

LAND APPLICATION OF BIOSOLIDS
JAMES E RIDDELL

LO16 (FIELDS 01 - 08)
LOUISA COUNTY, VIRGINIA
JULY 2011





June 4, 2012

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

Dear Mr. Stuart:

Transmitted herein for your consideration is land application site for James Riddell (designated as LO 16, fields 1-8), located in Louisa County, Virginia. This submission contains strictly site specific information. Please refer to the operations and maintenance manual submitted under separate cover for all non-site specific information.

Do not hesitate to contact me at (804) 443-2170 should you have any questions or require additional information.

Sincerely,

A handwritten signature in blue ink that reads "Kelly M. Love".

Kelly M. Love
Technical Services Director

KML/cmw

SYNAGRO

FIELD SUMMARY SHEET

James E. Riddell LO16

SYNAGRO FIELD #	GROSS ACRES	NET ACRES	FSA TRACT #	FSA FIELD #	TOPO QUAD	OWNER
16-1	21.9	19.0			Mineral	Riddell, Deborah E
16-2	26.6	25.6			Mineral	Riddell, Deborah E
16-3	30.0	29.6			Mineral	Riddell, Deborah E
16-4	26.8	23.9			Mineral	Riddell, Deborah E Riddell, James E
16-5	26.2	21.4			Mineral	Riddell, Deborah E Riddell, James E
16-6	16.7	16.0			Mineral	Riddell, Deborah E
16-7	22.9	20.4			Mineral	Riddell, Deborah E
16-8	16.8	16.8			Mineral	Riddell, Deborah E
TOTALS:	187.9	172.7				

VIRGINIA POLLUTION ABATEMENT APPLICATION
PART D-VI LAND APPLICATION AGREEMENT

Page 2 of 2

Permittee: Synagro

Permit # or County: Louisa

Landowner: Deborah E. Riddell

Farm name or address: Georgewood Farm

James E. Riddell

2217 manfield Rd
Mineral, VA 23117

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, at least 30 days after land application at that site was 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 the permitting authority
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 36 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).
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 landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Deborah E. Riddell
Landowner's Signature

James E. Riddell
Date

2-1-12

Tax ID Landowner Identification Sheet

<u>Landowner</u>	<u>Field #</u>	<u>Tax ID</u>
RIDDELL, DEBORAH E	16-1	16 - 12
RIDDELL, DEBORAH E	16-2	16 - 12
RIDDELL, DEBORAH E	16-3	16 - 12
RIDDELL, JAMES E	16-4	16 - 13
RIDDELL, DEBORAH E		16 - 12
RIDDELL, JAMES E	16-5	16 - 13
RIDDELL, DEBORAH E		16 - 12
RIDDELL, DEBORAH E	16-6	16 - 12
RIDDELL, DEBORAH E	16-7	16 - 12
RIDDELL, DEBORAH E	16-8	16 - 12

<u>Field #</u>	<u>Latitude (north)</u>	<u>Longitude (west)</u>
16-1	38 ⁰ 04' 49.37"	77 ⁰ 54' 53.42"
16-2	38 ⁰ 05' 00.05"	77 ⁰ 55' 05.74"
16-3	38 ⁰ 05' 05.36"	77 ⁰ 54' 58.29"
16-4	38 ⁰ 05' 03.08"	77 ⁰ 54' 42.16"
16-5	38 ⁰ 05' 12.75"	77 ⁰ 54' 47.38"
16-6	38 ⁰ 05' 18.93"	77 ⁰ 54' 50.01"
16-7	38 ⁰ 05' 17.13"	77 ⁰ 54' 35.29"
16-8	38 ⁰ 05' 38.59"	77 ⁰ 54' 34.52"

Haul Route:

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



Tax Map ID 16-12



Scale: 1:18055.954822

Date: 05/04/2012

Printed By:

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Tax Map ID 16-13



Scale: 1:2256.994353

Date: 05/21/2012

Printed By: Carolanne Whiteside

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Field	Map Unit	Acres	Percentage	Soil Series	High Water Flood	Environmental Sensitive
16-1	AsC	13.0	71	Ashlar		Leaching
16-1	ApB3	3.0	16			
16-1	AnB2	2.3	13			
16-2	AnB2	12.2	48			
16-2	AbB	4.1	16			
16-2	ApB3	2.9	12			
16-2	ArC3	3.1	12			
16-2	AsC	1.8	7	Ashlar		Leaching
16-2	CIB	1.4	5	Colfax	Nov - June	
16-3	AnB2	8.3	28			
16-3	CIB	6.8	23	Colfax	Nov - June	
16-3	GrC2	4.3	15			
16-3	ApB3	3.4	12			
16-3	DuB	2.5	9			
16-3	AbB	2.2	7			
16-3	AsC	1.7	6	Ashlar		Leaching
16-4	AnB2	8.4	37			
16-4	CIB	5.6	25	Colfax	Nov - June	
16-4	AsC	3.2	14	Ashlar		Leaching
16-4	GrC2	2.5	11			
16-4	AV	1.8	8	Ashlar		Leaching
16-4	AbB	1.3	5			
16-5	AnB2	9.2	45			
16-5	GvC3	8.2	41			
16-5	CIB	2.8	14	Colfax	Nov - June	
16-6	CIB	8.4	52	Colfax	Nov - June	
16-6	AnB2	7.6	48			
16-7	CIB	8.3	42	Colfax	Nov - June	
16-7	AsC	4.9	25	Ashlar		Leaching
16-7	DuB	4.1	21			
16-7	AnB2	2.4	12			
16-8	AnB2	7.9	49			
16-8	CcB2	3.9	24			
16-8	AnC2	2.6	16			
16-8	CIB	0.9	6	Colfax	Nov - June	
16-8	AbB	0.9	5			

Environmentally Sensitive Areas

Field	Reason for Sensitive Area
16-1	Leaching Potential (Map Unit AsC – 71%)
16-2	High Water Table (Map Unit CIB – 5%) Leaching Potential (Map Unit AsC – 7%)
16-3	High Water Table (Map Unit CIB – 23%) Leaching Potential (Map Unit AsC – 6%)
16-4	High Water Table (Map Unit CIB – 25%) Leaching Potential (Map Unit AsB, AsC – 22%)
16-5	High Water Table (Map Unit CIB – 14%)
16-6	High Water Table (Map Unit CIB – 52%)
16-7	High Water Table (Map Unit CIB – 42%) Leaching Potential (Map Unit AsC – 25%)
16-8	High Water Table (Map Unit CIB – 6%)

Louisa County Soils that are Environmentally Sensitive

Soil Map Unit	Series Name	Time of year		Environmental
		High Water	Flooded	
AsB, AsC, AsD	Ashlar			Leaching
AsC3, AsD3	Ashlar			Leaching
AV	Ashlar			Leaching
Ch	Chewacla	Nov – April	Nov – April	
CIB	Colfax	Nov – June		
Eb	Elbert	Nov – May		
FN	Fluvaquents	Nov – April	Nov – April	
Fo	Forestdale	Jan – April	Jan – April	
FrB	Fork	Oct – May	Oct – May	
IdB	Iredell	Dec – April		
IdB2, IdC2	Iredell	Dec – April		
IrA, IrB	Iredell	Dec – April		
Iv	Iredell	Dec – April		
LgB	Lignum	Dec – May		
MnB, MnC, MnD	Madison			Shallow
MoC, MoD	Madison			Shallow
SeB, SeC, SeD	Sekil			Leaching
SeC3	Sekil			Leaching
SP	Sekil			Leaching
To	Tocca		Jan – Dec	
Ts	Tocca		Jan – Dec	
We	Wehadkee	Nov – May	Nov – June	
WH	Wehadkee-Chewacla	Nov – May	Nov – June	
WoB	Worsham	Nov – May		

MAP LEGEND

-  House/Dwelling with a well
-  Rock Outcrop
-  Well
-  Lake/Pond
-  Slope which exceeds 15%
-  Intermittent Stream
-  Stream/River
-  Agricultural/Drainage Ditch
-  Field boundary
-  Property Line – (Standard 100'
Buffer, unless waiver issued)

Revised: Jan. 13, '14

SYNAGRO

SYNAGRO

James E Riddell
LO16
Fields 1 - 8



SCALE 1:12,000

TOPO MAP





LOCATION MAP

