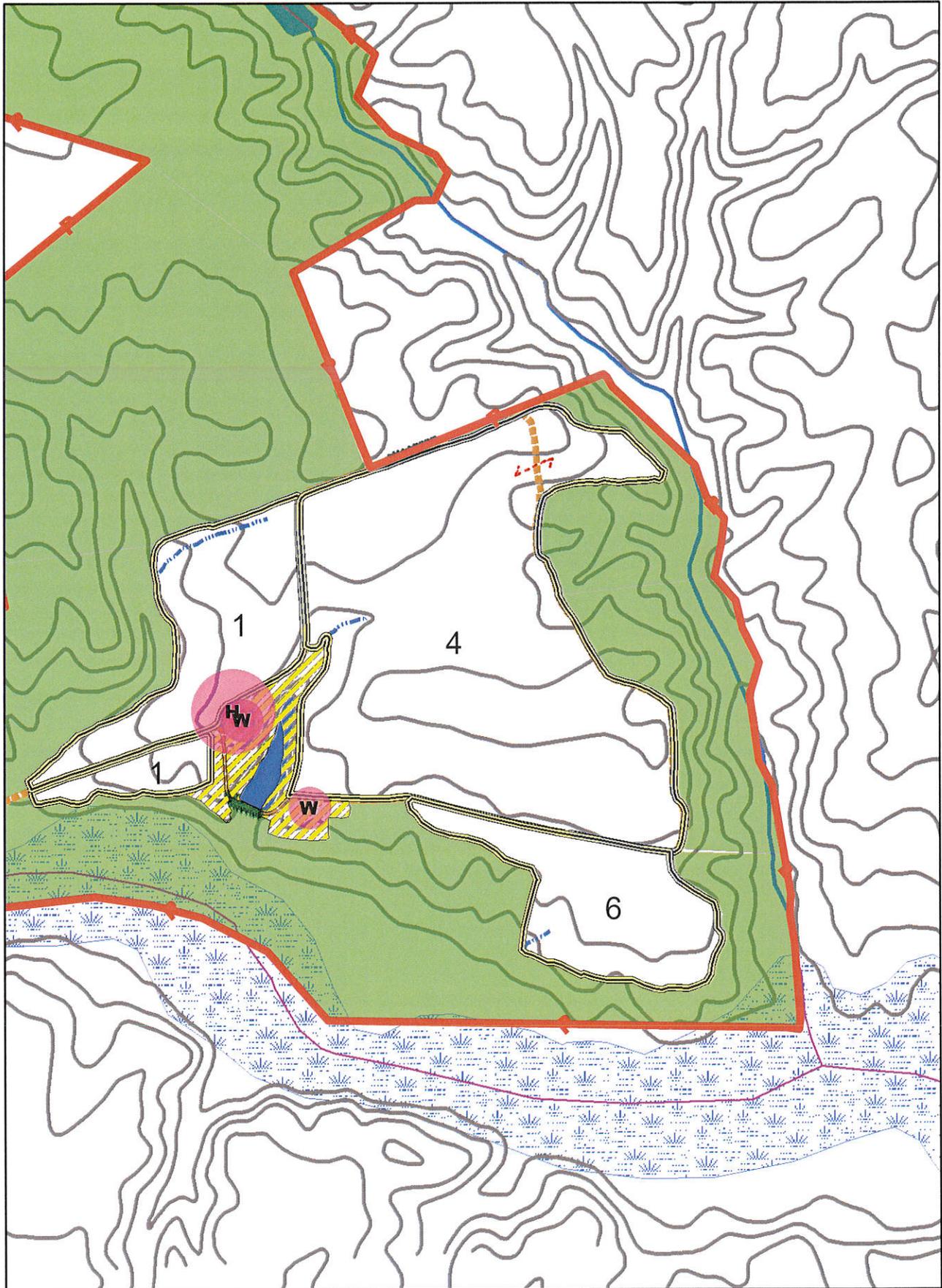


Farm Service Agency
772 Richmond Beach Road
Tappahannock, VA 22560
(804) 443-3571

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

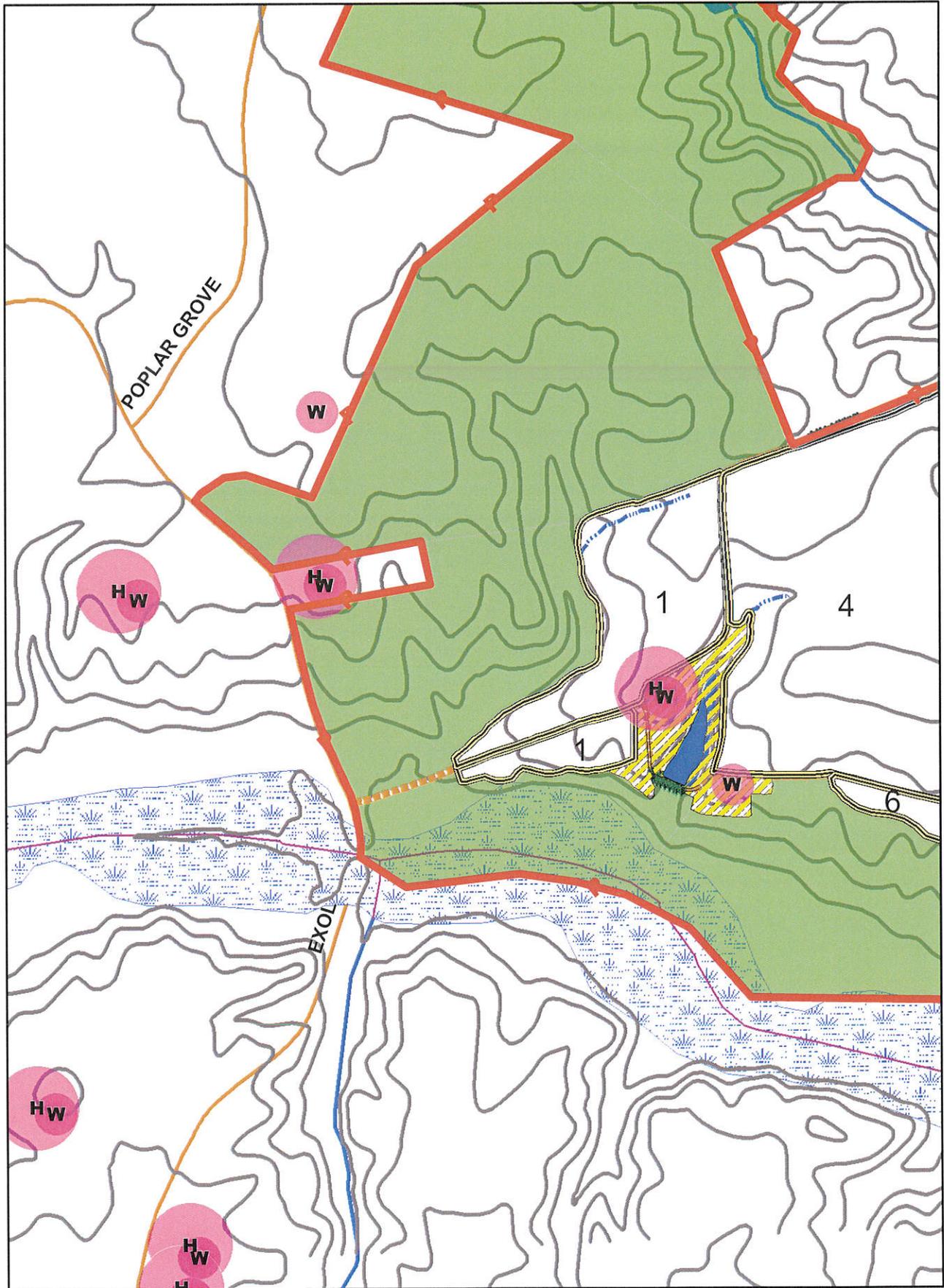
*Buffer can be reduced or waived upon written consent from landowner.



2-14-18

SITE PLAN

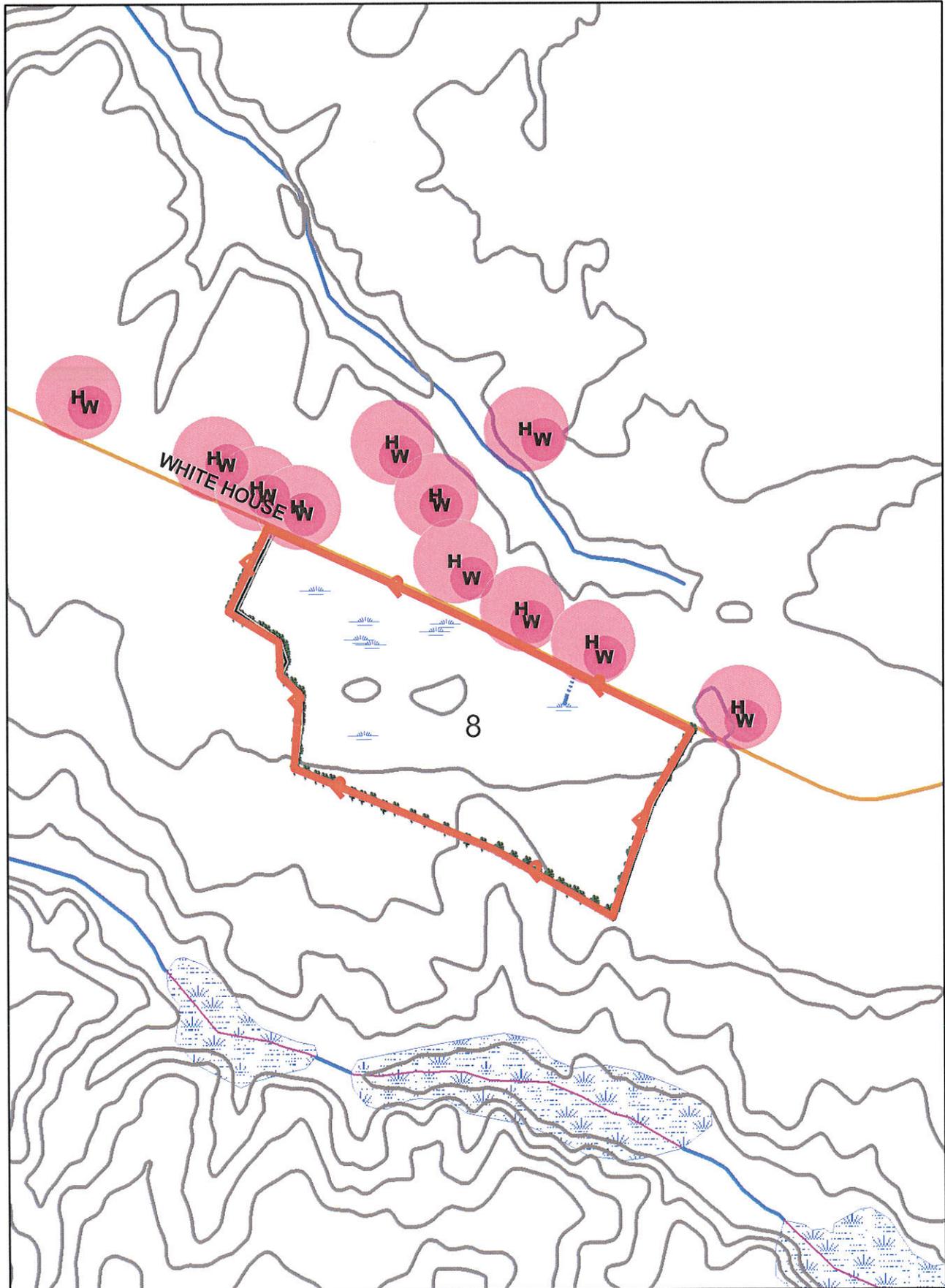
1 in = 660 feet



2-14-18

SITE PLAN

1 in = 660 feet



8

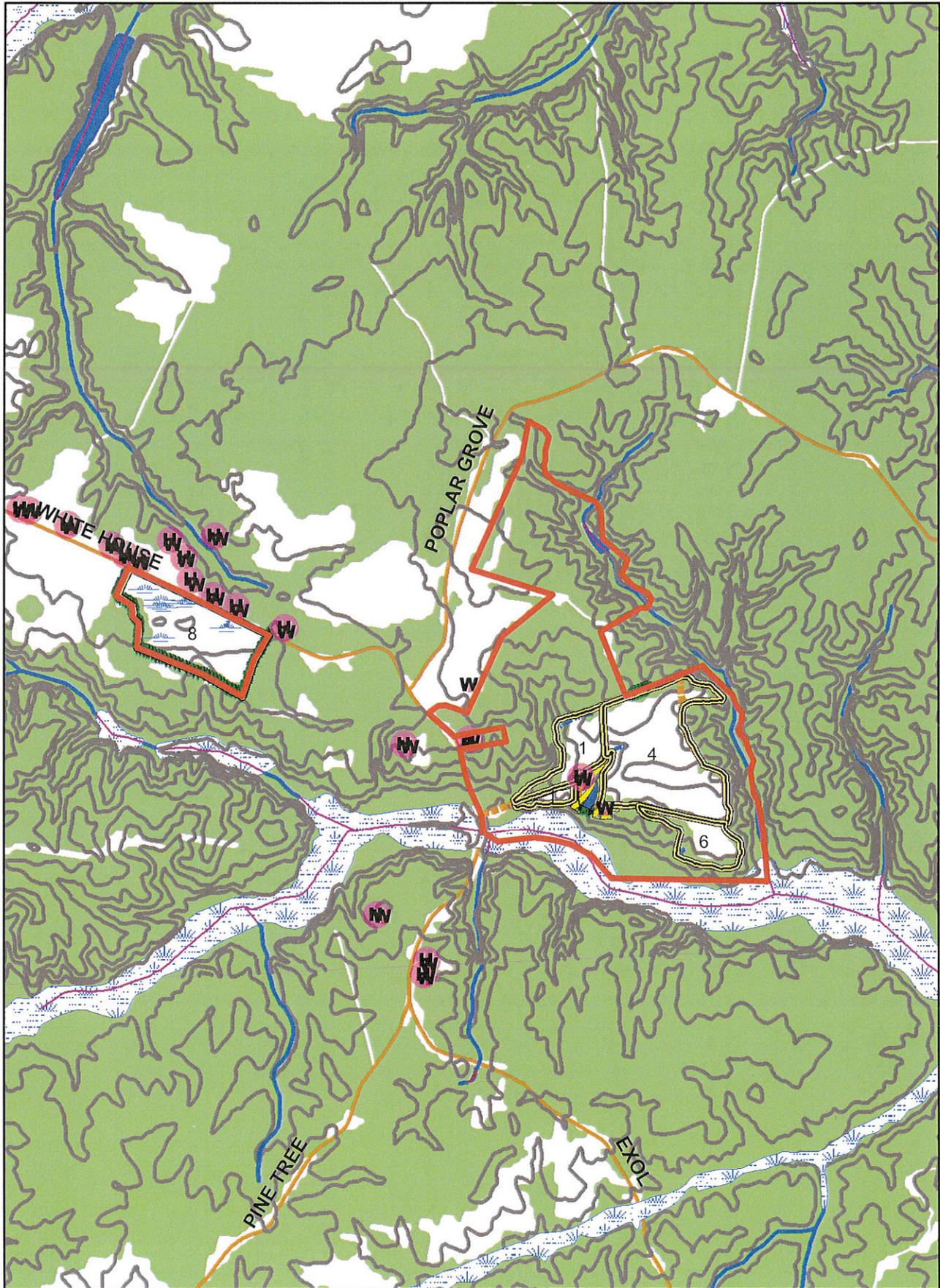
WHITE HOUSE

2-14-18

SITE PLAN

1 in = 660 feet





2-14-18

TOPOGRAPHIC MAP

1 in = 2,000 feet