LAND APPLICATION OF INDUSTRIAL RESIDUALS
KEVIN ENGEL

KW 05 (FIELDS 01-08)
KING WILLIAM COUNTY, VIRGINIA
APRIL 2024

1681 Tappahannock Blvd.
Tappahannock, VA 22560
www.synagro.com

SYNAGRO

APRIL 1, 2024

Mr. John Thompson
Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, Virginia 22193

Dear Mr. Thompson,

Transmitted herein for your consideration is land application site for Kevin Engel (designated as KW 5, fields 01-08), located in King William County, Virginia. This submission contains strictly site specific information. Please refer to the operations and maintenance manual submitted under separate cover for all non-site specific information.

Do not hesitate to contact me at (410) 553-7217 should you have any questions or require additional information.

Sincerely,

Caleb Snyder
Technical Services Manager

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FIELD SUMMARY SHEET

Kevin Engel **KW 05**

SYNAGRO FIELD #	GROSS ACRES	NET ACRES	FSA TRACT #	FIELD TYPE	OWNER
05-1	46.5	46.5		Agriculture	Campbell Virginia Properties LLC
05-2	31.5	31.5		Agriculture	Campbell Virginia Properties LLC
05-3	94.7	94.7		Agriculture	Campbell Virginia Properties LLC
05-4	63.4	63.4		Agriculture	Campbell Virginia Properties LLC
05-5	50.7	50.7		Agriculture	Campbell Virginia Properties LLC
05-6	12.9	12.9		Agriculture	Campbell Virginia Properties LLC
05-7	41.6	41.6		Agriculture	Campbell Virginia Properties LLC
05-8	39.9	39.9		Agriculture	Campbell Virginia Properties LLC
TOTALS:	381.2	381.2			

Revised 10/12/2022

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A Residuals Management Company

VIRGINIA REQUEST AND CONSENT FOR BIOSOLIDS

FARM OPERATOR: Engel Family Farms PHONE: (804)537-5821

ADDRESS: PO Box 279 Hanover VA 23069

FARM LOCATION: Camp Rd & Herring Creek Road Known as S Rock Springs Farm

FSA-TRACT #:

TOTAL ACREAGE: 611 COUNTY: Caroline, Hanover, Fluvanna

CROPS: Corn, wheat, Soy Beans, Mixed

1. I agree to be responsible for adhering to the following conditions, where applicable:
   a. The soil pH will be adjusted to > 6.0 when biosolids are applied. (This may be accomplished through the application of lime-treated biosolids.)
   b. Do not graze animals on the land for 30 days after the application of biosolids. In addition, animals intend for dairy production should not be allowed to graze on the land or be fed chopped foliage for 60 days after application of biosolids. Meat-producing livestock should not be fed chopped foliage for 30 days after the application of biosolids.
   c. Food crops for direct human consumption that are above the land surface shall not be harvested for 14 months after the application of biosolids.
   d. Food crops for direct human consumption 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 > 4 months prior to incorporation into the soil, or 38 months when the biosolids remain on the land surface <4 months prior to incorporation.
   e. Food crops, feed crops and fiber crops shall not be harvested for 30 days after application of biosolids.
   f. Public access to land with a low potential for public exposure shall be restricted for 30 days. Public access land with a high potential for public exposure shall be restricted for 1 year. No biosolids-amended soil shall be excavated or removed from the site for 30 days following the biosolids application unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols.
   g. 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 the permitting authority.
   h. Supplemental commercial fertilizer or manure applications should be coordinated with the biosolids applications such that the total crop needs for nutrients are not exceeded as identified on the nutrient balance sheet or the nutrient management plan approved by the Virginia Department of Conservation and Recreation to be supplied to the farm operator by Synagro at the time of application of biosolids to a specific permitted site.
   i. Tobacco, because it has been shown to accumulate cadmium, should not be grown for three years following the application of biosolids-borne cadmium equal to or exceeding 0.45 lbs/acre.
2. I understand that this transaction is not contemplated by the parties to be a sale of goods, and that Synagro is willing to provide to me without charge the service of land applying biosolids which have been approved by the appropriate regulatory agencies for land application.
3. I understand that successful crop production depends on many variables, such as weather, soil conditions and specific farming practices and that while Synagro has experience with land application of biosolids, the responsibility for properly accommodating agricultural practices to biosolids utilization are solely mine. I have also read and understand the "Important Information About Using Biosolids as a Fertilizer" which is on the reverse side and incorporated by reference in this Request and Consent.

OPERATOR'S SIGNATURE

DATE 10/2/2013

IMPORTANT INFORMATION ABOUT USING BIOSOLIDS AS A FERTILIZER

Biosolids Generation

Biosolids are the accumulated, treated solids separated from water during the treatment of wastewater by public and private wastewater treatment plants (Generators). The Generator is responsible for supplying biosolids that are suitable for land application under state and federal regulations.

Benefits of Biosolids

Biosolids provide nitrogen in a form that can be taken up by plants during their growth cycle.Biosolids also add phosphorus to the soil. If lime is added to biosolids, the biosolids will have the added benefit of a liming agent. Biosolids contain primary, secondary and micronutrients that can be used by plants. Biosolids are primarily an organic material; when added to soil, they improve water and nutrient retention, reduce erosion potential and improve soil structure.

The Permitting Process

Once the farm operator requests biosolids,a Synagro representative initially evaluates the farm for truck access and field conditions. If the farm is found to be suitable and the Request for Biosolids and the Consent for Biosolids forms are signed, Synagro will collect soil samples and have them analyzed by an independent laboratory.

Synagro will then apply for any federal,state or local permits required for biosolids application.The permits will specifically identify the fields to which biosolids will be applied and will be issued to Synagro or the Generator.

After the permits are obtained (a process that may take several months or more) Synagro will apply biosolids, as they become available, to the fields Availability of biosolids may vary because of weather conditions, contractual arrangements with biosolids generators and other factors Although the company cannot guarantee biosolids application because of factors beyond its control, Synagro will use its best efforts to apply biosolids to the permitted fields.

The conditions outlined in the permit will apply to any and all biosolids applications made by Synagro Synagro will note responsible for biosolids application made by any other entity.

Periodic visits to the land application site(s) by federal, state and local regulatory staff and Synagro representatives may occur for the purpose of permitting the site, inspecting the site, applying biosolids, obtaining samples at the site and testing.Proper identification will be provided upon request.

Agronomic Considerations

Tractor-trailer units are used to deliver biosolids to the fields approved for biosolids applications.Soil compaction may occur on the travel areas used by the trucks and in areas where biosolids are unloaded for transfer to the applicator vehicle.

Since some biosolids contain lime, it is important to recognize any increase in soil pH where biosolids have been applied and exercise care in using certain herbicides If considering the use of a sulfonylurea herbicide, particular attention should be paid to any label restrictions. High soil pH and dry weather may slow decomposition of these chemicals, resulting in carryover For soils with low manganese levels, increased soil pH from lime addition (alone or in lime treated biosolids) may reduce manganese availability and thereby potentially reduce crop yields.

In planning a herbicide program, it should be noted that seeds may sometimes survive the biosolids treatment process - for example, tomato seeds. Also, the organic matter additions from biosolids application (organic matter tends to tie up certain herbicides) may require increased herbicide application rates. Consult your extension agent or chemical representative for a specific recommendation.

Biosolids contain salts. Biosolids applications alone rarefy cause salt problems. However, if combined with other significant salt-increasing factors, such as drought, excessive soil compaction, saline irrigation water and salt-contain fertilizers, salts may reach levels that could negatively affect germination and growth of some crops.

While odors from biosolids applications are not usually significant, and typically less than that from livestock manure, it is possible that an odor from the decomposition of organic matter may be noticed. It this occurs, it generally disappears in a short time.

Since biosolids provide nitrogen that will be released slowly throughout the growing season with diminishing carry-over in subsequent years, it is important to reduce the use of nitrogen and other fertilizers to appropriate levels.

PART XXVI. LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on 10/12/2021 between Campbell VA Properties LLC referred to here as "Landowner", and Synagro Central, LLC, 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 William, 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
32-4			
26-74			

☐ 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	
X Yes	☐ No	X Yes	☐ No	X Yes	☐ No	X Yes	☐ No

Printed name	Mailing Address	Landowner Signature
Campbell VA Properties LLC By: EUGENE L. CAMPBELL, III	PO BOX 95 KING WILLIAM, VA 23086	
Title* MANAGER	Phone No. 804-365-6701	

*☐ I certify that I have authority to sign for the landowner as indicated by my title as executor, Trustee or Power of Attorney, etc.

*☒ 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:

Synagro Central, LLC, 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	Mailing Address: 1601 Tappahannock Blvd, Tappahannock, VA 22560	Permittee- Authorized Representative Signature
Hunter Davis.		
Title Technical Services Specialist	Phone No. 443-2170	

Landowner: Campbell VA Properties LLC

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).

Landowner's Signature — Date: Oct 22, 2021

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* form with original signature must be attached for each legal landowner identified below prior to land application at the identified parcels.

This form is not required when Form D - VPA Permit Application Workbook, Tabs 13.a and/or 13.b, are submitted. The information on that form supersedes the need to complete this Landowner Coordination Form.

Permittee: Synagro Central, LLC County or City: Industrial (KW 05)

Please Print (Signatures not required on this page

Tax Parcel ID(s)	Landowner(s)
26-74	CAMPBELL VIRGINIA PROPERTIES LLC
32-4	CAMPBELL VIRGINIA PROPERTIES LLC

441 Landing Road

Parcel Information

Parcel Address: 441 Landing Road
Parcel City ST Zip: MANQUIN, VA 23106
Description 1: GROVE
Description 2: Agric Conservation
Parcel ID: 26-74
Total Acres: 168
Deed Book: 0
Deed Page: 0

Valuation

Land: $631,200
Building: $179,300
Improvements: $1,800
Total: $812,300

Ownership

Owner Name: CAMPBELL VIRGINIA PROPERTIES LLC
Owner Name 2: N/A
Owner Name 3: N/A
Mailing Address: P O BOX 95
Mailing City ST Zip: KING WILLIAM VA 23086-95

Building Information

Year Built: 1770
Occupancy Type: RESIDENTIAL
Class Type: Agricultural > 100 Acres
Structure Type: Colonial
Stories: 2
Number of Rooms: 7
Number of Bedrooms: 3
Number of Full Baths: 2
Number of Half Baths: N/A
Number of Chimneys: N/A
Number of Fireplaces: N/A

0 Unassigned

Parcel Information

Parcel Address: 0 Unassigned
Parcel City ST Zip: N/A
Description 1: LU 19-132
Description 2: Agric Conservation
Parcel ID: 32-4
Total Acres: 430
Deed Book: 254
Deed Page: 484

Valuation

Land: $593,400
Building: N/A
Improvements: N/A
Total: $593,400

Ownership

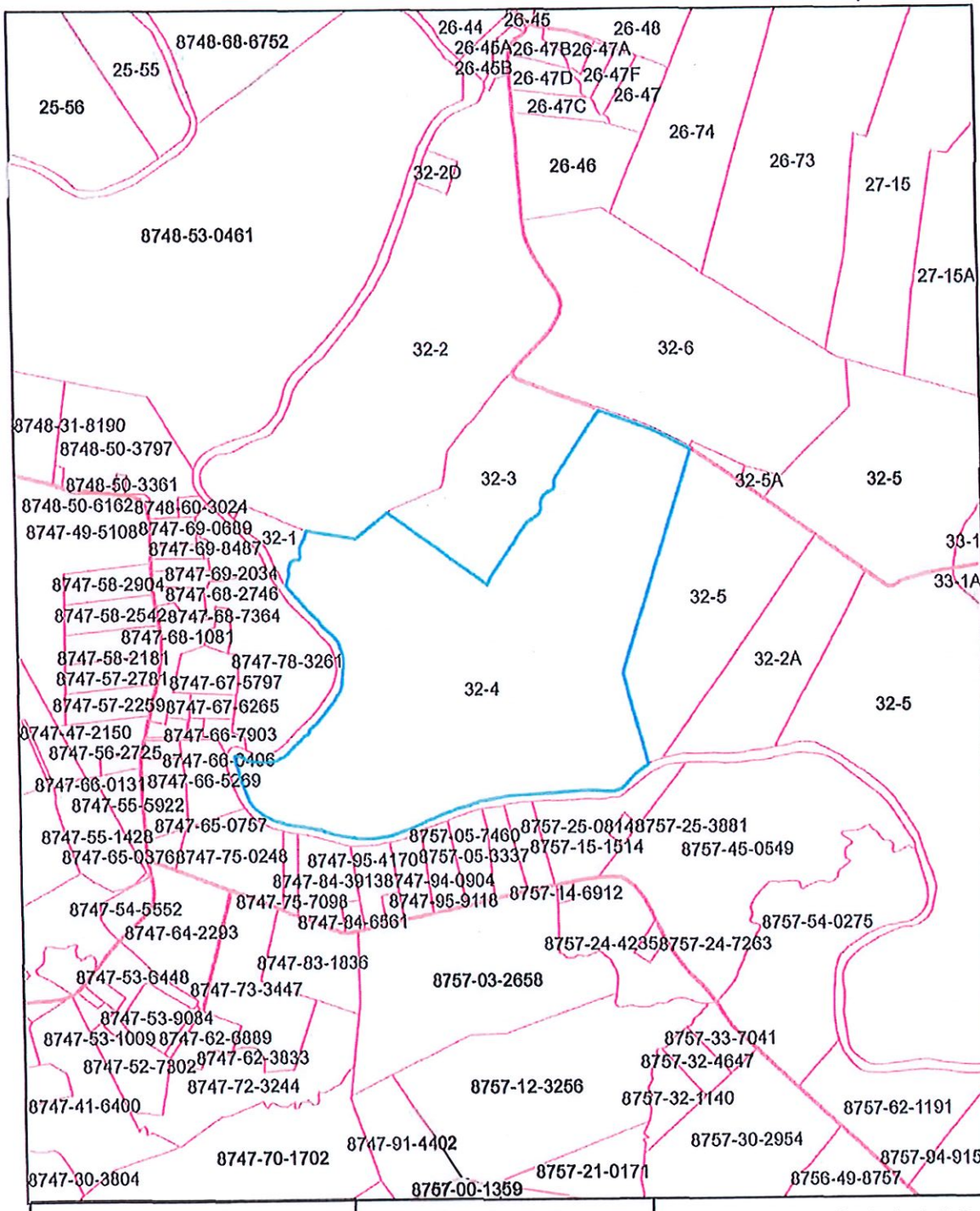
Owner Name: CAMPBELL VIRGINIA PROPERTIES LLC
Owner Name 2: N/A
Owner Name 3: N/A
Mailing Address: 441 LANDING ROAD
Mailing City ST Zip: MANQUIN VA 23106

Building Information

Year Built: N/A
Occupancy Type: VACANT
Class Type: Agricultural > 100 Acres
Structure Type: N/A
Stories: N/A
Number of Rooms: N/A
Number of Bedrooms: N/A
Number of Full Baths: N/A
Number of Half Baths: N/A
Number of Chimneys: N/A
Number of Fireplaces: N/A

SYNAGRO

Kevin Engel
KW05
Fields01-03, 07-08

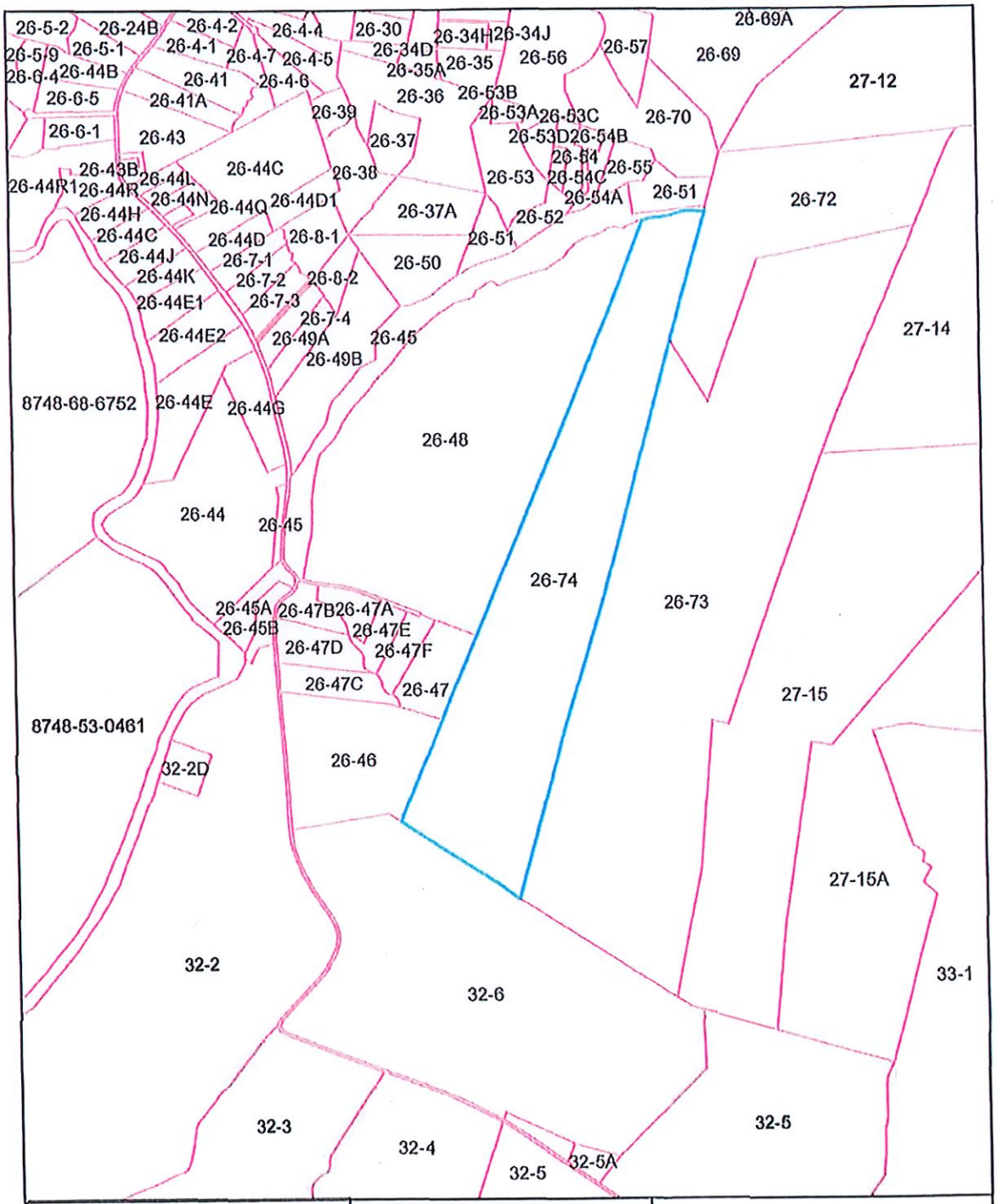


1 inch = 2,000 feet	TAX MAP	1:24,000

04/17/2024

SYNAGRO

Kevin Engel
KW05
Fields 04-06



1 inch = 1,562.5 feet	TAX MAP	1:18,750

Disclaimer: Information shown on these maps are derived from public records that are constantly undergoing change and do not replace a site survey, and is not warrented for content or accuracy. The County does not guarantee the positional or thematic accuracy of the GIS data. The GIS data or cartographic digital files are not legal representation of any of the features in which it depicts, and disclaims any assumption of the legal status of which it represents.

04/17/2024

KW 05 Kevin Engel

PARCEL ID	OWNER	OWNER	ADDRESS	CITY	STATE	ZIP
26-45	BARBARA C CAMPBELL		4416 DABNEYS MILL RD	MANQUIN	VA	23106
26-46	HUGH B TOWNSEND III	LISA G TOWNSEND	3975 DABNEYS MILL RD	MANQUIN	VA	23106
26-47	JOHN P HUDNALL SR	SANDRA H HUDNALL	426 LANDING RD	MANQUIN	VA	23106
26-48	COASTAL FARM SERVICE, LLC	FOUR C ENTERPRISES	PO BOX 534	MECHANICSVILLE	VA	23111
26-72	LUCUS TUCKER	KRISTIN CAMPBELL TUCKER	3859 MANSFIELD RD	AYLETT	VA	23009
26-73	H BARNES TOWNSEND JR FAMILY ASSOCIATE LLC		6459 DABNEY'S MILL RD	MANQUIN	VA	23106
32-1	HUGH BARNES TOWNSEND JR		3459 DABNEYS MILL RD	MANQUIN	VA	23106
32-2	HOWARD A TOWNSEND ET AL		2121 DABNEYS MILL RD	MANQUIN	VA	23106
32-2A	HOWARD A TOWNSEND SR		2121 DABNEYS MILL RD	MANQUIN	VA	23106
32-3	H BARNES TOWNSEND JR FAMILY ASSOCIATE LLC		3459 DABNEYS MILL RD	MANQUIN	VA	23106
32-5	HOWARD A TOWNSEND ET AL		2121 DABNEYS MILL RD	MANQUIN	VA	23106
32-6	H BARNES TOWNSEND JR FAMILY ASSOCIATE LLC		3459 DABNEYS MILL RD	MANQUIN	VA	23106

TAX ID LANDOWNER IDENTIFICATION SHEET

Landowner	Field Number	Tax ID
Campbel Virginia Properties LLC	05-01	32-4
Campbel Virginia Properties LLC	05-02	32-4
Campbel Virginia Properties LLC	05-03	32-4
Campbel Virginia Properties LLC	05-04	26-74
Campbel Virginia Properties LLC	05-05	26-74
Campbel Virginia Properties LLC	05-06	26-74
Campbel Virginia Properties LLC	05-07	32-4
Campbel Virginia Properties LLC	05-08	32-4

Field Number	Latitude (North)	Longitude (West)
05-01	37.696°	-77.225°
05-02	37.694°	-77.228°
05-03	37.692°	-77.233°
05-04	37.711°	-77.221°
05-05	37.722°	-77.216°
05-06	37.716°	-77.219°
05-07	37.699°	-77.224°
05-08	37.695°	-77.236°

*Latitude and Longitude are a random point determined by ArcView program

Haul Route:

The Location maps in conjunction with the above latitude and longitude coordinates are a route planning tool meant to be a guide to indicate suggested haul routes for various preferences: to include but not limited to all federal, state, and local granted STAA access routes.

Farm Summary Report

Plan: **New Plan** **Winter, 2022 - Winter, 2023**

Farm Name: **KW 05**
Location: King William
Specialist: Hunter Davis
N-based Acres 380.0
P-based Acres: 0.0

Tract Name: **KW 05**
FSA Number: 0
Location: King William

Field Name: **05-01**
Total Acres: 46.50 Usable Acres: 46.50
FSA Number: 0
Tract: KW 05
Location: King William
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
8	1A	Altavista
6	5A	Bojac1
73	27A	STATE1
13	30A	Tomotley

Field Warnings:

Field Name: **05-02**

Total Acres:	30.30	Usable Acres:	30.30
FSA Number:	0		
Tract:	KW 05		
Location:		King William	
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
91	5A	Bojac1
9	29D	Tarboro

Field Warnings:
Environmentally Sensitive Soils due to:

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

Soils with perent slope in excess of 15%

Field Name: **05-03**

Total Acres:	94.70	Usable Acres:	94.70
FSA Number:	0		
Tract:	KW 05		
Location:		King William	
Slope Class:	A	Hydrologic Group:	A

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
3	1A	Altavista
68	23A	Riverview
1	25A	Seabrook
17	27A	STATE1
11	32A	Wehadkee

Field Warnings:

Field Name: **05-04**

Total Acres:	63.40	Usable Acres:	63.40
FSA Number:	0		
Tract:	KW 05		
Location:		King William	
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
59	1A	Altavista
2	17A	Munden
32	24A	Roanoke
6	27A	STATE1

Field Warnings:

Field Name: **05-05**

Total Acres:	50.70	Usable Acres:	50.70
FSA Number:	0		
Tract:	KW 05		
Location:		King William	
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
27	1A	Altavista
26	1B	Altavista
32	9A	Daleville
2	27A	STATE1
3	27B	STATE1
8	30A	Tomotley
1	22F	Nevarc Remlik

Field Warnings:

Field Name: **05-06**

Total Acres:	12.90	Usable Acres:	12.90
FSA Number:	0		
Tract:	KW 05		
Location:		King William	
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
7	22F	Nevarc Remlik
41	24A	Roanoke
28	1A	Altavista
24	1B	Altavista

Field Warnings:

Field Name: **05-07**
Total Acres: 41.60 Usable Acres: 41.60
FSA Number: 0
Tract: KW 05
Location: King William
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
9	6A	Bojac1
18	25A	Seabrook
60	27A	STATE1
13	30A	Tomotley

Field Warnings:

Field Name: **05-08**

Total Acres:	39.90	Usable Acres:	39.90
FSA Number:	0		
Tract:	KW 05		
Location:		King William	
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
26	1A	Altavista
30	23A	Riverview
6	25A	Seabrook
39	27A	STATE1

Field Warnings:

ENVIRONMENTALLY SENSITIVE AREAS

Field	Reason for Sensitive Area
05-01	High Water Table (Map Units 5A, 30A - 18%) Leaching Potential (Map Unit 5A - 8%)
05-02	High Water Table (Map Units 5A, 3A - 91%) Leaching Potential (Map Units 5A, 29D - 99%)
05-03	High Water Table (Map Units 5A, 32A - 9%) Leaching Potential (Map Units 5A, 29D - 99%)
05-04	High Water Table (Map Unit 24A - 32%)
05-05	High Water Table (Map Units 9A, 30A - 37%) Leaching Potential (Map Units 22F, 30A -10%)
05-06	High Water Table (Map Units 24A - 40%) Leaching Potential (Map Units 22F - 9%)
05-07	High Water Table (Map Units 30A - 11%) Leaching Potential (Map Units 6A - 9%)
05-08	Flooded Soils (Map Unit 23A - 29%)

King William County Soils that are Environmentally Sensitive

Soil Map Unit	Series Name	Time of year		Environmental
		High Water	Flooded	
3A	Bibb/Kinston	Nov - June	Nov – June	Drainage
4A	Bohicket	Nov - June	Nov – June	
5A	Bojac	Jan-Dec		Leaching
6A, 6B	Bojac			Leaching
7A	Catpoint			Leaching
8A	Conetoe			Leaching
9A	Daleville	Nov - May		
14A	Kenansville			Leaching
15A	Lanexa	Jan-Dec	Jan-Dec	Drainage
16A	Mattan	Jan-Dec	Jan-Dec	Drainage
18A	Myatt	Nov - April		
20A	Osier	Nov - March		Drainage
22D, 22F	Remilk/Nevarc			Leaching
23A	Riverview		Dec - March	
24A	Roanoke	Nov - May		
29B, 29D, 29F	Tarboro			Leaching
30A	Tomotley	Nov - April		
32A	Wehadkee	Nov - May	Nov - May	

Map Legend

House/Dwelling with a well
- 200' buffer-dwelling (with conditions for reduction)
- 100' buffer- from well

Rock Outcrop
- 25' buffer

Limestone Outcrop/Closed Sinkhole
- 50' buffer

Well/Spring/Open Sinkhole
- 100' buffer

Lake/Pond
- 35' w/vegetative buffer; 100' without vegetative buffer

Slope which exceeds 15%

Publicly Accessible Site/Odor Sensitive Site
- 200' buffer Publicly Accessible Site Property Line
- 400' buffer Odor Sensitive Site

Stream/River
- 35' w/vegetative buffer; 100' without vegetative buffer

Agricultural/Drainage Ditch
- 10' buffer

Roadway
- 10' improved highway buffer

Field Boundary

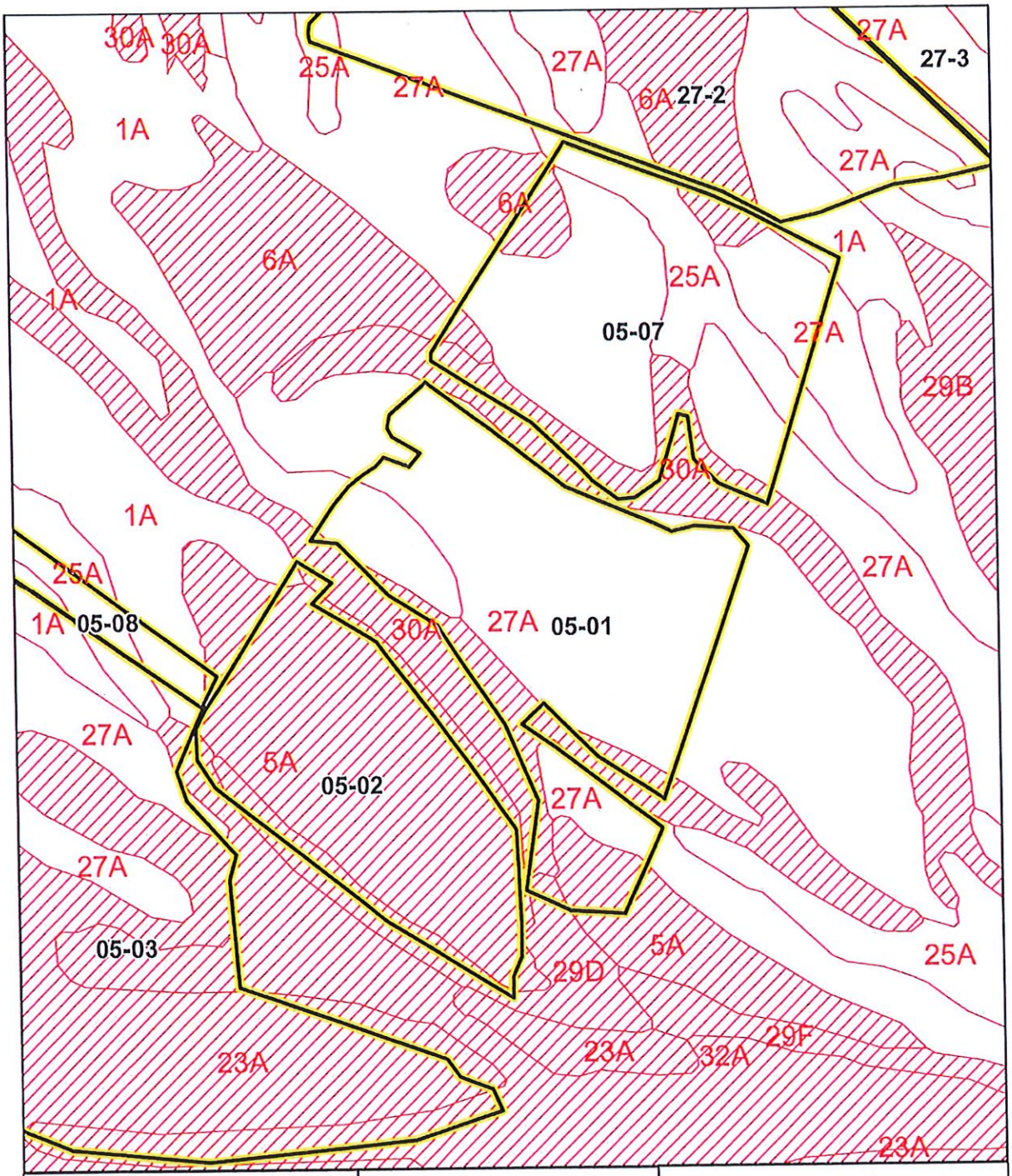
Property Line
- 100' buffer unless waiver issued

SYNAGRO

Updated March 2022

SYNAGRO

Kevin Engel
KW05
Fields 01-02, 07



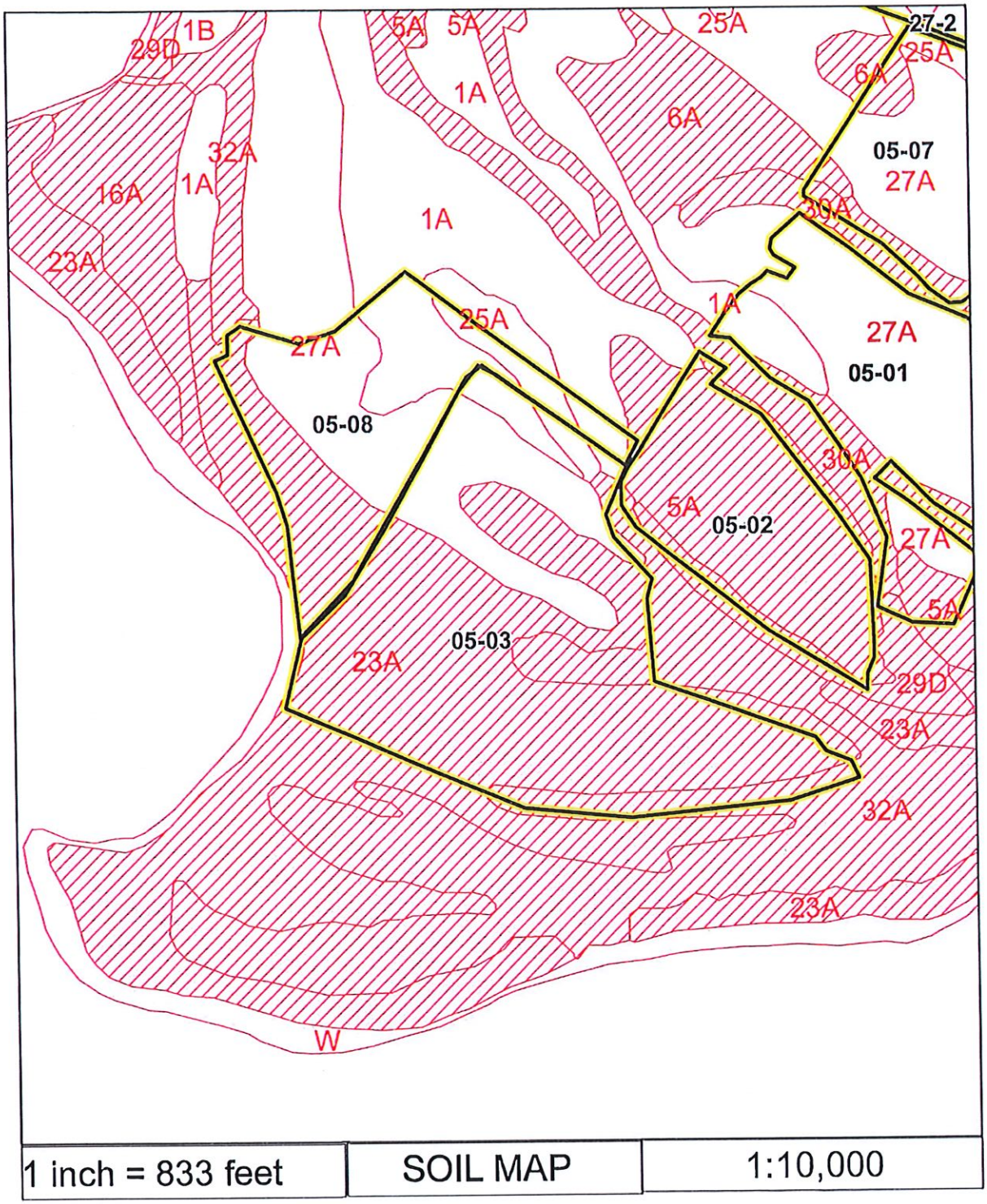
1 inch = 660 feet	SOIL MAP	1:7,920

Revised 4/17/24

Environmentally Sensative Soil

SYNAGRO

Kevin Engel
KW05
Fields 03, 08



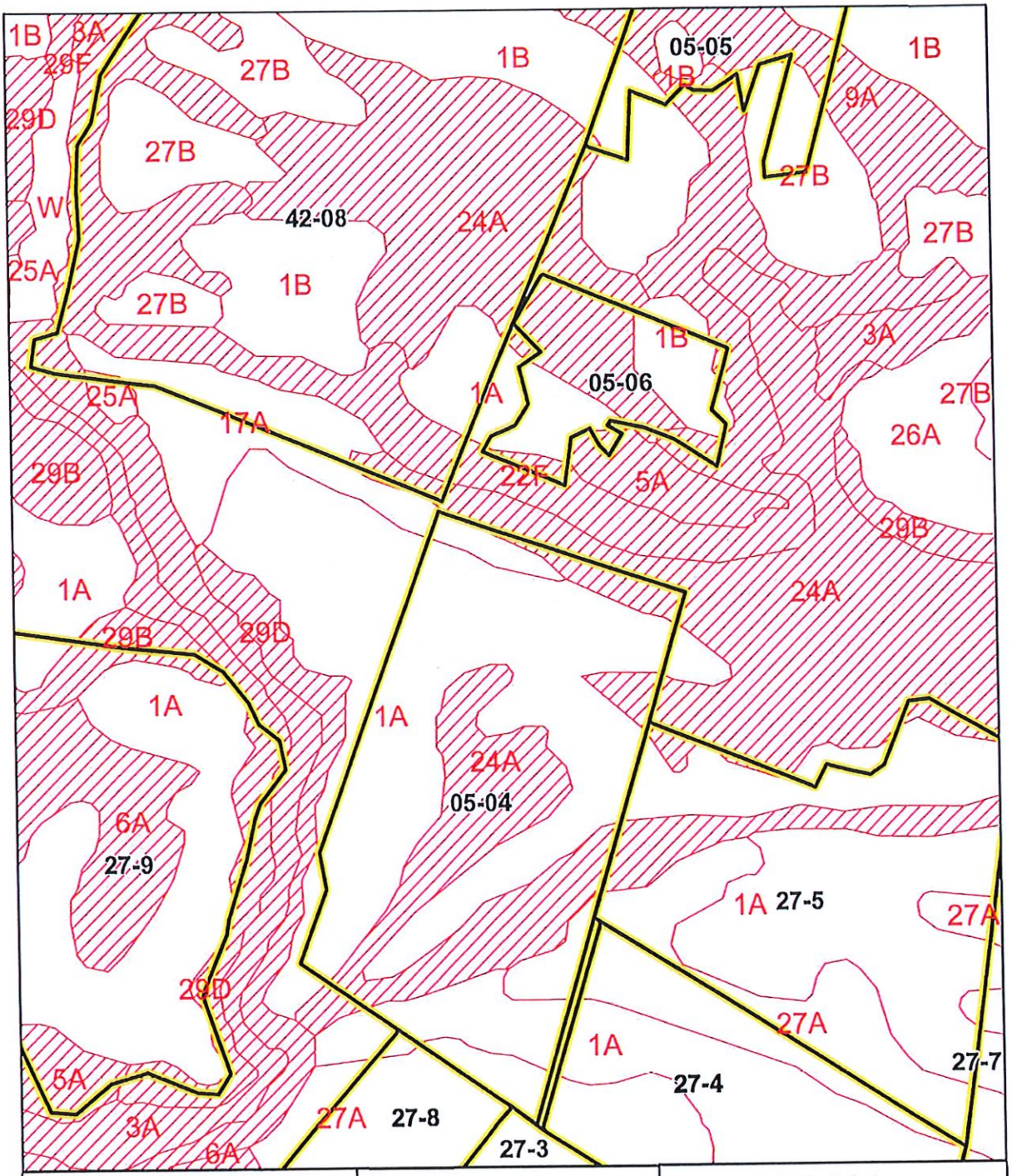
1 inch = 833 feet	SOIL MAP	1:10,000

Revised 4/17/24

Environmentally Sensative Soil

SYNAGRO

Kevin Engel
KW05
Fields 04, 06



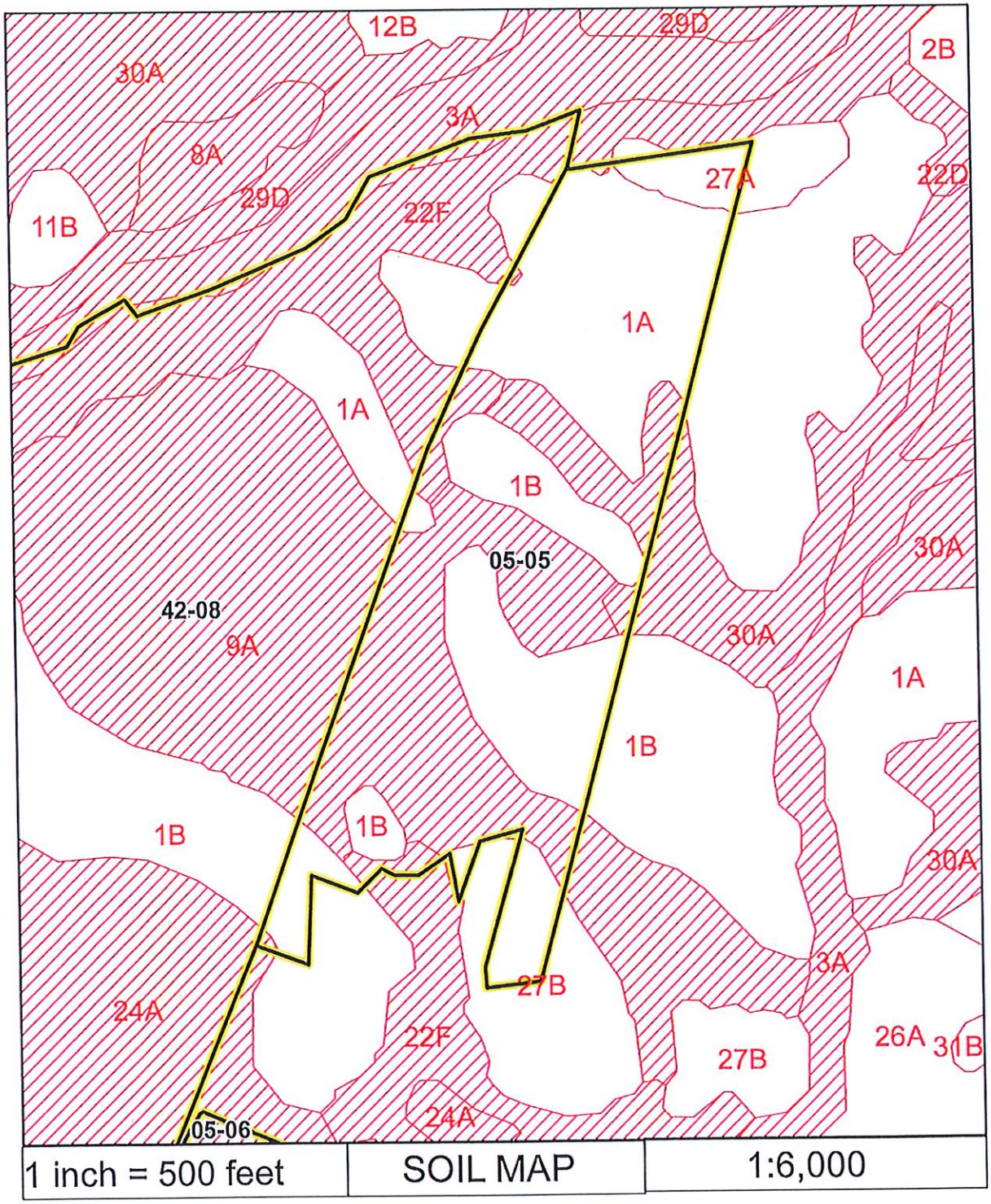
1 inch = 660 feet	SOIL MAP	1:7,920

Revised 4/17/24

Environmentally Sensative Soil

SYNAGRO

Kevin Engel
KW05
Field05



1 inch = 500 feet	SOIL MAP	1:6,000

Revised 4/17/24

Environmentally Sensative Soil

SYNAGRO

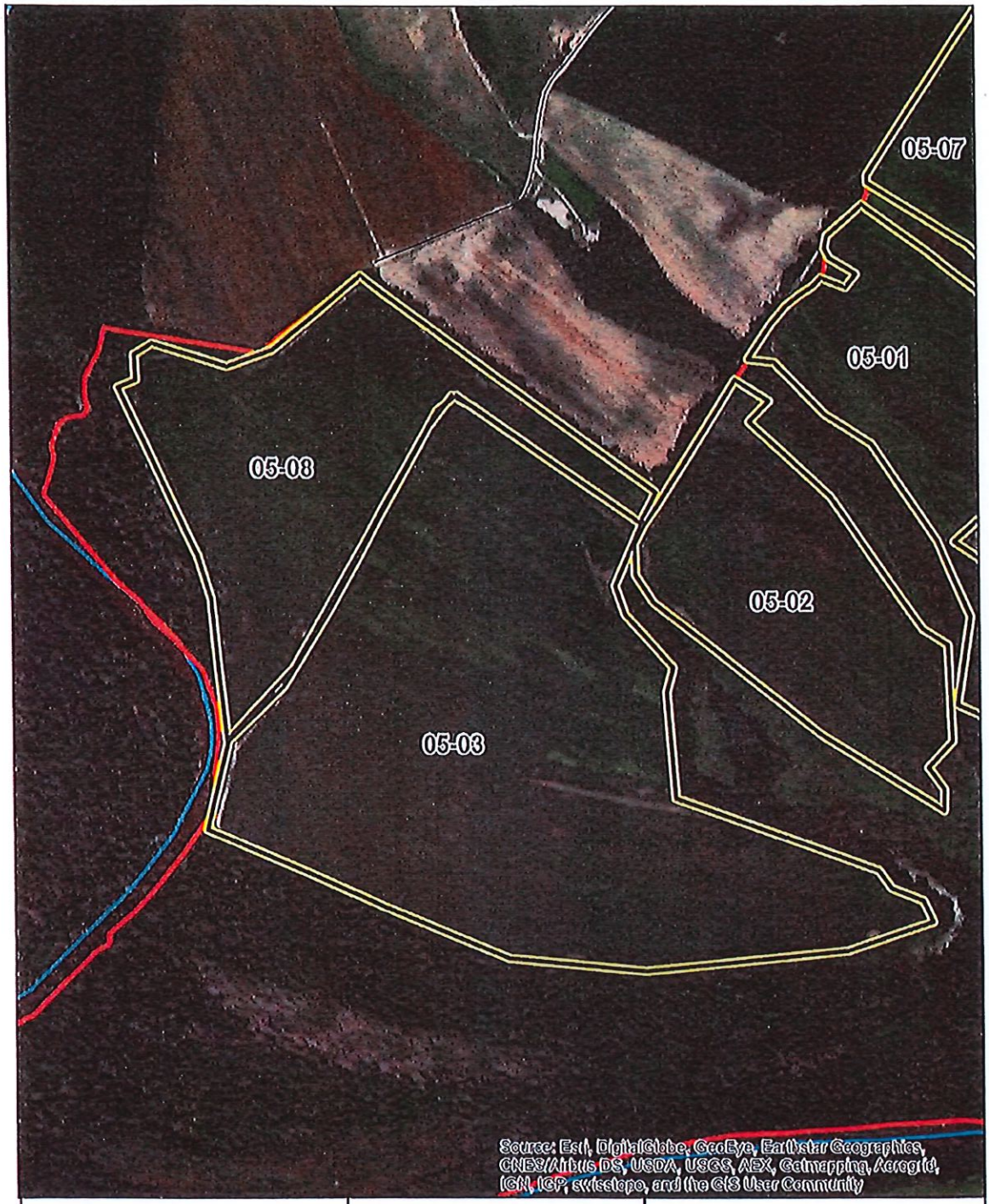
Kevin Engel
KW05
Fields 01-02, 07

1 inch = 660 feet	AERIAL MAP	1:7,920

04/17/2024

SYNAGRO

Kevin Engel
KW05
Fields 03, 08



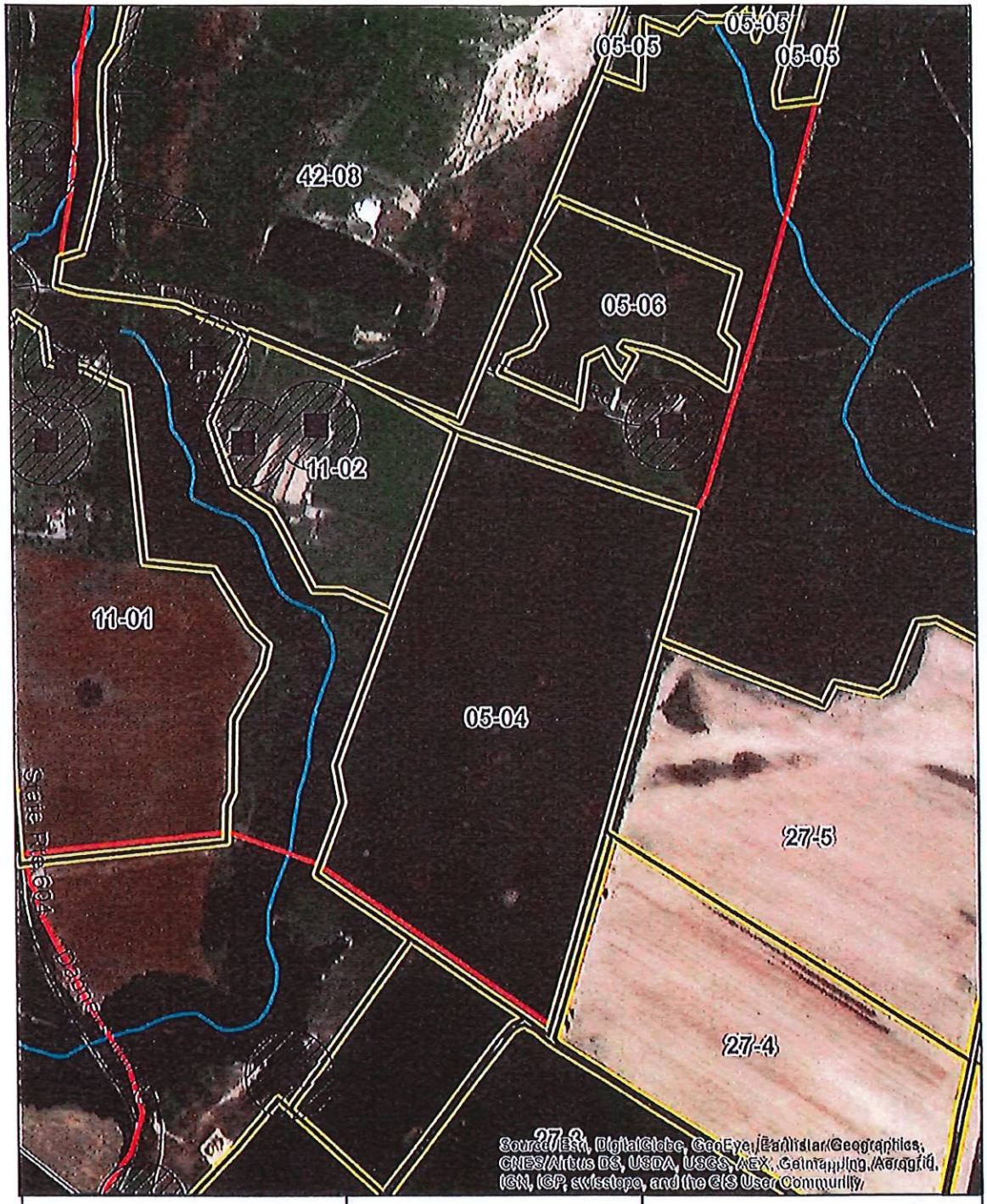
N

1 inch = 660 feet	AERIAL MAP	1:7,920

04/17/2024

SYNAGRO

Kevin Engel
KW05
Fields 04, 06

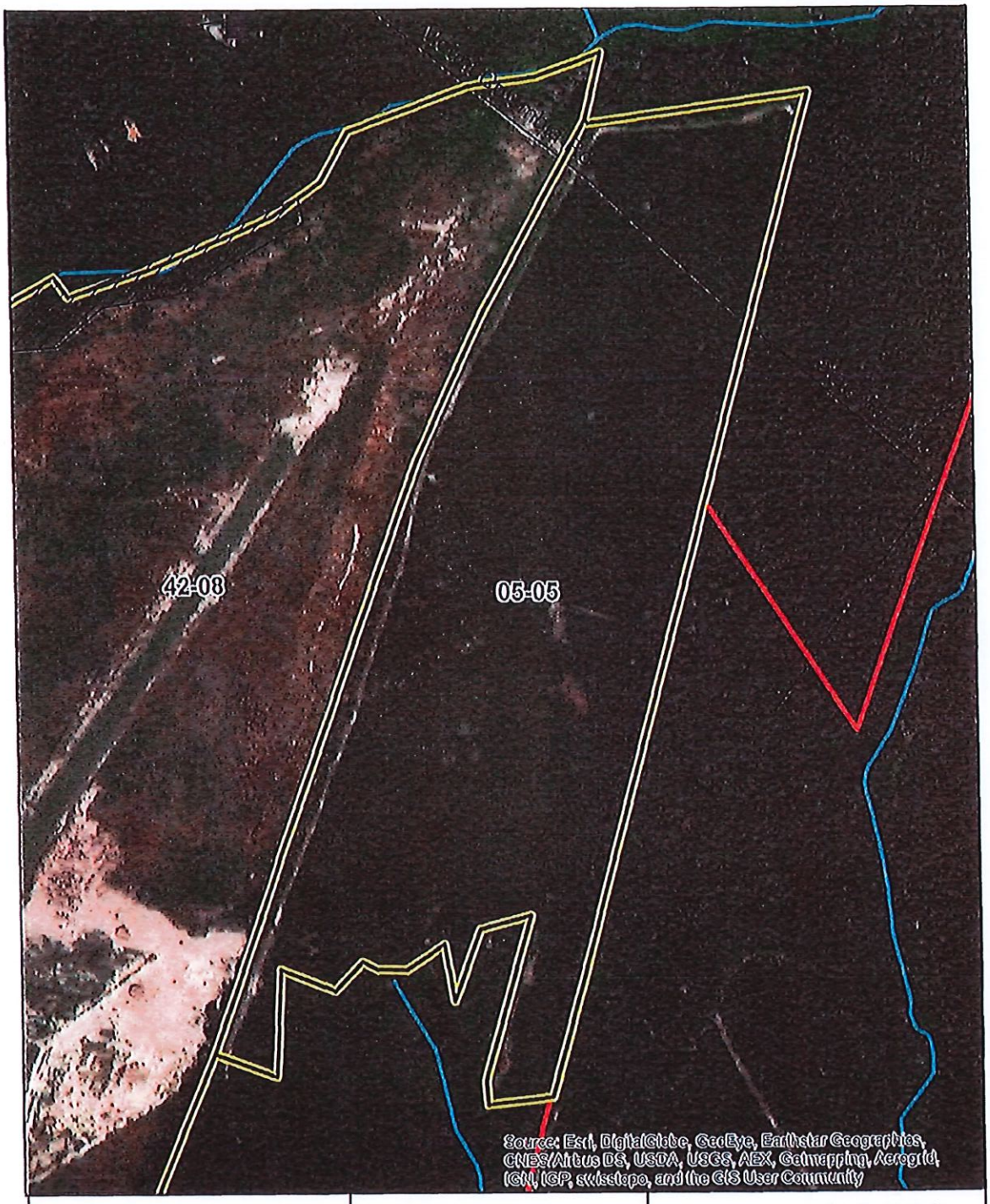


1 inch = 660 feet	AERIAL MAP	1:7,920

04/17/2024

SYNAGRO

Kevin Engel
KW05
Field 05

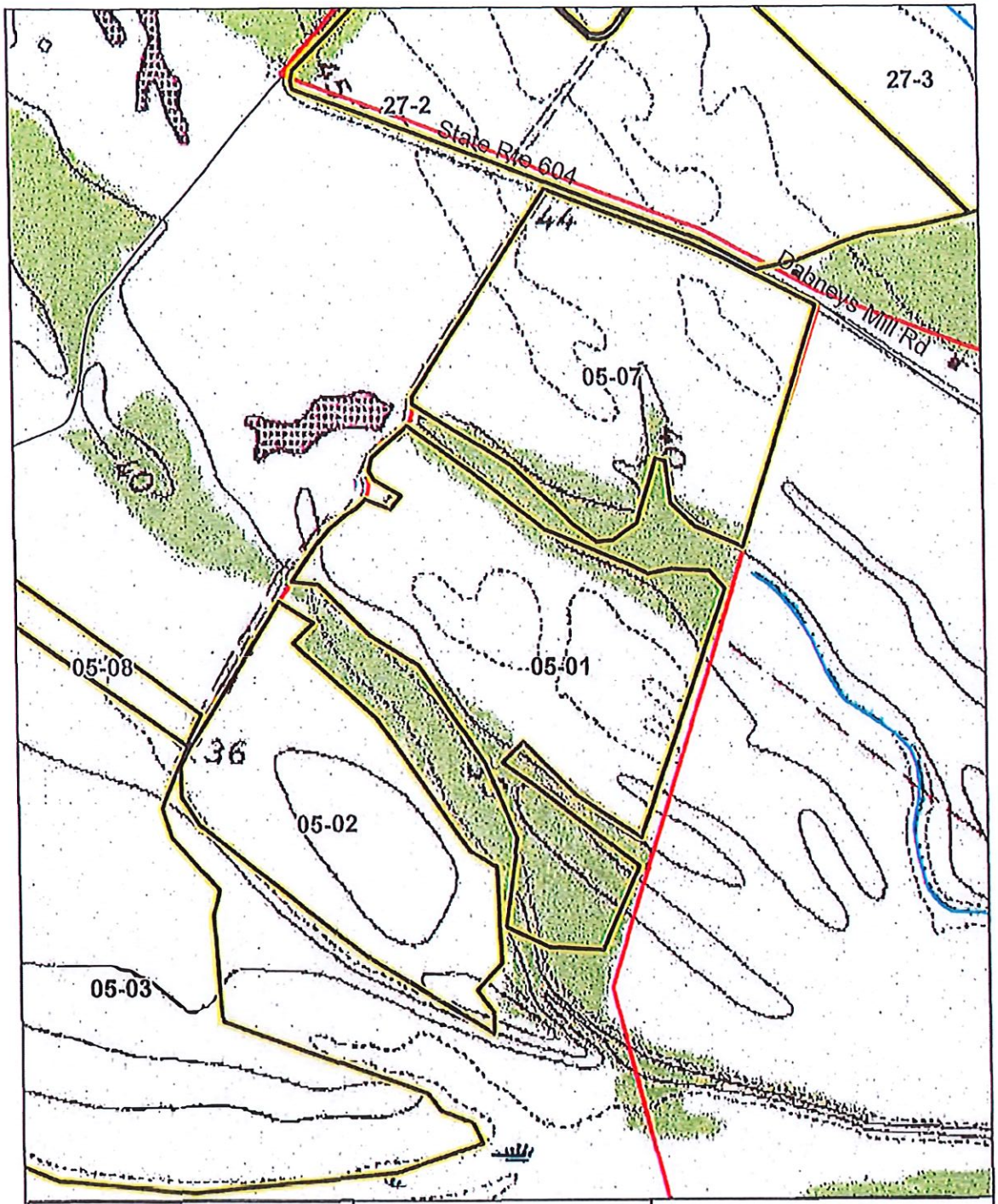


1 inch = 416.666667 feet	AERIAL MAP	1:5,000

04/17/2024

SYNAGRO

Kevin Engel
KW05
Fields 01-02, 07



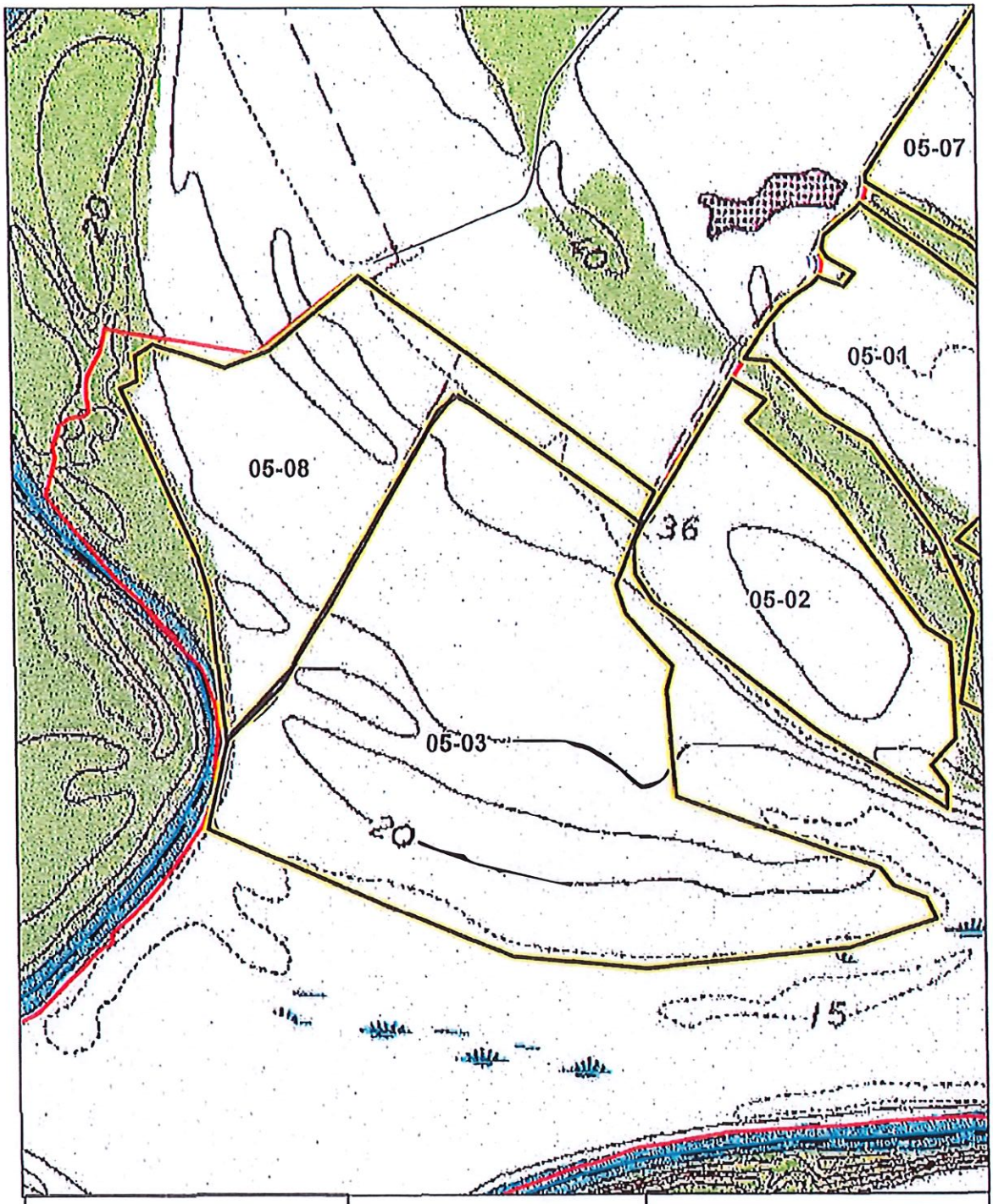
1 inch = 660 feet	TOPO MAP	1:7,920

FIELD	ACRES
05-01	46.4
05-02	31.5
05-07	42.1

04/17/2024

SYNAGRO

Kevin Engel
KW 05
Fields 03, 08



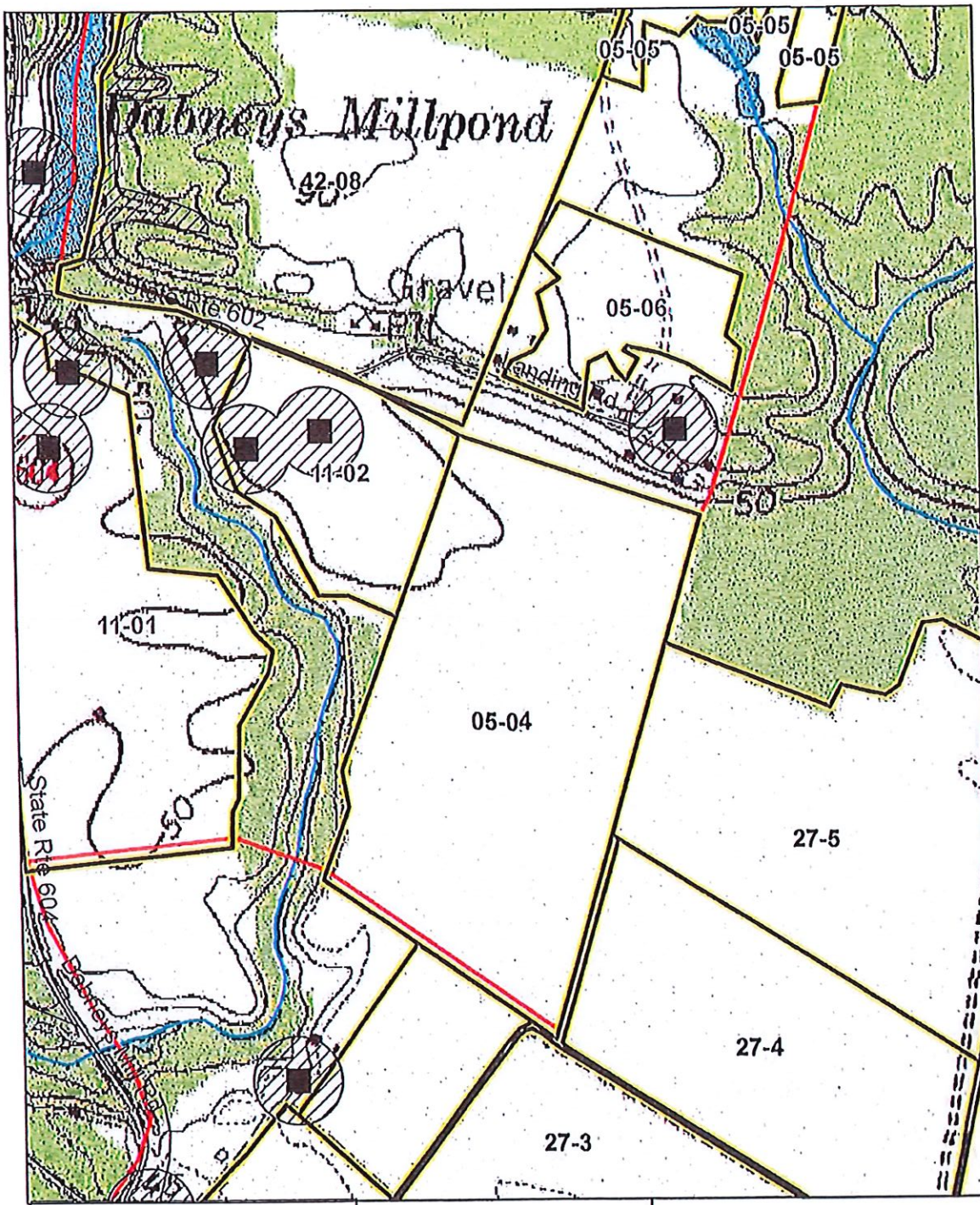
1 inch = 660 feet	TOPO MAP	1:7,920

FIELD	ACRES
05-03	94.7
05-08	39.9

04/17/2024

SYNAGRO

Kevin Engel
KW05
Fields 04, 06



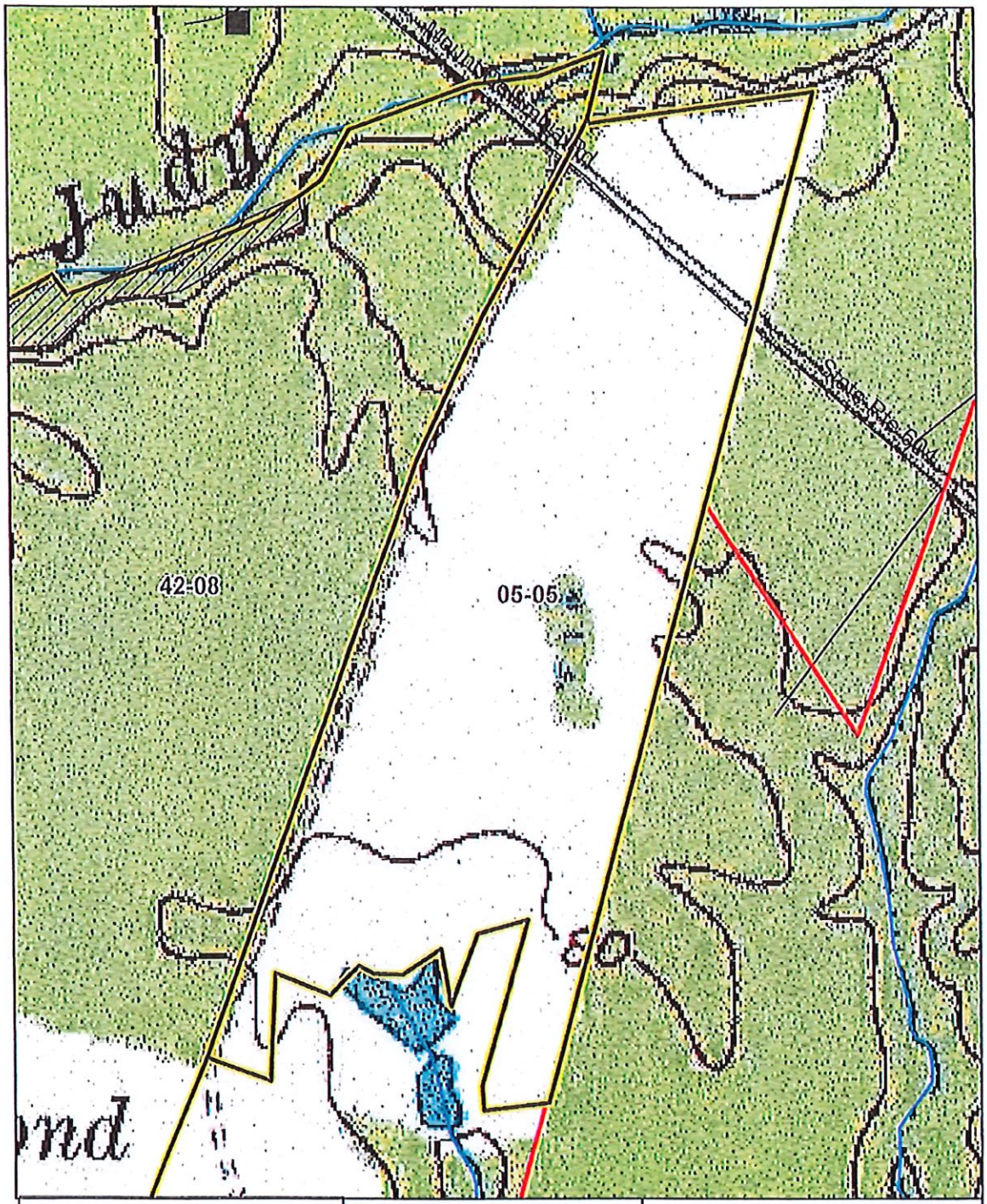
1 inch = 660 feet	TOPO MAP	1:7,920

FIELD	ACRES
05-04	63.4
05-06	12.9

04/17/2024

SYNAGRO

Kevin Engel
KW 05
Field 05



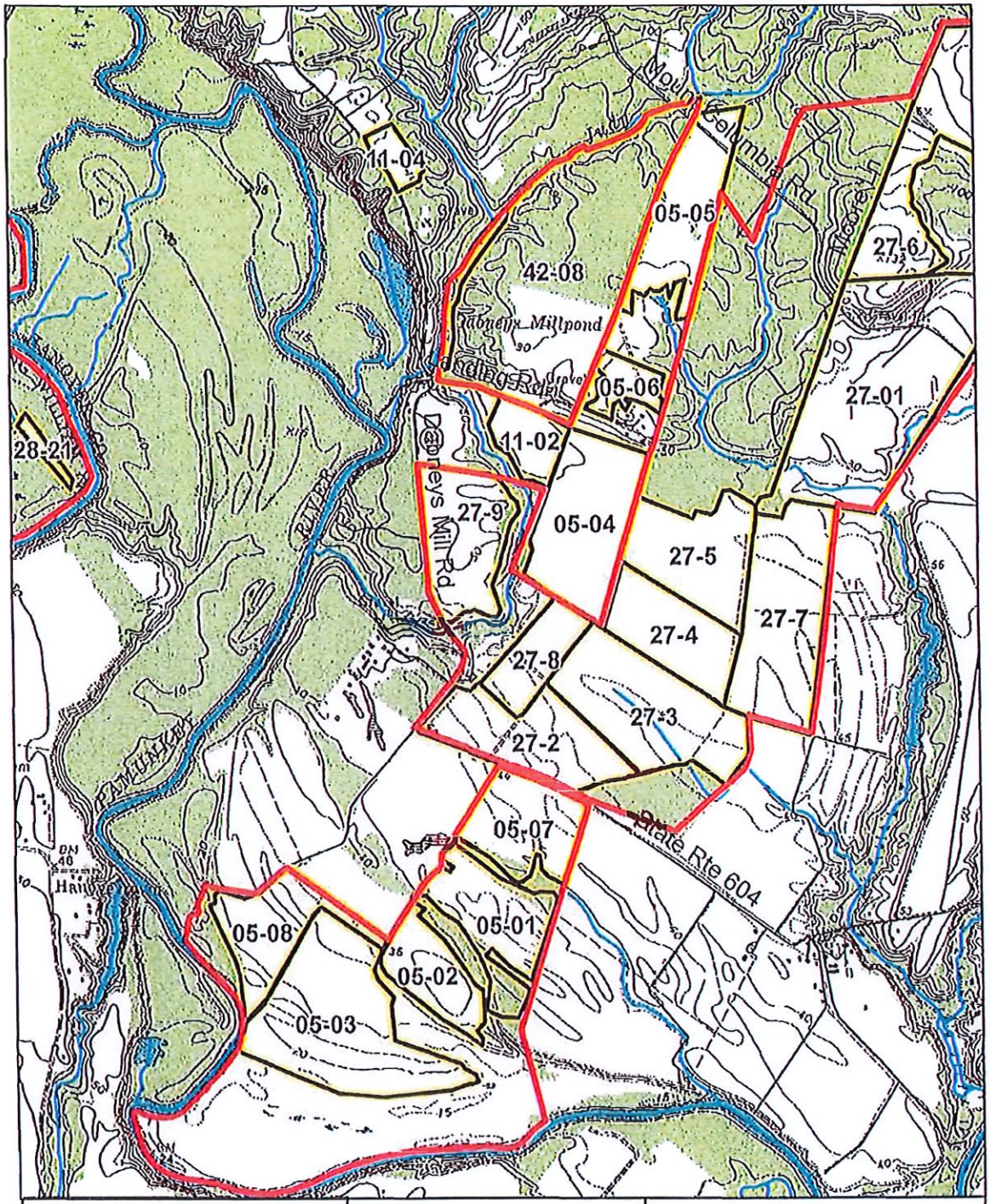
1 inch = 416.666667 feet	TOPO MAP	1:5,000

FIELD	ACRES
05-05	50.7

04/17/2024

SYNAGRO

Kevin Engel
KW05
Fields 01-08

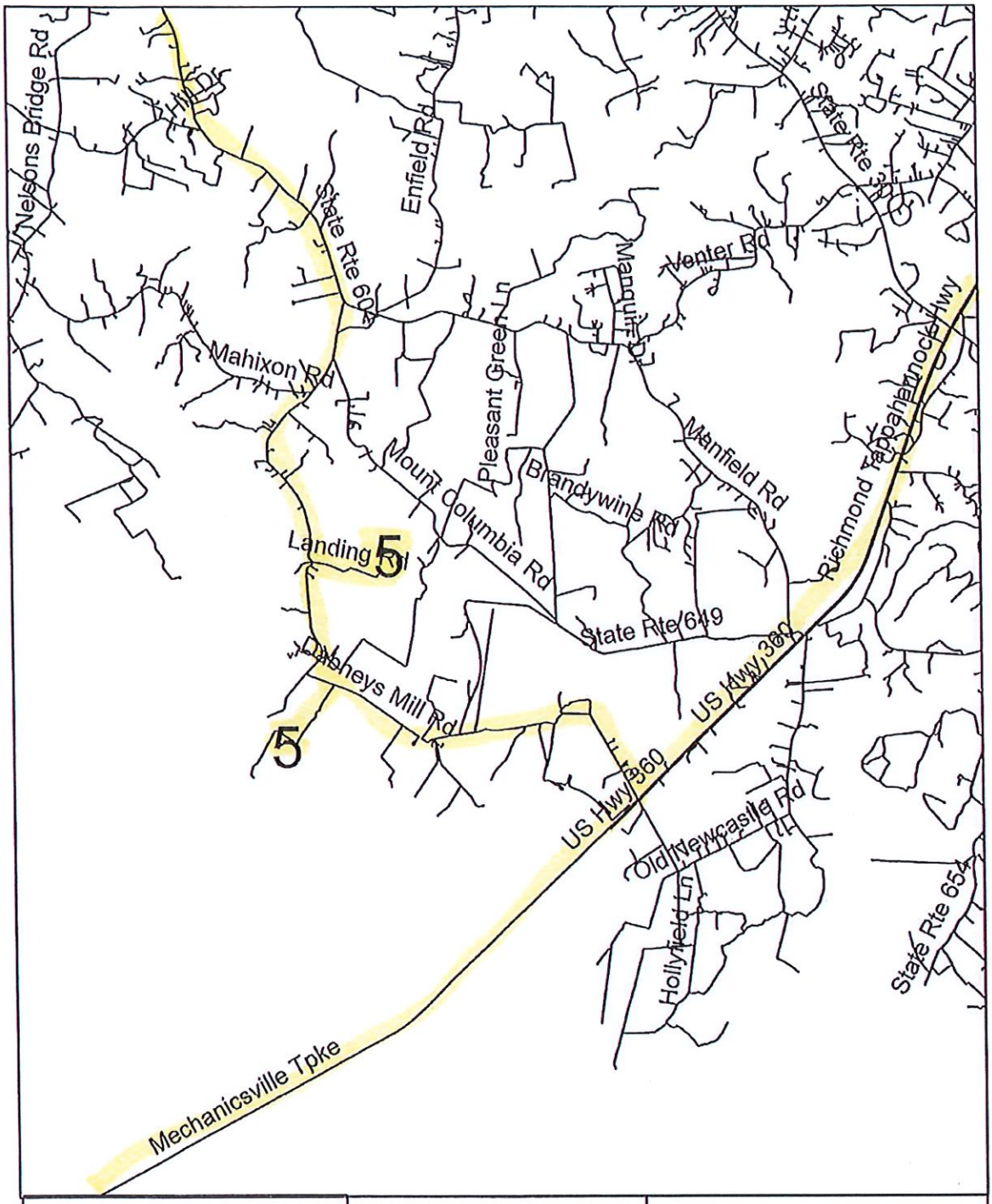


1 inch = 2,000 feet	TOPO MAP	1:24,000

04/17/2024

SYNAGRO

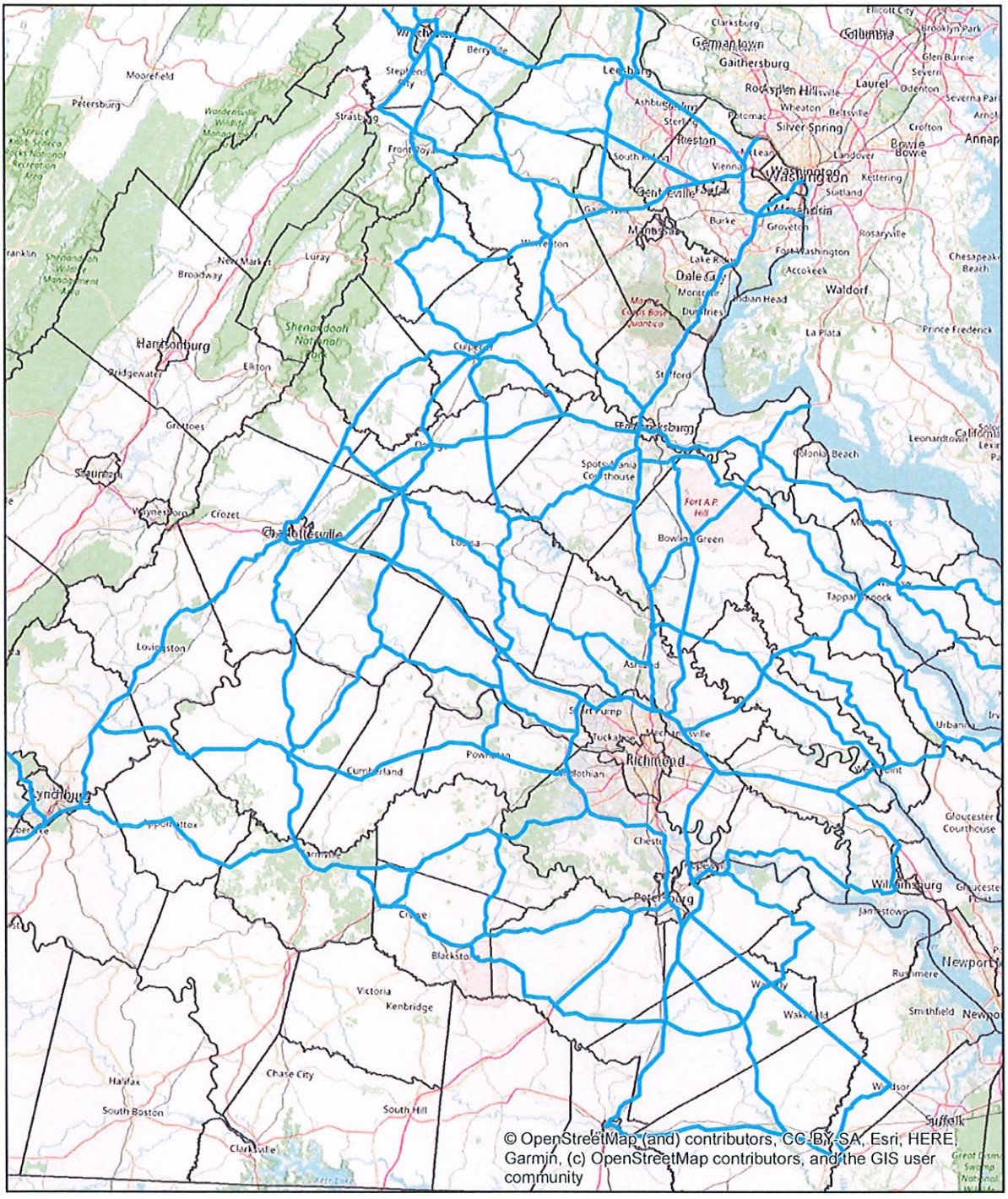
Kevin Engel
KW 5
Fields 1-8



1 inch = 6,250 feet	LOCATION MAP	1:75,000

Haul Route

SYNAGRO



Haul Route

HAUL ROUTE MAP

1:1,500,000

This map highlights all major routes from approved generators to the locations of permitted sites. The Highlighted routes on the Location Map will pinpoint routes closer to the site.

09/19/2022