

AUG 15 2016

Nutri Blend

BIOSOLIDS LAND APPLICATION

Robinson
T-5423
110.1 Acres



Apple

60

724

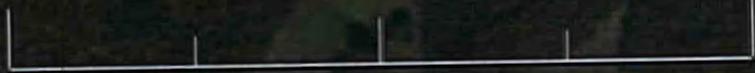
Ayers Rd

1



- Buffer Area
- Field Boundry
- Intermittent Stream
- Occupied Dwelling/Structures
- Public Roadway
- Property Line
- Surface Water

3040 ft



Robinsom Farm
Tract 5423
Field Data Sheet

RECEIVED
AUG 15 2016
DEQ - BRRO

Field	Total	Field Coordinates	
		Latitude	Longitude
1	101.6	37.486228	-78.350707
1	101.6		

Watershed Code JM66

Site Type Agriculture

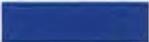
Tax ID 54-A-23

Agricultural Practice: See Nutrient Management Plan for Yearly crop rotation

Owner Virginia M. Robinson

Mack H. Robinson Jr.

MAP LEGEND

	Buffer Area
	Property Line (100ft Buffer)
	North Symbol
	Surface Water
	Field Boundary
rck	Rock Outcrop (25ft Buffer)
	Severe Slope/Erosion
	Sink Hole (100ft Buffer)
	Intermittent Stream (100ft Buffer)
	Occupied Dwelling/Structures/Well (200ft Buffer)
	Frequently Flooded Area/Drainage Way/Wet Spot
	Public Roadway (10ft Buffer)
	Road Map Hauling Route
	OSR/Public Access Sites (400ft Buffer)
	Public Water Supply/Additional Water Well (100ft Buffer)

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

Permittee: Nutri-Blend County or City: Cumberland

Landowner: Virginia May A. Robinson

Landowner: Mack H. Robinson, Jr.

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:

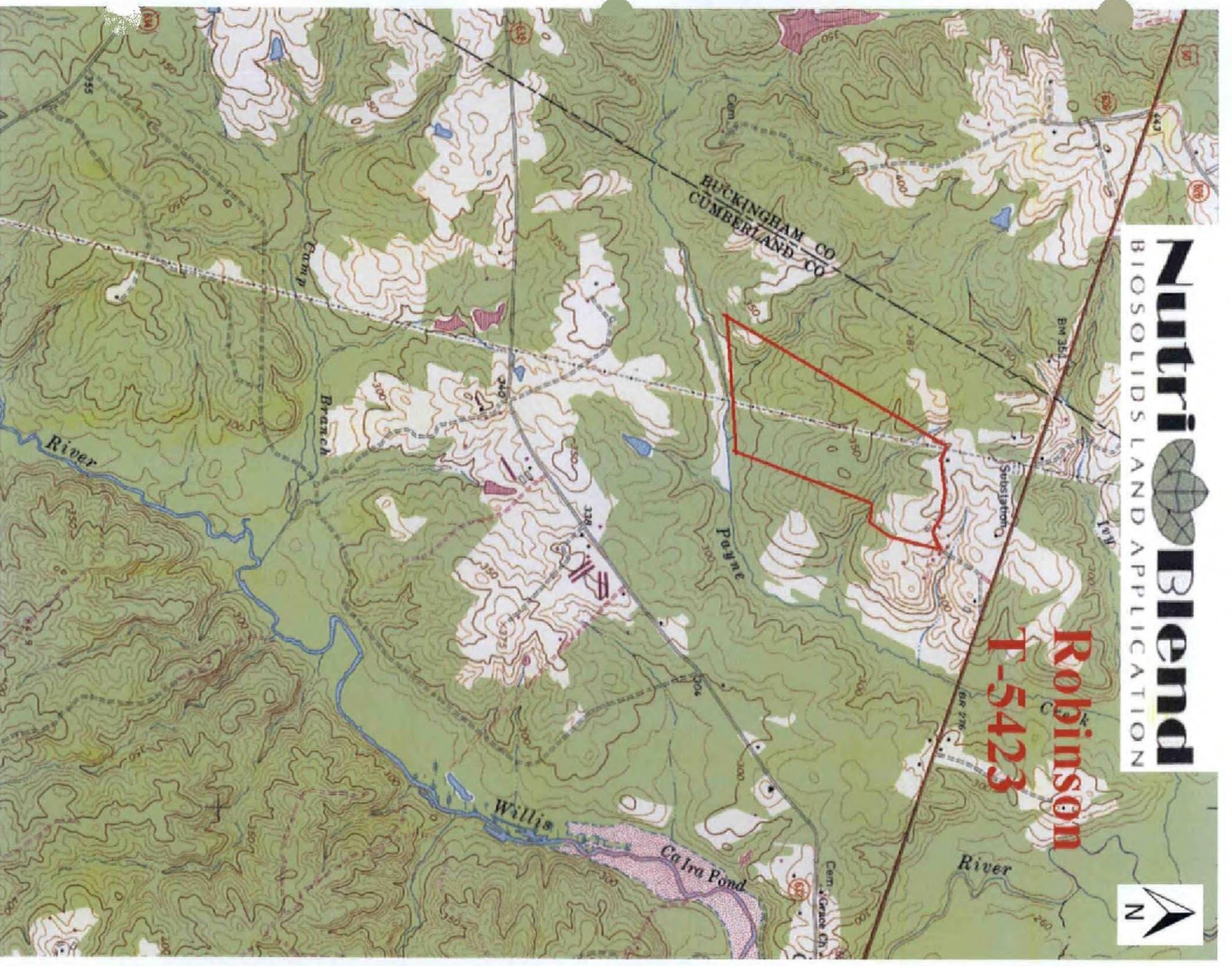
 - a. Meat producing livestock shall not be grazed for 30 days;
 - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
 - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids 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).

Virginia May A. Robinson 6-3-14
Landowner's Signature Date
Mack H. Robinson 6-3-14
Landowner's Signature Date

Robinson
T-5423



NutriBlend
BIOSOLIDS LAND APPLICATION

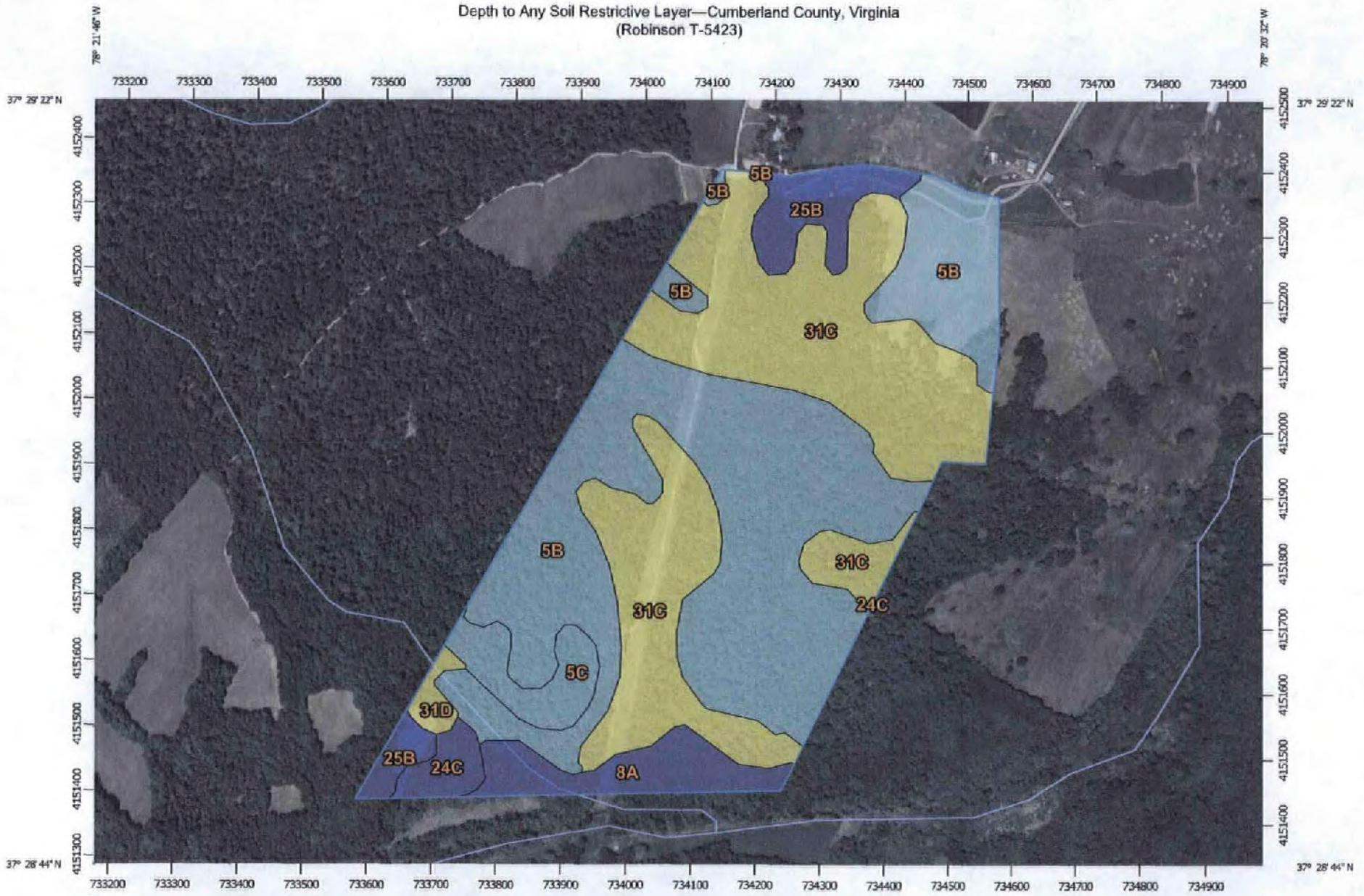


NutriBlend
BIOSOLIDS LAND APPLICATION

Robinson
T-5423



Depth to Any Soil Restrictive Layer—Cumberland County, Virginia
(Robinson T-5423)



Map Scale: 1:8,260 if printed on A landscape (11" x 8.5") sheet.

0 100 200 400 600 Meters

0 400 800 1600 2400 Feet

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



MAP LEGEND

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

MAP INFORMATION

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

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Cumberland County, Virginia
Survey Area Data: Version 11, Dec 11, 2013

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

Date(s) aerial images were photographed: May 10, 2010—Jul 4, 2010

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 Any Soil Restrictive Layer

Depth to Any Soil Restrictive Layer— Summary by Map Unit — Cumberland County, Virginia (VA048)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
5B	Brickhaven-Creedmoor complex, 2 to 7 percent slopes	142	65.7	48.6%
5C	Brickhaven-Creedmoor complex, 7 to 15 percent slopes	142	5.2	3.7%
8A	Chewacla and Monacan soils, 0 to 2 percent slopes, frequently flooded	>200	7.4	5.2%
24C	Mayodan-Exway complex, 7 to 15 percent slopes	>200	2.6	1.8%
25B	Mecklenburg loam, 2 to 7 percent slopes	>200	7.4	5.2%
31C	Pinoka-Carabonton complex, 7 to 15 percent slopes	76	61.4	38.4%
31D	Pinoka-Carabonton complex, 15 to 25 percent slopes	76	1.4	1.0%
Totals for Area of Interest			140.9	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.

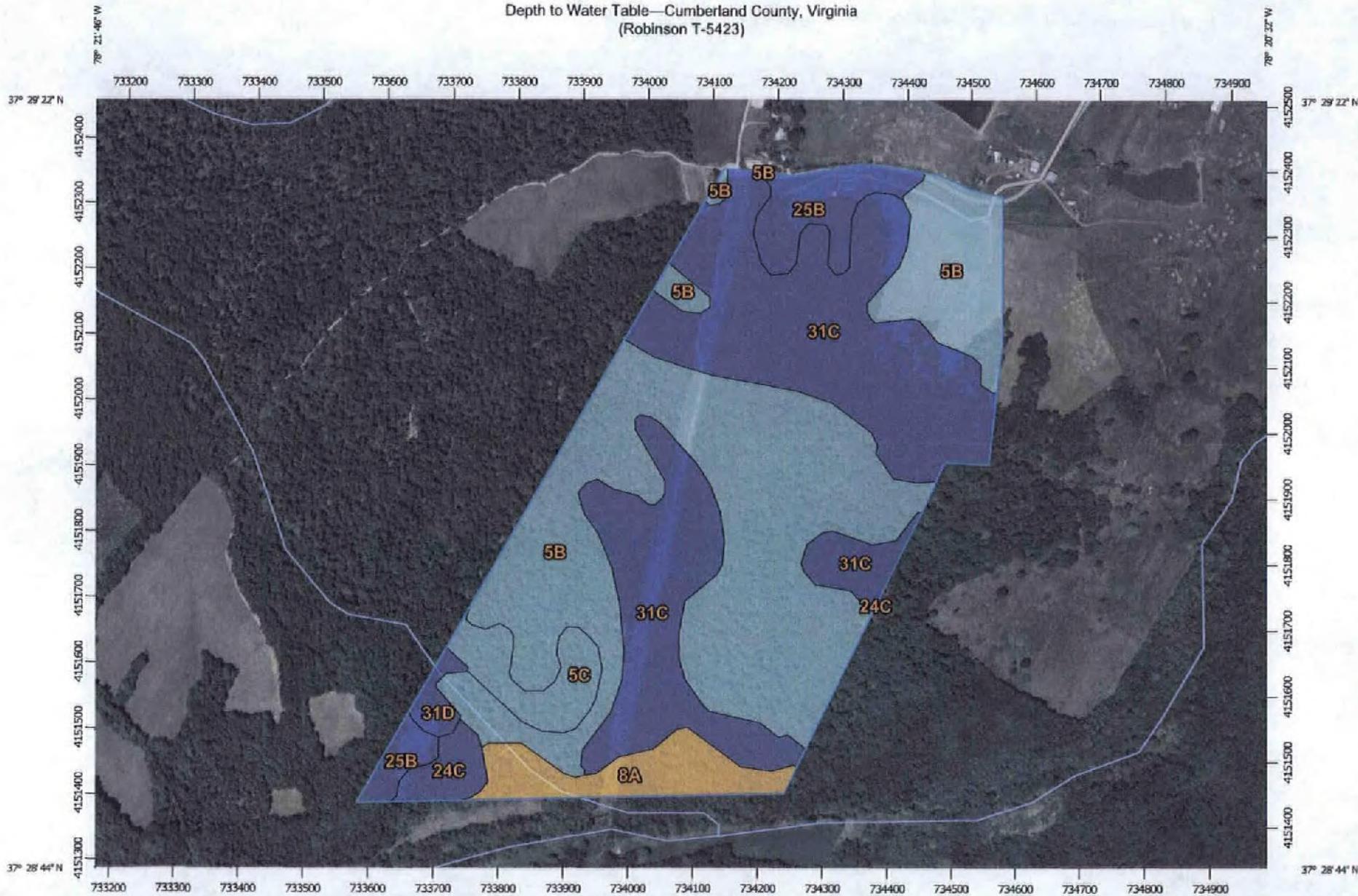
This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented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

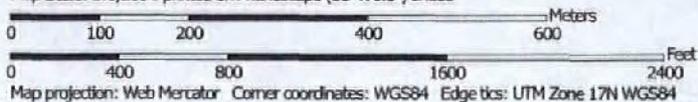
Rating Options

Units of Measure: centimeters

Depth to Water Table—Cumberland County, Virginia
(Robinson T-5423)



Map Scale: 1:8,260 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND

 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.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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)

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Survey Area Data: Version 11, Dec 11, 2013

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Depth to Water Table

Depth to Water Table— Summary by Map Unit — Cumberland County, Virginia (VA049)				
Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
5B	Brickhaven-Creedmoor complex, 2 to 7 percent slopes	130	65.7	46.6%
5C	Brickhaven-Creedmoor complex, 7 to 15 percent slopes	130	5.2	3.7%
8A	Chewacla and Monacan soils, 0 to 2 percent slopes, frequently flooded	31	7.4	5.2%
24C	Mayodan-Exway complex, 7 to 15 percent slopes	>200	2.6	1.8%
25B	Mecklenburg loam, 2 to 7 percent slopes	>200	7.4	5.2%
31C	Pinoka-Carbonton complex, 7 to 15 percent slopes	>200	51.4	36.4%
31D	Pinoka-Carbonton complex, 15 to 25 percent slopes	>200	1.4	1.0%
Totals for Area of Interest			140.9	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



ROBINSON T-5423

My Branch

Payne Creek



Robinsom Farm
Tract 5423
Field Data Sheet

Field	Total	Field Coordinates	
	Acres	Latitude	Longitude
1	110.1	37.486228	78.350707
1	110.1		

Watershed Code JM66

Tax ID 54-A-23

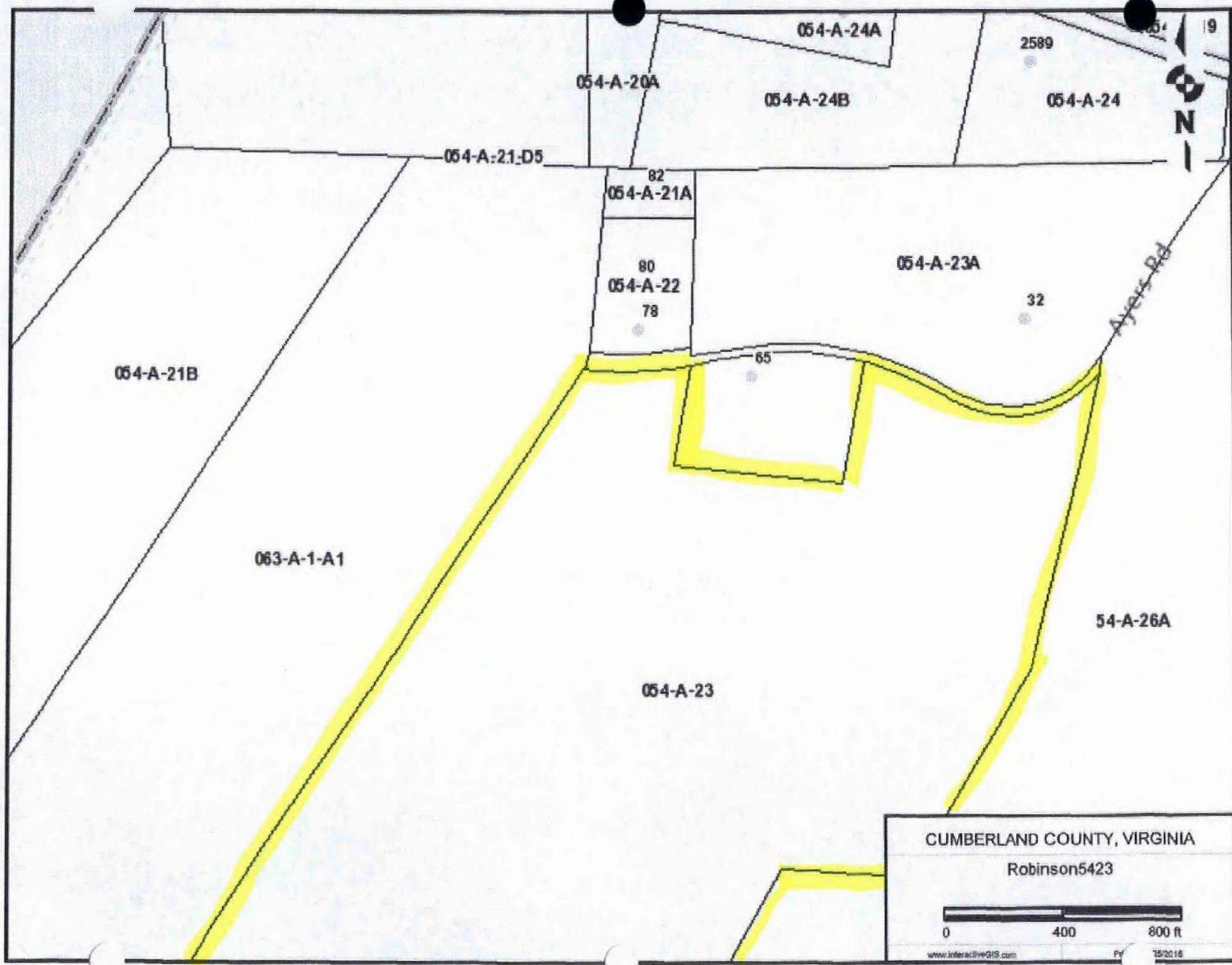
Site Type Agricultural

Agricultural Practice: See Nutrient Management Plan for Yearly crop rotation

USDA Soil info on depth to bedrock&water table when applicable in Nutrient Management Plan

Owner Virginia M. Robinson

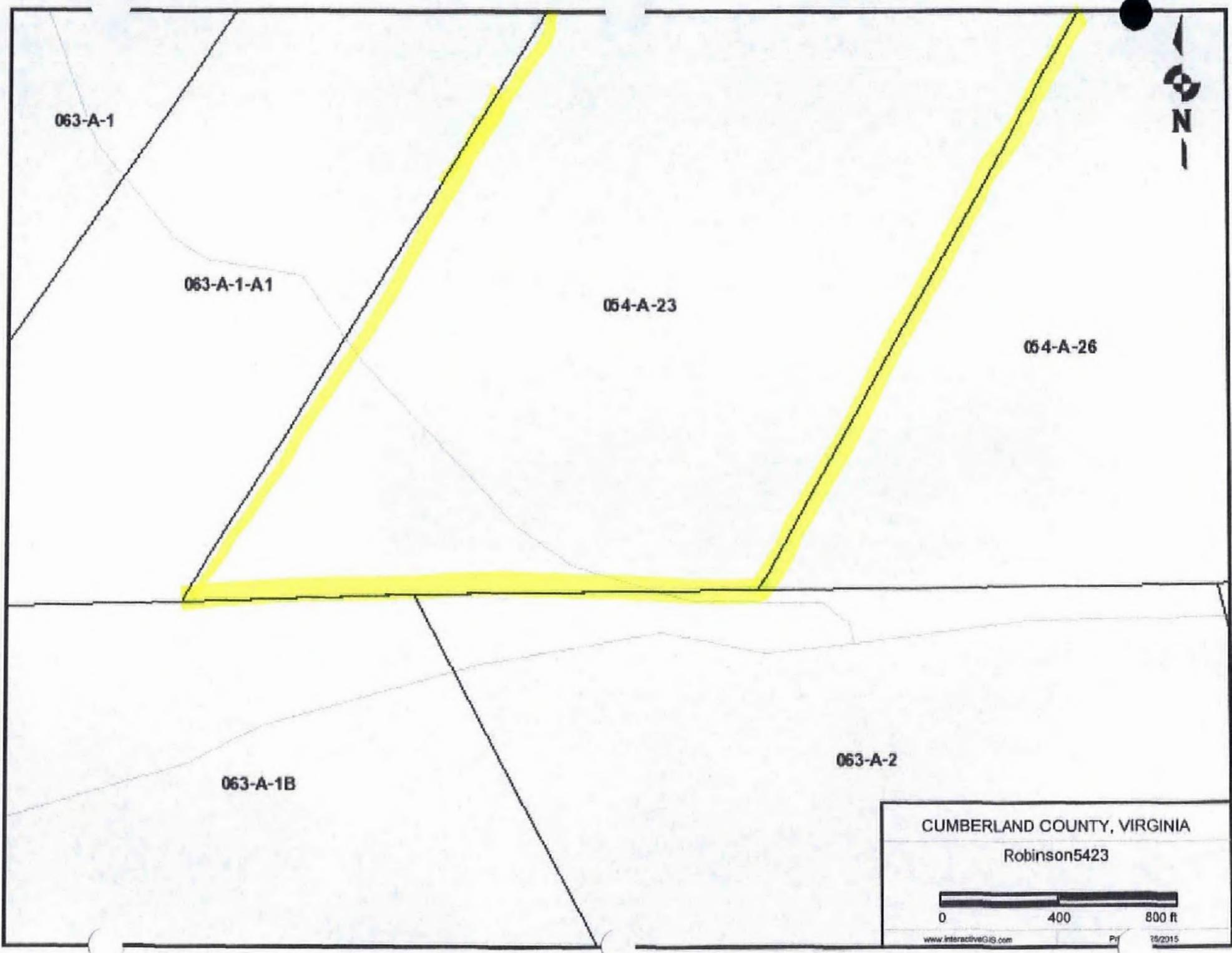
Mack H. Robinson Jr.



CUMBERLAND COUNTY, VIRGINIA

Robinson5423





063-A-1

063-A-1-A1

054-A-23

054-A-26

063-A-1B

063-A-2

CUMBERLAND COUNTY, VIRGINIA

Robinson5423





**Robinson
T-746A**

NutriBlend
BIOSOLIDS LAND APPLICATION

NutriBlend

BIOSOLIDS LAND APPLICATION



Robinson
T-746A
31.4 Acres



724

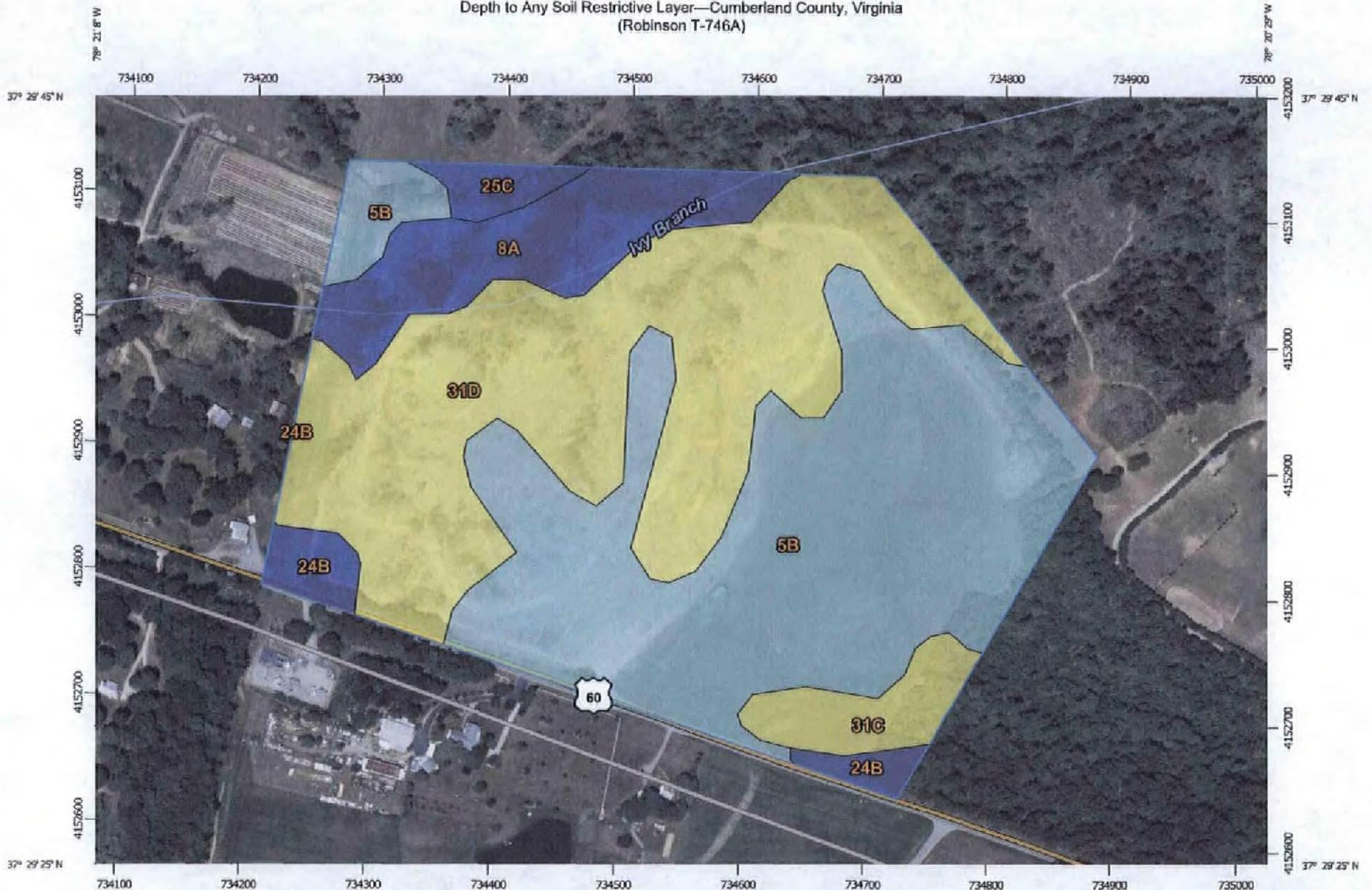
60 Hwy 60

Apple Rd

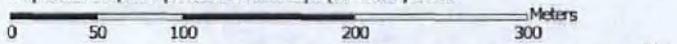
- Buffer Area
- Field Boundry
- Intermittent Stream
- Occupied Dwelling/Structures

1537 ft

Depth to Any Soil Restrictive Layer—Cumberland County, Virginia
(Robinson T-746A)



Map Scale: 1:4,300 if printed on a landscape (11" x 8.5") sheet.



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

MAP LEGEND

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

MAP INFORMATION

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Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
5B	Brickhaven-Creedmoor complex, 2 to 7 percent slopes	142	26.2	44.4%
8A	Chewacla and Monacan soils, 0 to 2 percent slopes, frequently flooded	>200	5.8	9.8%
24B	Mayodan-Exway complex, 2 to 7 percent slopes	>200	1.6	2.7%
25C	Mecklenburg loam, 7 to 15 percent slopes	>200	0.9	1.6%
31C	Pinoka-Carbonton complex, 7 to 15 percent slopes	76	2.3	3.9%
31D	Pinoka-Carbonton complex, 15 to 25 percent slopes	76	22.2	37.5%
Totals for Area of Interest			59.2	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.

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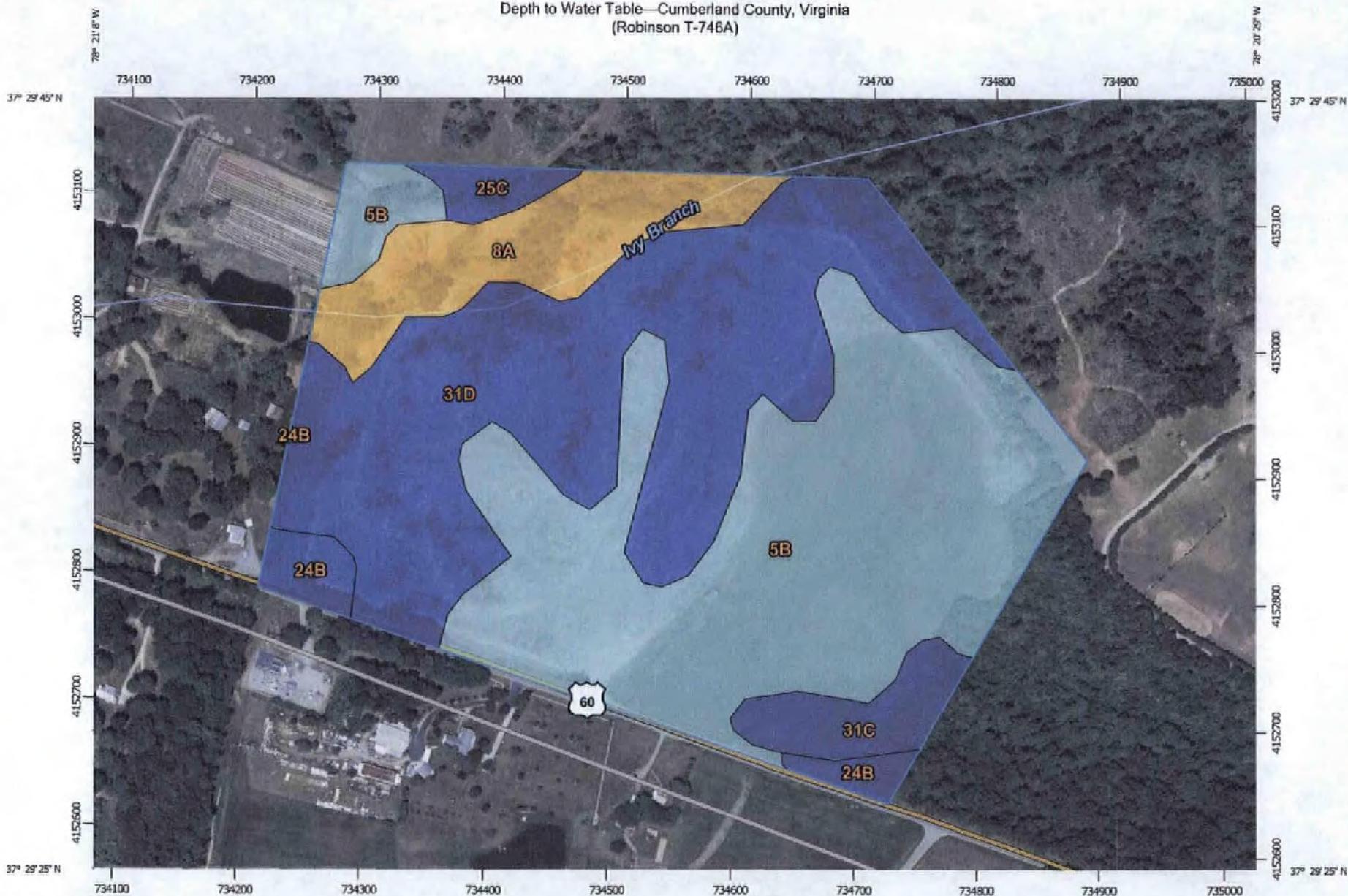
Rating Options

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Depth to Water Table—Cumberland County, Virginia
(Robinson T-746A)



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



Depth to Water Table—Cumberland County, Virginia
(Robinson T-746A)

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		

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Depth to Water Table

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8A	Chewacla and Monacan soils, 0 to 2 percent slopes, frequently flooded	31	5.8	9.8%
24B	Mayodan-Exway complex, 2 to 7 percent slopes	>200	1.6	2.7%
25C	Mecklenburg loam, 7 to 15 percent slopes	>200	0.9	1.6%
31C	Pinoka-Carabnton complex, 7 to 15 percent slopes	>200	2.3	3.9%
31D	Pinoka-Carabnton complex, 15 to 25 percent slopes	>200	22.2	37.5%
Totals for Area of Interest			59.2	100.0%

Description

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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

NutriBlend

BIOSOLIDS LAND APPLICATION



**Robinson
T-746A**

NutriBlend

BIOSOLIDS LAND APPLICATION



Robinson
Branch
T-746A

Substation

BR 276

Payne

304



Robinsom Farm
Tract 746 A
Field Data Sheet

Field	Total	Field Coordinates	
	Acres	Latitude	Longitude
2	31.4	37.493481	-78.347918
1	31.4		

Watershed Code JM66

Site Type Agriculture

Tax ID 54-A-19

Agricultural Practice: See Nutrient Management Plan for Yearly crop rotation

USDA Soil info on depth to bedrock&water table when applicable in Nutrient Management Plan

Owner Virginia M. Robinson

Mack H. Robinson Jr.

