

3.3 in
OLD PERMIT
→

	Field	Acres	Buffer	Net Ac.	Latitude	Long.	FSN#	Tract	Field	Tax ID #	RPC#
Donnie Bays	RO56-1	12.8	4.3	8.5	37.144	-79.499	2235	1112	1	236 A 27	23603000
										236 A 35	23604000
	RO56-2	26.0	7.0	19.0	37.143	-79.496	2235	1112	2-3, 8	236 A 27	23603000
										236 A 35	23604000
	RO56-4	11.3	2.1	9.2	37.143	-79.495	2235	1112	4	236 A 27	23603000
	RO56-5	14.4	3.6	10.8	37.143	-79.496	2235	1112	2-3, 8	236 A 27	23603000
										236 A 35	23604000
	RO56-6	15.3	1.5	13.8	37.142	-79.493	2235	1112	6-7	236 A 27	23603000
	RO56-9	4.9	1.4	3.5	37.141	-79.492	2235	1112	9	236 A 27	23603000
	RO56-10	25.1	9.0	16.1	37.116	-79.554	3404	2961	9-11	244 A 3	24400100
	RO56-11	12.6	2.8	9.8	37.119	-79.557	3404	2961	6-7	244 A 3	24400100
	RO56-12	29.2	13.1	16.1	37.118	-79.560	3404	2961	1-7, 12	244 A 3	24400100
	RO56-13	32.8	8.1	24.7	37.111	-79.566	2646	2947	2-3	243 A 51	24306200
	RO56-14	60.6	16.2	44.4	37.145	-79.533	2254	1133	2	235 A 31A	89204856
	RO56-14A	13.0	2.8	10.2	37.141	-79.536	2254	1133	2	235 A 31A	89204856
	RO56-15	54.8	21.4	33.4	37.137	-79.404	3174	2026	1-4	239 2 7	23901403
										239 2 8	23901404
	RO56-16	13.7	7.3	6.4	37.108	-79.562	2645	2947	13	243 A 51	24306200
	RO56-17	38.3	9.3	29.0	37.109	-79.565	2645	2947	5, 7, 12	243 A 51	24306200
	RO56-18	2.6	0.6	2.0	37.110	-79.560	3886	3010	7	244 A 5	24400300
	RO56-19	8.4	1.5	6.9	37.111	-79.560	3886	3010	6	244 A 5	24400300
	RO56-20	7.5	1.6	5.9	37.111	-79.557	3886	3010	9	244 A 6	24400500
	RO56-21	13.2	2.8	10.4	37.112	-79.558	3886	3010	6	244 A 5	24400300
										244 A 5A	24400400
	RO56-22	9.5	2.5	7.0	37.112	-79.556	3886	3010	8	244 A 5A	24400400
	RO56-23	6.9	0.1	6.8	37.111	-79.561	3886	3010	4	244 A 5	24400300
	RO56-24	5.8	0.3	5.5	37.113	-79.561	3886	3010	2	244 A 5	24400300
	RO56-25	5.5	1.5	4.0	37.114	-79.562	3886	3010	2	244 A 5	24400300
	RO56-26	10.3	1.5	8.8	37.114	-79.557	3886	3010	8	244 A 5	24400300
										244 A 5A	24400400
	RO56-27	6.4	0.9	5.5	37.115	-79.559	3886	3010	5	244 A 5	24400300
										244 A 5A	24400400
	RO56-28	8.6	4.0	4.6	37.116	-79.559	3886	3010	3	244 A 3	24400100
										244 A 5	24400300
										244 A 5A	24400400
	RO56-29	2.8	0.2	2.6	37.116	-79.562	3886	3010	20	244 A 5	24400300
	RO56-30	7.1	0.1	7.0	37.116	-79.563	3886	3010	1	244 A 5	24400300
										243 A 36	24304500
	RO56-31	10.1	0.0	10.1	37.116	-79.564	3886	3010	1	243 A 36	24304500
	RO56-32	6.8	1.7	5.1	37.117	-79.565	3886	3010	1	243 A 36	24304500
RO56-33	10.9	3.3	7.6	37.118	-79.562	3886	3010	1	243 A 36	24304500	
RO56-34	26.5	6.6	19.9	37.142	-79.502	2647	2948	8, 10	236 A 33	23603700	
RO56-35	6.5	3.1	3.4	37.142	-79.504	2647	2948	7	236 A 33	23603700	
RO56-36	6.4	1.6	4.8	37.142	-79.507	2647	2948	1	236 A 33	23603700	
RO56-37	14.7	8.8	5.9	37.140	-79.507	2647	2948	2-3, 5, 16	236 A 33	23603700	
RO56-38	11.5	6.5	5.0	37.138	-79.507	2647	2948	4	236 A 33	23603700	
RO56-39	8.5	0.9	7.6	37.138	-79.506	2647	2948	4	236 A 33	23603700	
RO56-40	8.4	2.2	6.2	37.141	-79.505	2647	2948	7	236 A 33	23603700	
TOTALS	569.7		407.5								

*Bold denotes fields that were previously permitted (RO56-2 has changed in net acres)

299.8 OLD
269.9 NEW

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

Permittee: Rio-Nomic Services Tax county or City: Bedford County
Landowner: Donnie L. Bays

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).

Donnie Bays
Landowner's Signature

11-16-15
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 11/16/2015 between Cathey Bays referred to here as "Landowner", and Bio-Nomic, 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 Bedford City 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>244 A 3</u>	<u>24400100</u>		
<u>244 A 5A</u>	<u>24400400</u>		
<u>244 A 5</u>	<u>24400300</u>		
<u>243 A 51</u>	<u>24306200</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.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
 Yes No Yes No Yes No Yes No

Cathey Bays
Landowner - Printed Name/Title

Cathey Bays
Signature

2236 Tolers Ferry Rd.
Huddleston Va 24104
Mailing Address

Permittee:

Bio-Nomic, 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)

Vaughn "Buck" Stevenson
Permittee - Authorized Representative
Printed Name

Vaughn "Buck" Ste
Signature

516 Rowntree Rd
Charlotte, NC 28217
Mailing Address

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

Permittee: Rio-Nomic Services County or City: Bedford County
Landowner: Cathy Bays

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).

Cathy Bays
Landowner's Signature

11-16-15
Date

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

Permittee: Bio-Nomic Services Inc County or City: Bedford County
Landowner: Clyde Bays

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).

✂

Clyde Bays
Landowner's Signature

11-16-15
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 4/14/2016 between David M. Bays referred to here as "Landowner", and Bio-Nomic Svc, 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 Bedford Ct. 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
239 2 8	23901404		
239 2 7	23901403		
235 A 31A	89204856		
236 A 27	23603000		
236 A 35	23604000		

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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

DAVID M. BAYS
Landowner - Printed Name, Title

David M. Bays
Signature

1080 Remington Rd
Mailing Address
Forest VA 24121

Permittee:

Bio-Nomic Svc, 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)

Vaughn "Buck" Stevenson
Permittee - Authorized Representative
Printed Name

Vaughn "Buck" Stevenson
Signature

516 Rowntree Rd
Mailing Address
Charlotte NC 28217

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

Permittee: Bio-Nomic Services, Inc County or City: Bedford County
Landowner: David M. Bays

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.

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2. Public Access
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 - 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).

David M. Bays
Landowner's Signature

4/14/10
Date

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

Permittee: Bio-Nomic Services, Inc County or City: Bedford County
Landowner: Janet B. Bays

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.

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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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 - 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;
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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).

Janet B. Bays
Landowner's Signature

4/14/16
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 4/1/2016 between Shirley Morgan referred to here as "Landowner", and Bio-Nomic Svc, 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 Bedford City, 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>244 A 6</u>	<u>24400500</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.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
 Yes No Yes No Yes No

Shirley Morgan Shirley Morgan 2004 Fates Ferry Rd
 Landowner - Printed Name, Title Signature Mailing Address
H. H. Hester, VA 24104

Permittee:
Bio-Nomic Svc, 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)

Vaughn "Buck" Stevenson Vaughn "Buck" Stevenson 516 Rowtree Rd
 Permittee - Authorized Representative Signature Mailing Address
 Printed Name Charlotte, NC 27817

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

Permittee: Bio-Nomic Services, Inc County or City: Bedford County
Landowner: Shirley Morgan

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).

Shirley Morgan
Landowner's Signature

4-1-16
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 11/16/2015 between Eric Morgan referred to here as "Landowner", and Bio-Nomic Svc. 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 Bedford City 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
<u>243 A 36</u>	<u>24304500</u>		
<u>244 A 3</u>	<u>24400100</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.

Class B biosolids Water treatment residuals Food processing waste Other industrial sludges
 Yes No Yes No Yes No Yes No

Eric Morgan
Landowner - Printed Name, Title

Eric Morgan
Signature

2004 Tole's Farm Rd
Mailing Address
Bedford Va 24104

Permittee:

Bio-Nomic Svc., 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)

Vaughn Buck Stevenson
Permittee - Authorized Representative
Printed Name

Vaughn Buck Stevenson
Signature

516 Rountree Rd
Mailing Address
Charlotte, NC 28217

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

Permittee: Bio-Nomic Services Inc County or City: Bedford County
Landowner: Eric Morgan

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.

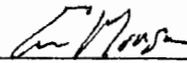
I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

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

11-16-15
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 11/16/2015 between Perry W. Morgan referred to here as "Landowner", and Bio-Nomic SW, 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 Bedford City, 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>244 A 3</u>	<u>24400100</u>		
<u>244 A 6</u>	<u>24400500</u>		
<u>244 A 5</u>	<u>24400300</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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Perry W Morgan
Landowner - Printed Name, Title

Perry W Morgan
Signature

2009 Toler's Ferry Rd. Huddleton Va 24104
Mailing Address

Permittee:

Bio-Nomic SW, 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)

Vaughn "Buck" Stevenson
Permittee - Authorized Representative
Printed Name

Vaughn "Buck" Stevenson
Signature

516 Roundtree Rd
Charlotte, N.C. 28217
Mailing Address

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

Permittee: Big-Nomic Services Inc County or City: Bedford County
Landowner: Perry W. Morgan

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).

Perry W Morgan

Landowner's Signature

11-16-15

Date

Printer-Friendly

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
236 A 27	236 A 27	23603000	1035 CARTERS MILL ROAD

[Link to Real Estate Lookup/Sketch](#)

Parcel Information Valuation Improvements Ownership History

General Information

Owner:	BAYS DAVID M & JANET B	Legal Acreage:	86.1800
Additional Owner:		PCDesc:	5 Agricultural/Undeveloped(20-99ac)
Owner Address:	1080 REMINGTON RD FOREST , VA 24551	Legal Description:	BLACKWATER RD
		Document Number:	050019365

Land Use

Tax Year: 1997

- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016

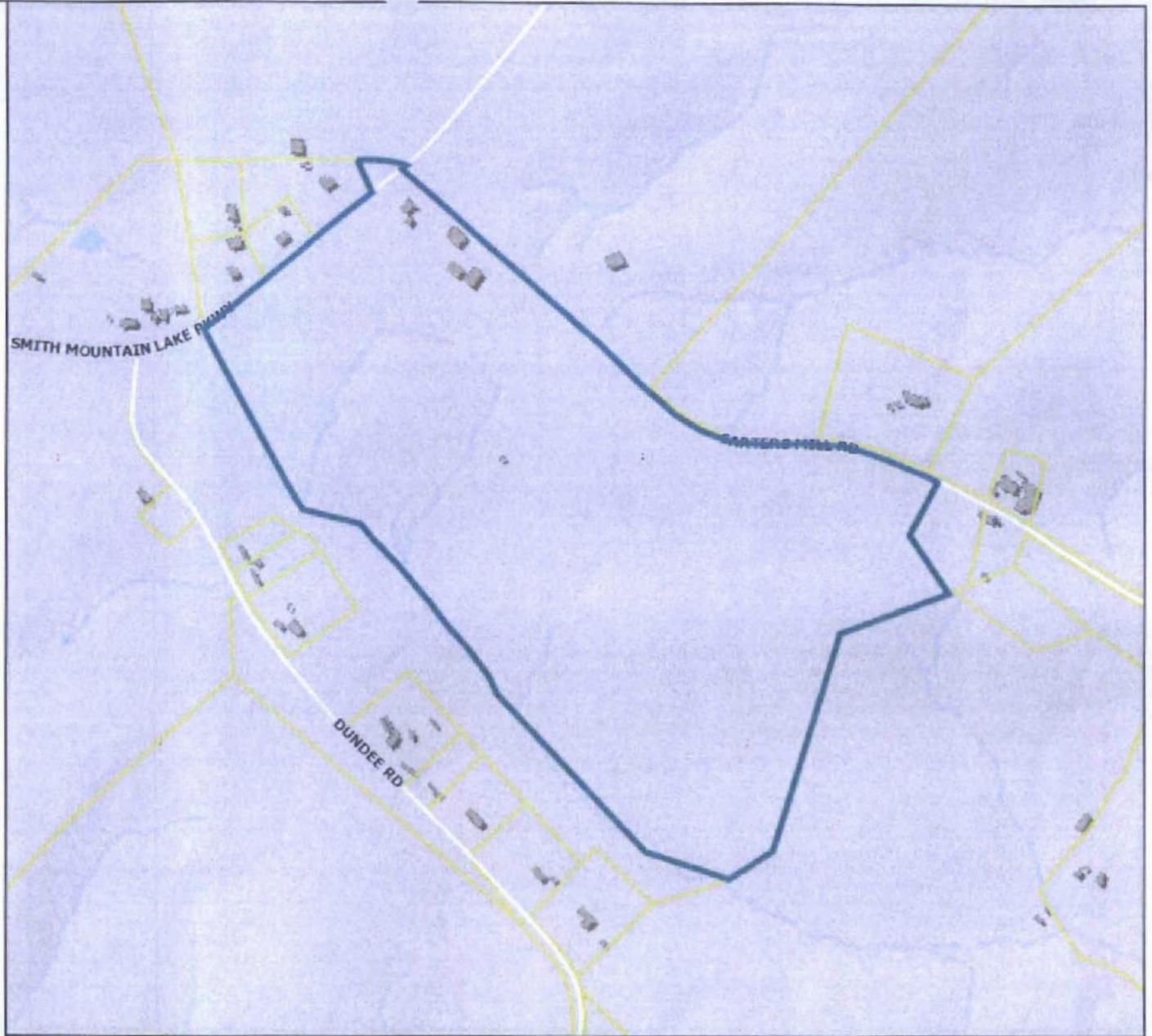
PART ROSE-1
 PART ROSE-2
 ROSE-4
 ROSE-5
 ROSE-6
 ROSE-9

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

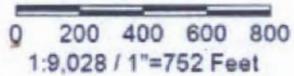
PART ROS6-1
PART ROS6-2
ROS6-4
ROS6-5
ROS6-6
ROS6-9



Title: Bays David M & Janet B 236 A 27 23603000

Date: 3/18/2016

Feet



DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Printer-Friendly

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
236 A 35	236 A 35	23604000	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information: Valuation Improvements Ownership History

General Information

Owner:	BAYS DAVID M & JANET B	Legal Acreage:	22.9100
Additional Owner:		PCDesc:	5 Agricultural/Undeveloped(20-99ac)
Owner Address:	1080 REMINGTON RD FOREST , VA 24551	Legal Description:	NR HUDDLESTON
		Document Number:	050019365

Land Use

- Tax Year:
- 1997
 - 1998
 - 1999
 - 2000
 - 2001
 - 2002
 - 2003
 - 2004
 - 2005
 - 2006
 - 2007
 - 2008
 - 2009
 - 2010
 - 2011
 - 2012
 - 2013
 - 2014
 - 2015
 - 2016

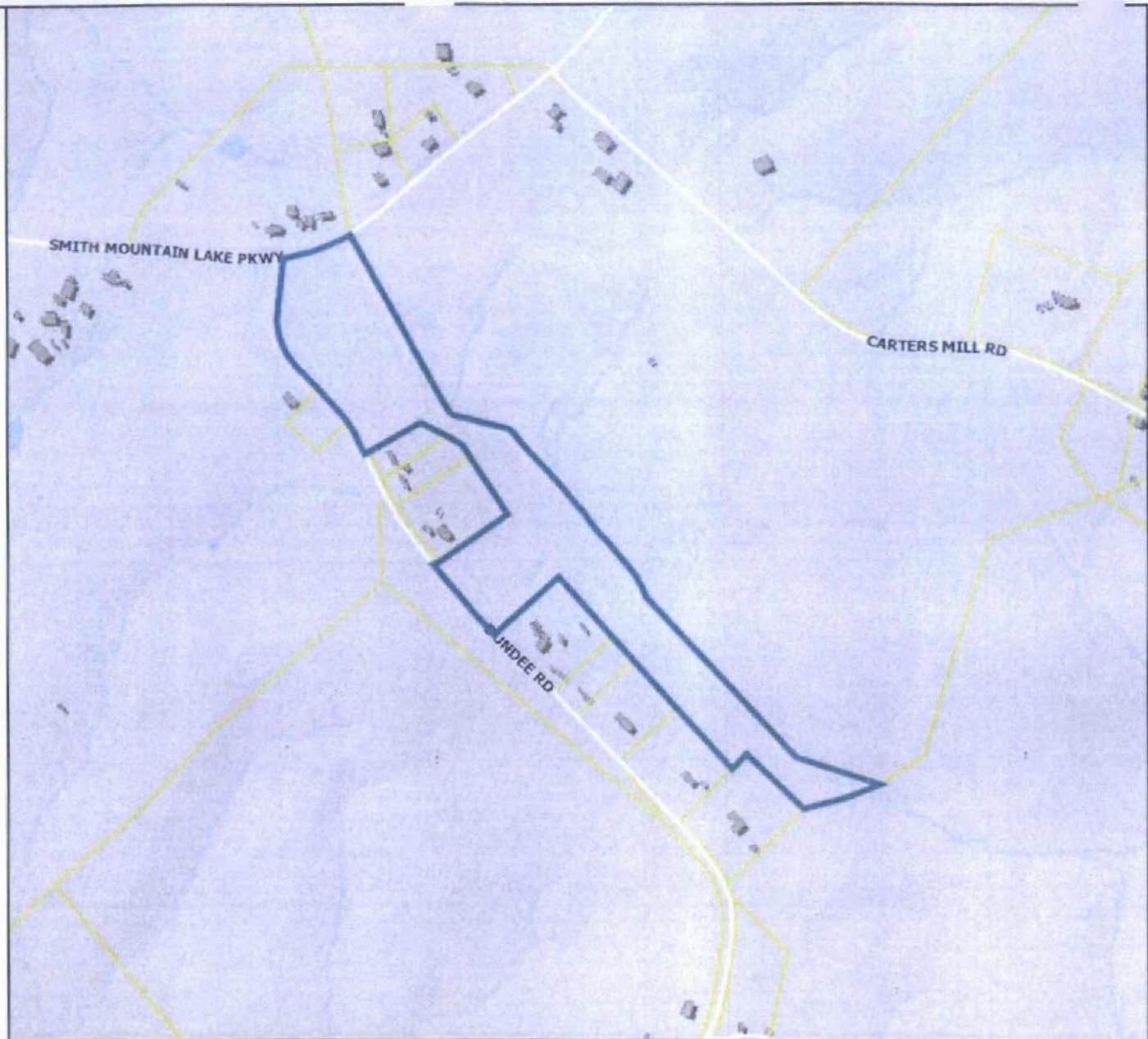
PART 2050-1
PART 2050-2

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 2056-1
PART 2056-2



Title: Bays David M & Janet B 236 A 35 23604000

Date: 3/18/2016



DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Printer-Friendly

View in Map

Tax Map #	Link	Parcel Number(RPC)	Address
244 A 3	244 A 3	24400100	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information

Valuation

Improvements

Ownership History

General Information

Owner:	BAYS DONNIE L & CATHY M & PERRY W &	Legal Acreage:	30.7500
Additional Owner:	T MORGAN	PCDesc:	5 Agricultural/Undevl(20-99ac)
Owner Address:	2236 TOLERS FERRY RD HUDDLESTON , VA 241049761	Legal Description:	CLOVER CR
		Document Number:	010003676

Land Use

- Tax Year: 1997
- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016

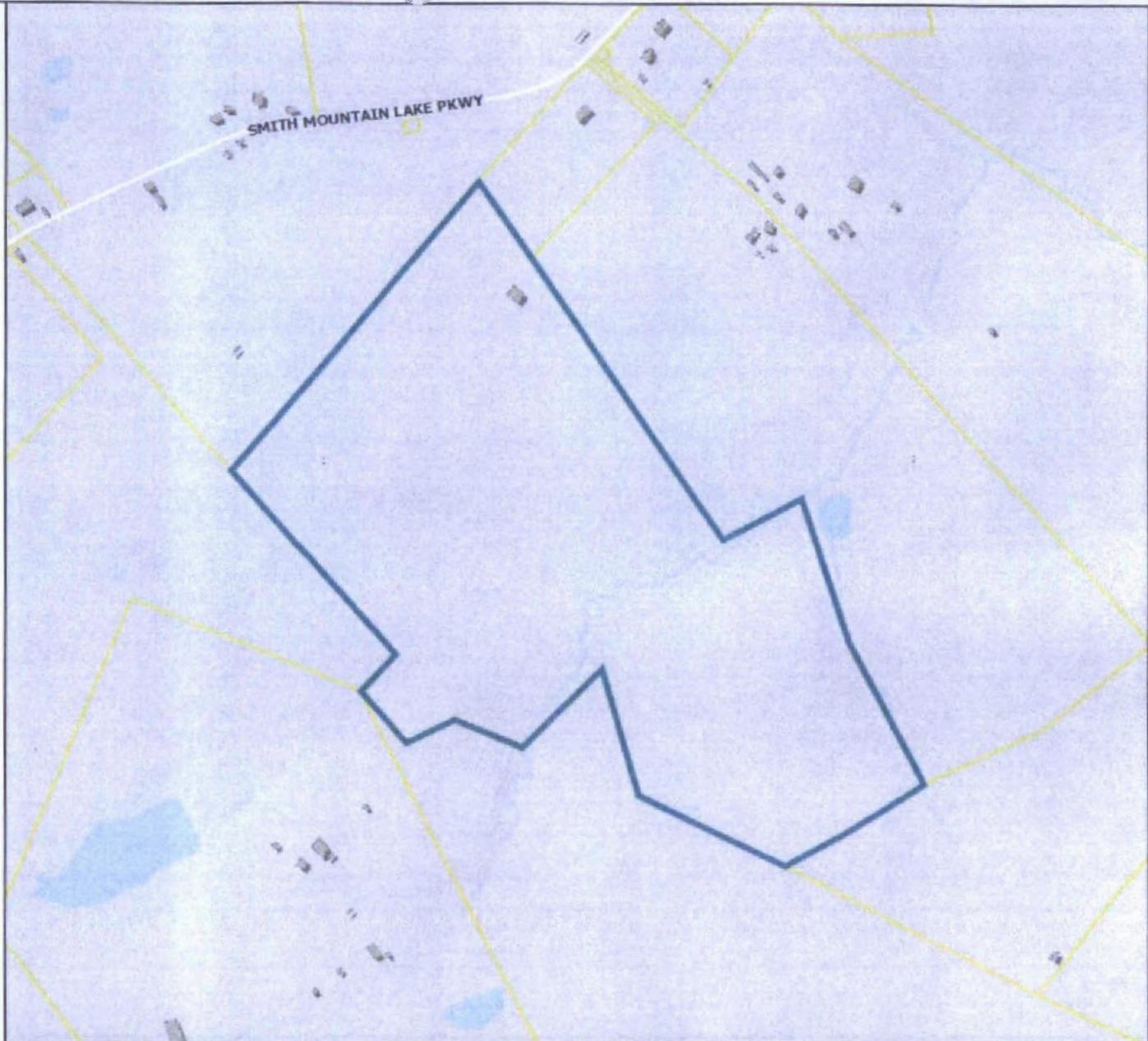
RO 56-10
 RO 56-11
 RO 56-12

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

ROS6-10
ROS6-11
ROS6-12



Title: **Bays Donnie L & Cathey M & perry W&TMorgan 244 A 3**

Date: 3/18/2016

244 A 3 24400100
DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Printer-Friendly

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
243 A 51	243 A 51	24306200	1317 TOLERS FERRY ROAD

[Link to Real Estate Lookup/Sketch](#)

Parcel Information Valuation Improvements Ownership History

General Information

Owner:	BAYS DONNIE L & BAYS CATHEY M	Legal Acreage:	108.6600
Additional Owner:		PCDesc:	6 Agricultural/Undevl(100+ac)
Owner Address:	2236 TOLERS FERRY RD HUDDLESTON , VA 241049761	Legal Description:	NR OTTERVIEW
		Document Number:	050019364

Land Use

- Tax Year:
- 1997
 - 1998
 - 1999
 - 2000
 - 2001
 - 2002
 - 2003
 - 2004
 - 2005
 - 2006
 - 2007
 - 2008
 - 2009
 - 2010
 - 2011
 - 2012
 - 2013
 - 2014
 - 2015
 - 2016

RO56-13
 RO56-16
 RO56-17

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

ROSL-13
ROSL-16
ROSL-17



Title: Bays Donnie L & Cathy M 243 A 51 24306200

Date: 3/18/2016

Feet

0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

[Printer-Friendly](#)

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
235 A 31A	235 A 31A	89204856	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information: **Valuation** Improvements Ownership History

General Information

Owner:	BAYS DONNIE L & DAVID M	Legal Acreage:	151.0900
Additional Owner:		PCDesc:	6 Agricultural/Undeveloped(100+ac)
Owner Address:	7176 SMITH MTN LAKE PKWY HUDDLESTON , VA 24104	Legal Description:	LOTS 3 & 4 PLAT IN DB 131/210
		Document Number:	990012923

Land Use

- Tax Year: 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016

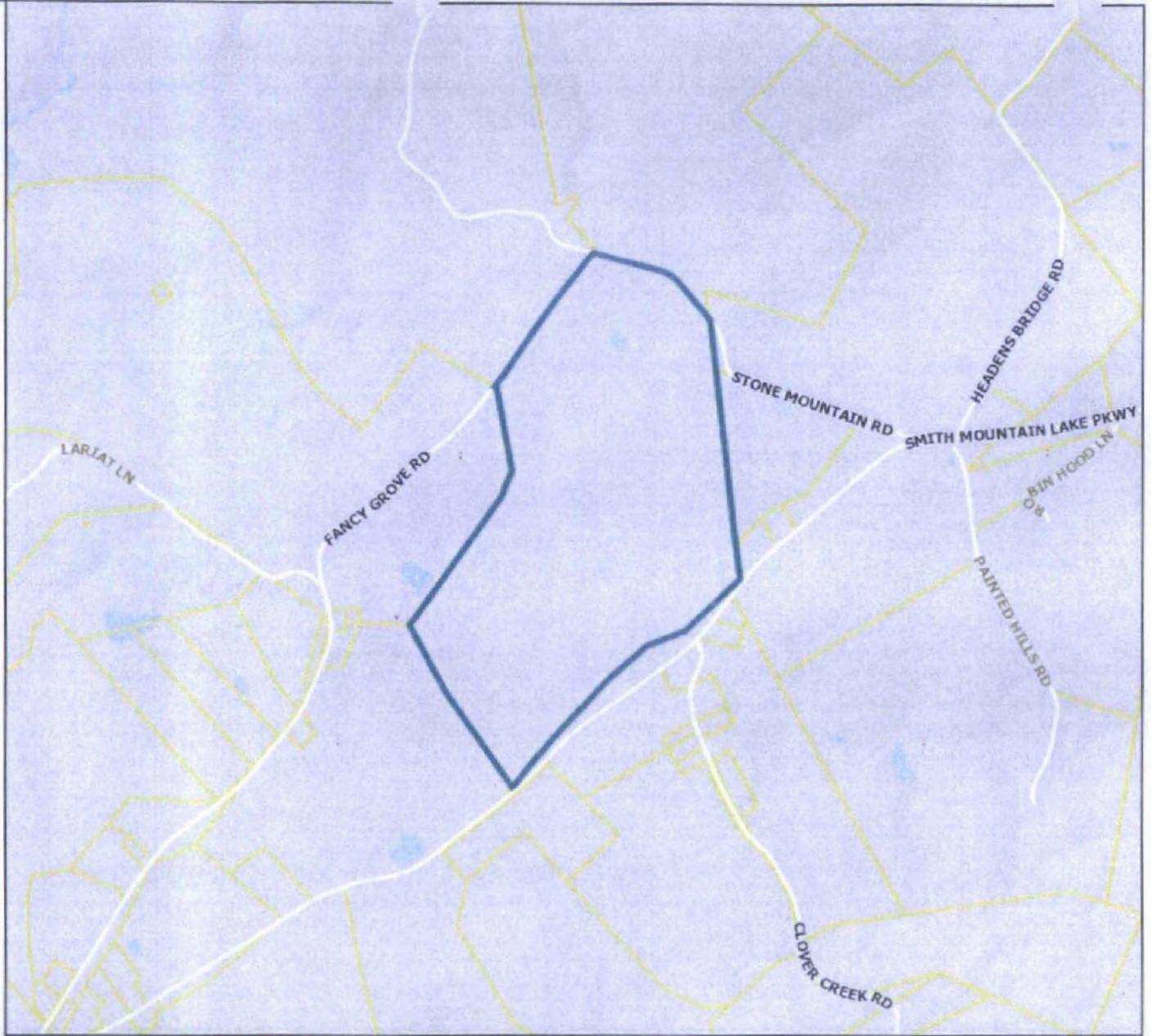
R056-14
R056-14A

Bedford, VA

Legend

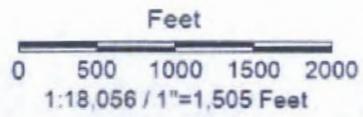
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

RO56-14
RO56-14A



Title: Bays Donnie L & David M 235 A 31A 89204856

Date: 3/18/2016



DISCLAIMER: This drawing is neither a legally recorded map nor a survey and is not intended to be used as such. The information displayed is a compilation of records, information, and data obtained from various sources, and Bedford County is not responsible for its accuracy or how current it may be.

Printer-Friendly

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
239 2 7	Link to Real Estate Lookup/Sketch	23901403	

- Parcel Information**
- Valuation
- Improvements
- Ownership History

General Information

Owner:	BAYS DONNIE L & DAVID M	Legal Acreage:	36.2600
Additional Owner:		PCDesc:	5 Agricultural/Undevl(20-99ac)
Owner Address:	7176 SMITH MTN LAKE PKWY HUDDLESTON , VA 24104	Legal Description:	BUFFALO CREEK LT 7 PB 35/321
		Document Number:	970013053

Land Use

- Tax Year: 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016

CALL MARTIN
AFTER LUNCH

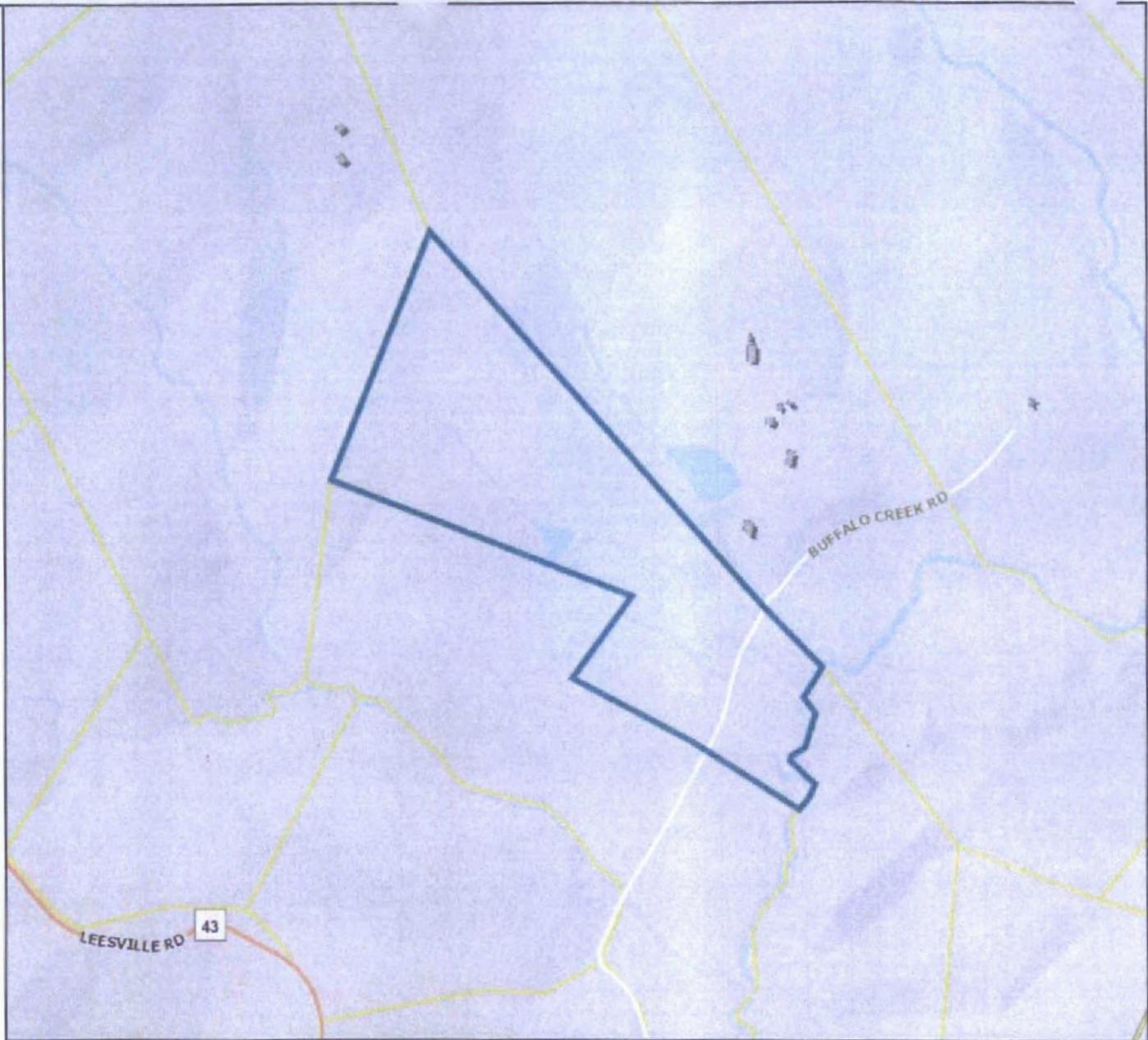
PART 1056-15

Bedford, VA

Legend

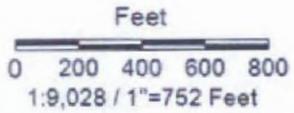
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PART 1056-15



Title: Bays Donnie L & David M 239 2 7 23901403

Date: 3/18/2016



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Printer-Friendly

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
239 2 8	239 2 8	23901404	

[Link to Real Estate Lookup/Sketch](#)

Parcel Information Valuation Improvements Ownership History

General Information

Owner:	BAYS DONNIE L & DAVID M	Legal Acreage:	51.1300
Additional Owner:		PCDesc:	5 Agricultural/Undevl(20-99ac)
Owner Address:	7176 SMITH MTN LAKE PKWY HUDDLESTON , VA 24104	Legal Description:	BUFFALO CREEK LT 8 PB 35/321
		Document Number:	970013053

Land Use

- Tax Year: 2000
 2001
 2002
 2003
 2004
 2005
 2006
 2007
 2008
 2009
 2010
 2011
 2012
 2013
 2014
 2015
 2016

PART 2056-15

Bedford, VA

Legend

- Highway
 - Blue Ridge Parkway
 - US Primary
 - Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

PART 2056-15



Feet

0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

Title: Bays Donnie L & David M 239 2 8 23901404

Date: 3/18/2016

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Search

Map

Contact | GIS Page | Log On

Printer-Friendly

View in Map

Tax Map #	Link	Parcel Number(RPC)	Address
244 A 5	244 A 5	24400300	1846 TOLERS FERRY ROAD

[Link to Real Estate Lookup/Sketch](#)

[Printable Data Sheet](#)
[Valuation](#)
[Improvements](#)
[Ownership History](#)

General Information

Owner:	MORGAN PERRY W & CATHEY M BAYS	Legal Acreage:	201.2100
Additional Owner:		PCDesc:	6 Agricultural/Undevl(100+ac)
Owner Address:	2004 TOLERS FERRY RD HUDDLESTON, VA 24104	Legal Description:	GOOSE CR
		Document Number:	

Land Use

Tax Year: 1997

- 1998
- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016

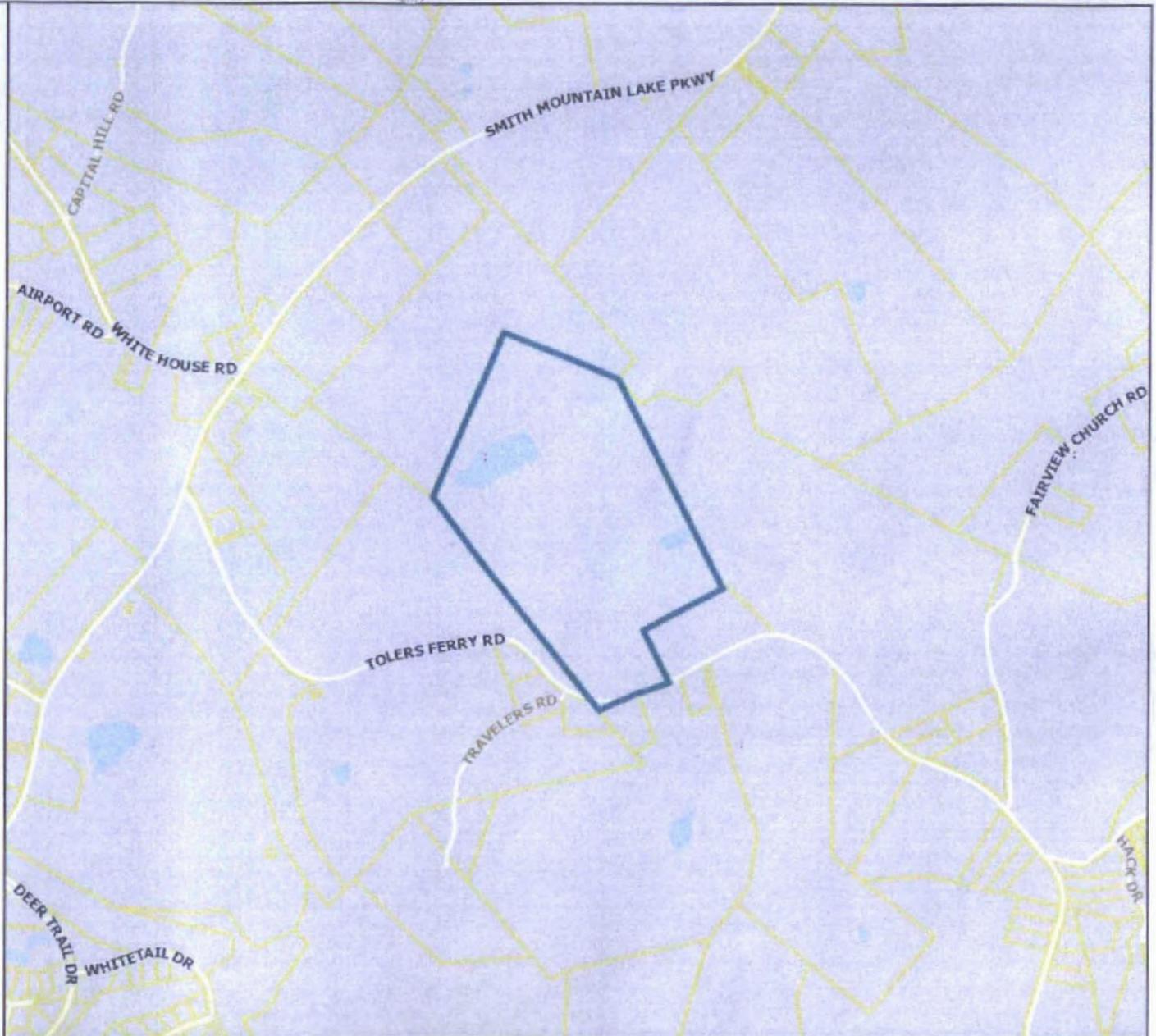
ROS6-18 PART ROS6-28
 ROS6-19 ROS6-29
 PART ROS6-21 ROS6-30
 ROS6-23
 ROS6-24
 ROS6-25
 PART ROS6-27

Bedford, VA

Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

RO56-18
RO56-19
PART RO56-21
RO56-23
RO56-24
RO56-25
PART RO56-27
PART RO56-28
RO56-29
RO56-30



Title: Morgan Perry W & Cathey M Bays 244 A 5

Date: 3/18/2016

24400300

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Feet

0 500 1000 1500 2000
1:18,056 / 1"=1,505 Feet

 [Printer-Friendly](#)

[View In Map](#) 

Tax Map #	Link	Parcel Number(RPC)	Address
244 A 6	244 A 6	24400500	2004 TOLERS FERRY ROAD

[Link to Real Estate Lookup/Sketch](#)

Parcel Information | Valuation | Improvements | Ownership History

General Information

Owner:	MORGAN PERRY W JR &	Legal Acreage:	4.8200
Additional Owner:	SHIRLEY	PCDesc:	2 Single Family Res(1-19.99ac)
Owner Address:	2004 TOLERS FERRY RD HUDDLESTON , VA 24104	Legal Description:	GOOSE CR
		Document Number:	

ROSL-20

Bedford, VA

Legend

- E911 Address
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Driveway
- Parcels - County
- Parcels - Town
- Public School Boundary

RO56-20



Title: Morgan Perry W Jr & Shirley 244 A 6 24400500

Date: 3/18/2016

Feet
0 100 200 300 400
1:4,514 / 1"=376 Feet

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Printer-Friendly

[View In Map](#)

Tax Map #	Link	Parcel Number(RPC)	Address
244 A 5A	244 A 5A	24400400	2236 TOLERS FERRY ROAD

[Link to Real Estate Lookup/Sketch](#)

Parcel Information | Valuation | Improvements | Ownership History

General Information

Owner:	BAYS DONNIE L & CATHEY M	Legal Acreage:	5.1000
Additional Owner:		PCDesc:	2 Single Family Res(1-19.99ac)
Owner Address:	2236 TOLERS FERRY RD HUDDLESTON , VA 241049761	Legal Description:	GOOSE CR
		Document Number:	

PART ROS6-21
ROS6-22
ROS6-26

PART ROS6-27
PART ROS6-28

Bedford, VA

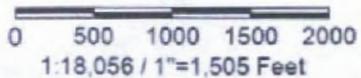
Legend

- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

PART ROS6-21
ROS6-22
ROS6-26
PART ROS6-27
PART ROS6-28



Feet



Title: Bays Donnie L & Cathey M 244 A 5A 24400400

Date: 3/18/2016

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[View In Map](#)

Tax Map # 243 A 36	Link 243 A 36	Parcel Number(RPC) 24304500	Address SMITH MTN LAKE PARKWAY
------------------------------	-------------------------	---------------------------------------	--

[Link to Real Estate Lookup/Sketch](#)

Parcel Information | **Valuation** | **Improvements** | **Ownership History**

General Information

Owner:	MORGAN ERIC TODD	Legal Acreage:	56.8100
Additional Owner:		PCDesc:	5 Agricultural/Undevl(20-99ac)
Owner Address:	2004 TOLERS FERRY RD HUDDLESTON, VA 24104	Legal Description:	OTTERVIEW PB 52/174
		Document Number:	100008301

Land Use

- Tax Year:** 1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
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2010
2011
2012
2013
2014
2015
2016

PART ROSK-30
ROSK-31
ROSK-32
ROSK-33

Bedford, VA

Legend

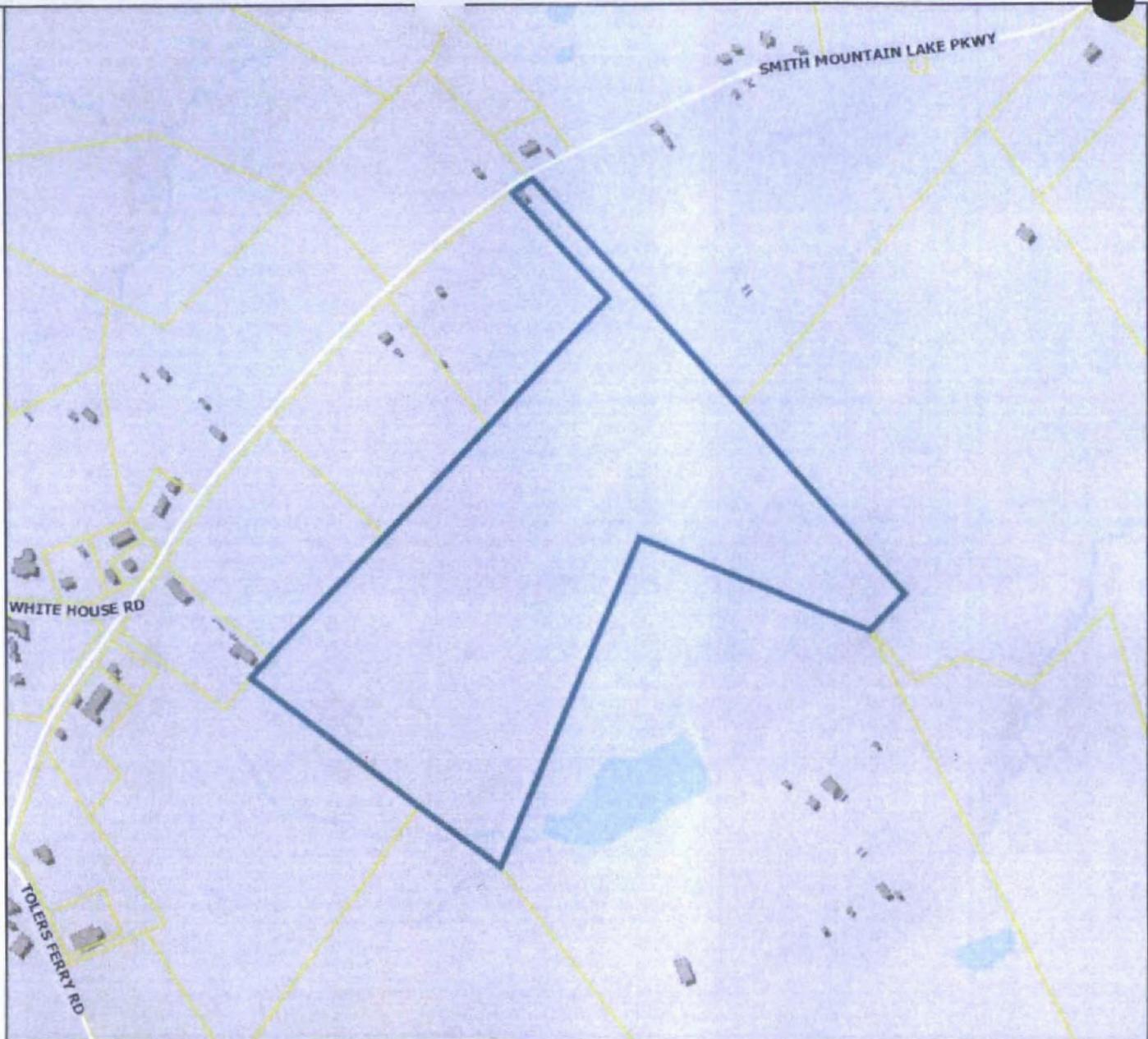
- Highway
- Blue Ridge Parkway
- US Primary
- Virginia Primary
- Roads
- Parcels - County
- Parcels - Town
- Public School Boundary

PART KOSTO-30

KOSTO-31

KOSTO-32

KOSTO-33



Title: Morgan Eric Todd 243 A 36 24304500

Date: 3/18/2016

Feet

0 200 400 600 800
1:9,028 / 1"=752 Feet

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Printer-Friendly

[View In Map](#)

Tax Map # 236 A 33	Link 236 A 33	Parcel Number(RPC). 23603700	Address 7334 SMITH MTN LAKE PARKWAY
------------------------------	-------------------------	--	---

[Link to Real Estate Lookup/Sketch](#)

Parcel Information Valuation Improvements Ownership History

General Information

Owner:	BAYS CLYDE D	Legal Acreage:	145.1700
Additional Owner:		PCDesc:	6 Agricultural/Undevl(100+ac)
Owner Address:	7174 SMITH MTN LAKE PKWY HUDDLESTON , VA 241049719	Legal Description:	BLACK WATER RD
		Document Number:	120013820

Land Use

- Tax Year:** 1997
1996
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

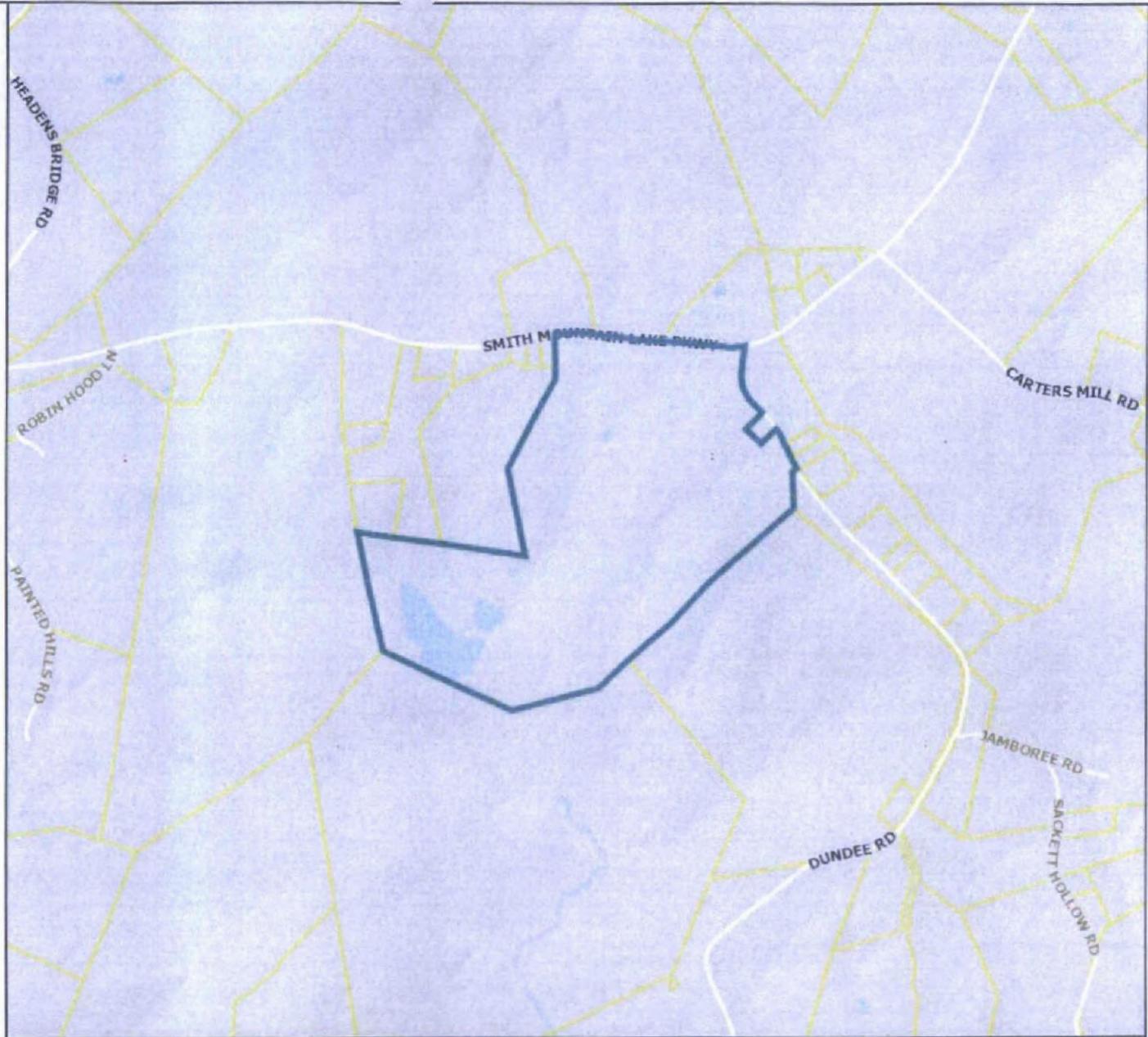
R056-34
R056-35
R056-36
R056-37
R056-38
R056-39
R056-40

Bedford, VA

Legend

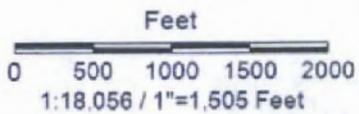
- Highway
 - Blue Ridge Parkway
 - US Primary
 - Virginia Primary
- Roads
- Parcels - County
- Parcels - Town

RO56-34
RO56-35
RO56-36
RO56-37
RO56-38
RO56-39
RO56-40



Title: **Bays Clyde D 236 A 33 23603700**

Date: 3/18/2016



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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.

Permittee: Bio-Nomic Services Inc.
 County or City: Bedford County

Please Print

(Signatures not required on this page)

Tax Parcel ID(s)	Landowner(s)
244 A3 24400100	Bays, Donnie L and Cathey M.
	Morgan, Perry W. and Eric T.
236 A 33 23603700	Bays, Clyde D.
243 A 36 24304500	Morgan, Eric T.
244 A 5A 24400400	Bays, Donnie L and Cathey M.
244 A 6 24400500	Morgan, Perry and Skirley
244 A 5 24400300	Morgan, Perry and Bays, Cathey M.
239 2 8 23901404	Bays, Donnie L. and David M.
239 2 7 23901403	Bays, Donnie L. and David M.
235 A 31A 89204856	Bays, Donnie L. and David M.
243 A 51 24306200	Bays, Donnie L. and Cathey M.
236 A 27 23603000	Bays, David M. and Janet B.
236 A 35 23604000	Bays, David M. and Janet B.

Donnie Bays Farms

Bio-Nomic Services, Inc. is filing this application to apply approved (VA0025020) Class B biosolids to this designated farm land in Bedford County, Virginia.

The farms are located in the Moneta and Huddleston communities off Tolers Ferry Road, Smith Mountain Lake Parkway, Fancy Grove Road, and Leesville Road. All fields are located in a predominately agricultural areas. All streams, drainage features, rock outcrops, structures, dwellings, property lines, roadways and wells are designated and buffered as required. There are a few public contact sites in the vicinity of the farm off of Tolers Ferry Road. See the attached buffer maps for more details. Biosolids are currently being used as crop nutrients on close by farms.

Mr. Bays operates his acreage as either hay production/pasture, or small grain rotation. The small grain rotation is winter grain planting that is harvested as haylage, and then followed with soybean or corn planting designated as livestock feedstock. The grass cover in the hayfields/pastures is predominately fescue.

The current fescue hay field are: RO 56-1, 56-4, 56-6, 56-13, 56-34, & 56-36.

The current small grain / corn / soybean fields are: RO 56-18, 56-20, 56-23, 56-24, 56-25, 56-29, 56-30, 56-31, & 56-32.

The current fescue pastures are: RO 56-2, 56-5, 56-9, 56-10, 56-11, 56-12, 56-14, 56-14A, 56-33, 56-16, 56-17, 56-19, 56-21, 56-22, 56-26, 56-28, 56-35, 56-37, 56-38, 56-39, & 56-40.

Nutrient Management Plans will be written by a certified plan writer to address the application of biosolids to the designated fields that will address the most recent planned use of the fields should any changes occur in agricultural practices.



A Brownlee Ave SE, Roanoke, VA 24014

B Street, Huddleston, VA 24104

1 hr 02 min, 38.0 mi

Light traffic (56 min without traffic)

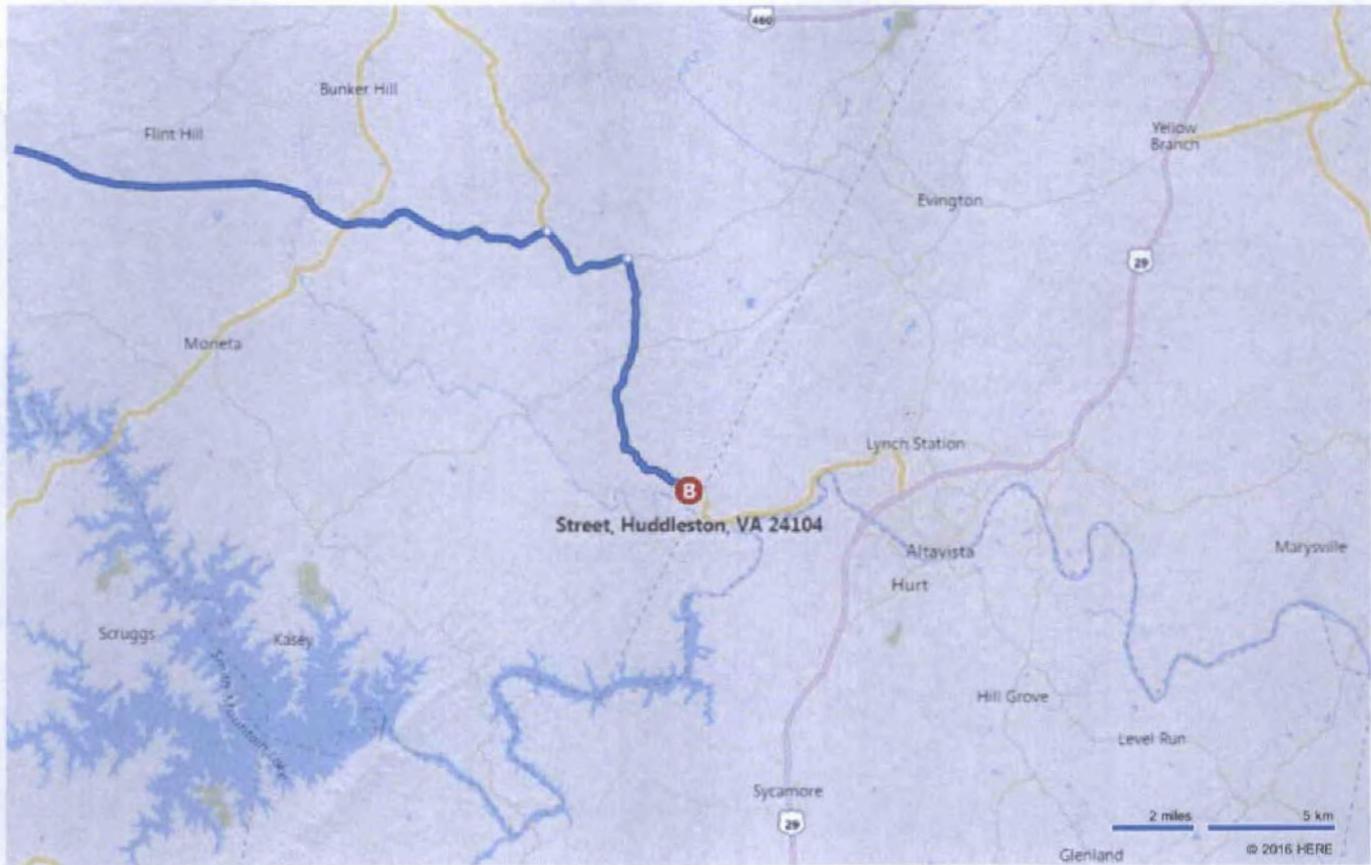
Via VA-24, VA-43

Donnie Bays
RO 56-15 Fields
Buffalo Creek
Road is very steep with curves on HWY 43 past Glenwood Store

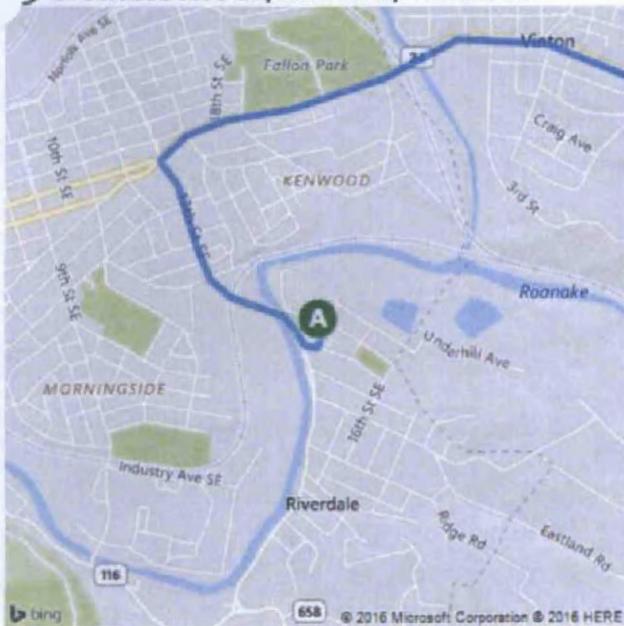
A Brownlee Ave SE, Roanoke, VA 24014

↑	1. Depart Brownlee Ave SE toward Kindred St SE	161 ft
↘	2. Turn right onto Kindred St SE	479 ft
↘	3. Turn right onto Carlisle Ave SE , and then immediately turn right onto Bennington St SE	0.8 mi
↘	4. Turn right onto VA-24 Pass Hess in 1.0 mi	2.2 mi
↑	5. Keep left to stay on VA-24 E / Bypass Rd	0.4 mi
↘	6. Turn right to stay on VA-24 E Pass Exxon in 4.4 mi	24.6 mi, 33 min
↘	7. Turn right onto VA-24 / VA-43	2.6 mi
↘	8. Turn right onto VA-43	7.3 mi
↙	9. Turn left onto road • <i>Unpaved Road</i>	85 ft
	10. Arrive on the left	

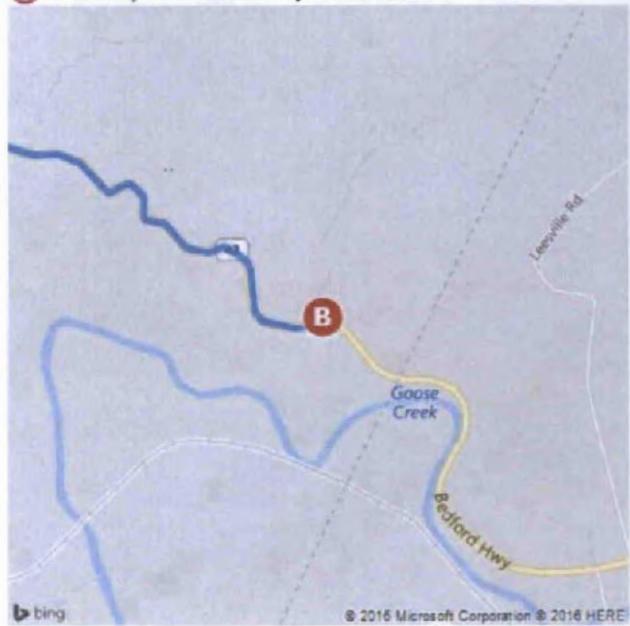
B Street, Huddleston, VA 24104



A Brownlee Ave SE, Roanoke, VA 24014



B Street, Huddleston, VA 24104



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Brownlee Ave SE, Roanoke, VA 24014

1 hr 00 min, 38.3 mi

B 1141 Carters Mill Rd, Huddleston, VA 24104

Light traffic (55 min without traffic)

Via VA-24, VA-24 E

Donnie Bays
RO56 Carter's Mill Road Fields

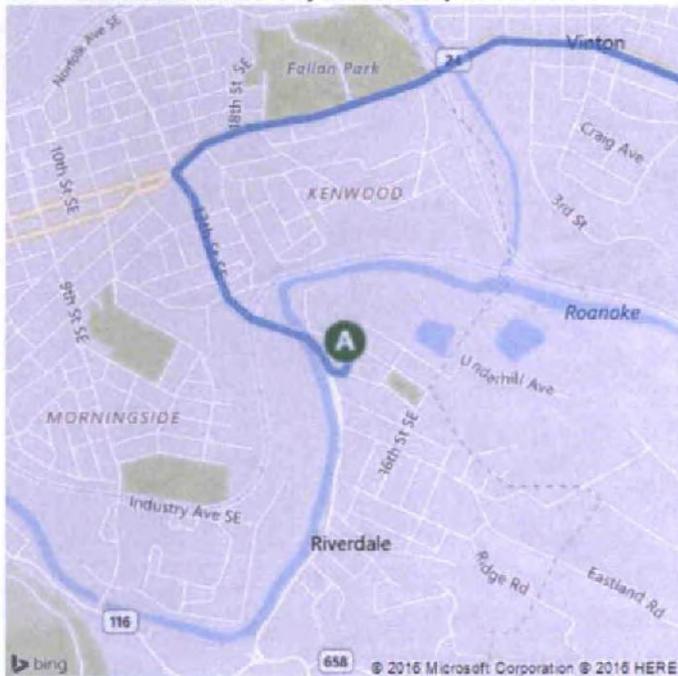
A Brownlee Ave SE, Roanoke, VA 24014

↑	1. Depart Brownlee Ave SE toward Kindred St SE	161 ft
↘	2. Turn right onto Kindred St SE	479 ft
↘	3. Turn right onto Carlisle Ave SE , and then immediately turn right onto Bennington St SE	0.8 mi
↘	4. Turn right onto VA-24 Pass Hess in 1.0 mi	2.2 mi
↑	5. Keep left to stay on VA-24 E / Bypass Rd	0.4 mi
↘	6. Turn right to stay on VA-24 E Pass Exxon in 4.4 mi	24.6 mi, 33 min
↘	7. Turn right onto VA-24 / VA-43	2.6 mi
↘	8. Turn right onto VA-43	2.5 mi
↘	9. Turn right onto Smith Mountain Lake Pkwy Pass Sunoco in 0.2 mi	4.9 mi
↙	10. Turn left onto Carters Mill Rd	0.1 mi
	Arrive at Carters Mill Rd	
	11. The last intersection is Smith Mountain Lake Pkwy If you reach Lodge Grass Rd, you've gone too far	

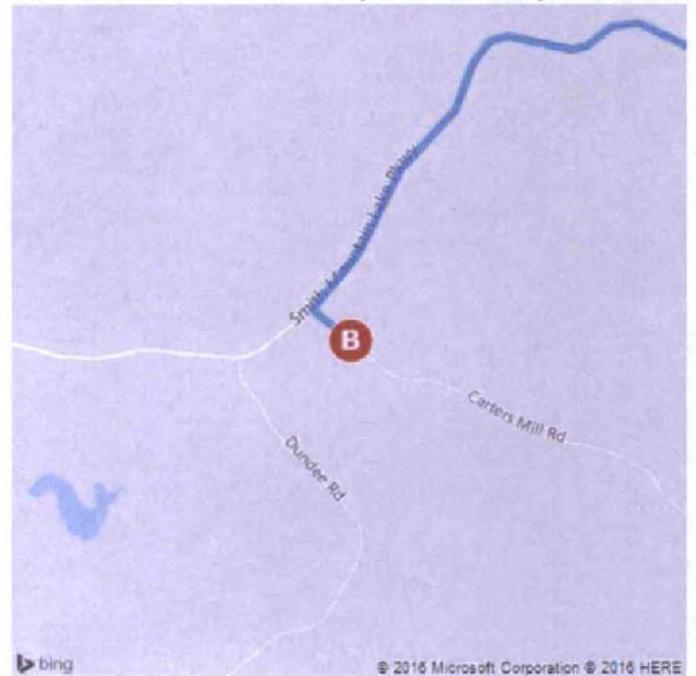
B 1141 Carters Mill Rd, Huddleston, VA 24104



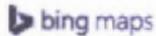
A Brownlee Ave SE, Roanoke, VA 24014



B 1141 Carters Mill Rd, Huddleston, VA 2410..



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Brownlee Ave SE, Roanoke, VA 24014

1 hr 04 min, 40.4 mi

1431 Fancy Grove Rd, VA 24104

Light traffic (59 min without traffic)

Via VA-24, VA-24 E

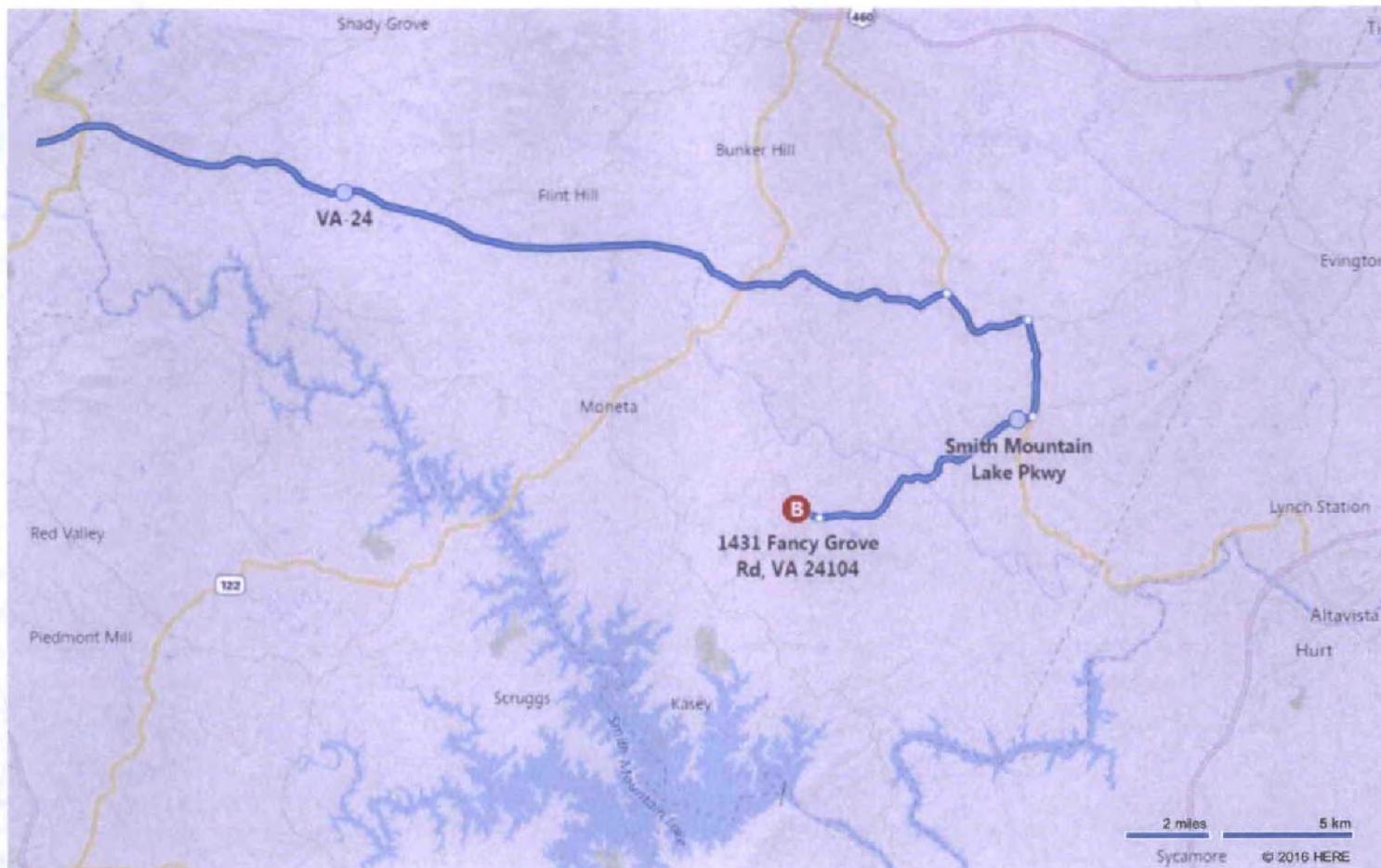
Donnie Bays
RO56-14 & 14A Fields

A Brownlee Ave SE, Roanoke, VA 24014

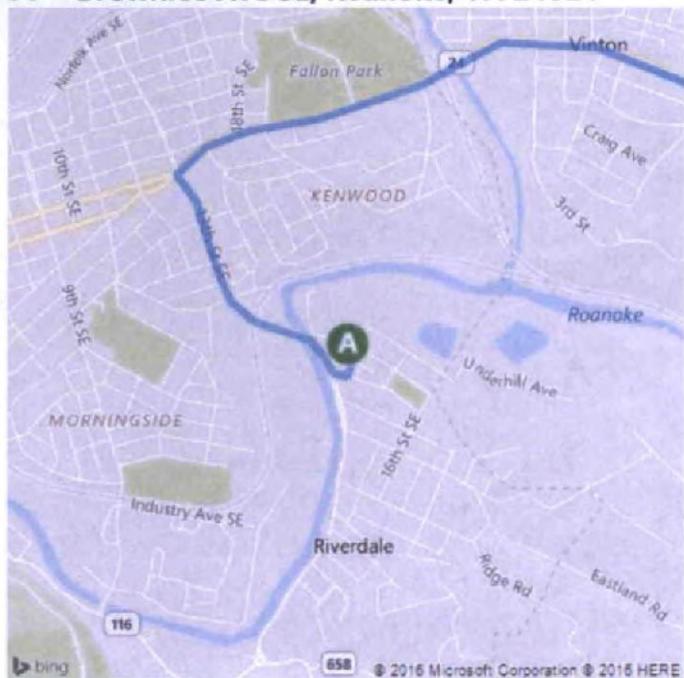
↑	1. Depart Brownlee Ave SE toward Kindred St SE	161 ft
↘	2. Turn right onto Kindred St SE	479 ft
↘	3. Turn right onto Carlisle Ave SE , and then immediately turn right onto Bennington St SE	0.8 mi
↘	4. Turn right onto VA-24 Pass Hess in 1.0 mi	2.2 mi
↑	5. Keep left to stay on VA-24 E / Bypass Rd	0.4 mi
↘	6. Turn right to stay on VA-24 E Pass Exxon in 4.4 mi	24.6 mi, 33 min
↘	7. Turn right onto VA-24 / VA-43	2.6 mi
↘	8. Turn right onto VA-43	2.5 mi
↘	9. Turn right onto Smith Mountain Lake Pkwy Pass Sunoco in 0.7 mi	6.5 mi
↗	10. Bear right onto Stone Mountain Rd	0.6 mi
↙	11. Bear left onto Fancy Grove Rd	492 ft
	12. Arrive at Fancy Grove Rd on the right The last intersection is Stone Mountain Rd	

If you reach Lariat Ln, you've gone too far

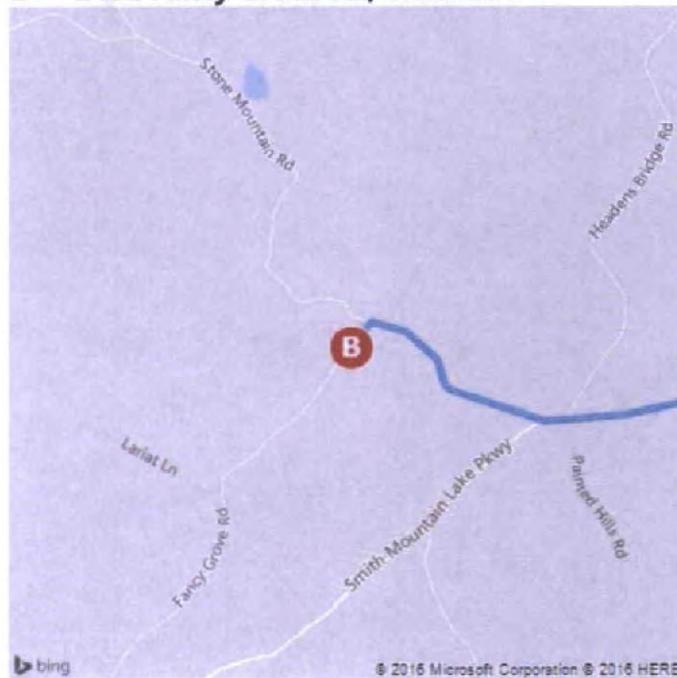
B 1431 Fancy Grove Rd, VA 24104



A Brownlee Ave SE, Roanoke, VA 24014



B 1431 Fancy Grove Rd, VA 24104



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Brownlee Ave SE, Roanoke, VA 24014

1 hr 05 min, 42.0 mi

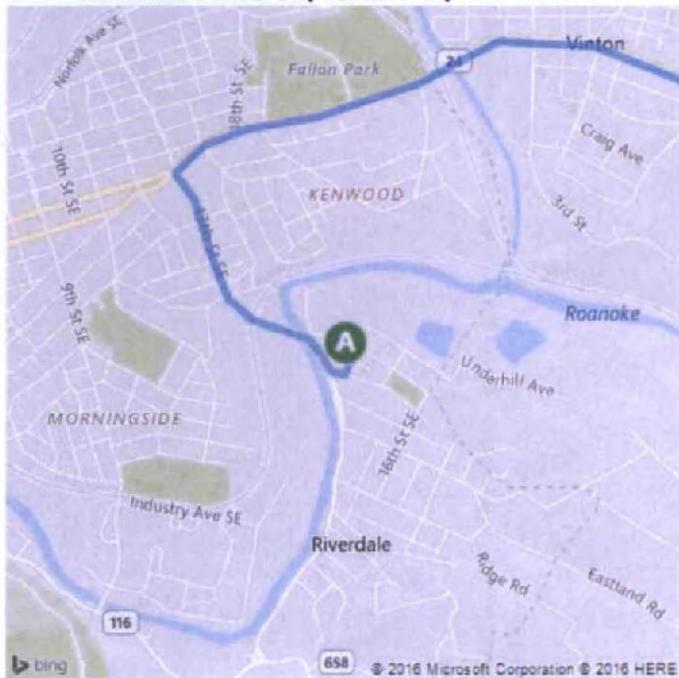
B 11302 Smith Mountain Lake Pkwy, Huddleston, VA 24104Light traffic (1 hr 0 min without traffic)
Via VA-24, Smith Mountain Lake PkwyDonnie Bays
RO56 Fields 10-12**A** Brownlee Ave SE, Roanoke, VA 24014

↑	1. Depart Brownlee Ave SE toward Kindred St SE	161 ft
↘	2. Turn right onto Kindred St SE	479 ft
↘	3. Turn right onto Carlisle Ave SE , and then immediately turn right onto Bennington St SE	0.8 mi
↘	4. Turn right onto VA-24 Pass Hess in 1.0 mi	2.2 mi
↑	5. Keep left to stay on VA-24 E / Bypass Rd	0.4 mi
↘	6. Turn right to stay on VA-24 E Pass Exxon in 4.4 mi	24.6 mi, 33 min
↘	7. Turn right onto VA-24 / VA-43	2.6 mi
↘	8. Turn right onto VA-43	2.5 mi
↘	9. Turn right onto Smith Mountain Lake Pkwy Pass Sunoco in 0.7 mi	8.8 mi
	10. Arrive at Smith Mountain Lake Pkwy If you reach White House Rd, you've gone too far	

B 11302 Smith Mountain Lake Pkwy, Huddleston, VA 24104



A Brownlee Ave SE, Roanoke, VA 24014



B 11302 Smith Mountain Lake Pkwy, Huddle...



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Brownlee Ave SE, Roanoke, VA 24014

1 hr 08 min, 44.0 mi



1810 Tolers Ferry Rd, Huddleston, VA 24104

Light traffic (1 hr 3 min without traffic)

Via VA-24, Smith Mountain Lake Pkwy

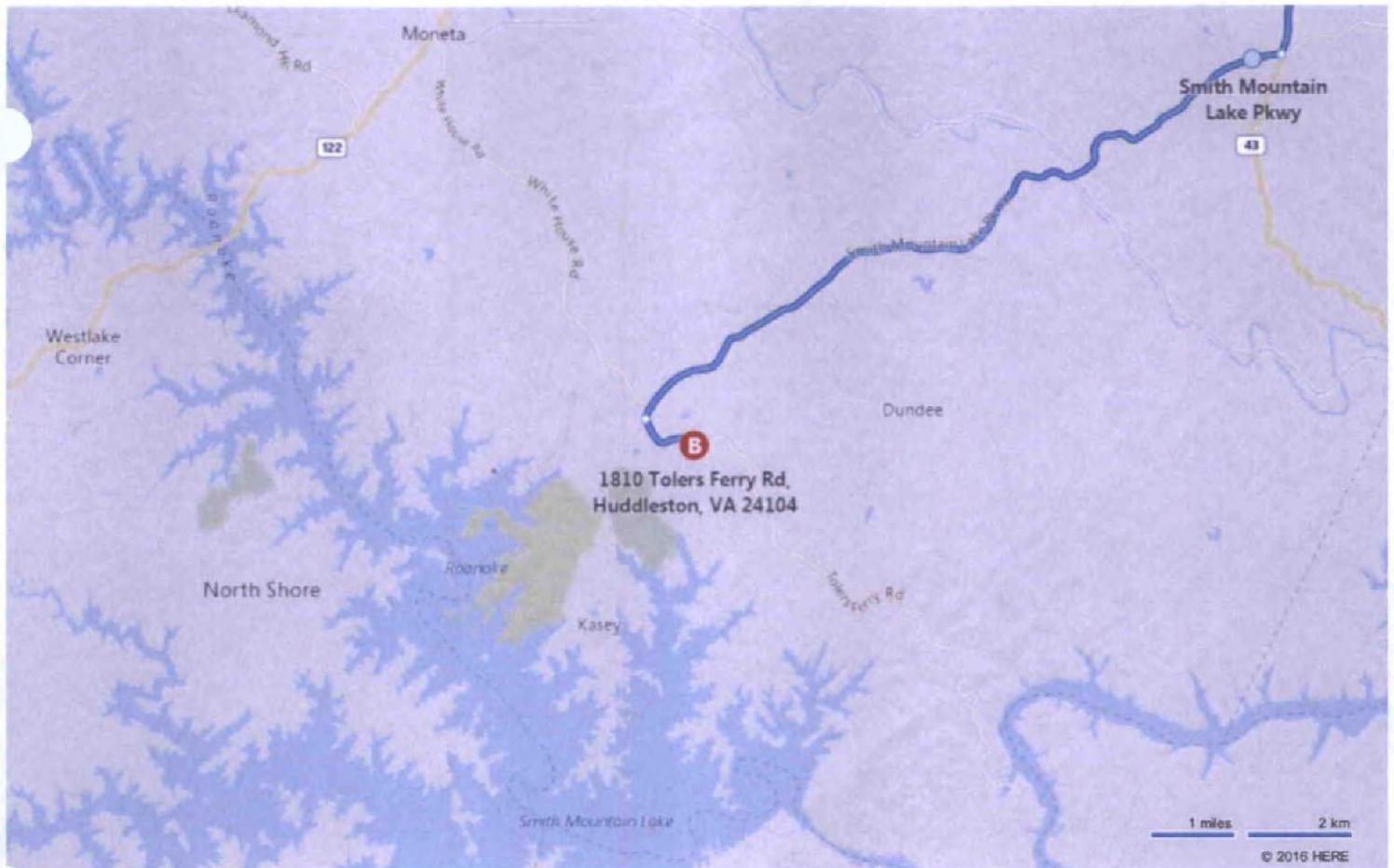
Donnie Bays

RO56 Toler's Ferry Road Fields

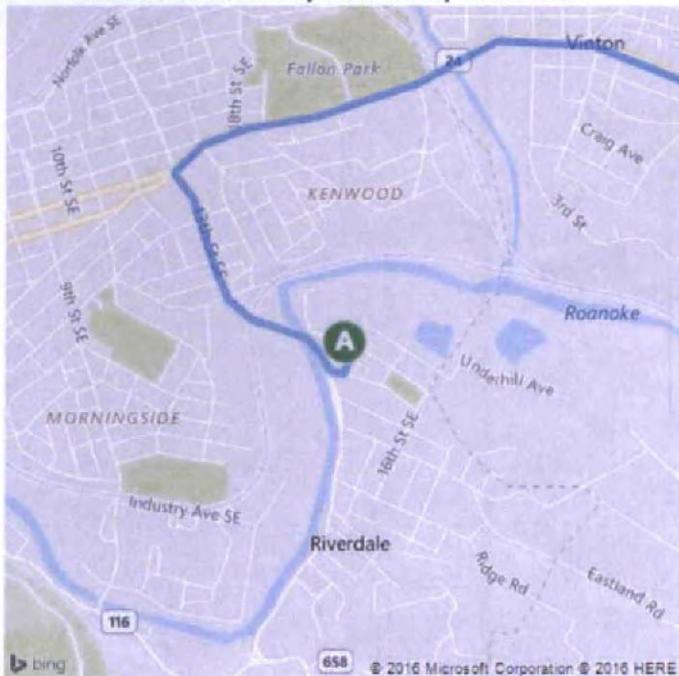
A Brownlee Ave SE, Roanoke, VA 24014

↑	1. Depart Brownlee Ave SE toward Kindred St SE	161 ft
↘	2. Turn right onto Kindred St SE	479 ft
↘	3. Turn right onto Carlisle Ave SE , and then immediately turn right onto Bennington St SE	0.8 mi
↘	4. Turn right onto VA-24 Pass Hess in 1.0 mi	2.2 mi
↑	5. Keep left to stay on VA-24 E / Bypass Rd	0.4 mi
↘	6. Turn right to stay on VA-24 E Pass Exxon in 4.4 mi	24.6 mi, 33 min
↘	7. Turn right onto VA-24 / VA-43	2.6 mi
↘	8. Turn right onto VA-43	2.5 mi
↘	9. Turn right onto Smith Mountain Lake Pkwy Pass Sunoco in 0.7 mi	9.9 mi
↙	10. Turn left onto Tolers Ferry Rd	0.8 mi
	Arrive at Tolers Ferry Rd	
	11. The last intersection is Travelers Rd If you reach Morgan Farm Ln, you've gone too far	

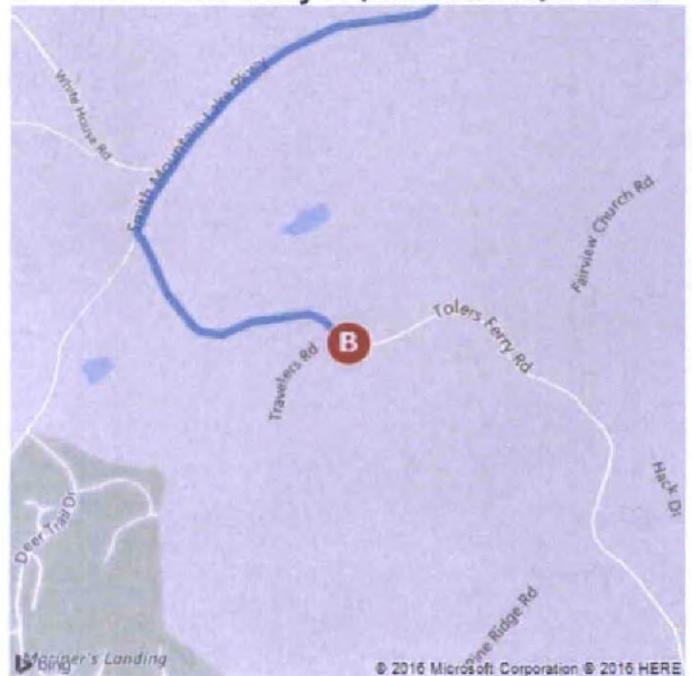
B 1810 Tolers Ferry Rd, Huddleston, VA 24104



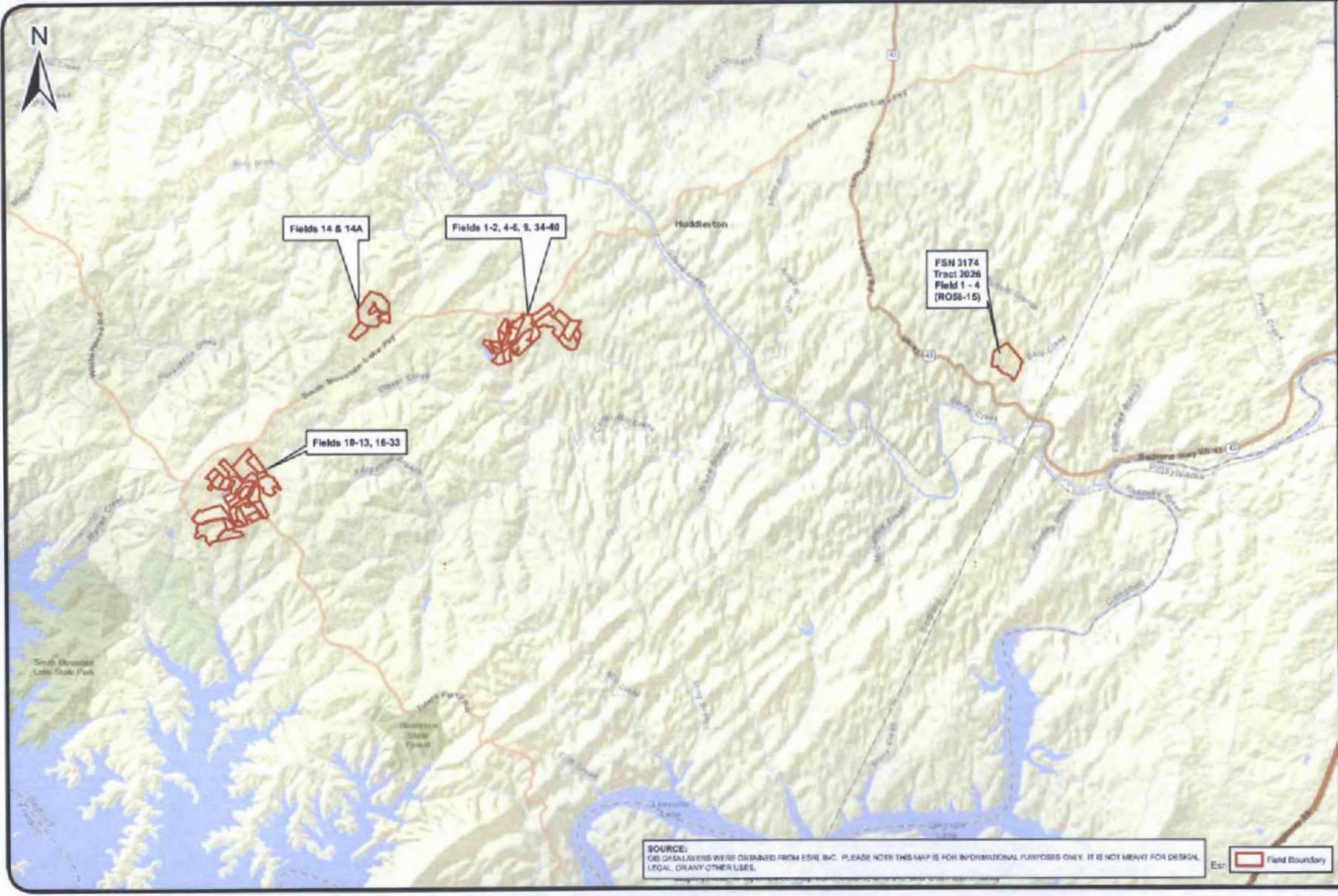
A Brownlee Ave SE, Roanoke, VA 24014



B 1810 Tolers Ferry Rd, Huddleston, VA 241...



These directions are subject to the Microsoft® Service Agreement and are for informational purposes only. No guarantee is made regarding their completeness or accuracy. Construction projects, traffic, or other events may cause actual conditions to differ from these results. Map and traffic data © 2016 HERE™.



SOURCE:
 THE DATA POINTS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

Est. Field Boundary

DATE	02.24.2016
DRAWN BY:	MEM
CHECKED BY:	MEM
PROJECT NO.	15-18 Ph. 01
ENGINEERING LICENSE NO.	

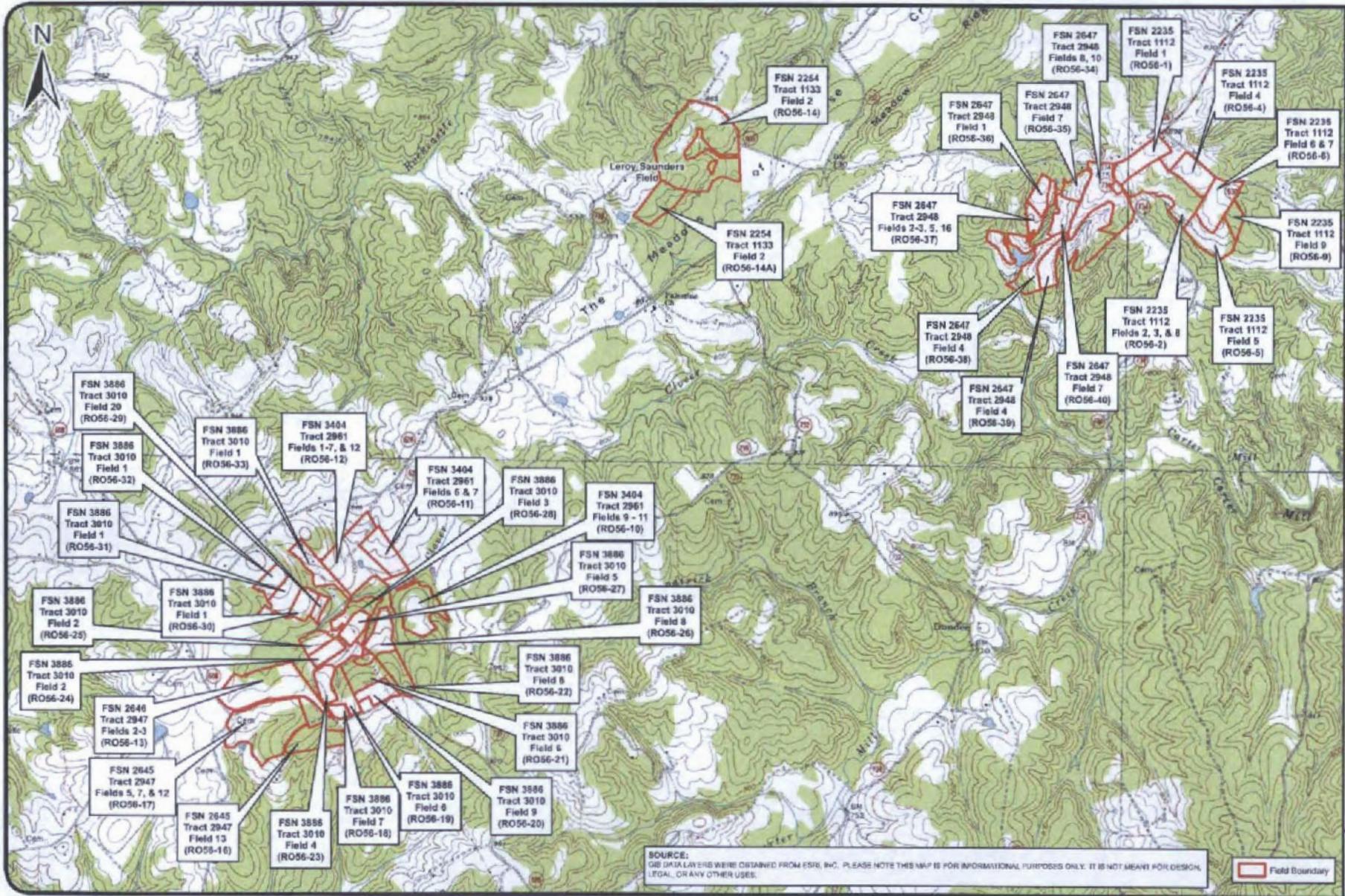


BIO-NOMIC SERVICES, INC.

VICINITY MAP - D. BAYS
 CITY OF ROANOKE
 LAND APPLICATION PROGRAM
 BEDFORD COUNTY, VIRGINIA

FIGURE NO.
1

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Field Boundary

DATE: 02.24.2016
 DRAWN BY: MEM
 PROJECT NO.: 15-18 Prt. 01
 ENGINEERING LICENSE NO.:
 CHECKED BY: MEM



BIO-NOMIC SERVICES, INC.

USGS TOPO MAP - D. BAYS
 FSN 2235, 2254, 2645, 2647, 3404, 3886
 TRACTS 1112, 1133, 2947, 2948, 2961, 3010
 LAND APPLICATION PROGRAM
 BEDFORD COUNTY, VIRGINIA

FIGURE NO.

2

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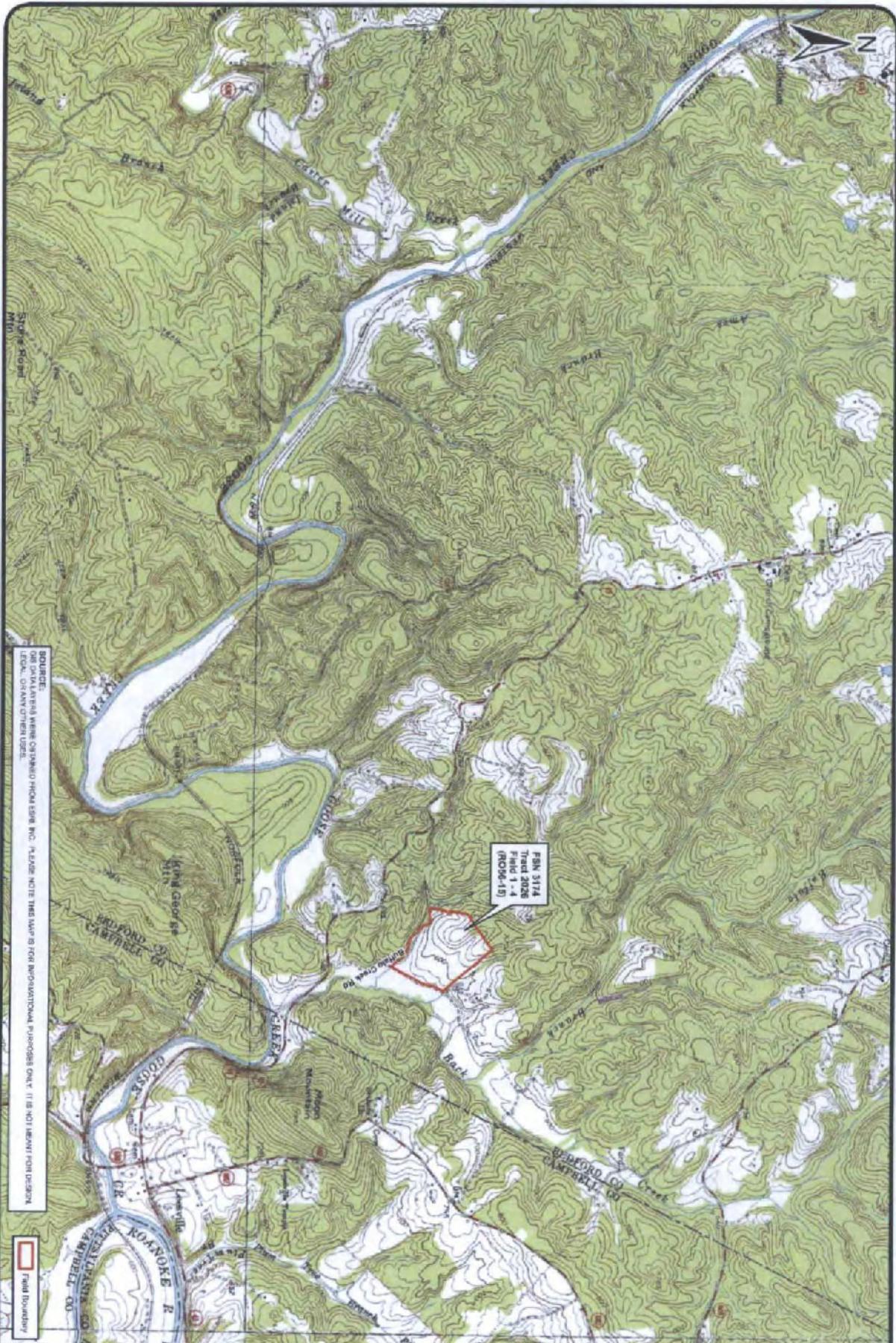


FIGURE NO. **3**

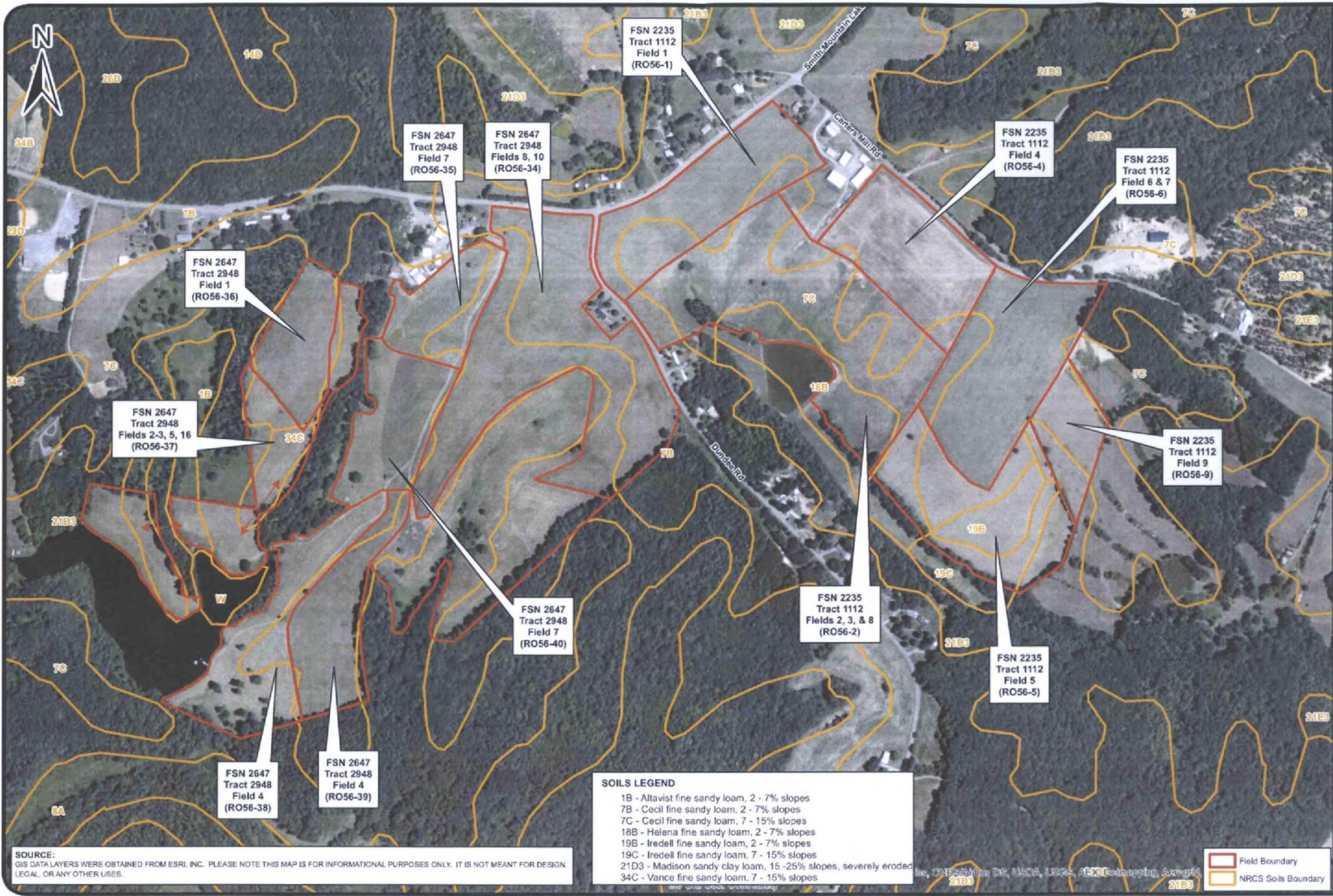
USGS TOPO MAP - D. BAYS
FSN 3174 TRACT 2026
 CITY OF ROANOKE
 LAND APPLICATION PROGRAM
 BEDFORD COUNTY, VIRGINIA

BIO-NOMIC SERVICES, INC.

SCALE: 1" = 2,000'
 PROJECT NO. 15-18 Ph: 01
 ENGINEERING LICENSE NO.

DATE 02.23.2016
 DRAWN BY: MEM
 CHECKED BY: MEM

C:\arq\2016\1518-09-01\Biomomic\David Bays\USGS 1 Updated.mxd



SOURCE:
GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

SOILS LEGEND
 1B - Altavist fine sandy loam, 2 - 7% slopes
 7B - Cecil fine sandy loam, 2 - 7% slopes
 7C - Cecil fine sandy loam, 7 - 15% slopes
 18B - Helena fine sandy loam, 2 - 7% slopes
 19B - Iredell fine sandy loam, 2 - 7% slopes
 19C - Iredell fine sandy loam, 7 - 15% slopes
 21D3 - Madison sandy clay loam, 15 - 25% slopes, severely eroded
 34C - Vance fine sandy loam, 7 - 15% slopes

Field Boundary
 NRCS Soils Boundary

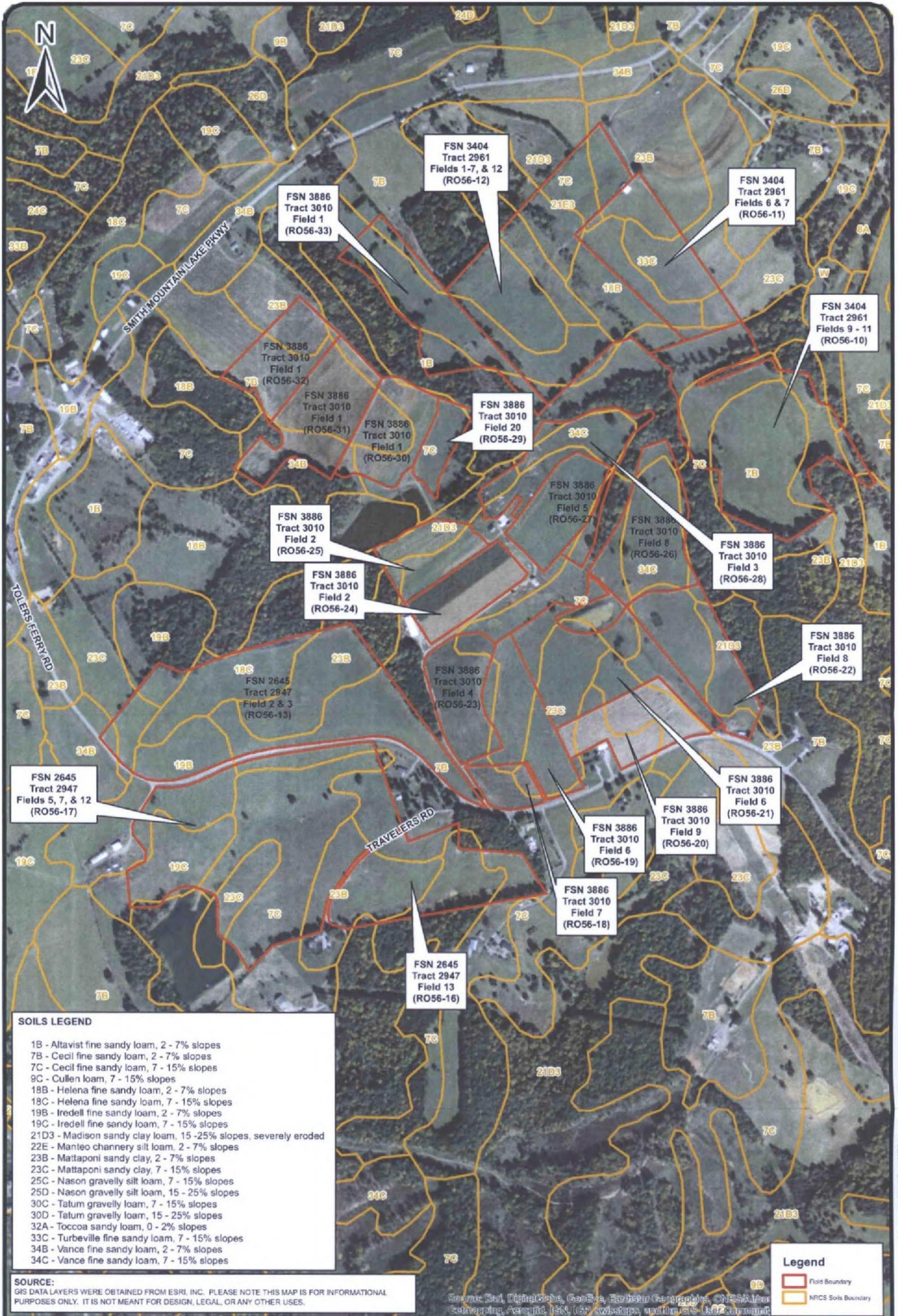
DATE: 02.08.2016
 DRAWN BY: MEM
 CHECKED BY: MEM
 SCALE: 1" = 500'
 PROJECT NO.: 15-18 Ph: 01
 ENGINEERING LICENSE NO.: MEM



NRCS SOILS MAP - D. BAYS
FSN 2235, 2647 TRACTS 1112, 2948
 CITY OF ROANOKE
 LAND APPLICATION PROGRAM
 BEDFORD COUNTY, VIRGINIA

FIGURE NO.
4

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SOILS LEGEND

- 1B - Altavist fine sandy loam, 2 - 7% slopes
- 7B - Cecil fine sandy loam, 2 - 7% slopes
- 7C - Cecil fine sandy loam, 7 - 15% slopes
- 9C - Cullen loam, 7 - 15% slopes
- 18B - Helena fine sandy loam, 2 - 7% slopes
- 18C - Helena fine sandy loam, 7 - 15% slopes
- 19B - Iredell fine sandy loam, 2 - 7% slopes
- 19C - Iredell fine sandy loam, 7 - 15% slopes
- 21D3 - Madison sandy clay loam, 15 - 25% slopes, severely eroded
- 22E - Manteo channery silt loam, 2 - 7% slopes
- 23B - Mattaponi sandy clay, 2 - 7% slopes
- 23C - Mattaponi sandy clay, 7 - 15% slopes
- 25C - Nason gravelly silt loam, 7 - 15% slopes
- 25D - Nason gravelly silt loam, 15 - 25% slopes
- 30C - Tatum gravelly loam, 7 - 15% slopes
- 30D - Tatum gravelly loam, 15 - 25% slopes
- 32A - Toccoa sandy loam, 0 - 2% slopes
- 33C - Turbeville fine sandy loam, 7 - 15% slopes
- 34B - Vance fine sandy loam, 2 - 7% slopes
- 34C - Vance fine sandy loam, 7 - 15% slopes

SOURCE:
GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

Legend

- Field Boundary
- NRCS Soils Boundary

SCALE:	1" = 600'
DATE:	02-24-16
DRAWN BY:	MEM
PROJECT NO.:	15-18 Ph: 01



BIO-NOMIC SERVICES, INC.

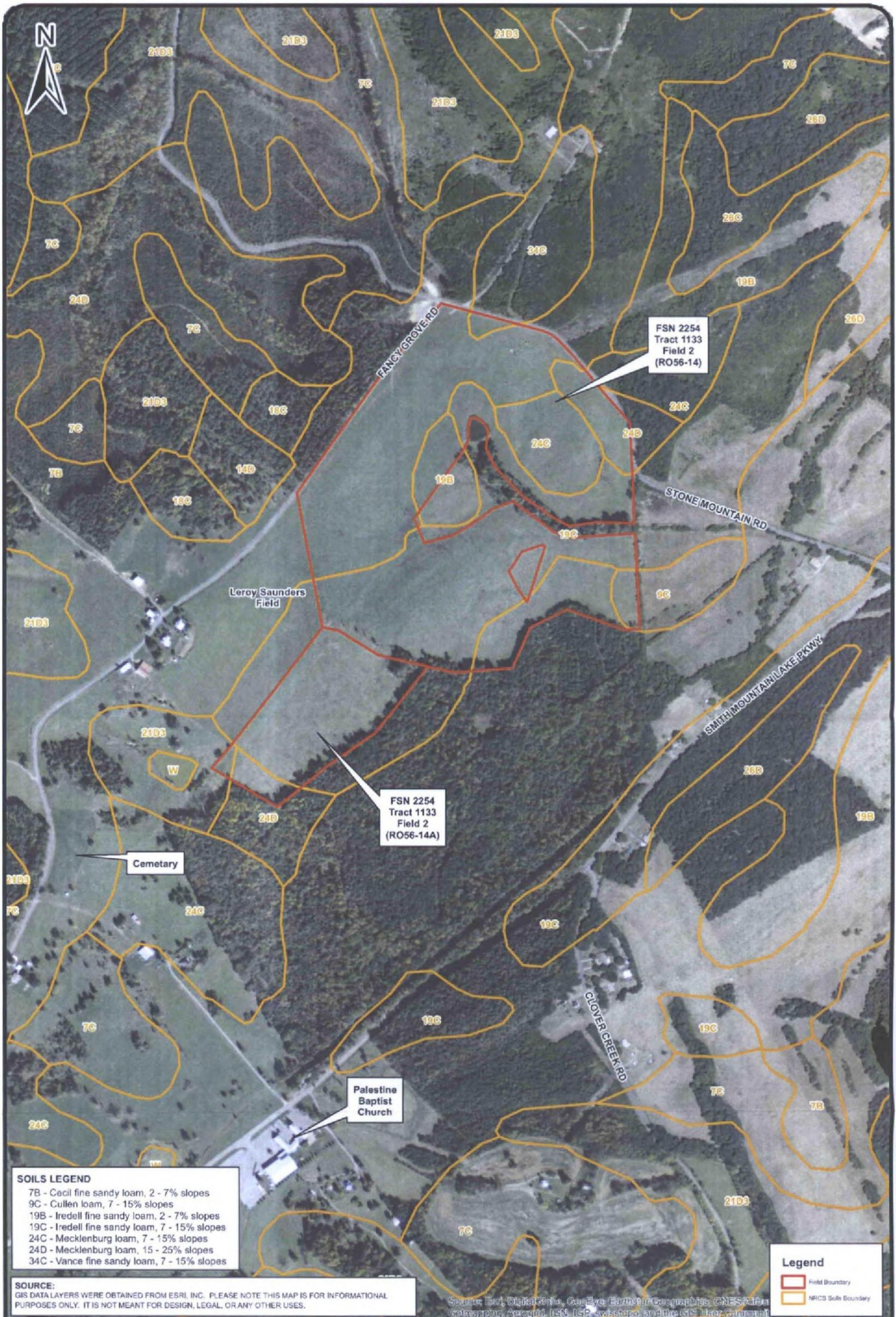
NRCS SOILS MAP - D. BAYS
FSN 2645, 3404, 3886 TRACTS 2947, 2961, 3010

CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.

5

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SOILS LEGEND
 7B - Cecil fine sandy loam, 2 - 7% slopes
 9C - Cullen loam, 7 - 15% slopes
 19B - Iredell fine sandy loam, 2 - 7% slopes
 19C - Iredell fine sandy loam, 7 - 15% slopes
 24C - Mecklenburg loam, 7 - 15% slopes
 24D - Mecklenburg loam, 15 - 25% slopes
 34C - Vance fine sandy loam, 7 - 15% slopes

SOURCE:
 GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus, GeoMapping, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Legend
 Field Boundary
 NRCS Soils Boundary

SCALE:	1" = 500'
DATE:	02-24-16
DRAWN BY:	MEM
PROJECT NO.:	15-18 Ph: 01



BIO-NOMIC SERVICES, INC.

NRCS SOILS MAP - D. BAYS
FSN 2254 TRACT 1133
 CITY OF ROANOKE
 LAND APPLICATION PROGRAM
 BEDFORD COUNTY, VIRGINIA

FIGURE NO.
6



FSN 3174
Tract 2026
Field 1 - 4
(RO56-15)

SOILS LEGEND

22E - Manteo channery silt loam, 2 - 7% slopes
25C - Nason gravelly silt loam, 7 - 15% slopes
25D - Nason gravelly silt loam, 15 - 25% slopes
30C - Tatum gravelly loam, 7 - 15% slopes
30D - Tatum gravelly loam, 15 - 25% slopes
32A - Toccoa sandy loam, 0 - 2% slopes
33C - Turbeville fine sandy loam, 2 - 7% slopes

SOURCE:
GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus
GeoMapping, Aerogis, IGN, IGP, Swisstopo, and the GIS User Community

Legend

	Field Boundary
	NRCS Soils Boundary

SCALE:	1" = 500'
DATE:	02-24-16
DRAWN BY:	MEM
PROJECT NO:	15-18 Ph: 01



**BIO-NOMIC
SERVICES,
INC.**

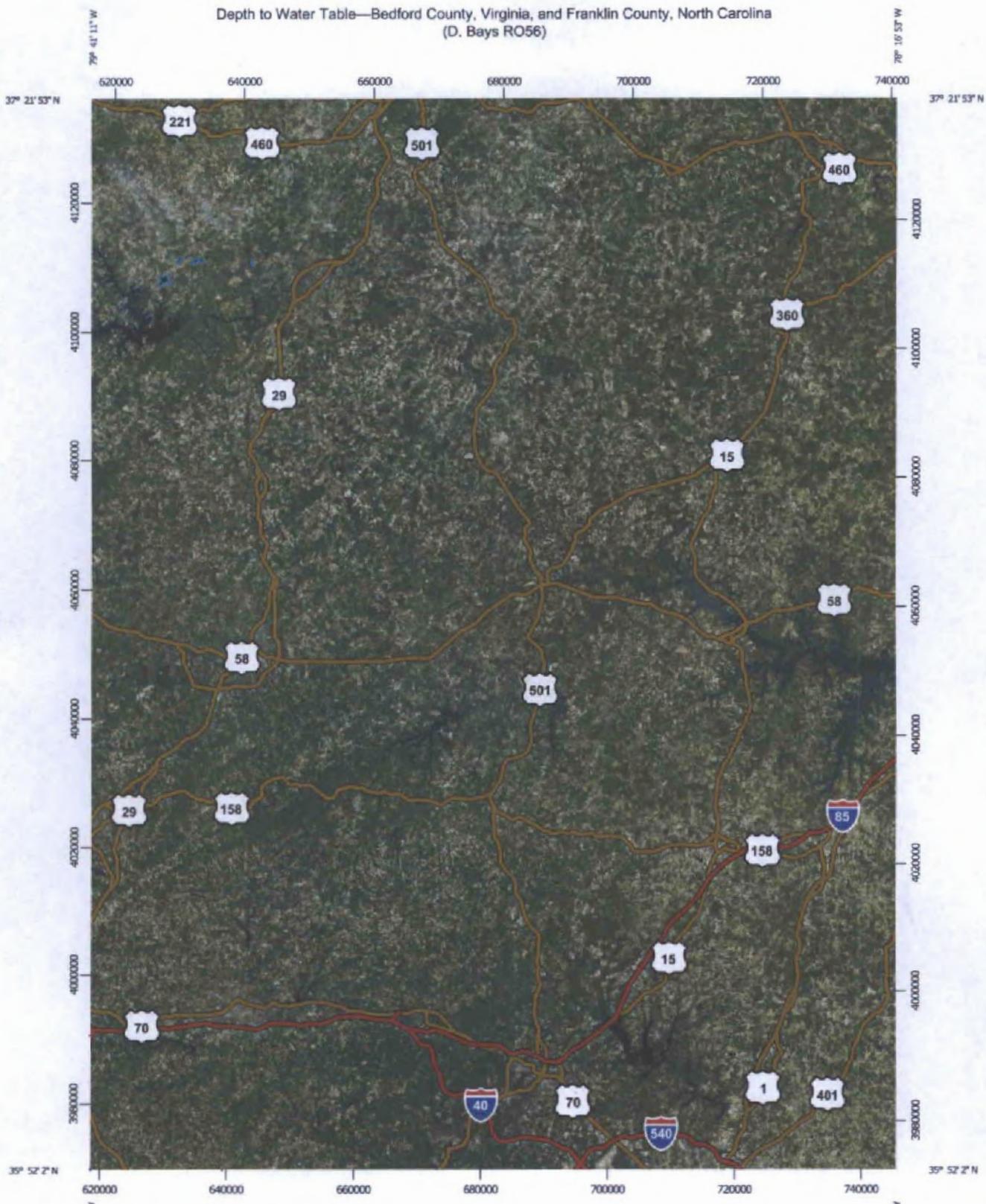
**NRCS SOILS MAP - D. BAYS
FSN 3174 TRACT 2026**

CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.

7

Depth to Water Table—Bedford County, Virginia, and Franklin County, North Carolina
(D. Bays RO56)



Map Scale: 1:810,000 if printed on A portrait (8.5" x 11") sheet.

0 10000 20000 40000 60000 Meters

0 35000 70000 140000 210000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)	 Area of Interest (AOI)	 Not rated or not available
Soils		Water Features
Soil Rating Polygons		 Streams and Canals
 0 - 25		Transportation
 25 - 50		 Rails
 50 - 100		 Interstate Highways
 100 - 150		 US Routes
 150 - 200		 Major Roads
 > 200		 Local Roads
 Not rated or not available		Background
Soil Rating Lines		 Aerial Photography
 0 - 25		
 25 - 50		
 50 - 100		
 100 - 150		
 150 - 200		
 > 200		
 Not rated or not available		
Soil Rating Points		
 0 - 25		
 25 - 50		
 50 - 100		
 100 - 150		
 150 - 200		
 > 200		

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bedford County, Virginia
Survey Area Data: Version 11, Dec 11, 2013

Soil Survey Area: Franklin County, North Carolina
Survey Area Data: Version 16, Sep 14, 2015

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 1, 1999—Dec 31, 2003

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Depth to Water Table

Depth to Water Table— Summary by Map Unit — Bedford County, Virginia (VA019)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1B	Altavista fine sandy loam, 2 to 7 percent slopes	61	35.7	3.8%
7B	Cecil fine sandy loam, 2 to 7 percent slopes	>200	215.0	23.1%
7C	Cecil fine sandy loam, 7 to 15 percent slopes	>200	178.1	19.1%
9C	Cullen loam, 7 to 15 percent slopes	>200	1.0	0.1%
18B	Helena fine sandy loam, 2 to 7 percent slopes	46	35.9	3.9%
18C	Helena fine sandy loam, 7 to 15 percent slopes	46	11.8	1.3%
19B	Iredell fine sandy loam, 2 to 7 percent slopes	30	83.5	9.0%
19C	Iredell fine sandy loam, 7 to 15 percent slopes	30	55.0	5.9%
21D3	Madison sandy clay loam, 15 to 25 percent slopes, severely eroded	>200	133.0	14.3%
21E3	Madison sandy clay loam, 25 to 40 percent slopes, severely eroded	>200	3.3	0.4%
22E	Manteo channery silt loam, 25 to 60 percent slopes	>200	0.8	0.1%
23B	Mattaponi sandy loam, 2 to 7 percent slopes	91	49.0	5.3%
23C	Mattaponi sandy loam, 7 to 15 percent slopes	91	16.9	1.8%
24C	Mecklenburg loam, 7 to 15 percent slopes	>200	13.3	1.4%
24D	Mecklenburg loam, 15 to 25 percent slopes	>200	8.8	0.9%
25C	Nason gravelly silt loam, 7 to 15 percent slopes	>200	17.9	1.9%
25D	Nason gravelly silt loam, 15 to 25 percent slopes	>200	4.2	0.5%
30C	Tatum gravelly loam, 7 to 15 percent slopes	>200	12.7	1.4%

Depth to Water Table— Summary by Map Unit — Bedford County, Virginia (VA019)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
30D	Tatum gravelly loam, 15 to 25 percent slopes	>200	16.2	1.7%
32A	Toccoa sandy loam, 0 to 2 percent slopes	114	5.4	0.6%
33C	Turbeville fine sandy loam, 7 to 15 percent slopes	>200	9.1	1.0%
34B	Vance fine sandy loam, 2 to 7 percent slopes	>200	9.0	1.0%
34C	Vance fine sandy loam, 7 to 15 percent slopes	>200	14.4	1.5%
W	Water	>200	2.1	0.2%
Subtotals for Soil Survey Area			931.8	100.0%
Totals for Area of Interest			931.9	100.0%

Depth to Water Table— Summary by Map Unit — Franklin County, North Carolina (NC069)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
WeC	Wedowee sandy loam, 6 to 10 percent slopes	>200	0.2	0.0%
Subtotals for Soil Survey Area			0.2	0.0%
Totals for Area of Interest			931.9	100.0%

Description

"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: January

Ending Month: December

Depth to Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Bedford County, Virginia (VA019)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1B	Altavista fine sandy loam, 2 to 7 percent slopes	>200	35.7	3.8%
7B	Cecil fine sandy loam, 2 to 7 percent slopes	>200	215.0	23.1%
7C	Cecil fine sandy loam, 7 to 15 percent slopes	>200	178.1	19.1%
9C	Cullen loam, 7 to 15 percent slopes	>200	1.0	0.1%
18B	Helena fine sandy loam, 2 to 7 percent slopes	>200	35.9	3.9%
18C	Helena fine sandy loam, 7 to 15 percent slopes	>200	11.8	1.3%
19B	Iredell fine sandy loam, 2 to 7 percent slopes	>200	83.5	9.0%
19C	Iredell fine sandy loam, 7 to 15 percent slopes	>200	55.0	5.9%
21D3	Madison sandy clay loam, 15 to 25 percent slopes, severely eroded	>200	133.0	14.3%
21E3	Madison sandy clay loam, 25 to 40 percent slopes, severely eroded	>200	3.3	0.4%
22E	Manteo channery silt loam, 25 to 60 percent slopes	43	0.8	0.1%
23B	Mattaponi sandy loam, 2 to 7 percent slopes	>200	49.0	5.3%
23C	Mattaponi sandy loam, 7 to 15 percent slopes	>200	16.9	1.8%
24C	Mecklenburg loam, 7 to 15 percent slopes	>200	13.3	1.4%
24D	Mecklenburg loam, 15 to 25 percent slopes	>200	8.8	0.9%
25C	Nason gravelly silt loam, 7 to 15 percent slopes	122	17.9	1.9%
25D	Nason gravelly silt loam, 15 to 25 percent slopes	122	4.2	0.5%
30C	Tatum gravelly loam, 7 to 15 percent slopes	109	12.7	1.4%

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Bedford County, Virginia (VA019)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
30D	Tatum gravelly loam, 15 to 25 percent slopes	109	16.2	1.7%
32A	Toccoa sandy loam, 0 to 2 percent slopes	>200	5.4	0.6%
33C	Turbeville fine sandy loam, 7 to 15 percent slopes	>200	9.1	1.0%
34B	Vance fine sandy loam, 2 to 7 percent slopes	102	9.0	1.0%
34C	Vance fine sandy loam, 7 to 15 percent slopes	102	14.4	1.5%
W	Water	>200	2.1	0.2%
Subtotals for Soil Survey Area			931.8	100.0%
Totals for Area of Interest			931.9	100.0%

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Franklin County, North Carolina (NC069)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
WeC	Wedowee sandy loam, 6 to 10 percent slopes	>200	0.2	0.0%
Subtotals for Soil Survey Area			0.2	0.0%
Totals for Area of Interest			931.9	100.0%

Description

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "> 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified



FSN 2647
Tract 2948
Fields 2-3, 5, 16
(RO56-37)

FSN 2647
Tract 2948
Field 1
(RO56-36)

FSN 2647
Tract 2948
Field 7
(RO56-35)

FSN 2647
Tract 2948
Fields 8, 10
(RO56-34)

FSN 2235
Tract 1112
Field 1
(RO56-1)

FSN 2235
Tract 1112
Field 4
(RO56-4)

FSN 2235
Tract 1112
Field 6 & 7
(RO56-6)

FSN 2235
Tract 1112
Field 9
(RO56-9)

FSN 2647
Tract 2948
Field 7
(RO56-40)

FSN 2235
Tract 1112
Fields 2, 3, & 8
(RO56-2)

FSN 2235
Tract 1112
Field 5
(RO56-5)

FSN 2647
Tract 2948
Field 4
(RO56-38)

FSN 2647
Tract 2948
Field 4
(RO56-39)

FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES	FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES
RO56-1	12.8	4.3	8.5	RO56-34	26.5	6.6	19.9
RO56-2	26	7	19	RO56-35	6.5	3.1	3.4
RO56-4	11.3	2.1	9.2	RO56-36	6.4	1.6	4.8
RO56-5	14.4	3.6	10.8	RO56-37	14.7	8.8	5.9
RO56-6	15.3	1.5	13.8	RO56-38	11.5	6.5	5
RO56-9	4.9	1.4	3.5	RO56-39	8.5	0.9	7.6
				RO56-40	8.4	2.2	6.2

**Bold denotes fields previously permitted

SOURCE:
GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

DATE: 02.24.2016
DRAWN BY: MEM
CHECKED BY: MEM
SCALE: 1" = 500'
PROJECT NO: 15-18 Ph: 01
ENGINEERING LICENSE NO:

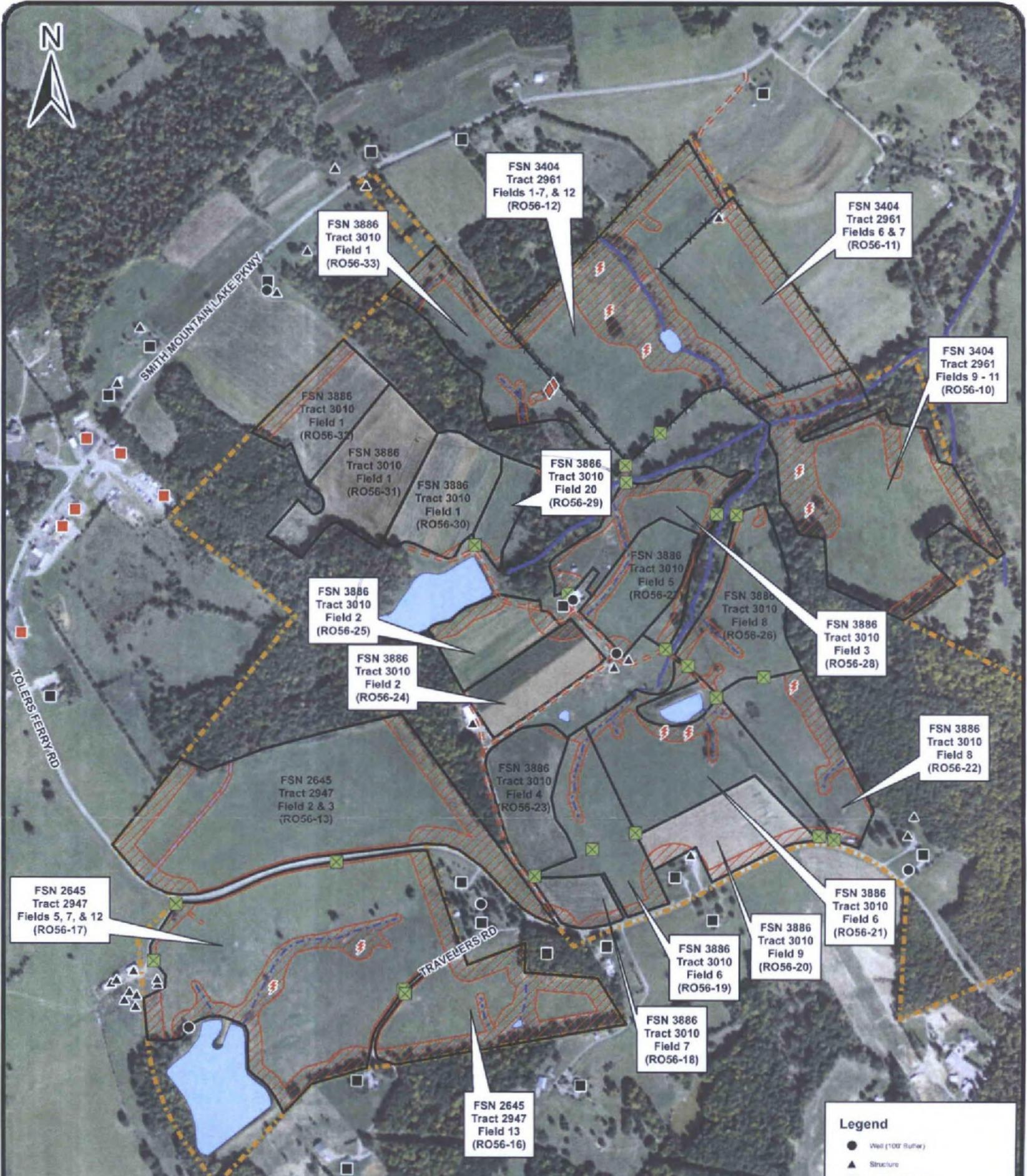


BIO-NOMIC SERVICES, INC.

BUFFER MAP - D. BAYS
FSN 2235, 2647 TRACTS 1112, 2948
CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.
8

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FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES	FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES
RO56-10	25.1	9	16.1	RO56-23	6.9	0.1	6.8
RO56-11	12.6	2.8	9.8	RO56-24	5.8	0.3	5.5
RO56-12	29.2	13.1	16.1	RO56-25	5.5	1.5	4
RO56-13	32.8	8.1	24.7	RO56-26	10.3	1.5	8.8
RO56-16	13.7	7.3	6.4	RO56-27	6.4	0.9	5.5
RO56-17	38.3	9.3	29	RO56-28	8.6	4	4.6
RO56-18	2.6	0.6	2	RO56-29	2.8	0.2	2.6
RO56-19	8.4	1.5	6.9	RO56-30	7.1	0.1	7
RO56-20	7.5	1.6	5.9	RO56-31	10.1	0	10.1
RO56-21	13.2	2.8	10.4	RO56-32	6.8	1.7	5.1
RO56-22	9.5	2.5	7	RO56-33	10.9	3.3	7.6

****Bold denotes fields previously permitted**

SOURCE:
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto, IGN, IGP, swisstopo, and the GIS User Community

Legend

- Well (100' Buffer)
- ▲ Structure
- Dwelling (200' Buffer)
- Public Contact Site (200' PLI 400' Buffer)
- Gate
- ◆ Rock Outcrop (25' Buffer)
- ⚡ Slope
- ◆ Sinkhole (100' Buffer)
- 🌊 Frequently Flooded Areas
- Access Road
- × × Fence
- Drain (Buffer 10')
- Drain (Buffer 25')
- Stream (100' Buffer)
- Pond (100' Buffer)
- ▨ Buffer
- ▭ Field Boundary
- ▭ Property Boundary (100' Buffer)

SCALE: 1" = 600'
DATE: 02-24-16
DRAWN BY: MEM
PROJECT NO: 15-18 Ph: 01

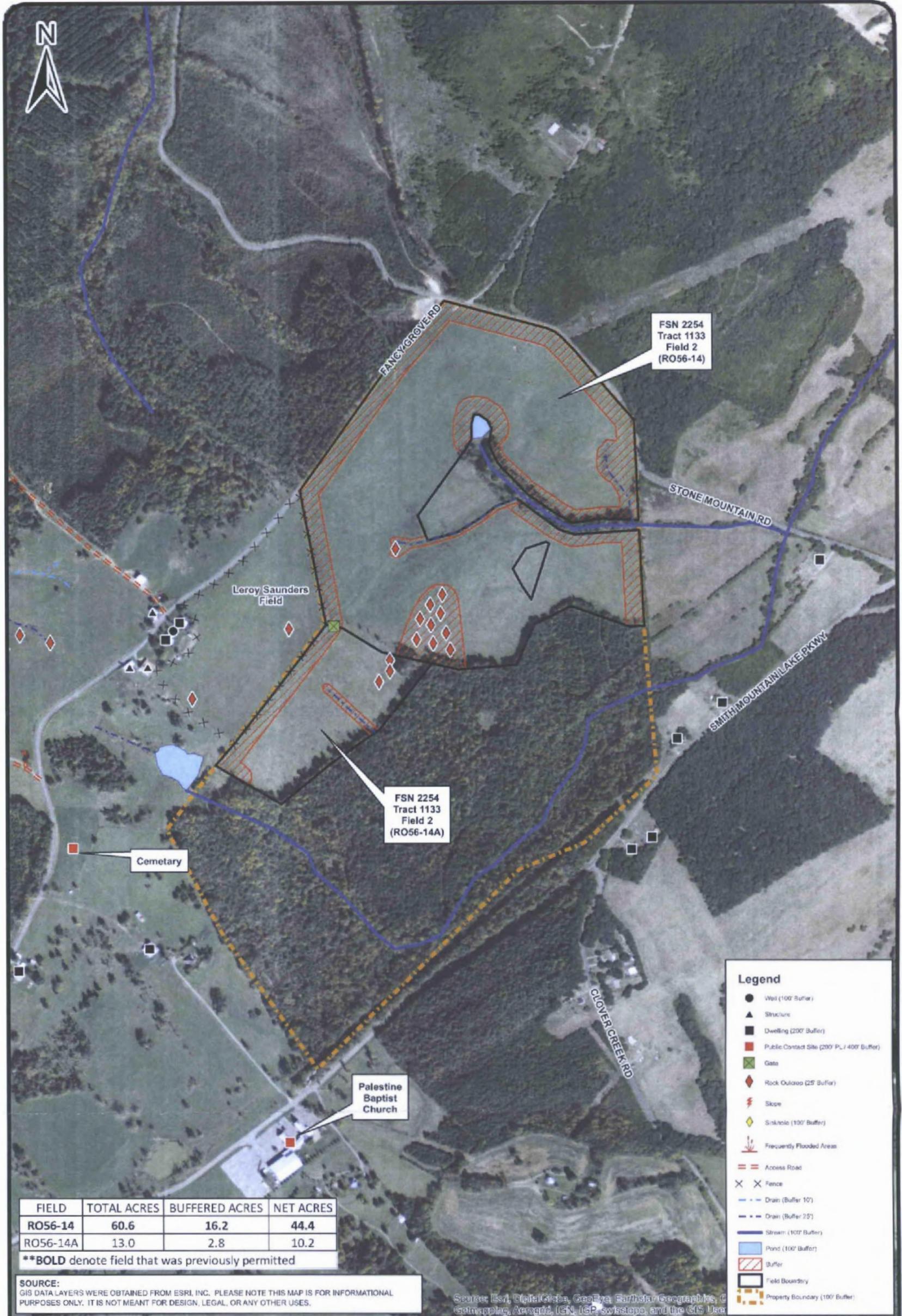


BIO-NOMIC SERVICES, INC.

BUFFER MAP - D. BAYS
FSN 2645, 3404, 3886 TRACTS 2947, 2961, 3010
CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.
9

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FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES
RO56-14	60.6	16.2	44.4
RO56-14A	13.0	2.8	10.2

****BOLD** denote field that was previously permitted

SOURCE:
GIS DATA LAYERS WERE OBTAINED FROM ESRI, INC. PLEASE NOTE THIS MAP IS FOR INFORMATIONAL PURPOSES ONLY. IT IS NOT MEANT FOR DESIGN, LEGAL, OR ANY OTHER USES.

- Legend**
- Well (100' Buffer)
 - ▲ Structure
 - Dwelling (200' Buffer)
 - Public Contact Site (200' P., 400' Buffer)
 - Gate
 - ◆ Rock Outcrop (25' Buffer)
 - ⚡ Slope
 - ◆ Sinkhole (100' Buffer)
 - 🌊 Frequently Flooded Areas
 - Access Road
 - × × Fence
 - Drain (Buffer: 10')
 - Drain (Buffer: 25')
 - Stream (100' Buffer)
 - Pond (100' Buffer)
 - ▨ Buffer
 - ▭ Field Boundary
 - ▭ Property Boundary (100' Buffer)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto, IGN, IGP, swisstopo, and the GIS User Community

SCALE:	1" = 500'
DATE:	02-24-16
DRAWN BY:	MEM
PROJECT NO:	15-18 Ph: 01



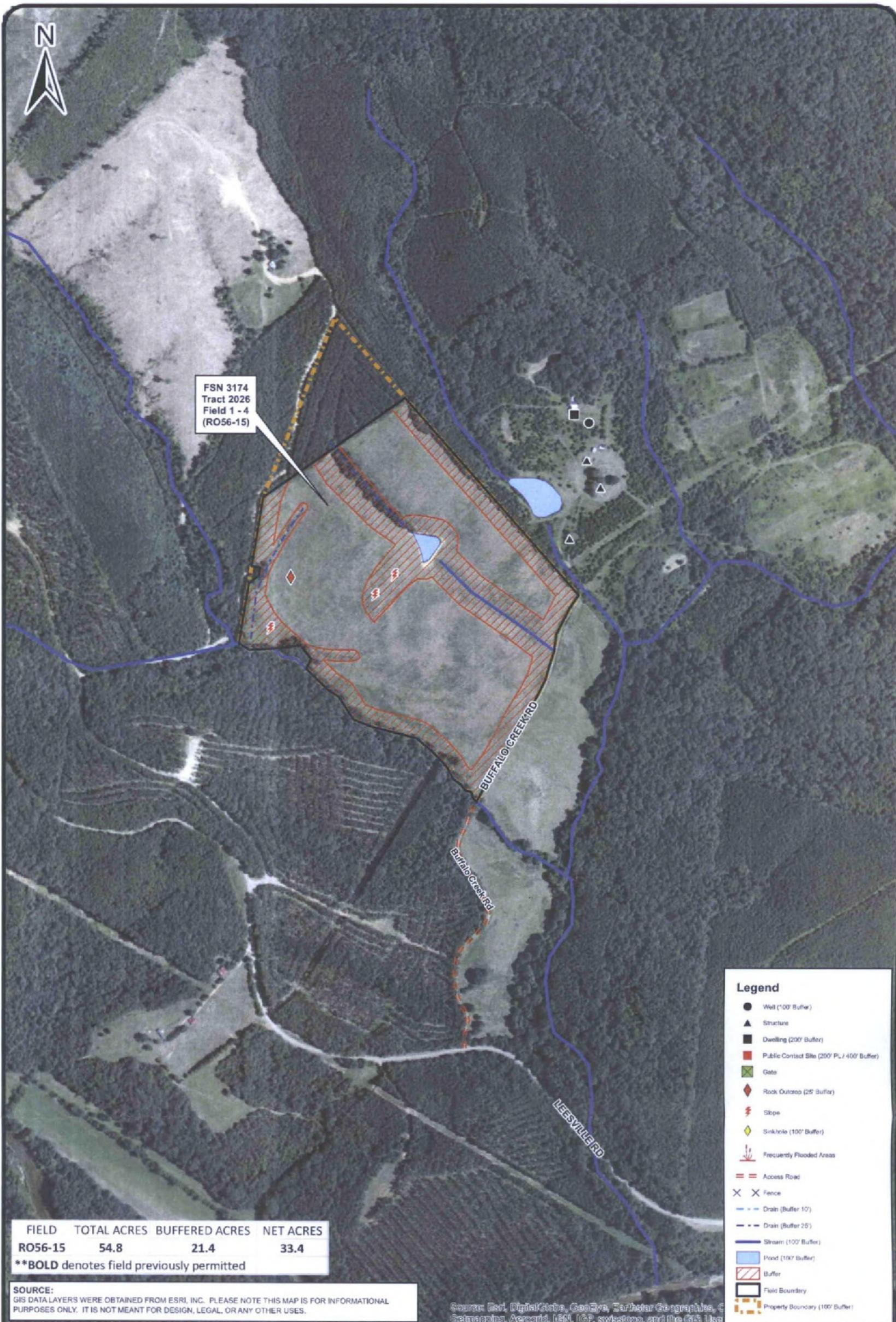
BIO-NOMIC SERVICES, INC.

BUFFER MAP - D. BAYS
FSN 2254 TRACT 1133

CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.
10

C:\arcgis\009\1588-09-059 Bfs-nomic David Bays\Buffer 2 Updated.mxd



FSN 3174
Tract 2026
Field 1 - 4
(RO56-15)

FIELD	TOTAL ACRES	BUFFERED ACRES	NET ACRES
RO56-15	54.8	21.4	33.4

****BOLD denotes field previously permitted**

SOURCE:
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Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR/Airphoto, IGN, IGF, swisstopo, and the GIS User Community

SCALE:	1" = 500'
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PROJECT NO.:	15-18 Ph: 01



**BIO-NOMIC
SERVICES,
INC.**

**BUFFER MAP - D. BAYS
FSN 3174 TRACT 2026**

CITY OF ROANOKE
LAND APPLICATION PROGRAM
BEDFORD COUNTY, VIRGINIA

FIGURE NO.

11

C:\arjops\2009\1588-09-059 Bio-nomic\David Bays\Buffer 3 Updated.mxd



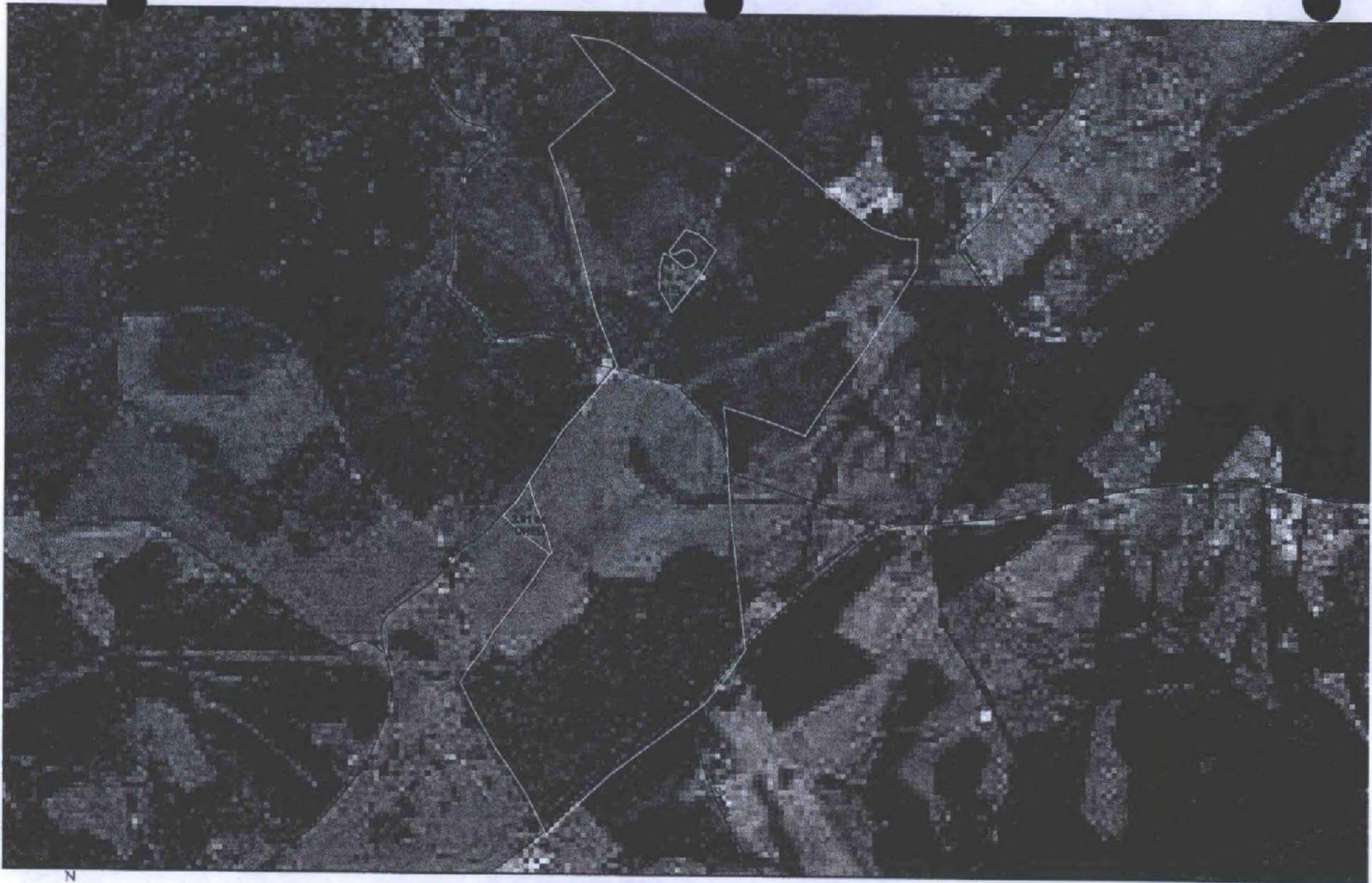
1 inch equals 545 feet



Farm Number: 2235
 Tract Number: 1112

Bedford County
Farm Service Agency

Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and labels, or contact NRCS.



1 inch = 1,236 feet

Farm: 2254
Tract: 1133



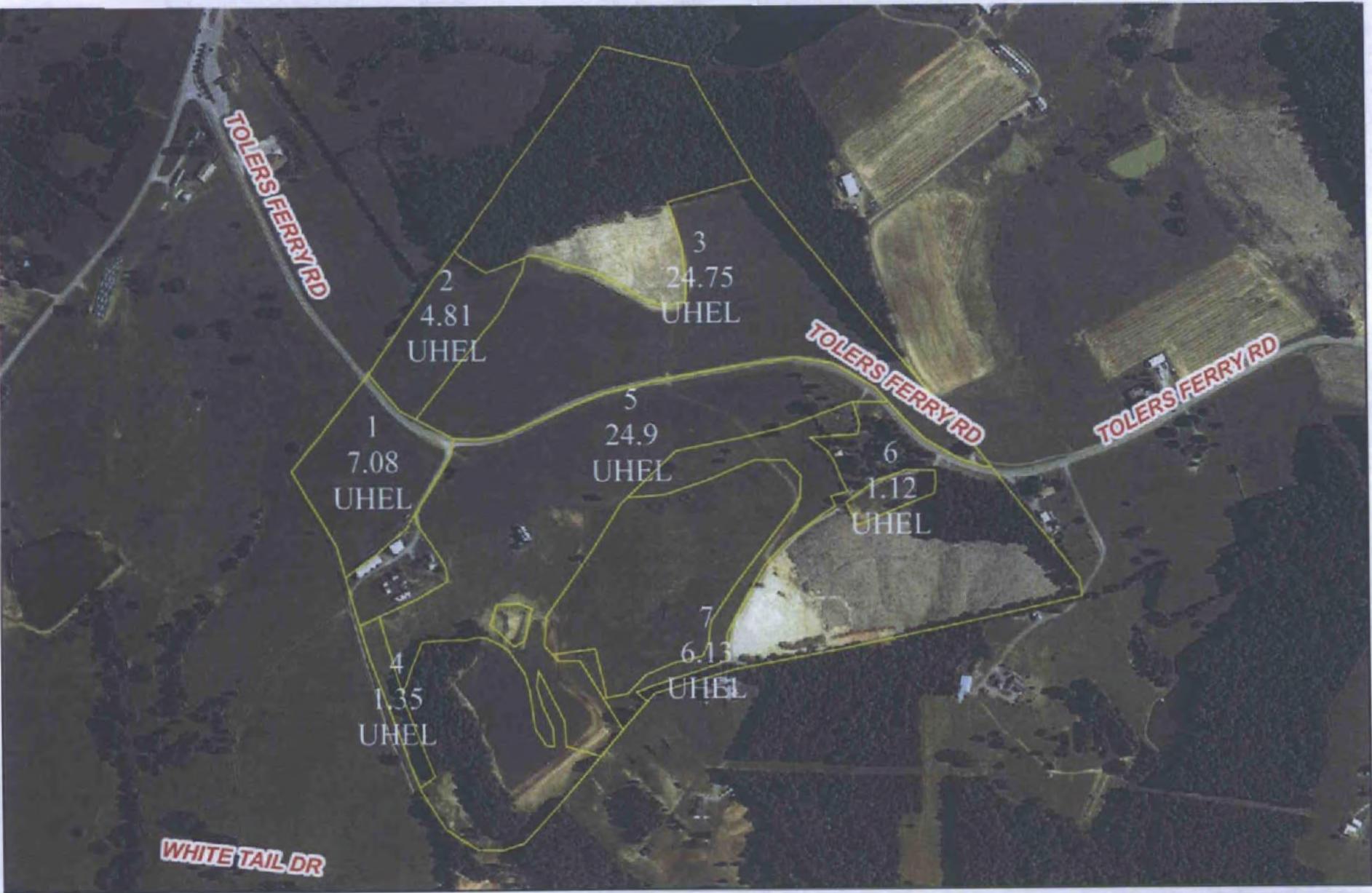
Bedford County, VA

Wetland Determination Map

- Wetland
- Wetland
- Wetland

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Dec. 29, 2015



1 inch equals 550 feet



Farm Number: 2645
 Tract Number: 2947

Bedford County
Farm Service Agency

Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and labels, or contact NRCS.



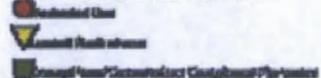
1 inch = 503 feet

Farm: 2647
Tract: 2948



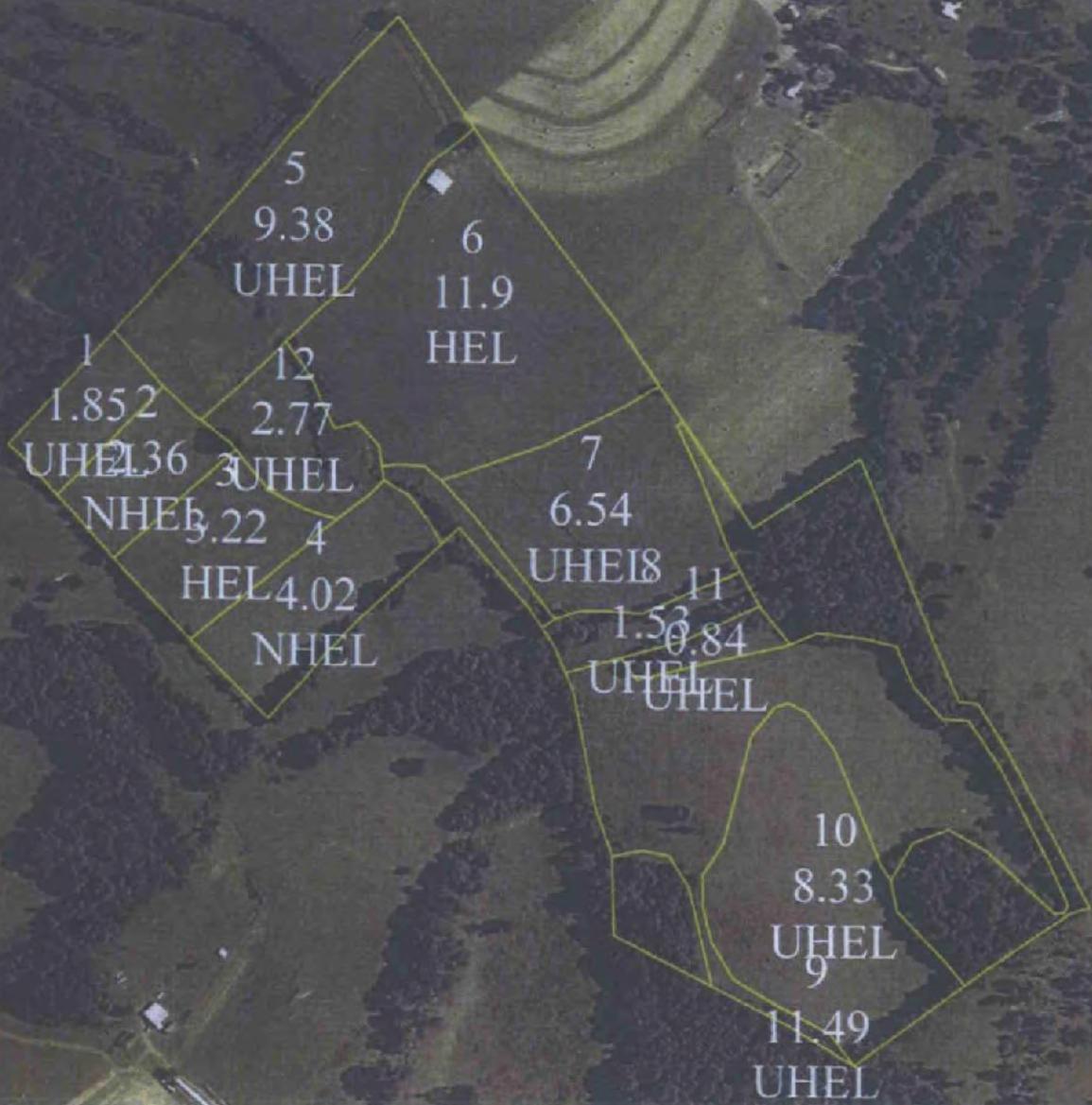
Bedford County, VA

Wetland Information: 6/16/2016



Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Feb. 4, 2016

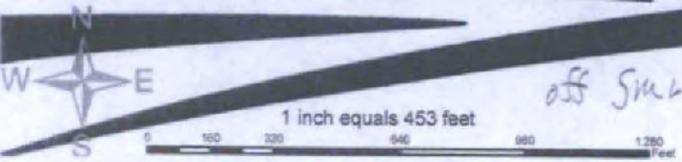


Downie Bay's Eric - Morgan

off Sm 6 Rky

Farm Number: 3404
 Tract Number: 2961

Bedford County
Farm Service Agency



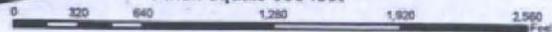
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13 Bays



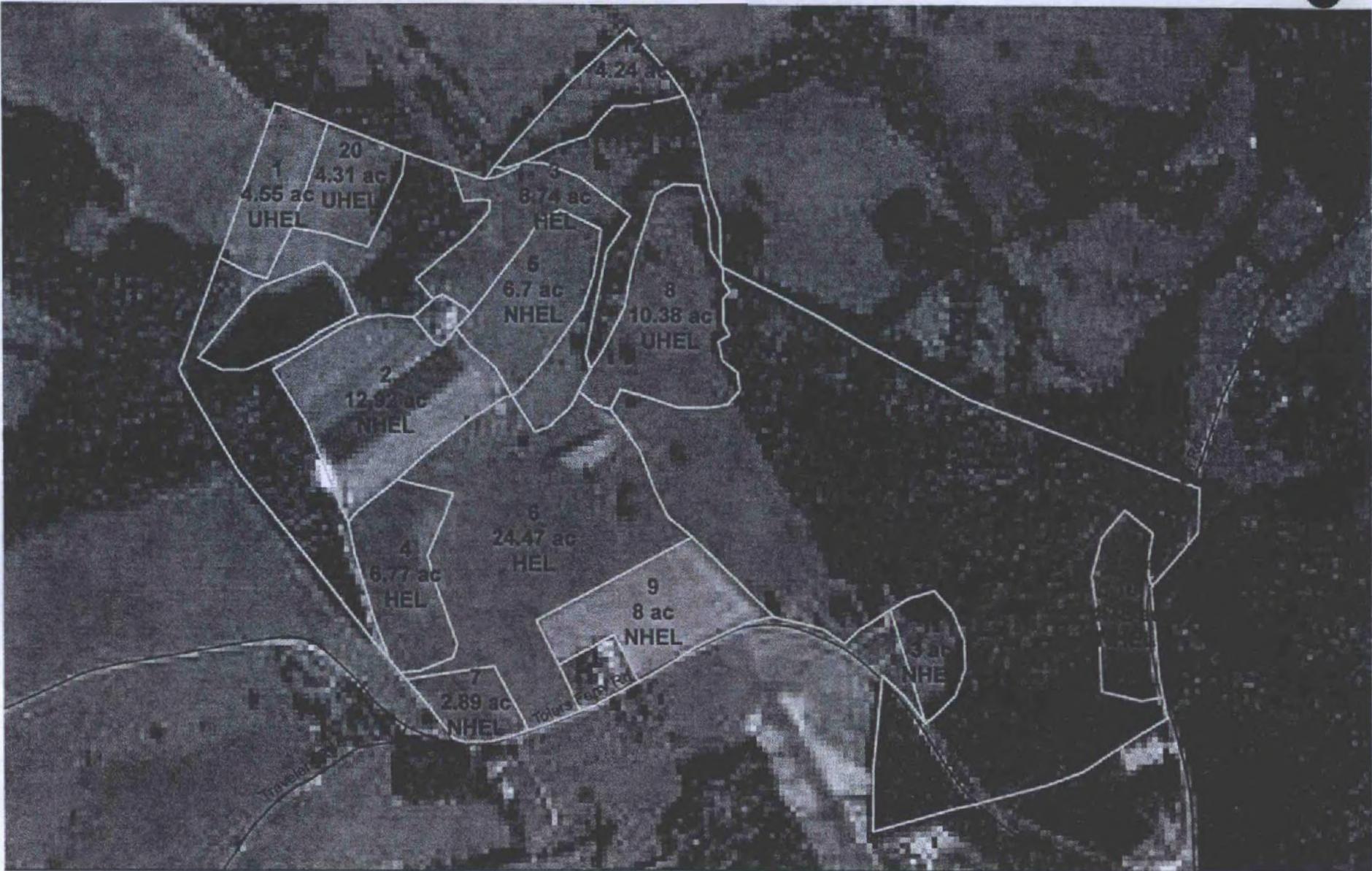
1 inch equals 889 feet



Farm Number: 3174
 Tract Number: 2026

Bedford County
Farm Service Agency

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1 inch = 596 feet

Farm: 3886
Tract: 3010



Bedford County, VA

Wetland of Determination (Wetland Map) 1/15/15

- Wetland Class
- Wetland Phase
- Wetland Use/Designation/Classification

Disclaimer: Wetland identifiers do not represent the size, shape or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact wetland boundaries and determinations, or contact NRCS.

Dec. 9, 2015

Report Number: 16-098-0530

Account Number: 45671



7621 Whitepine Road, Richmond, VA 23237

Main 804-743-9401 Fax 804-271-6446

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CHARLOTTE NC 28217

"Every acre...Every year."™

Grower: BAYS

Submitted By: DON GREENE
Farm ID: RO 56

SOIL ANALYSIS REPORT

Analytical Method(s): Lime Index Mehlich 3 Loss On Ignition Water pH

Date Received: 04/07/2016

Date Of Analysis: 04/08/2016

Date Of Report: 04/08/2016

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
56-1	06838	4.6 M	MIN	130	19 L NC = 16			52 VL NC = 27	147 M	1015 M		5.6	6.73	2.0	8.4
56-2	06839	3.1 M	MIN	102	5 VL NC = 4			39 VL NC = 20	69 L	1052 H		6.2		0.8	6.7
56-4	06840	2.7 M	MIN	94	29 L NC = 24			54 VL NC = 28	108 M	922 M		5.8	6.80	1.3	6.9
56-5	06841	2.0 L	MIN	83	8 VL NC = 7			65 L NC = 33	64 M	597 M		5.6	6.82	1.1	4.8
56-6	06842	2.2 L	MIN	84	14 L NC = 12			20 VL NC = 10	109 M	960 H		6.1	6.84	0.9	6.7

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-1	1.6	14.6	60.4		23.8										
56-2	1.5	8.6	78.5		11.9										
56-4	2.0	13.0	66.8		18.8										
56-5	3.5	11.1	62.2		22.9										
56-6	0.8	13.6	71.6		13.4										

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: 16-098-0530

Account Number: 45671



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"Every acre...Every year."™

Grower: BAYS

Submitted By: DON GREENE
 Farm ID: RO 56

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Analytical Method(s): Lime Index Mehlich 3 Loss On Ignition Water pH

Date Received: 04/07/2016

Date Of Analysis: 04/08/2016

Date Of Report: 04/08/2016

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
56-9	06843	3.0 M	MIN	102	6 VL NC = 5			66 L NC = 34	73 M	649 M		5.5	6.79	1.4	5.4
56-10	06844	5.0 H	MIN	137	8 VL NC = 7			51 VL NC = 26	209 H	1215 M		6.1	6.80	1.3	9.2
56-11	06846	3.7 M	MIN	100	23 L NC = 19			38 VL NC = 19	1113 VH	2318 M		6.6		1.3	22.3
56-12	06847	3.5 M	MIN	110	14 L NC = 12			133 H NC = 68	160 H	715 L		5.4	6.72	2.1	7.3
56-13	06848	3.4 M	MIN	106	79 H NC = 66			58 L NC = 30	137 M	1335 H		6.5		0.6	8.6

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-9	3.1	11.3	60.1		25.9										
56-10	1.4	18.9	66.0		14.1										
56-11	0.4	41.6	52.0		5.8										
56-12	4.7	18.3	49.0		28.8										
56-13	1.7	13.3	77.6		7.0										

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.

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by: *Paucic McGeary*

Paucic McGeary

Report Number: 16-098-0530

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		% 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
56-14	06849	2.3 L	MIN	87	9 VL NC = 7		88 L NC = 45	54 L	726 M			5.3	6.74	1.9	6.2
56-14A	06850	2.9 M	MIN	101	2 VL NC = 2		113 VH NC = 58	79 M	607 M			5.8	6.84	0.9	4.9
56-15	06851	5.1 H	MIN	143	13 VL NC = 11		205 VH NC = 105	100 M	762 M			5.8	6.81	1.2	6.4
56-16	06852	4.3 M	MIN	125	18 L NC = 15		189 VH NC = 97	85 L	1146 H			6.5		0.6	7.5
56-17	06853	2.6 M	MIN	93	15 L NC = 12		110 M NC = 56	80 M	686 M			5.4	6.76	1.7	6.1

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-14	3.6	7.3	58.5		30.6										
56-14A	5.9	13.4	61.9		18.4										
56-15	8.2	13.0	59.5		18.8										
56-16	6.5	9.4	76.4		8.0										
56-17	4.6	10.9	56.2		27.9										

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.

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Paucic McGeary

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Grower: BAYS

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		% 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
56-18	06854	3.1 M	MIN	100	11 VL NC = 9			39 VL NC = 20	197 H	1134 M		6.0	6.80	1.3	8.7
56-19	06855	4.8 M	MIN	135	26 L NC = 22			180 VH NC = 92	122 M	814 M		5.4	6.71	2.2	7.7
56-20	06857	3.3 M	MIN	107	40 M NC = 33			168 VH NC = 86	129 H	846 M		6.3		0.7	6.4
56-21	06858	5.0 H	MIN	138	41 M NC = 34			141 H NC = 72	170 H	957 M		5.7	6.75	1.8	8.4
56-22	06859	4.6 M	MIN	133	5 VL NC = 4			135 H NC = 69	65 L	527 L		4.9	6.65	2.8	6.3

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-18	1.1	18.9	65.2		14.9										
56-19	6.0	13.2	52.9		28.6										
56-20	6.7	16.8	66.1		10.9										
56-21	4.3	16.9	57.0		21.4										
56-22	5.5	8.6	41.8		44.4										

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.

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by: *Paucic McGroary*

Paucic McGroary

Report Number: 16-098-0530

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		% 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
56-23	06860	2.8 M	MIN	96	43 M NC = 36			114 M NC = 58	146 H	999 H		6.4		0.6	7.1
56-24	06861	3.7 M	MIN	113	17 L NC = 14			83 L NC = 42	107 M	972 M		5.8	6.79	1.4	7.4
56-25	06862	3.4 M	MIN	106	8 VL NC = 7			45 VL NC = 23	199 H	1325 H		6.9		0.1	8.5
56-26	06863	4.9 M	MIN	131	34 M NC = 28			79 L NC = 40	372 VH	1656 H		7.3		0.0	11.6
56-27	06864	4.5 M	MIN	124	12 VL NC = 10			45 VL NC = 23	277 H	1725 H		7.0		0.0	11.0

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-23	4.1	17.1	70.4		8.5										
56-24	2.9	12.0	65.7		18.9										
56-25	1.4	19.5	77.9		1.2										
56-26	1.7	26.7	71.4		0.0										
56-27	1.0	21.0	78.4		0.0										

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by: *Paucic McGeary*

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		% 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
56-28	06865	4.4 M	MIN	125	6 VL NC = 5			312 VH NC = 160	136 M	892 M		5.4	6.68	2.5	8.9
56-29	06866	2.1 L	MIN	85	37 M NC = 31			21 VL NC = 11	29 VL	546 M		5.0	6.72	2.1	5.1
56-30	06868	2.4 L	MIN	89	36 M NC = 30			48 VL NC = 25	95 M	724 M		5.5	6.77	1.6	6.1
56-31	06869	3.3 M	MIN	105	21 L NC = 17			102 M NC = 52	167 H	941 M		6.0	6.81	1.2	7.6
56-32	06870	1.8 L	MIN	79	32 M NC = 27			51 L NC = 26	81 M	622 M		5.7	6.83	1.0	4.9

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-28	9.0	12.7	50.1		28.1										
56-29	1.1	4.7	53.5		41.2										
56-30	2.0	13.0	59.3		26.2										
56-31	3.4	18.3	61.9		15.8										
56-32	2.7	13.8	63.5		20.4										

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by: *Paucic McGroary*

Paucic McGroary

Report Number: 16-098-0530

Account Number: 45671



7621 Whitepine Road, Richmond, VA 23237
 Main 804-743-9401 ° Fax 804-271-6446
 www.waypointanalytical.com

Send To: BIO-NOMIC SERVICES INC
 Joel Coert
 516 ROUNDTREE RD
 CHARLOTTE NC 28217

"Every acre...Every year."™

Grower: BAYS

Submitted By: DON GREENE
 Farm ID: RO 56

SOIL ANALYSIS REPORT

Analytical Method(s): Lime Index Mehlich 3 Loss On Ignition Water pH

Date Received: 04/07/2016

Date Of Analysis: 04/08/2016

Date Of Report: 04/08/2016

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
56-33	06871	3.0 M	MIN	103	6 VL NC = 5			65 L NC = 33	87 M	583 M		5.6	6.81	1.2	5.0
56-34	06872	5.2 H	MIN	140	23 L NC = 19			71 L NC = 36	189 H	1267 M		5.9	6.76	1.7	9.8
56-35	06873	7.9 VH	MIN	150	20 L NC = 17			409 VH NC = 209	167 M	1105 L		5.4	6.62	3.1	11.1
56-36	06874	4.4 M	MIN	123	39 M NC = 32			49 VL NC = 25	287 H	1471 M		6.5		0.8	10.7
56-37	06875	6.7 H	MIN	150	1 VL NC = 1			88 L NC = 45	323 H	1585 M		6.3		1.3	12.1

Sample ID Field ID	Percent Base Saturation					Nitrate	Sulfur	Zinc	Manganese	Iron	Copper	Boron	Soluble Salts	Chloride	Aluminum
	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	Cl ppm Rate	Al ppm
56-33	3.3	14.5	58.3		24.0										
56-34	1.9	16.1	64.6		17.3										
56-35	9.4	12.5	49.8		27.9										
56-36	1.2	22.4	68.7		7.5										
56-37	1.9	22.2	65.5		10.7										

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*

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		% 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
56-38	06876	5.6 H	MIN	145	6 VL NC = 5			146 H NC = 75	239 H	1382 M		5.6	6.65	2.8	12.1
56-39	06877	5.3 H	MIN	141	96 H NC = 80			160 H NC = 82	257 H	1471 M		6.5		0.8	10.7
56-40	06879	7.6 VH	MIN	150	53 H NC = 44			373 VH NC = 191	533 VH	2129 M		7.4		0.0	16.0

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	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	Cl ppm Rate	Al ppm
56-38	3.1	16.5	57.1		23.1										
56-39	3.8	20.0	68.7		7.5										
56-40	6.0	27.8	66.5		0.0										

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