

LAND APPLICATION OF BIOSOLIDS
EARL & JOHN LAMB

MA14 (FIELDS 5 – 11, 13-22)
MADISON COUNTY, VIRGINIA
DECEMBER 2014





December 18, 2014

Mr. Edward Stuart
Department of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193

Dear Mr. Stuart:

Transmitted herein for your consideration is land application site for Earl & John Lamb (designated as MA 14, fields 5-11, 13-22), located in Madison 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 (804) 443-2170 should you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink that reads "Cmwhiteside".

Carolanne M. Whiteside
Technical Services Coordinator



FIELD SUMMARY SHEET

Earl & John Lamb

MA 14

SYNAGRO FIELD #	GROSS ACRES	NET ACRES	FSA TRACT #	FIELD TYPE	OWNER
14-05	23.8	21.6		Agriculture	Lewis A Lamb Sons, Inc.
14-06	16.6	15.6		Agriculture	Lewis A Lamb Sons, Inc.
14-07	6.3	5.6		Agriculture	Lewis A Lamb Sons, Inc.
14-08	68.3	67.3		Agriculture	Lewis A Lamb Sons, Inc.
14-09	41.3	40.0		Agriculture	Lewis A Lamb Sons, Inc.
14-10	12.4	11.8		Agriculture	Lewis A Lamb Sons, Inc.
14-11	14.2	13.7		Agriculture	Lewis A Lamb Sons, Inc.
14-13	45.9	45.4		Agriculture	Lewis A Lamb Sons, Inc.
14-14	15.2	13.8		Agriculture	Lewis A Lamb Sons, Inc.
14-15	37.7	36.5		Agriculture	Lewis A Lamb Sons, Inc.
14-16	33.5	32.5		Agriculture	Lewis A Lamb Sons, Inc.
14-17	38.4	38.4		Agriculture	Lewis A Lamb Sons, Inc.
14-18	58.2	52.7		Agriculture	Lewis A Lamb Sons, Inc.
14-19	27.5	26.3		Agriculture	Lewis A Lamb Sons, Inc.
14-20	62.2	59.9		Agriculture	Lewis A Lamb Sons, Inc.
14-21	29.2	29.0		Agriculture	Lewis A Lamb Sons, Inc.
14-22	65.7	65.0		Agriculture	Lewis A Lamb Sons, Inc.
TOTALS:	596.4	575.1			

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

MA 14

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

A. This land application agreement is made on Dec 15, 2014 between John Lamb referred to here as "Landowner", and Synagro, 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 Madison, 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.

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
31-42	31-45	31-48A	40-2
31-43	31-45A	31-74B	40-3
31-44	31-47	31-74D	40-4
31-44A	31-48	31-74G	40-6

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

- 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>
X Yes <input type="checkbox"/> No			
<u>Lewis A Lamb Sons, Inc</u>			<u>427 Cedar Springs Ln</u>
<u>John G Lamb</u>			<u>Rochelle VA 22738</u>

Permittee:

Synagro, 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)

Lee C. Rosson
Permittee - Authorized Representative
Printed Name

Lee C. Rosson
Signature

10647 Tidewater Trail
Champlain, VA 22438
Mailing Address

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

Permittee: Synagro County or City: Madison
 Landowner: L. Earl Lamb

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).

*

L. Earl Lamb

12/15/14

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

MA 14

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

A. This land application agreement is made on Dec 15, 2014 between Lewis A Lamb Sons, Inc referred to here as "Landowner", and Earl Lamb 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 Madison, 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.

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
31-42	31-45	31-48A	40-2
31-43	31-45A	39-74B	40-3
31-44	31-47	39-74D	40-4
31-44A	31-48	39-74G	40-6

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

- 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.

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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>
X Yes <input type="checkbox"/> No			
<u>Lewis A Lamb Sons, Inc</u>		<u>427 Cedar Springs Ln</u>	
<u>L. Earl Lamb</u>		<u>Rochelle VA 22738</u>	

Permittee:

Synagro, 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)

<u>Lee C. Rosson</u>	<u>Lee C. Rosson</u>	<u>10647 Tidewater Trail</u>
Permittee - Authorized Representative	Signature	Mailing Address
Printed Name		<u>Champlain, VA 22438</u>

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

MA14

Permittee: Synagro County or City: Madison
Landowner: John Lamb

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.

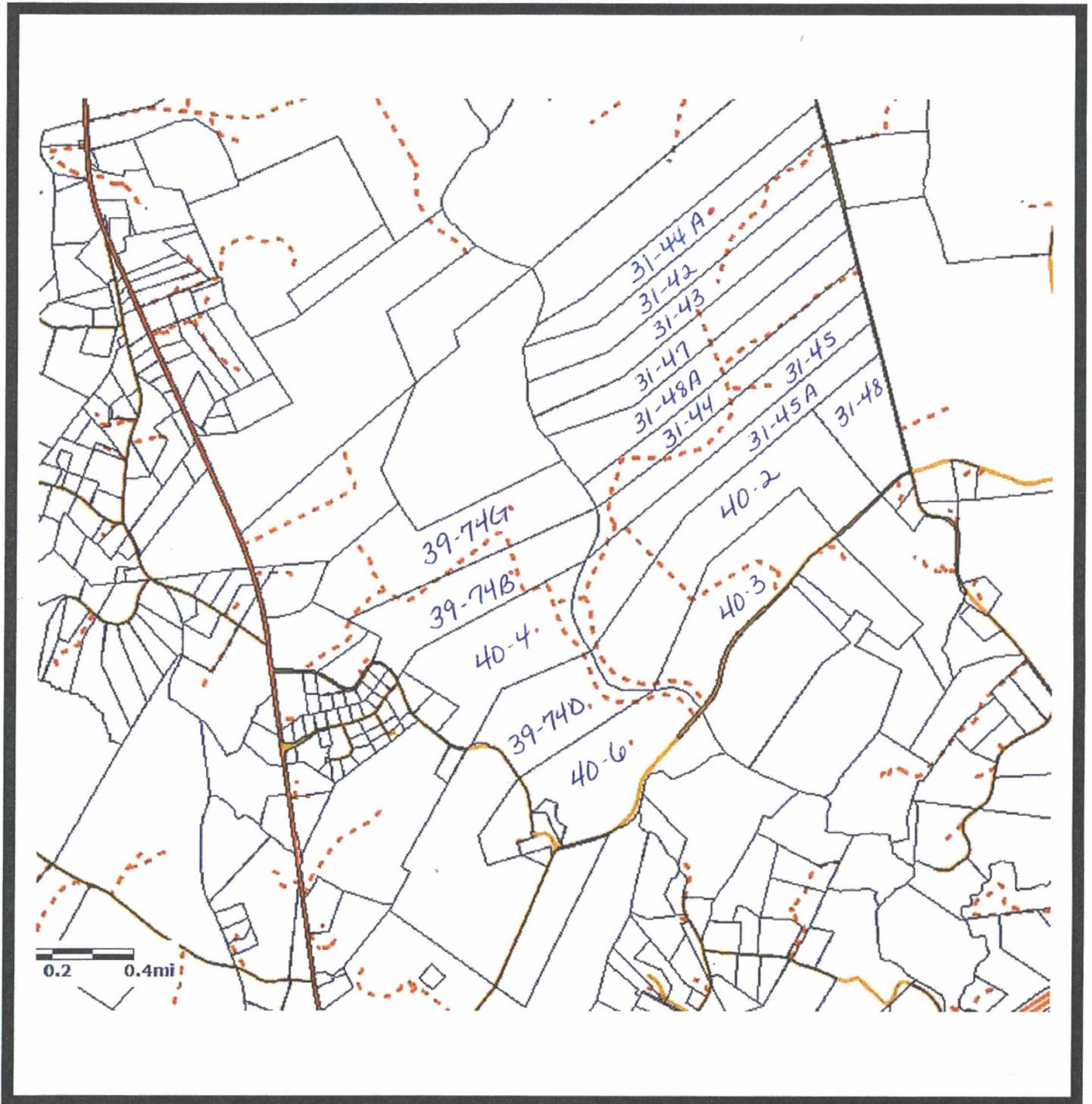
I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

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 - 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.
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 - c. Other animals shall be restricted from grazing for 30 days;
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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).

* John G Lamb 12/15/14



TAX MAP



TAX ID LANDOWNER IDENTIFICATION SHEET

Landowner	Field Number	Tax ID
Lewis A Lamb Sons, Inc.	14-05	40-6
Lewis A Lamb Sons, Inc.	14-06	39-74D, 40-4
Lewis A Lamb Sons, Inc.	14-07	40-6
Lewis A Lamb Sons, Inc.	14-08	39-74D, 40-(4, 6)
Lewis A Lamb Sons, Inc.	14-09	39-(74B, 74G)
Lewis A Lamb Sons, Inc.	14-10	39-(74B, 74G)
Lewis A Lamb Sons, Inc.	14-11	39-74G
Lewis A Lamb Sons, Inc.	14-13	31-45A, 40-(2, 3)
Lewis A Lamb Sons, Inc.	14-14	40 - 3
Lewis A Lamb Sons, Inc.	14-15	31-(44, 45, 45A), 40-2
Lewis A Lamb Sons, Inc.	14-16	31-(43, 44, 47, 48A)
Lewis A Lamb Sons, Inc.	14-17	31-(42, 43, 44, 44A, 47, 48A)
Lewis A Lamb Sons, Inc.	14-18	31-(42, 43, 44A)
Lewis A Lamb Sons, Inc.	14-19	31-(42, 43, 44, 47, 48A)
Lewis A Lamb Sons, Inc.	14-20	31-(42, 43, 44, 47, 48A)
Lewis A Lamb Sons, Inc.	14-21	31-(45, 45A)
Lewis A Lamb Sons, Inc.	14-22	31-48, 40-(2, 3)

Field Number	Latitude (North)	Longitude (West)
14-05	38°24'32.85"	78° 14'46.58"
14-06	38°24'42.80"	78°14'59.14"
14-07	38°24'36.23"	78°14'26.35"
14-08	38°24'44.32"	78°14'45.77"
14-09	38°25'05.01"	78°14'52.61"
14-10	38°24'58.04"	78°14'58.41"
14-11	38°24'59.32"	78°15'16.55"
14-13	38°24'53.11"	78°14'33.17"
14-14	38°24'54.15"	78°14'20.10"
14-15	38°25'06.28"	78°14'28.63"
14-16	38°25'21.12"	78°14'32.10"
14-17	38°25'20.39"	78°14'43.87"
14-18	38°25'37.02"	78°14'29.11"
14-19	38°25'14.95"	78°14'12.30"
14-20	38°25'36.90"	78°14'11.31"
14-21	38°25'28.05"	78°14'05.12"
14-22	38°25'11.46"	78°14'03.97"

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 Fall, 2014 - Fall, 2015

Farm Name: MA 14
Location: Madison
Specialist: D. Steve McMahon
N-based Acres: 695.0
P-based Acres: 0.0

Tract Name: MA 14
FSA Number:
Location: Madison

Field Name: 05
Total Acres: 23.80 Usable Acres: 21.60
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
52	Cm	Chewacla
37	Cw	Congaree
6	SrC	Starr
5	AIB	Altavista

Field Warnings:

Field Name: 05
Total Acres: 23.80 Usable Acres: 21.60
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
52	Cm	Chewacla
37	Cw	Congaree
6	SrC	Starr
5	AIB	Altavista

Field Warnings:

Field Name: 06
Total Acres: 16.60 Usable Acres: 15.60
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: C Hydrologic Group: D

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
45	Cm	Chewacla
42	SrC	Starr
13	BeD	Brandywine

Field Warnings:

Field Name: 07
Total Acres: 6.30 Usable Acres: 5.60
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
57	Cm	Chewacla
43	Cr	Colluvial land

Field Warnings:

Field Name: 08
Total Acres: 68.30 Usable Acres: 67.30
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: B Hydrologic Group: D

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	Cm	Chewacla
31	Cw	Congaree
10	We	Wehadkee

Field Warnings:

Field Name: 09
Total Acres: 41.30 Usable Acres: 40.00
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: B Hydrologic Group: D

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
62	Cm	Chewacla
13	Cw	Congaree
9	Cn	Codorus
8	We	Wehadkee
8	Rk	Roanoke

Field Warnings:

Field Name: 10
Total Acres: 12.40 Usable Acres: 11.80
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: B Hydrologic Group: D

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
83	Cm	Chewacla
17	We	Wehadkee

Field Warnings:

Field Name: 11
Total Acres: 14.20 Usable Acres: 13.70
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: C Hydrologic Group: D

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	Cm	Chewacla
25	SrC	Starr
25	BeD	Brandywine
10	CkC2	Brandywine Chester
8	BeC	Brandywine
6	EyD2	Eubanks Lloyd

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%

Field Name: 13
Total Acres: 45.90 Usable Acres: 45.40
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
90	Cw	Congaree
10	Cm	Chewacla

Field Warnings:

Field Name: 14
Total Acres: 15.20 Usable Acres: 13.80
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
50	Au	Augusta
26	Cw	Congaree
14	Cm	Chewacla
10	AIA	Altavista

Field Warnings:

Field Name: 15
Total Acres: 37.70 Usable Acres: 36.50
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
51	Cm	Chewacla
22	AIA	Altavista
10	Cw	Congaree
9	Au	Augusta
8	WhB	Wickham

Field Warnings:

Field Name: 16
Total Acres: 33.50 Usable Acres: 32.50
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
38	Au	Augusta
38	AIA	Altavista
18	Rk	Roanoke
6	Cm	Chewacla

Field Warnings:

Field Name: 17
Total Acres: 38.40 Usable Acres: 38.40
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
66	Cn	Codorus
22	Cw	Congaree
12	Cm	Chewacla

Field Warnings:

Field Name: 18
Total Acres: 58.20 Usable Acres: 52.70
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
45	Rk	Roanoke
41	Au	Augusta
14	AIA	Altavista

Field Warnings:

Field Name: 19
Total Acres: 27.50 Usable Acres: 26.30
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: A Hydrologic Group: D

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
83	Rk	Roanoke
17	Au	Augusta

Field Warnings:

Field Name: 20
Total Acres: 62.20 Usable Acres: 59.90
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: B Hydrologic Group: D

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
55	Rk	Roanoke
13	Au	Augusta
11	AIA	Altavista
10	SrC	Starr
6	HsB2	Hiwassee
5	BeD	Brandywine

Field Warnings:

Field Name: 21
Total Acres: 29.20 Usable Acres: 29.00
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: B Hydrologic Group: D

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
25	SrC	Starr
22	Rk	Roanoke
19	HsB	Hiwassee
13	HsC2	Hiwassee
12	Au	Augusta
9	AIA	Altavista

Field Warnings:

Field Name: 22
Total Acres: 65.70 Usable Acres: 65.00
FSA Number: 0
Tract: MA 14
Location: Madison
Slope Class: B Hydrologic Group: D

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
31	AIA	Altavista
22	SrC	Starr
14	HsC2	Hiwassee
13	Au	Augusta
11	Rk	Roanoke
9	HsB	Hiwassee

Field Warnings:

ENVIRONMENTALLY SENSITIVE AREAS

Field	Reason for Sensitive Area
14-05	High Water Table (Map Unit Cm - 52%) Flooded Soils (Map Units Cm, Cw - 89%)
14-06	High Water Table (Map Unit Cm - 52%) Flooded Soils (Map Unit Cm - 45%) High Leaching Potential (Map Unit BeD - 13%)
14-07	Flooded Soils (Map Unit Cw - 57%)
14-08	High Water Table (Map Units Cm, We - 69%) Flooded Soils (Map Units Cm, Cw, We - 100%)
14-09	High Water Table (Map Units - Cm, Cn, Rk, We - 87%) Flooded Soils (Map Units - Cm, Cn, Cw, Rk, WE - 100%)
14-10	High Water Table (Map Units Cm, We - 100%) Flooded Soils (Map Units Cm, We - 100%)
14-11	High Water Table (Map Unit Cm - 26%) High Leaching Potential (Map Units BeC, BeD - 33%)
14-13	High Water Table (Map Unit Cm - 10%) Flooded Soils (Map Units Cm, Cw - 100%)
14-14	High Water Table (Map Units Au, Cm - 64%) Flooded Soils (Map Units Cm, Cw - 40%)
14-15	High Water Table (Map Units Au, Cm - 60%) Flooded Soils (Map Units - Cm, Cw - 61%)
14-16	High Water Table - Map Units Au, Cm, Rk - 62%) Flooded Soils (Map Unit Cm - 62%)
14-17	High Water Table (Map Units Cm, Cn - 78%) Flooded Soils (Map Units Cm, Cn, Cw - 100%)
14-18	High Water Table (Map Units Au, Rk - 86%)
14-19	High Water Table (Map Units Au, Rk - 100%)
14-20	High Water Table (Map Units Au, Rk - 68%) High Leaching Potential (Map Unit BeD - 5%)

Field	Reason for Sensitive Area
14-21	High Water Table (Map Units Au, Rk - 34%)
14-22	High Water Table (Map Units Au, Rk - 24%)

Madison County Soils that are Environmentally Sensitive

Soil Map Unit	Series Name	Time of year		Environmental
		High Water	Flooded	
Ab	Albano	Nov-May		
Ac, Ad	Alluvial	Nov-May	Nov-May	
Au	Augusta	Dec-May		
BaB	Baile	Nov-April		
BdC, BdD	Brandywine			Leaching
BeC, BeD, BeF	Brandywine			Leaching
BnD, BnF	Brandywine			Leaching
BrC, BrE	Bremo			Leaching
Bu	Buncombe		Feb-June	Leaching
CbB	Calverton	Dec-May		
CcC, CcE	Catoctin			Shallow
Cm	Chewacla	Nov-April	Nov-April	
Cn	Codorus	Nov-April	Nov-April	
CoC	Colfax	Nov-June		
Cv, Cw	Congaree		Nov-April	
Eb	Elbert	Nov-May		
HaC, HaD, HaF	Hazel			Shallow
IrB	Iredell	Dec-April		
LeD	Lewisberry			Leaching
LoC, LoD, Lof	Louisburg			Leaching
MoC	Manor			Leaching
Rh	Riverwash	Jan-Dec	Oct-July	
Rk	Roanoke	Nov-May		
TuB, TuC, Tud, TuE	Tusquitee			Leaching
WaC, WaE	Wat			Shallow
We	Wehadkee	Nov-May	Nov-May	
WmB	Worsham	Nov-April		

Map Legend



House/Dwelling with a well

- 200' buffer-dwelling (with conditions for reduction);
- 100' buffer-well



Rock Outcrop

- 25' buffer



Limestone Outcrop

- 50' buffer



Well

- 100' buffer



Lake/Pond

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



Slope which exceeds 15%



Intermittent Stream

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



Stream/River

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



Agricultural/Drainage Ditch

- 10' buffer



Field Boundary



Property Line

- 100' buffer unless waiver issued



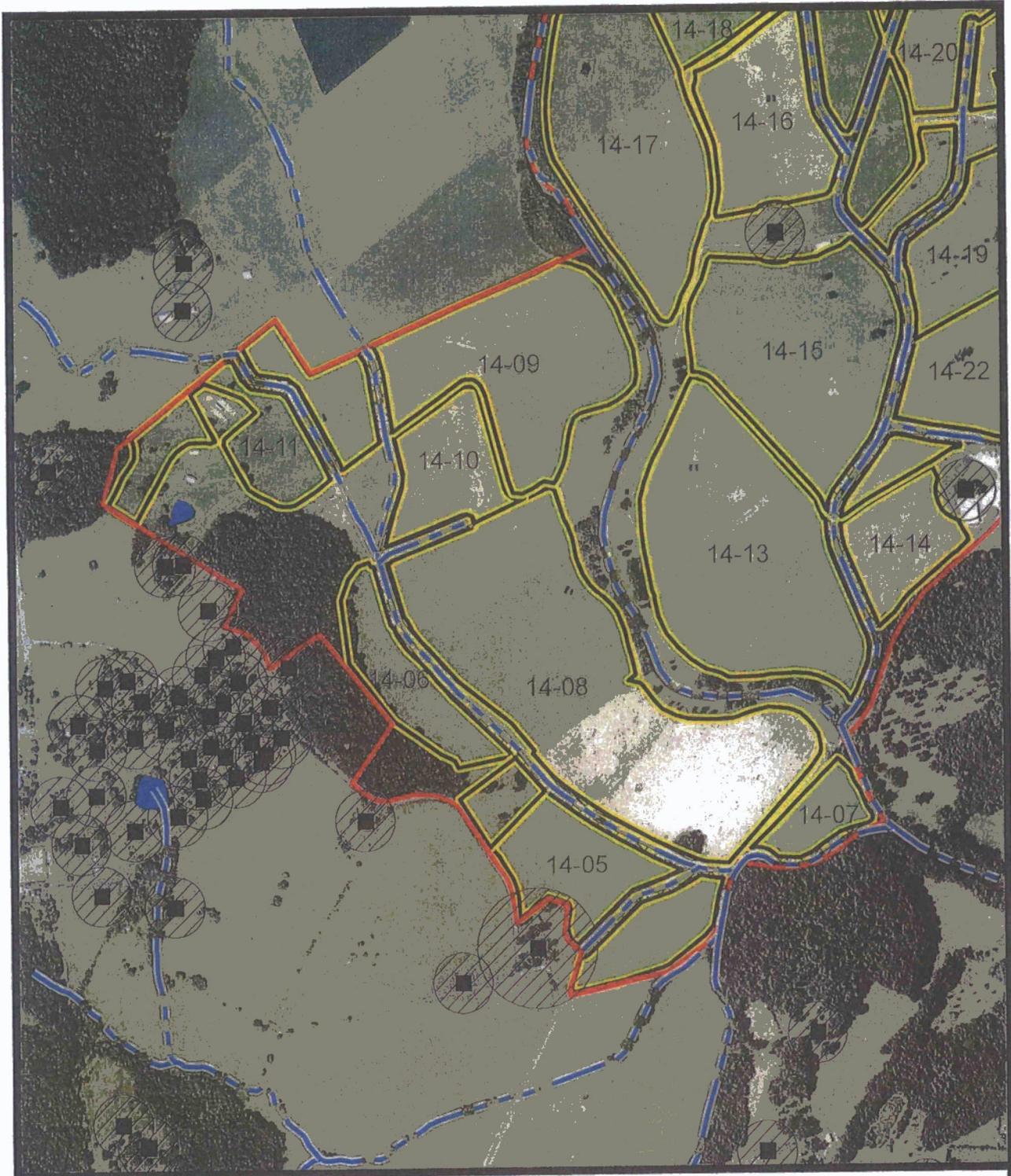
"PAS" - Publicly Accessible Site

- 200' buffer



SYNAGRO

Earl & John Lamb
MA 14
Fields 5-11, 13



1 inch = 1,000 feet

1:12,000

AERIAL MAP

REVISED 10-15-2015



SYNAGRO

Earl & John Lamb
MA 14
Fields 14-22

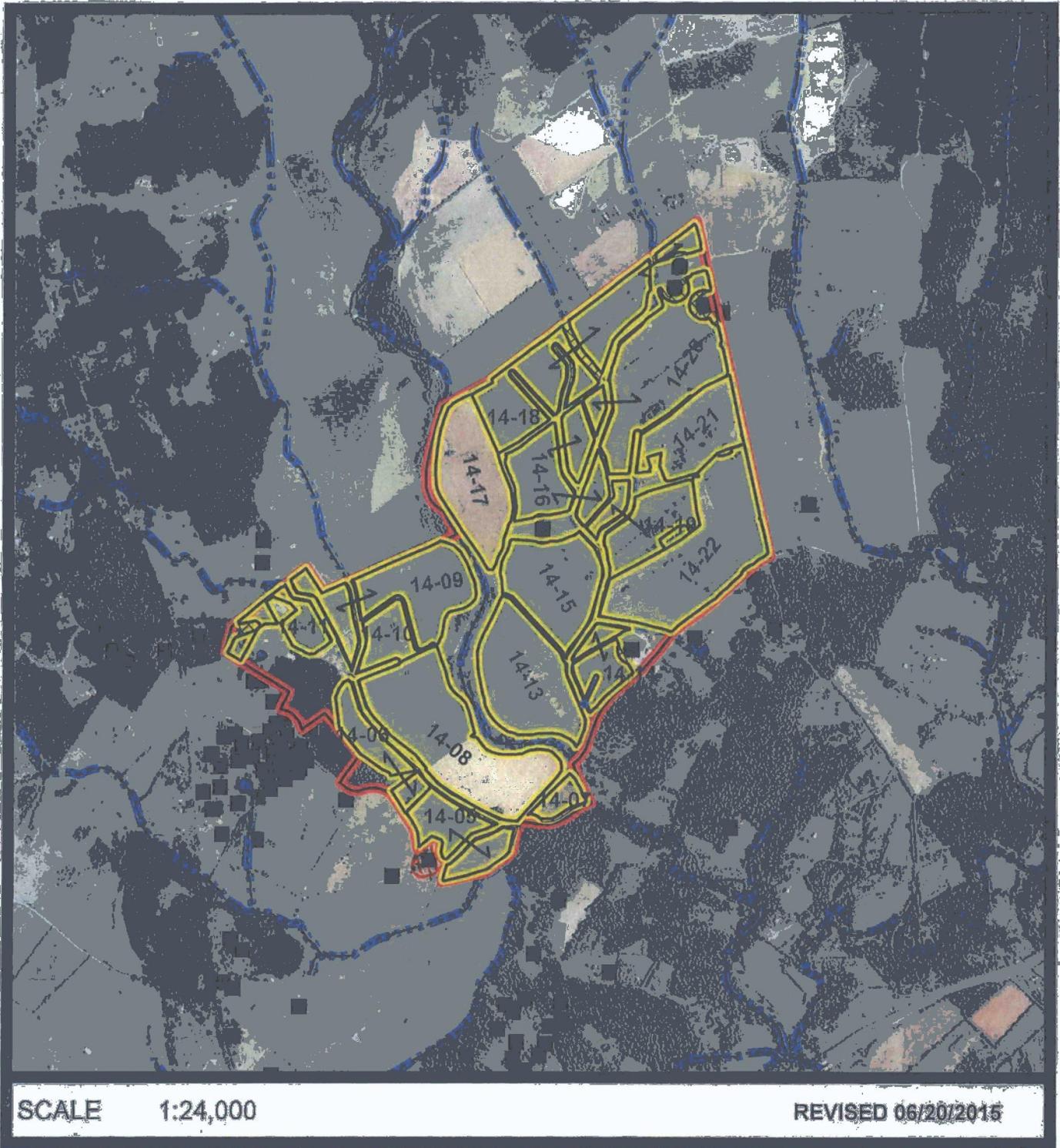


1 inch = 1,000 feet

1:12,000

AERIAL MAP

REVISED 10-15-2015



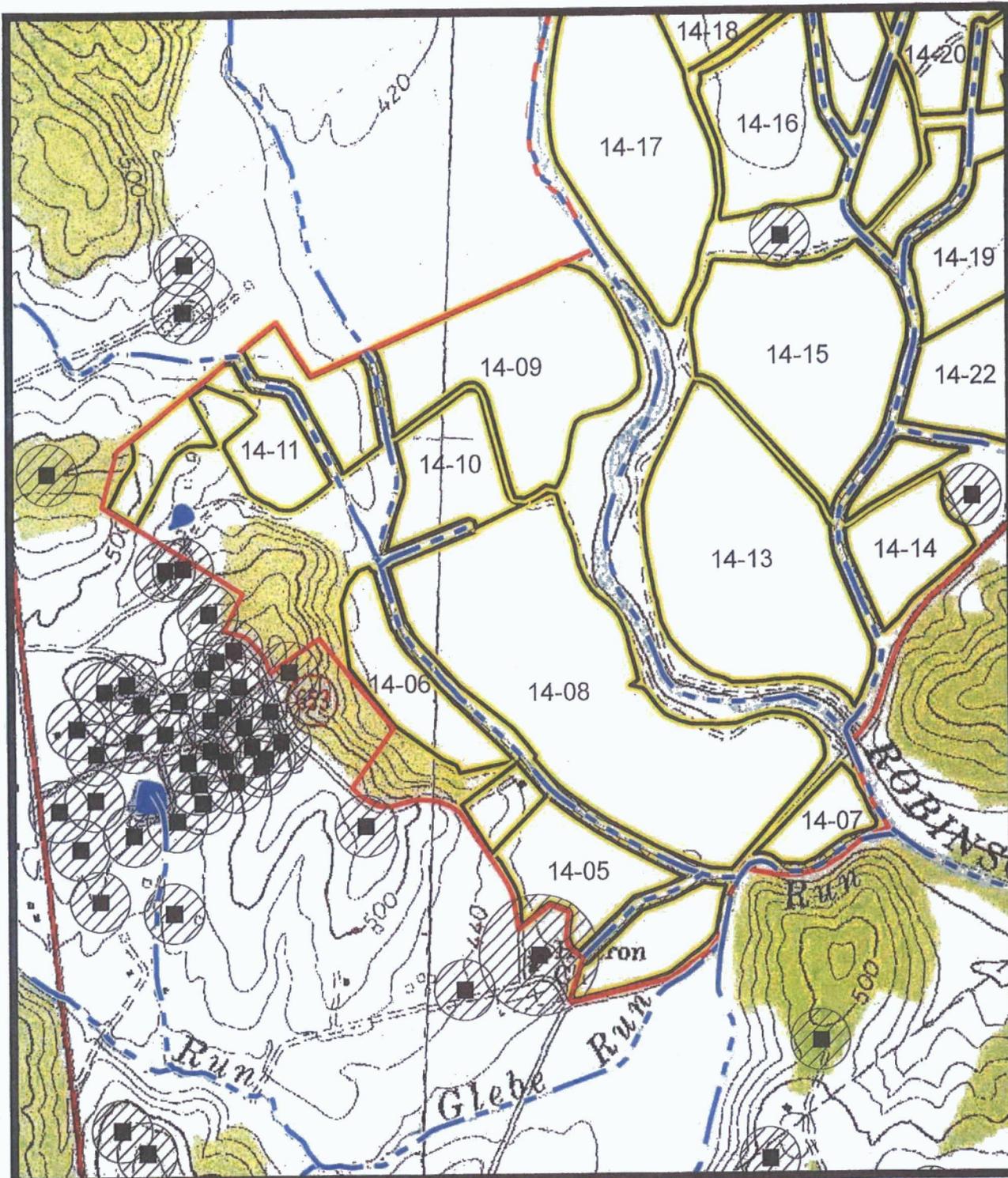
AERIAL MAP





SYNAGRO

Earl & John Lamb
MA 14
Fields 5-11, 13



1 inch = 1,000 feet

1:12,000

FIELD	ACRES	FIELD	ACRES
14-05	23.8	14-09	41.3
14-06	16.6	14-10	12.4
14-07	6.3	14-11	14.2
14-08	68.3	14-13	45.9

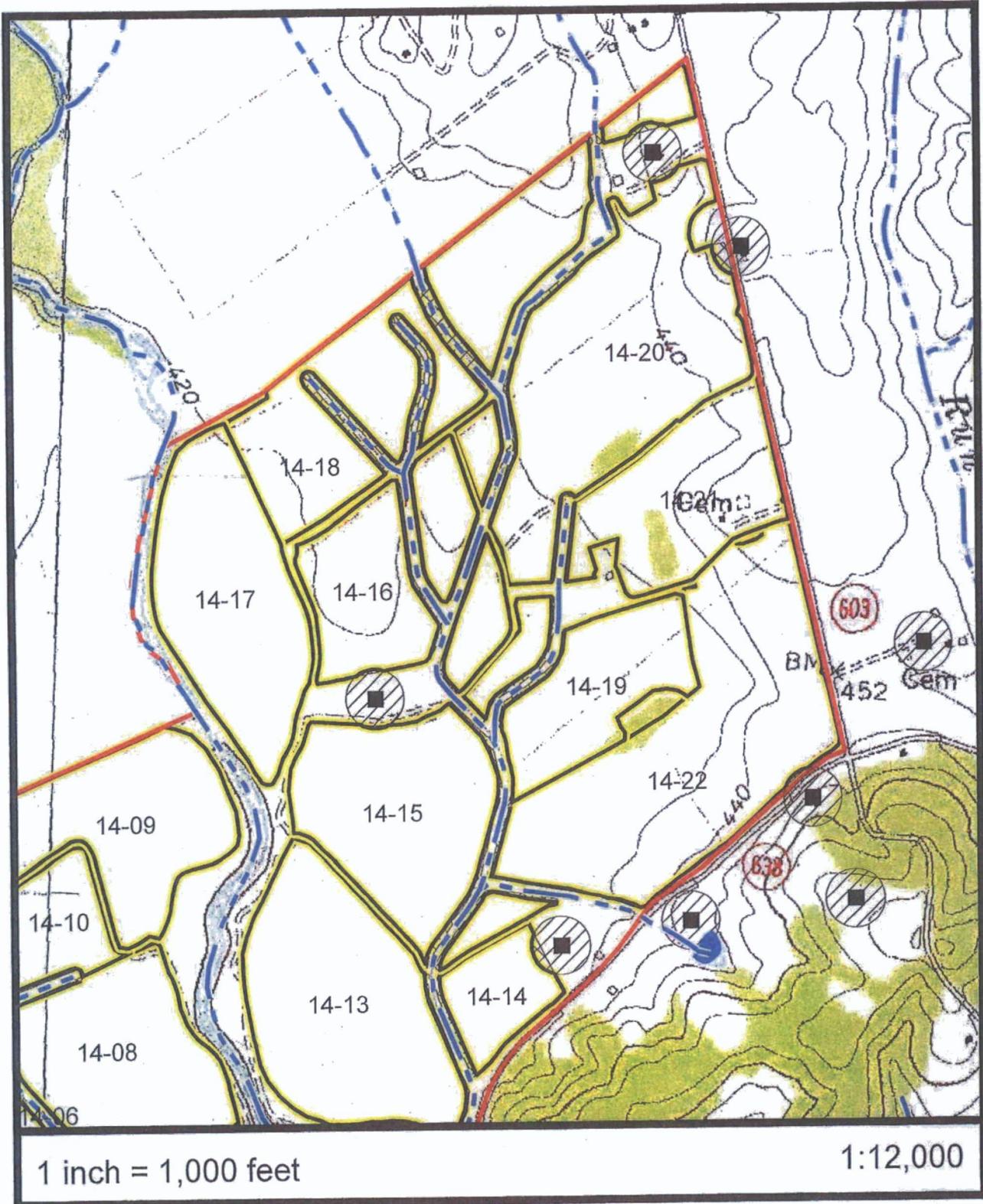
TOPO MAP

REVISED 10-15-2015



SYNAGRO

Earl & John Lamb
MA 14
Fields 14-22



FIELD	ACRES
14-14	15.2
14-15	37.7
14-16	33.5

FIELD	ACRES
14-17	38.4
14-18	58.2
14-19	27.5

TOPO MAP

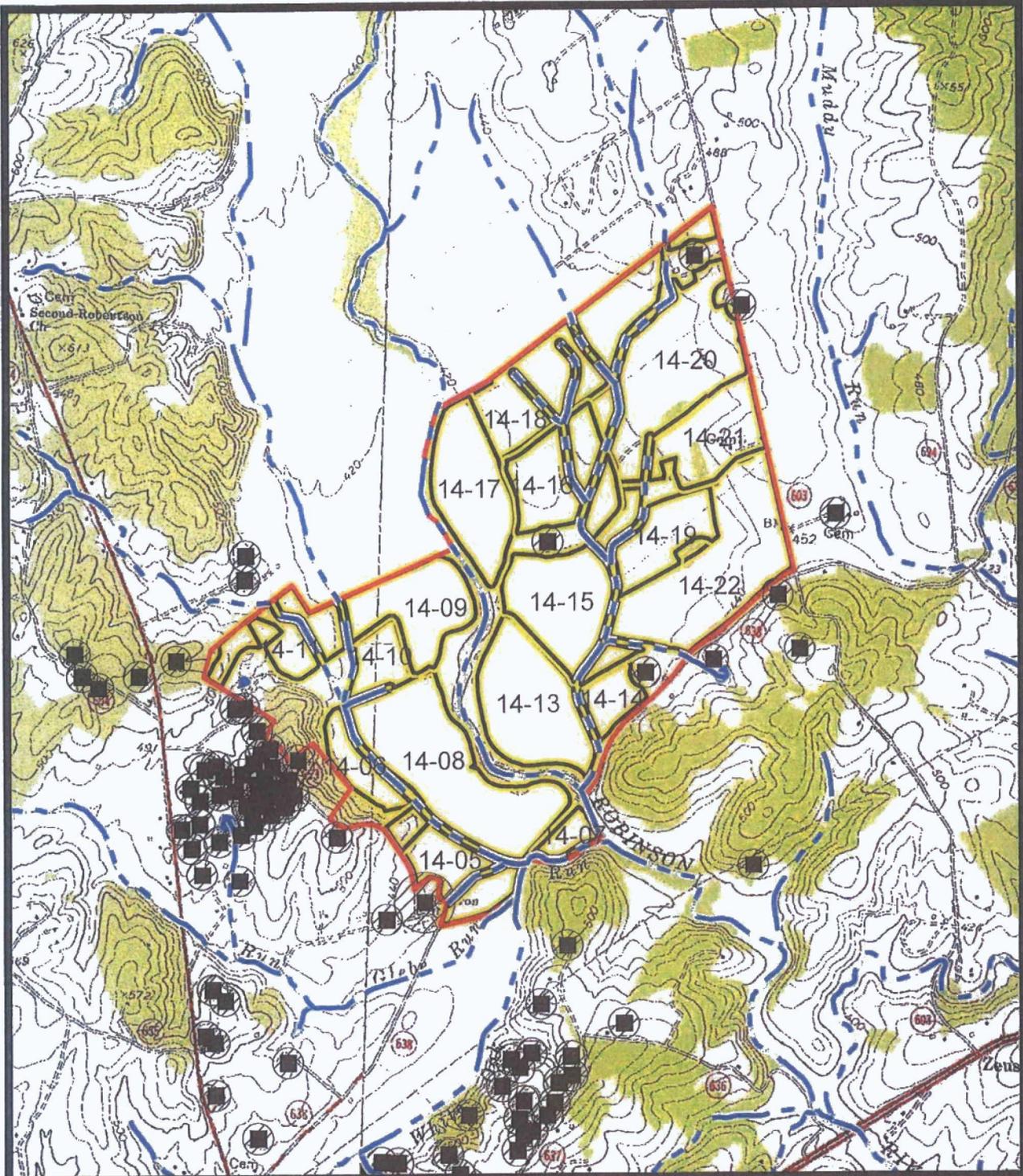
REVISED 10-15-2015

FIELD	ACRES
14-20	62.2
14-21	29.2
14-22	65.7



SYNAGRO

Earl & John Lamb
MA 14
Fields 13-22
5-11



1 inch = 2,000 feet

1:24,000

TOPO MAP

REVISED 10-15-2015



LOCATION MAP

