LAND APPLICATION SITE

CHARLOTTE HAILE FRISCHKORN

EXCHF 1-4

ESSEX COUNTY

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

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

A. This land application agreement is made on 2-7-2016 between CHARLOTTE FRISCHKORN 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 TAPPAHANNOCK 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
42-34			

☐ 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

Charlotte D. Frischkorn — 4 John Christopher Ct, Richmond, Va. 23226
Landowner – Printed Name, Title — Signature — Mailing Address & Phone Number

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)

Permittee – Authorized Representative Printed Name — Signature — Recyc Systems Inc., PO Box 562 Remington, Virginia 22734 (Mailing Address)

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

Permittee: Recyc Systems, Inc **County or City:** ESSEX

Landowner: CHARLOTTE FRISCHKORN

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).

Charlotte A. Frischkorn — 2-7-2016
Landowner's Signature — Date

John R Hall — 2-1-16
Farm Operator Signature — Mailing Address & Phone Number

FSN 2258 TRACT 745

FARM DATA SHEET

SITE NAME:	Charlotte Haile Frischkorn	**COUNTY:**	Essex
OWNER:	Charlotte Haile Frischkorn	**OPERATOR:**	John R. Haile
OWNER'S ADDRESS:	4 John Christopher Ct. Richmond, VA 23226	**OPERATOR'S ADDRESS:**	460 Latanes Mill Rd. Tappahannock, VA 22560
OWNER'S TELEPHONE:	-	**OPERATOR'S TELEPHONE:**	804-443-2418
GENERAL FARM TYPE:	Hay/ Pasture	**CELL PHONE:**	804-514-4820
# CATTLE:	25	**EMAIL:**	-
LAGOON or SLURRY:	N/A	**LATITUDE:**	37°50'28"N
TOPO QUAD:	Millers Tavern	**LONGITUDE:**	76°58'40"W
COMMENTS:			
			SD

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			
EXCHF 1	12.7	-	-	-	-	RA 61	TM 42-34	T 745 F 1
EXCHF 2	15.1	-	-	-	-	RA 61	TM 42-34	T 745 F 5
EXCHF 3	12.9	20D Nov.-Apr.	-	-	-	RA 61	TM 42-34	T 745 F 2, 3
EXCHF 4	7.8	-	-	-	-	RA 61	TM 42-34	T 745 F 4
TOTAL ACRES IN SITE	48.5							

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: Charlotte Haile Frischkorn

County or City: Essex

Please Print Signature not required on this page

Tax Parcel ID(s)	Landowners (s)
Tax Map 42 Parcel 34	Charlotte Haile Frischkorn

THE PLANNER IS NOT STATE CERTIFIED

Nutrient Management Plan Balance Sheet
(Spring, 2016-Summer, 2018)
Charlotte Haile Frischkorn
Planner: Recyc Systems, Inc

Tract: 745 Location: Essex
(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/EXCHF 1(N)	13/13	2016	Fescue grass hay mt.	70-50-95	0/0				70-50-95	N/A			
5/EXCHF 2(N)	15/15	2016	Hay/Pasture	100-50-95	0/0				100-50-95	N/A			
2, 3/EXCHF 3(N)	13/13	2016	Hay/Pasture	100-50-95	0/0				100-50-95	N/A			
4/EXCHF 4(N)	8/8	2016	Fescue grass hay mt.	70-50-95	0/0				70-50-95	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
745	EXCHF 1	13	[No Test]						
745	EXCHF 2	15	[No Test]						
745	EXCHF 3	13	[No Test]						
745	EXCHF 4	8	[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
745	745/1	EXCHF 1	13	Suffolk	IIIb	II	Not Suited	III	
	745/5	EXCHF 2	15	Suffolk	IIIb	II	Not Suited	III	
	745/2, 3	EXCHF 3	13	Suffolk	IIIb	II	Not Suited	III	
	745/4	EXCHF 4*	8	Suffolk	IVa	II	Not Suited	III	High Leaching

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

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, 2016 - Summer, 2018**

Farm Name: **Charlotte Haile Frischkorn**
Location: Essex
Specialist: Recyc Systems, Inc
N-based Acres: 48.5
P-based Acres: 0.0

Tract Name: **745**
FSA Number: 745
Location: Essex

Field Name: **EXCHF 1**
Total Acres: 12.70 Usable Acres: 12.70
FSA Number: 1
Tract: 745
Location: Essex
Slope Class: B 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	23B	Suffolk

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2016-Sp	2.5 tons	Fescue grass (hay), maint. - No Till

Field Name: EXCHF 2

Total Acres:	15.10	Usable Acres:	15.10
FSA Number:	5		
Tract:	745		
Location:		Essex	
Slope Class:	B	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	23B	Suffolk

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2016-Sp	2.2 ton	Hay/Pasture - No Till

Field Name: **EXCHF 3**
Total Acres: 12.90 Usable Acres: 12.90
FSA Number: 2, 3
Tract: 745
Location: Essex
Slope Class: B 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
2	20D	Rumford Slagle
98	23B	Suffolk

Field Warnings:

Crop Rotation:

PLANTED	YIELD	CROP NAME
2016-Sp	2.2 * ton	Hay/Pasture - No Till

Field Name: **EXCHF 4**
Total Acres: 7.80 Usable Acres: 7.80
FSA Number: 4
Tract: 745
Location: Essex

Slope Class: B 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
44	18B	Rumford
56	23B	Suffolk

Field Warnings:
Environmentally Sensitive Soils due to:

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

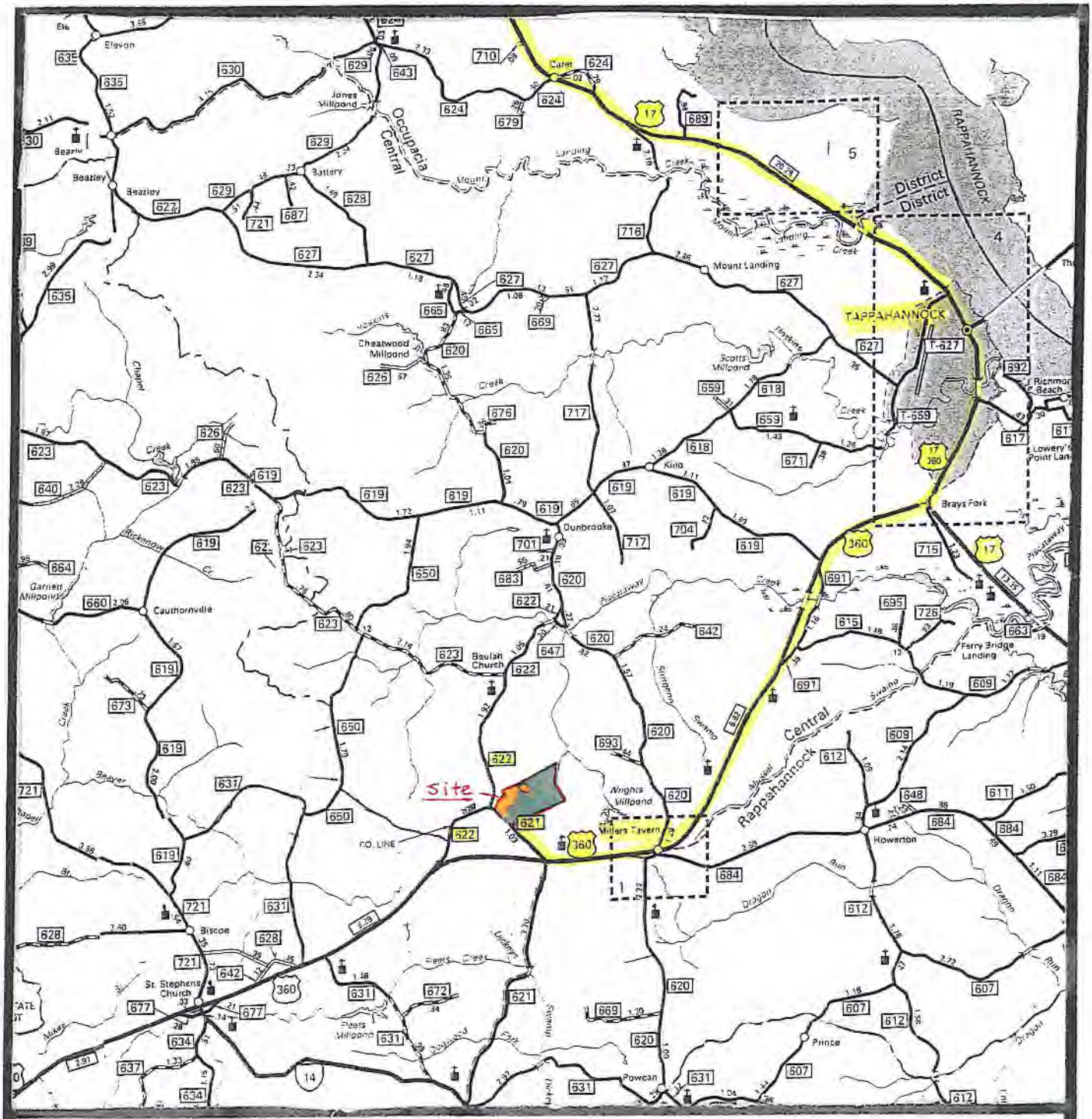
Crop Rotation:

PLANTED	YIELD	CROP NAME
2016-Sp	2.5 tons	Fescue grass (hay), maint. - No Till

MAPS

Recyc Systems™ Inc.

(Biosolids Land Application)

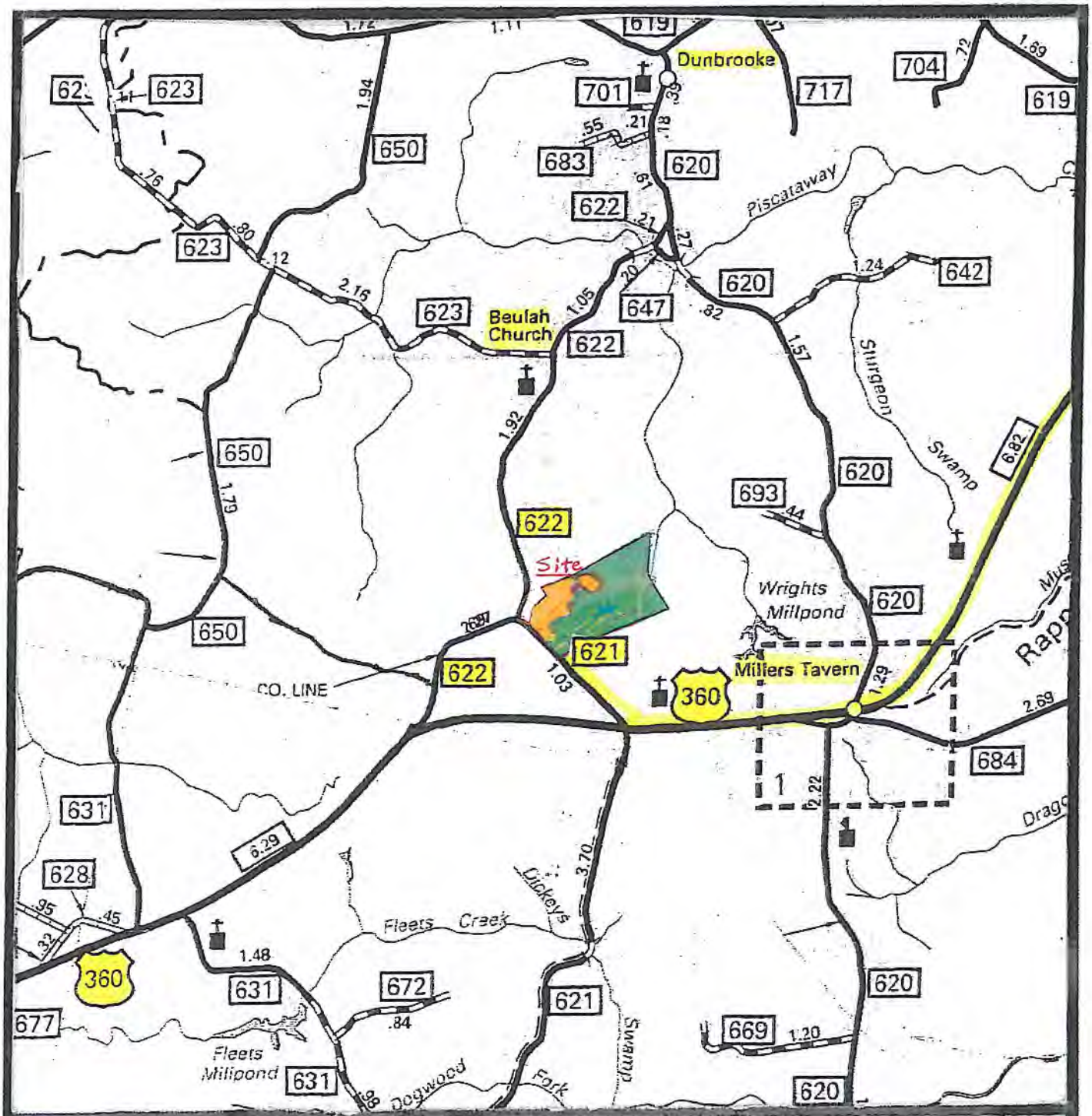


Scale: 1"= 2 miles EXCHF 1-4

VICINITY MAP

N

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 1 mile EXCHF 1-4

VICINITY MAP

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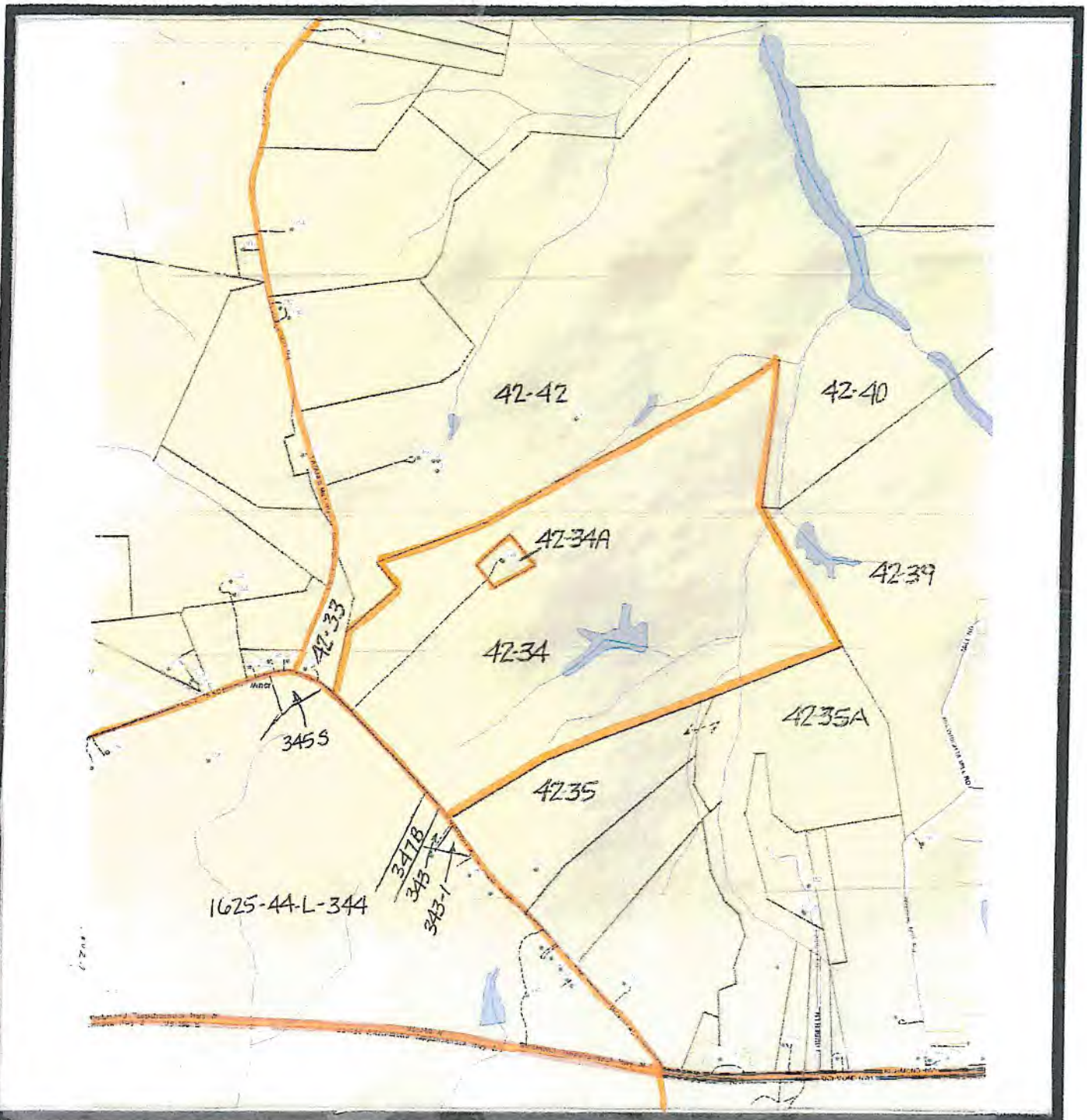
Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 1500'

EXCHF 1-4

TAX MAP

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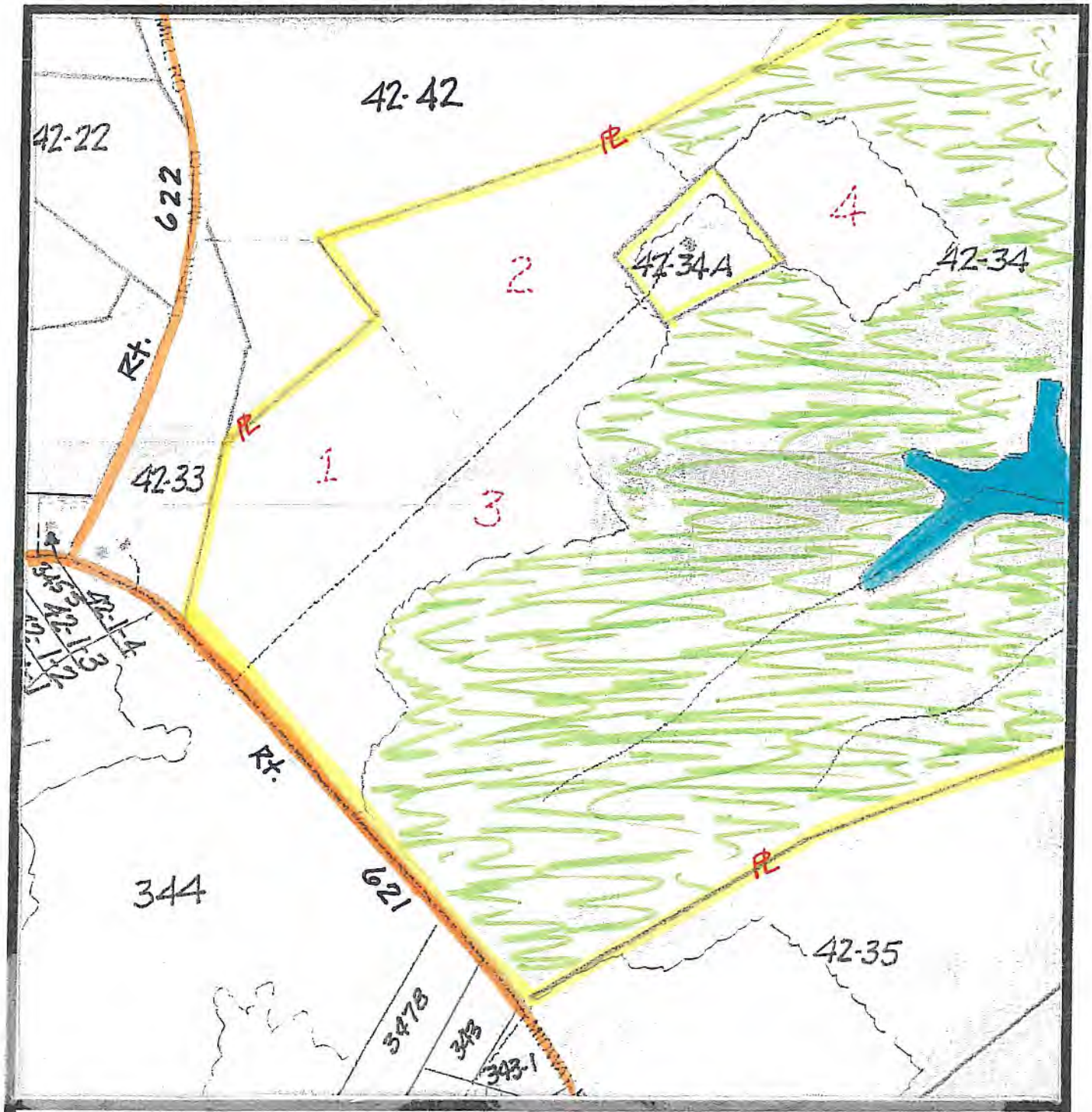
Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 500'

EXCHF 1-4

TAX MAP

N

ADJOINING LANDOWNERS

Charlotte Haile Frischkorn

ESSEX COUNTY

Tax Map	Parcel #	Owner Name(s)
42	33	John R. and Patricia R. Haile Trustee
	34A	John F. Haile
	35	John R. and Patricia R. Haile Trustee
	35A	Timber Resources LLC
	39	John R. Kline II
	40	William E. Lane
	42	John R. and Patricia R. Haile Trustee

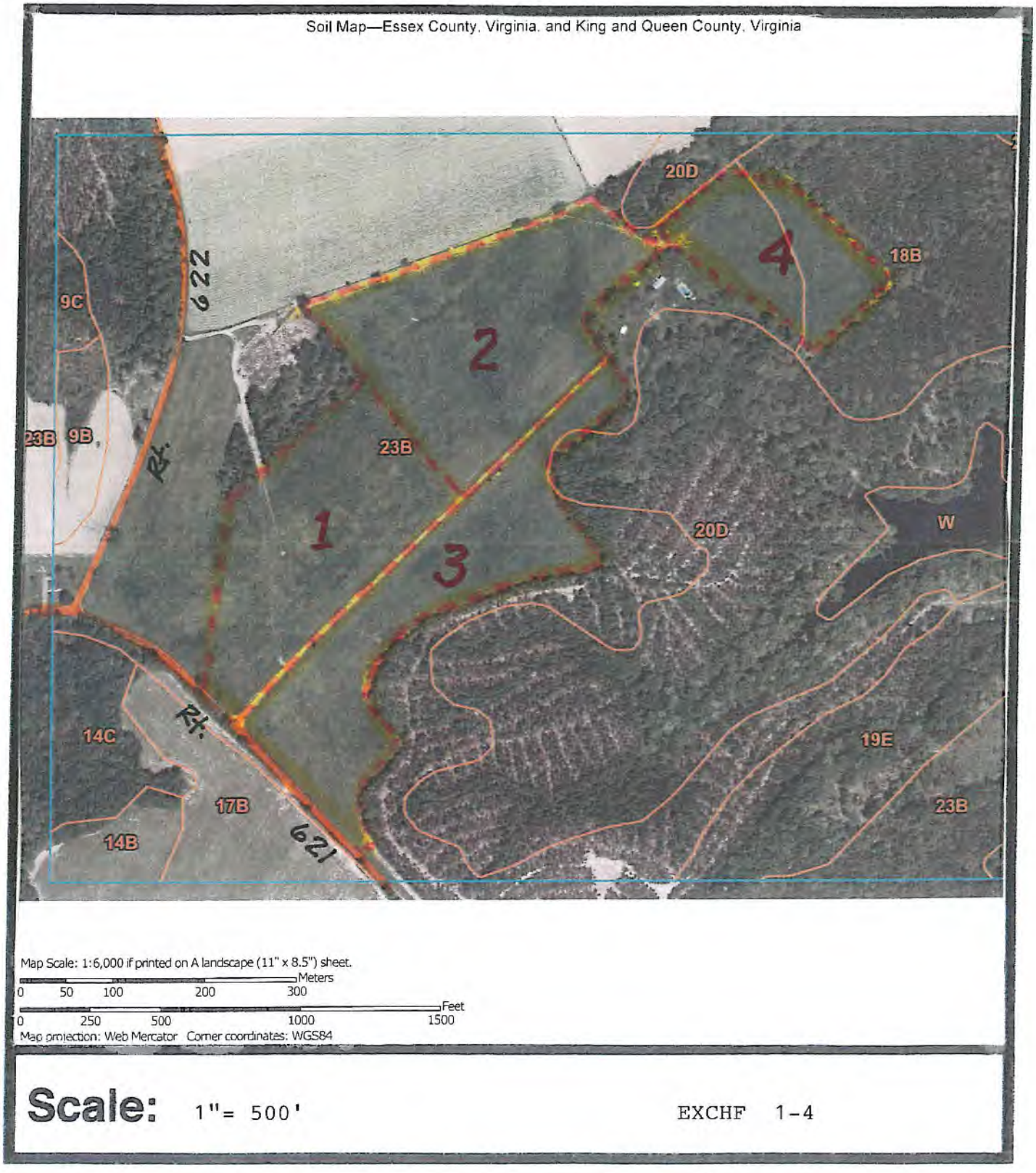
ADJOINING LANDOWNERS

Charlotte Haile Frischkorn

KING AND QUEEN COUNTY

Tax Map	Parcel #	Owner Name(s)
1625-44-L-	343	Midway Farm Properties LLC
	343-1	Midway Farm Properties LLC
	344	Lane Richmond Estate
	345S	Elton Farm Business Trust
	347B	Midway Farm Properties LLC

Recyc Systems™ Inc. (Biosolids Land Application)



Scale: 1"= 500'

EXCHF 1-4

SOIL MAP

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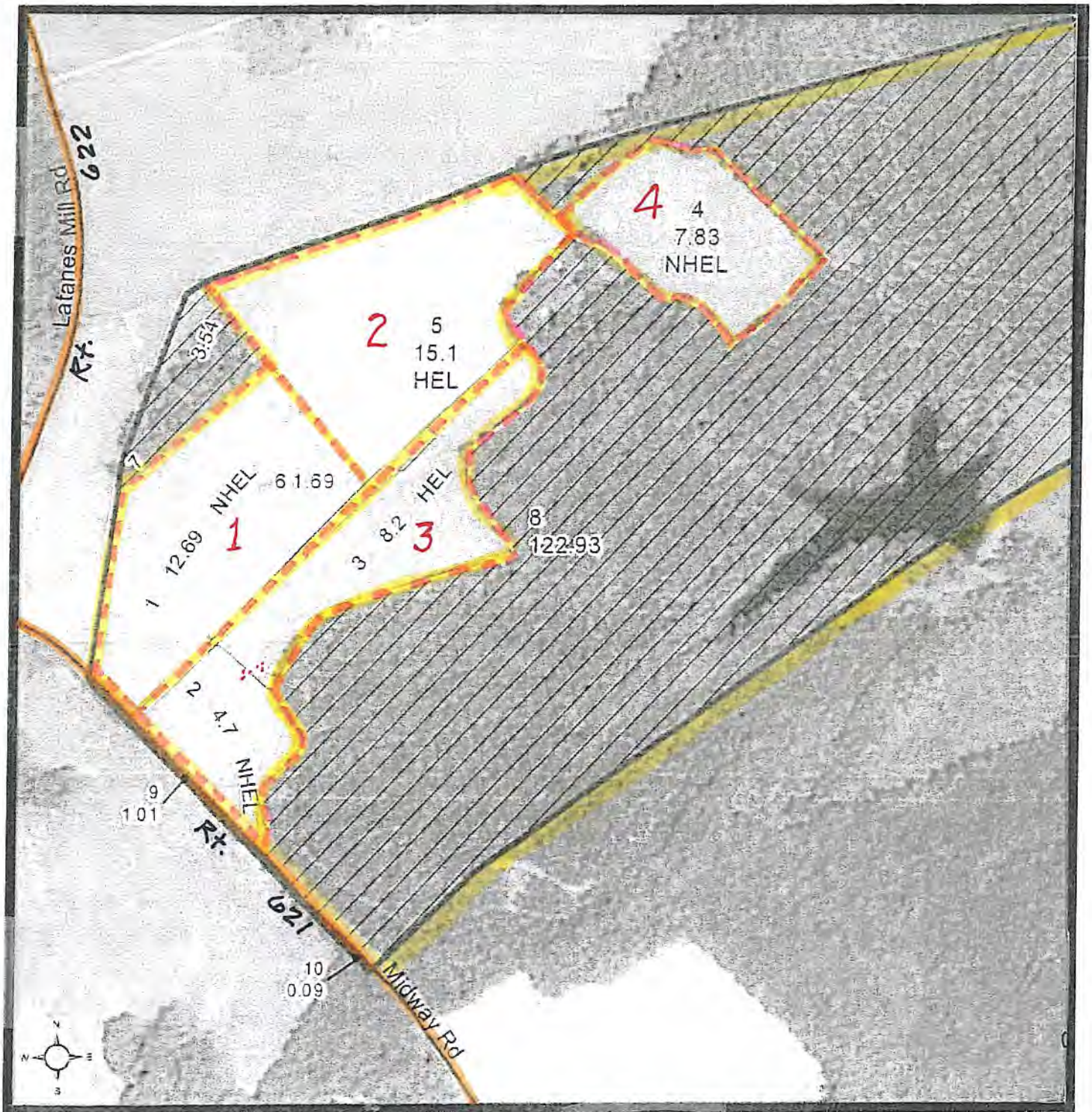
Recyc Systems™ Inc.

(Biosolids Land Application)



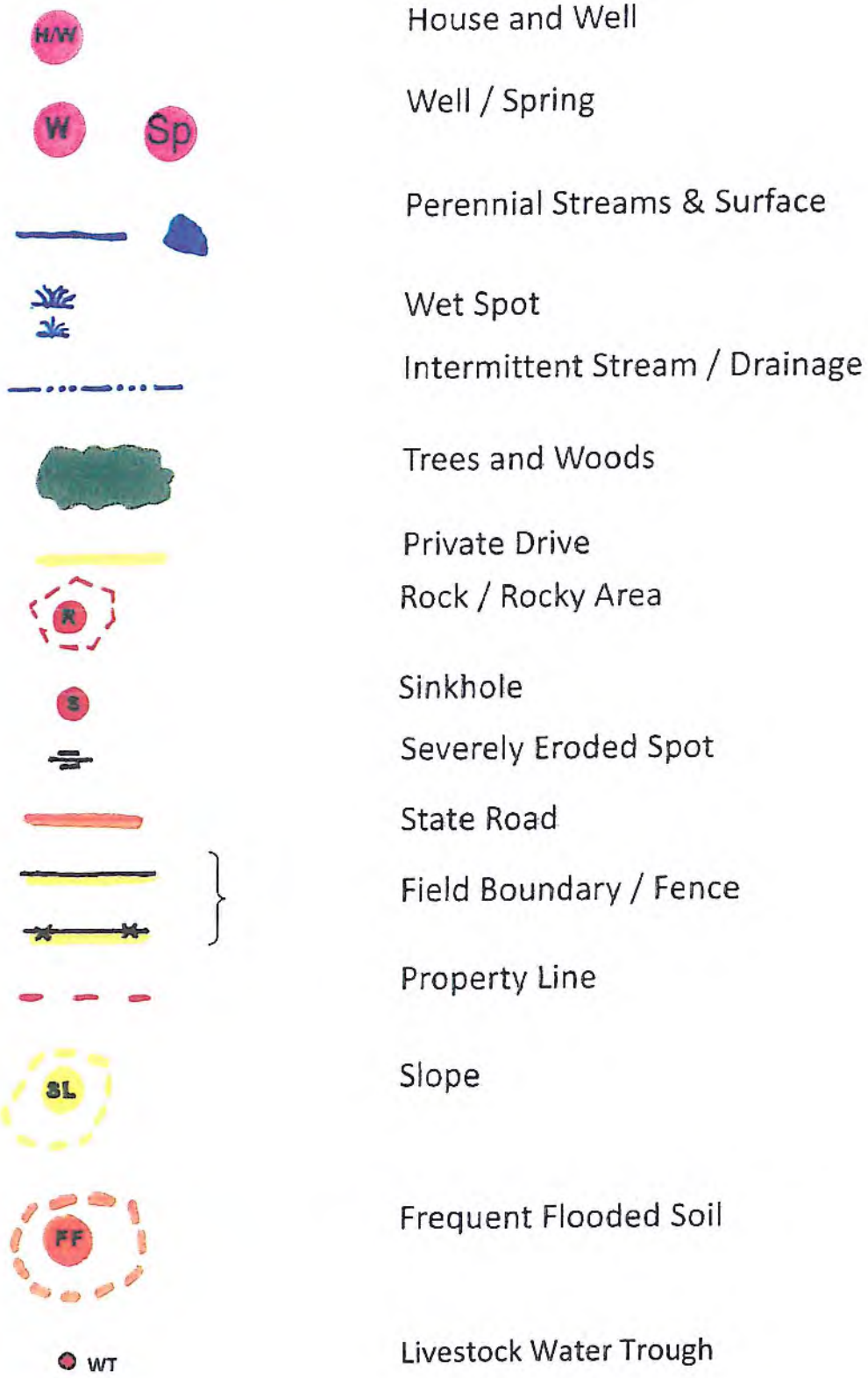
Scale: 1"= 500'

EXCHF 1-4

AERIAL MAP

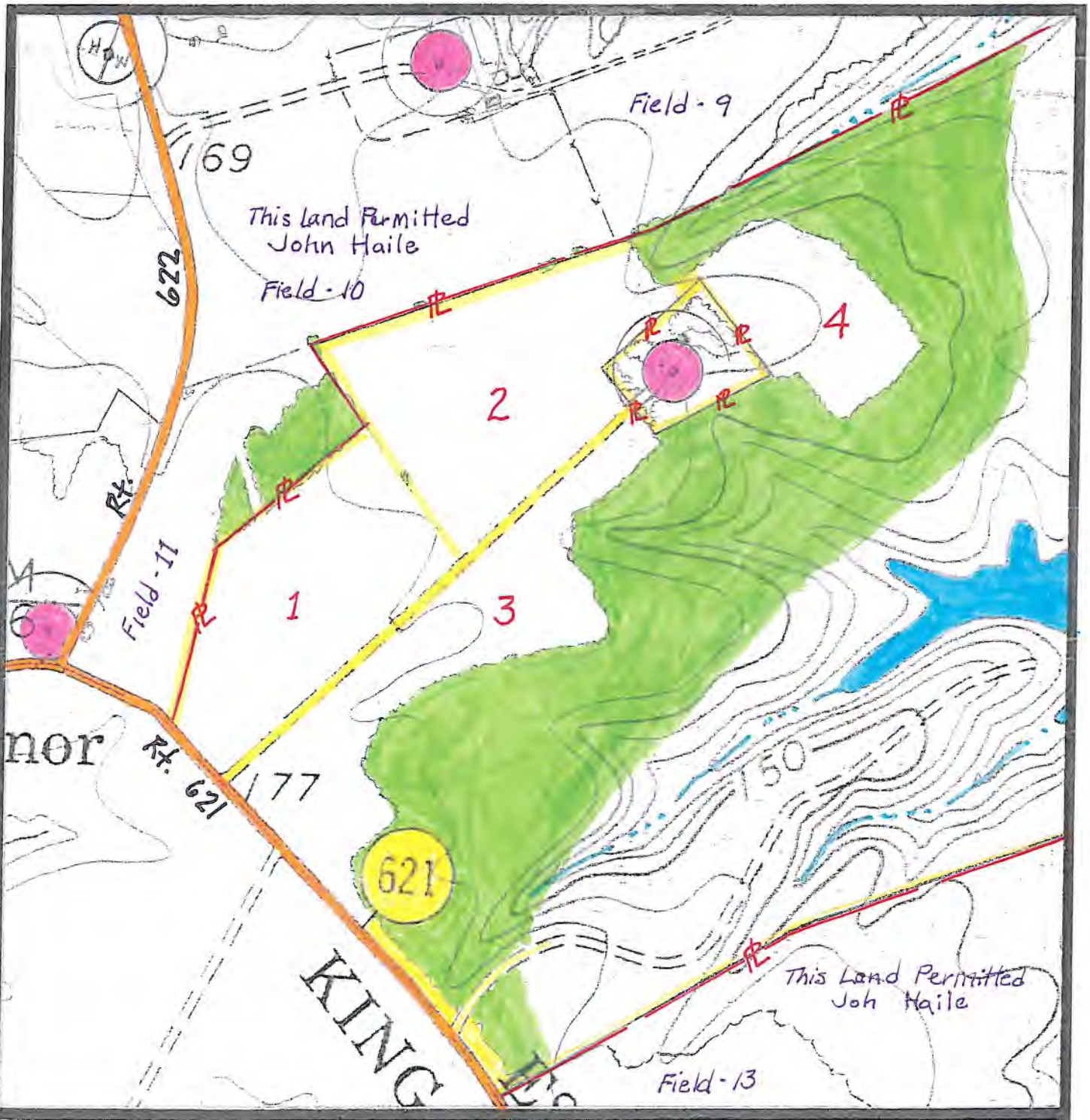
N

Legend for Site Plan



Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 500'

EXCHF 1-4

SITE PLAN

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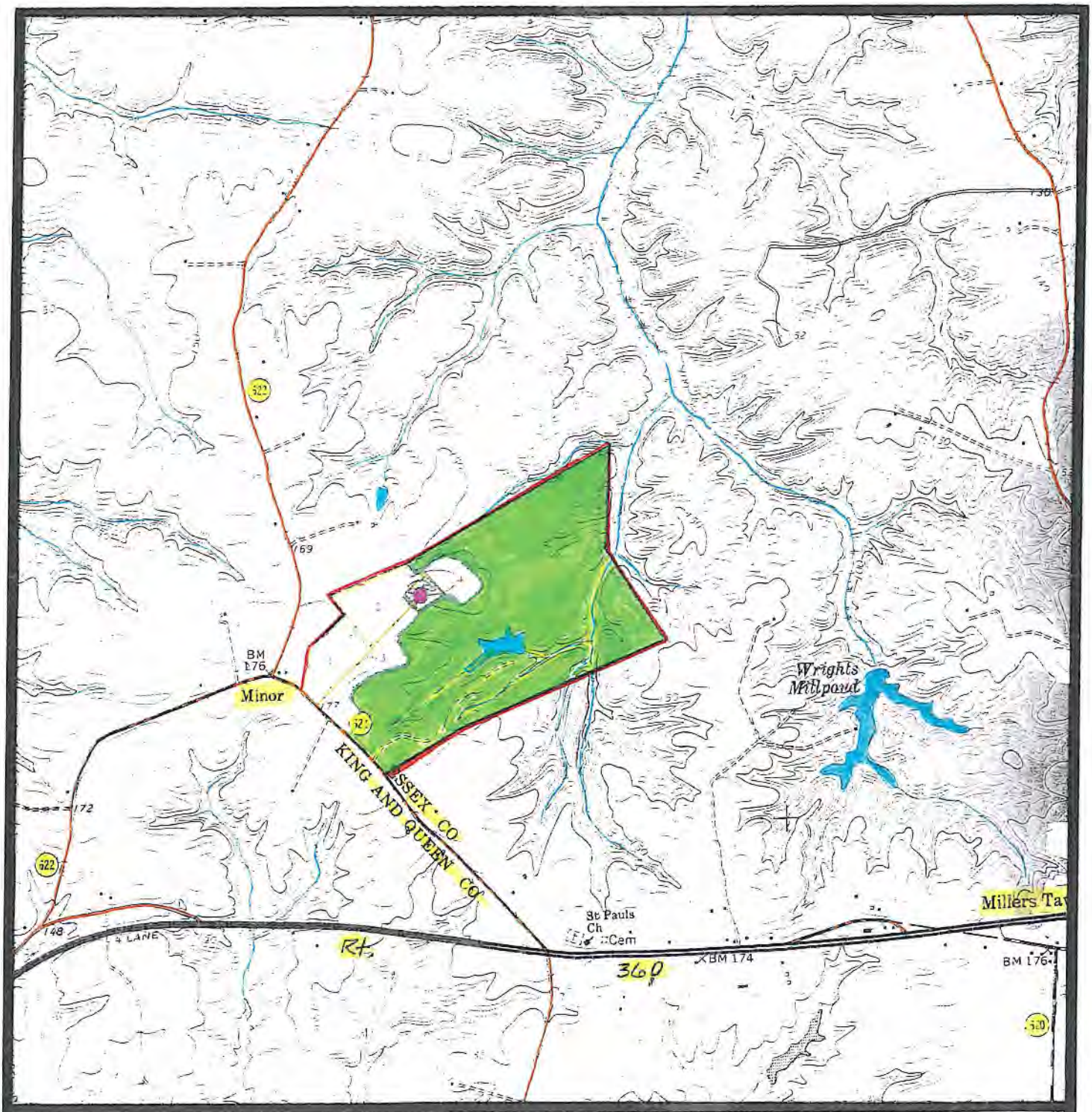
Recyc Systems™ Inc.

(Biosolids Land Application)



Scale: 1"= 2,000'

EXCHF 1-4

TOPOGRAPHIC MAP

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