



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WASTE MANAGEMENT
SOLID WASTE SECTION

**PERMIT TO OPERATE A SEPTAGE LAND
APPLICATION SITE**

Alliwood Septic Service
Ronald Haywood Pittman II
1003 Gregory Fork Road
Richlands, NC 28574

is hereby permitted to operate Septage Land and Application Site with permit # **SLAS-67-16** located on SR 1229 in Onslow County in approximate position 34.89562°N latitude and -77.60602°W longitude. This site is permitted only for operations that are conducted in accordance with the representations made in the approved application, with all conditions attached to this permit, and with all of the provisions of 15A NCAC 13B.0800 -- Septage Management. Failure to operate as permitted may result in the Department suspending or revoking this permit, initiating action to enjoin the unpermitted operation, imposing administrative penalties, or invoking any other remedy as provided in Chapter 130A, Article 1, Part 2 of the North Carolina General Statutes.

This permit shall be reviewed annually to determine if soil test results and management activities are in compliance with the Septage Management Rules and the conditions of this permit. Modifications, where necessary, shall be made in accordance with rules in effect at the time of review.

Date Issued 11/28/2012


Martin A. Gallagher, Branch Head
Composting & Land Application Branch

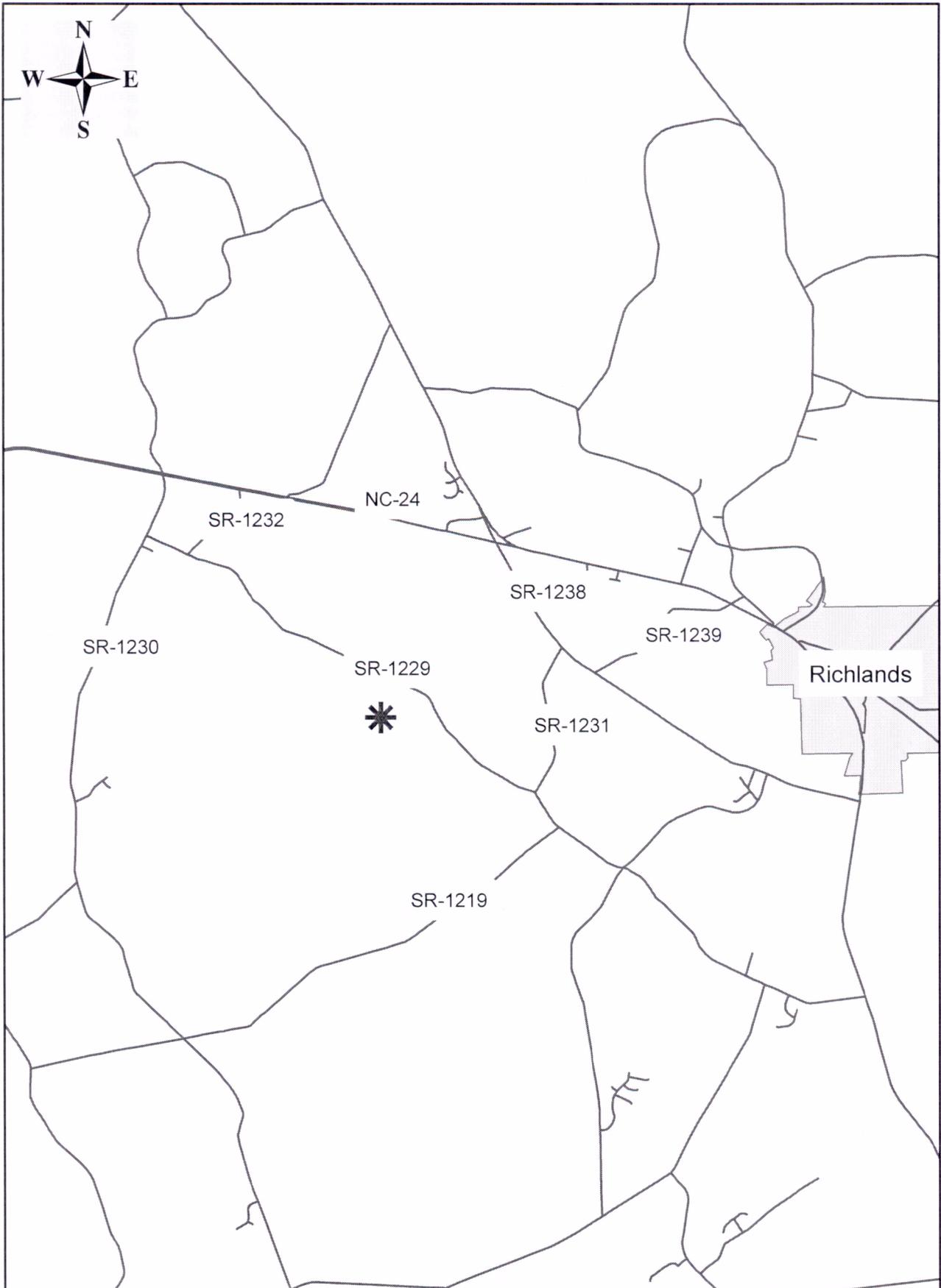
CONDITIONS OF OPERATING PERMIT

1. This permit shall become void if the soils fail to adequately assimilate the septage and shall be rescinded unless the site is maintained and operated in a manner which will protect the assigned water quality standards both surface and ground waters.
2. This site shall be operated and maintained in accordance with the nutrient management plan submitted by Ronald H. Pittman II and approved by the Division of Waste Management. The site contains approximately 6.1 acres that is divided into two fields, Field 1 with 3.8 acres and Field 2 with 2.3 acres. The fields shall remain established in a forage type bermudagrass such as Cheyenne. Areas that develop less than 80% ground coverage of bermudagrass shall be reseeded in April or May with a seeded bermudagrass variety such as Cheyenne at a rate of 10 to 15 lbs/ac. The Bermudagrass shall be overseeded with a small grain such as cereal rye in October of each year at a rate of 2.5 to 3 bu/ac (roughly 100 to 120 lbs/ac). The bermudagrass shall be cut and baled for hay whenever it is 12 to 15 inches tall or at 4 to 5 week intervals, whichever comes first. The winter crop shall be cut and baled for hay during April to early May. The mandatory 30-day waiting period between the last application of septage and the harvest of each crop shall be met by alternating septage applications between the two fields. All discharges shall be at locations on the site consistent with the crop rotation in the approved plan.
3. This site shall be operated and maintained in accordance with the erosion and runoff control plan submitted by Ronald H. Pittman II in such a manner as to prevent the migration of wastes off of the designated waste receiving site. Any site improvements noted in the plan must be installed within 30 days of plan approval. The installation of groundwater monitoring wells shall be required as deemed necessary by the Division.
4. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances that may be imposed by other local, state, and federal government agencies which have jurisdiction. It is the responsibility of the Permittee to be in compliance with the Federal Regulations listed in the Code of Federal Regulations, 40 CFR Part 503.
5. This permit may be modified or reissued at any time to incorporate any conditions, limitations and/or monitoring requirements the Division deems necessary to adequately protect the environment and public health.

6. **This site is only permitted for the land application of domestic septage, grease trap pumpings, and portable toilet waste.** Domestic septage pH shall be raised to 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at 12 or higher for 30 minutes prior to land application. Grease septage or grease septage mixed with domestic septage shall be raised to pH 12 or higher by alkali addition and, without the addition of additional alkali, shall remain at 12 or higher for 2 hours prior to land application.
7. **This site contains approximately 6.1 acres that are available for land application of septage.** The maximum annual application rate shall be 50,000 gallons per acre per year, for a total, maximum annual application of 305,000 gallons. This application rate assumes equal septage distribution, on an annual basis, over the entire permitted area. Application amounts to the fields shall not exceed the maximum annual application rate or the monthly rates as listed in the approved nutrient management plan.
8. An approved above ground septage detention system with a minimum design capacity of 6,000 gallons shall be available prior to operation of this site unless an approved wastewater treatment plant is available for use during periods of adverse weather. The storage capacity may be adjusted if it is demonstrated during the operation of the site that this volume of storage is inappropriate.
9. Only the area designated on the attached site map(s) shall be utilized for septage disposal. Each load of septage discharged at the site shall be distributed from a moving vehicle in such a manner that there is no standing water when the discharge is complete.
10. Septage shall not be applied during any precipitation event, or if there is standing water on the soil surface, if the soil surface is frozen, or if the soil surface is snow covered. The Permittee shall consider pending weather conditions when making the decision to land apply in order to prevent any discharge of septage outside of the permitted boundary.
11. Septage shall not be applied during periods of high soil moisture. Septage applications that will result in ruts greater than three inches in the soil surface are prohibited.
12. Any discharge of septage outside of the permitted boundaries via runoff, aerial drift, etc. is prohibited.
13. This permit shall become voidable unless the land application activities are carried out in accordance with the conditions of this permit and in the manner approved by this Division. No one other than the Permittee or an employee of the firm named in this permit shall discharge septage at this site without prior appropriate notification and written approval from the Division.

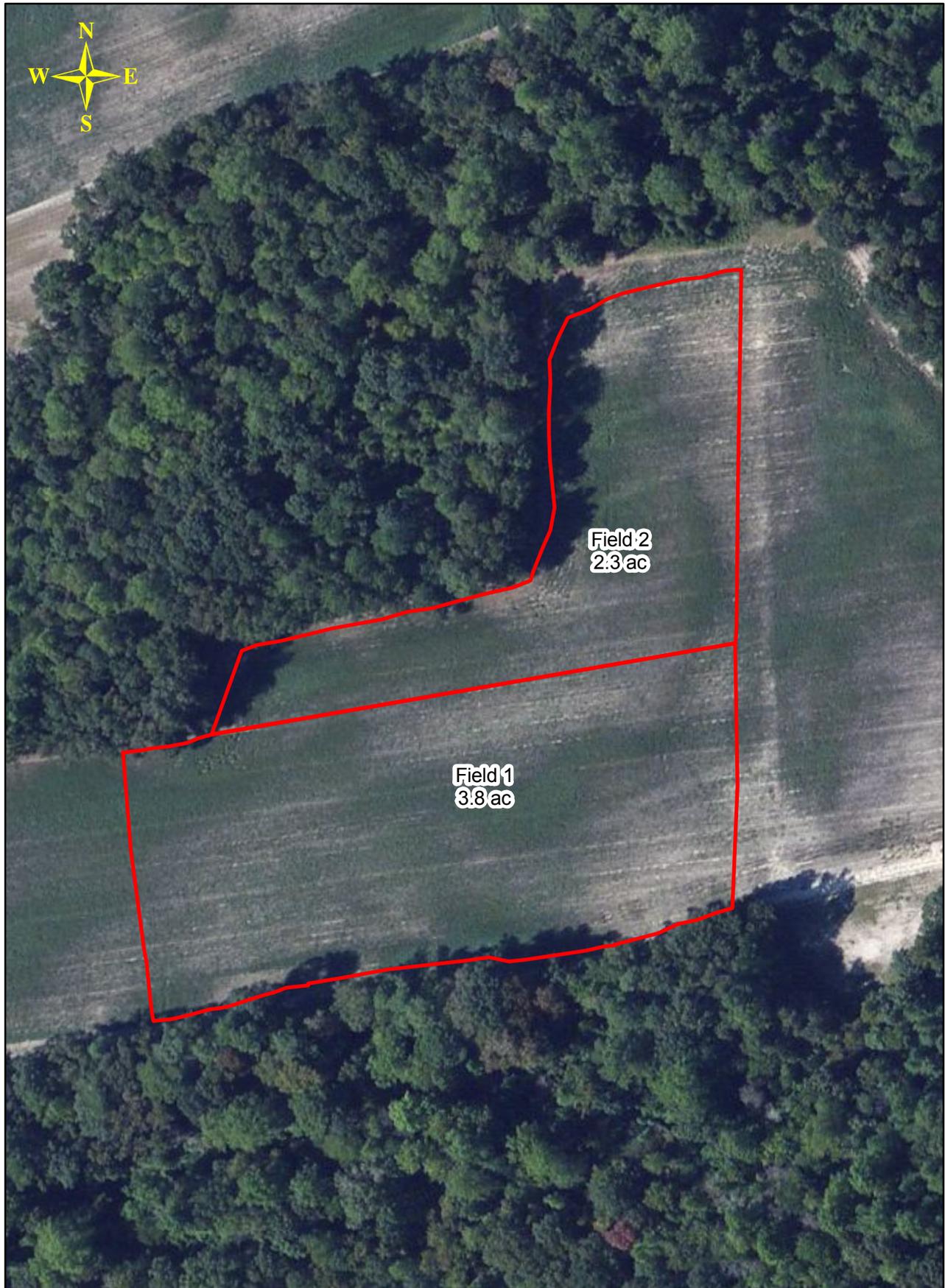
14. Prior to any transfer of this land, a notice shall be given to the new owner that gives full details of the materials applied or incorporated at this site. The Division shall be notified prior to site closure. This permit is non-transferable.
15. **This permit shall expire on November 28, 2013.** Modifications, when necessary, shall be made in accordance with the rules in effect at the time of renewal. An application for permit renewal shall be submitted at least ninety (90) days prior to the permit renewal date. A septage application log for the period of time this permit was valid shall be submitted along with an application for permit renewal or modification. The information required in the log is described in Rule 15A NCAC 13B .0838 (e) (1) of the NC Septage Management Rules and the Code of Federal Regulations, 40 CFR Part 503.17 (b).
16. Records shall be kept in accordance with 40 CFR 503.17(b). These records shall be made available to a representative of the Division upon request.
17. Any duly authorized officer, employee, or representative of the Division may, upon presentation of credentials, enter and inspect any property, premises, or place on or related to the disposal site and facility at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records that must be kept under the conditions of this permit; or may obtain samples of groundwater, surface water, or leachate.
18. Field separations in the nutrient management plan and all pertinent setbacks shall be clearly located on the site. Boundaries of the permitted septage land application fields shall be clearly marked on the ground.
19. The areas that can be used for land application of septage shall be maintained at least 500 feet from any existing wells, residences, places of business, or places of public assembly. Septage shall not be disposed of within 50 feet of any property line or within 100 feet of any ditch.

SLAS-67-16



SLAS-67-16 is located at 1003 Gregory Fork Road in Onslow County, North Carolina.

SLAS-67-16



Source: Bing Maps aerial imagery, ESRI, (c) 2010 Microsoft Corporation and its data suppliers; site boundary, NC DENR Division of Waste Management.

Map created by NC DENR Division of Waste Management, Compost and Land Application Branch for permitting purposes only.
crc, Nov. 2012



North Carolina Department of Environment and Natural Resources
Division of Waste Management

Beverly Eaves Perdue
Governor

Dexter R. Matthews
Director

Dee Freeman
Secretary

December 12, 2012

Mr. Ronald Haywood Pittman II
Alliwood Septic Service
1003 Gregory Fork Road
Richlands, NC 28574

**RE: Issuance of Permit SLAS-67-16
Alliwood Septic Service
SR 1229 in Onslow County**

Dear Mr. Pittman:

The North Carolina Division of Waste Management has reviewed your application for a permit to operate a Septage Land Application Site in Onslow County. Your application has been approved in accordance with NC Septage Management Rules and your permit, **SLAS-67-16**, is enclosed. Please read all permit conditions carefully. The nutrient management and soil erosion and runoff control plans you submitted have been included in your permit. In particular, pay close attention to **Permit Conditions 2, 6, 7, 10, 11, 12, and 15**. The following is a summation of those Conditions.

- **Condition 2.** Incorporates crop management details listed in the submitted nutrient management plan.
- **Condition 6.** States that this site is only permitted to receive domestic septage, grease trap pumpings, and portable toilet waste. Disposal of any other type of septage or waste at this site is prohibited.
- **Condition 7.** States that there are 6.1 acres available at this site for land application of septage at a rate of 50,000 gal/ac/yr. **This allows for an annual maximum application volume of 305,000 gallons.** These rates along with the monthly rates listed in the nutrient management plan are not to be exceeded.
- **Condition 10.** Septage shall only be applied when soil and weather conditions are favorable for application.
- **Condition 11.** Soil conditions must be monitored such that any septage application will not result in ruts greater than three inches in the soil surface.
- **Condition 12.** Any discharge, including aerial drift, of septage outside of the permitted boundaries is prohibited.

CONTINUE ON BACK

- **Condition 15. This permit is set to expire on November 28, 2013.** Ninety (90) days prior to the expiration of your permit, you must submit an application for permit renewal along with your septage land application logs for the entire time your current permit was valid.

Again, please pay close attention to all of the conditions within the enclosed permit. Remember that violations to the NC Septage Management Rules or this permit could subject you to administrative penalties of up to \$15,000 per violation per day. If you have any questions concerning your permit or septage in general, please do not hesitate to contact me at (919) 707-8283. When communicating to the Division about this permit, please refer to it as “**SDTF-67-16.**”

Sincerely,



Chester R. Cobb, Soil Scientist
Composting & Land Application Branch

Enclosures

cc: Central Office
Mr. & Mrs. Ronald H. Pittman, Landowners
Onslow County Health Department

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ALLIWOOD SEPTIC SERVICE

*1003 Gregory Fork Road
Richlands, NC 28574
Phone (910)324-2892
pittmansoil@yahoo.com*

May 8, 2012

This letter has been written to inform the NCDWM Septage section that Alliwod Septic Service is applying for a land application site. The site is located at 1003 Gregory Fork Road in the Richlands area of Onslow county. The applicant is R. Haywood Pittman II NCS-01232.

Erosion Control

As specified in the Nutrient Management plan a buffer strip will be left around the disposal site to reduce surface runoff and erosion.



R. Haywood Pittman II
NC Licensed Soil Scientist

APPLICATION FOR A PERMIT TO OPERATE A SEPTAGE LAND APPLICATION SITE

North Carolina Department of Environment and Natural Resources
Division of Waste Management – Solid Waste Section
1646 Mail Service Center, Raleigh, NC 27699-1646



I. Site and Operator Information

1. Applicant HAYWOOD PITTMAN
Address 1003 GREGORY FORK ROAD
RICHLANDS, NC 28574
Phone 910-330-2784

2. Contact person for site operation (if different from applicant): SAME _____
Title or position _____ Phone _____
Address _____

3. Landowner RONALD HAYWOOD PITTMAN
Address 1079 GREGORY FORK ROAD
RICHLANDS, NC 28574

4. Site Location: County ONSLow State Road Number 1229
Directions to site: _____

5. Indicate whether request is: new renewal _____ modification _____

For a permit renewal or modification, provide the following information:

Existing site permit number: _____ permit expiration date: _____

6. Number of acres meeting the requirements of the N.C. Septage Management Rules: 6.0 acres.

7. Substances other than septage or grease trap pumpings previously disposed of on the site:
(a) None , or (b) Attach a list indicating other substances, the amounts discharged, and the dates of discharge.

8. Attach written, notarized landowner authorization to operate a septage disposal site signed by the landowner (if the permit applicant does not own the property). ***If a corporation owns the land use a corporate landowner authorization form. If limited liability company owns the land, use a limited liability company landowner authorization form.***

9. Attach site evaluation report, including aerial photograph and soil analysis with metals results, unless the Division prepared the report.

10. Attach a vicinity map (county road map showing site location).

(over)

II. Site Management Information:

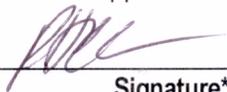
The following information shall be included with the application form:

1. Nutrient Management Plan
2. Soil Erosion and Runoff Control Plan
3. Alternative plan for disposal (detention facility permit number or wastewater treatment plant authorization): WASTEWATER TREATMENT PLANT KINGSTON KRWRF
4. Types of septage proposed to be discharged at the site (check all that apply):
 - (a) Domestic septage pumped from septic tanks X
 - (b) Grease trap pumpings X
 - (c) Portable toilet waste X
 - (d) Commercial / Industrial septage _____
5. Proposed treatment method of each type of septage to be land applied (use additional paper to explain if necessary): LIME STABILIZATION
6. Proposed method of applying septage to land, including septage distribution plan if required * (use additional paper to explain if necessary): DISCHARGED FROM PUMP TRUCK / SPLASH PLATE
7. Demonstration from the appropriate state or federal government agency that the land application site complies with the Endangered Species Law ** or if any part of the site specified is not agricultural land (use additional paper to explain if necessary): AGRICULTURAL LAND

III. Certification

I hereby certify that:

1. The information provided on this application is true, complete, and correct to the best of my knowledge.
2. I have read and understand the N.C. Septage Management Rules, and
3. I am aware of the potential consequences, including penalties and permit revocation, for failing to follow all applicable rules and the conditions of a Septage Land Application Site permit.


Signature***

Ronald Haywood Pittman II
Print name

6-12-12
Date

owner
Title

Addendum



“Application for a Permit to Operate a Septage Land Application Site”

Directions to site: FROM I-40 TAKE EXIT 273 TOWARD KENANSVILLE, TAKE HWY 903 TO A RIGHT TURN ON HWY 24 TOWARD BEULAVILLE. GO THRU BEULAVILLE AND GO 10 MILES TO A RIGHT TURN ONTO HAW BRANCH ROAD. TAKE FIRST LEFT TO GREGORY FORK ROAD. TURN ON DIRT ROAD BESIDE MAILBOX 1003 GREGORY FORK ROAD. TAKE DIRT ROAD AND STAY LEFT WHEN ROAD SPLITS. 0.5 MILES FROM GREGORY FORK ROAD

Proposed septage volumes to be land applied: Applying for 50,000 gal/ac/yr application rate. Proposed volumes can be listed in percentages.

Domestic septage	<u>80%</u>
Grease trap pumpings	<u>15%</u>
Portable toilet waste	<u>5%</u>

Question II. 5.

Hydrated lime will be added to domestic septage to raise it to a pH of 12 and remain at 12 for 30 minutes without the addition of more lime prior to land application. For any septage containing a mixture of grease trap pumpings, the septage will be raised to a pH of 12 and remain at 12 for 2 hours without the addition of more lime prior to land application. Septage to be at a pH of 12 when applied.

Question II. 6.

Septage will be land applied by a moving pump truck evenly across the field as to leave no ponding or surface disturbance.

Signature

9-19-12

Date

Landowner's Authorization to Operate a Septage Land Application Site

North Carolina Department of Environment and Natural Resources
Division of Waste Management - Solid Waste Section
1646 Mail Service Center, Raleigh, NC 27699-1646



I, RONALD H PITTMAN (name of site owner) hereby certify that I am the owner of 111.97 acres of land located OFF GREGORY FORK ROAD, RICHLANDS NC ONSLOW COUNTY and identified by BOOK 1874 PAGE 465 (book and page of recorded deed or tax map parcel) and that I agree to allow RPNALD HAYWOOD PITTMAN II, ALLIWOOD SEPTIC SERVICE (name of site operator) to use said land for septage land application for a period of 50 YEARS (length of time), beginning 9-18-12 (month, day and year) and that I have read the North Carolina Septage Management Rules *, and I understand and agree to maintain the restrictions on land use after septage land application ends **. I further understand that no septage may be land applied until the Division of Waste Management has issued a permit for a septage land application site. The above described property is owned solely by me or jointly with PHYLLIS JANE PITTMAN

(names of all co-owners, or state none).

Signature of landowner Ronald H Pittman Date 9/19/12

Signature of landowner Phyllis Jane Pittman Date 9-19-12

Sworn to and subscribed before me this 19 day of Sept, 20 12.

Betty Bullock
(Notary Public)

My Commission expires: 12/28/13



* 15A N.C. Admin. Code 13B Section .0800

Landowner's Authorization to Operate a Septage Land Application Site

North Carolina Department of Environment and Natural Resources
Division of Waste Management - Solid Waste Section
1646 Mail Service Center, Raleigh, NC 27699-1646

I, RONALD PITTMAN (name of site owner) hereby certify that I am the owner of
102 acres of land located OFF GREGORY FORK ROAD
and identified by 1874, 465 (book and page of recorded deed or tax
map parcel) and that I agree to allow HAYWOOD PITTMAN (name of site operator) to
use said land for septage land application for a period of 50 (length of time),
beginning 5-10-12 (month, day and year) and that I have read the
North Carolina Septage Management Rules *, and I understand and agree to maintain the restrictions on
land use after septage land application ends **. I further understand that no septage may be land applied
until the Division of Waste Management has issued a permit for a septage land application site. The above
described property is owned solely by me or jointly with PHYLLIS JANE PITTMAN
 (names of all
co-owners, or state none).

Signature of landowner Ronald A Pittman Date 6/12/12

Signature of landowner Phyllis Jane Pittman Date 6-12-12

Sworn to and subscribed before me this 12 day of June, 2012.

Betty Bullock
(Notary Public)

My Commission expires: Dec 28, 2013

* 15A N.C. Admin. Code 13B Section .0800

** As required by Rule .0843



AUTHORIZATION TO DISCHARGE SEPTAGE TO A WASTEWATER TREATMENT FACILITY

North Carolina Department of Environmental and Natural Resources
Division of Waste Management - Solid Waste Section
401 Oberlin Rd. Ste. 150, Raleigh, N.C. 27605

Fee assessments and waste determinations will be required at the discretion of the wastewater treatment facility. The facility has the ultimate prerogative to deny discharges of any wastes to the incoming wastewater stream.

I, Charles Cauley, Jr. - KRWRF
(Plant Operator and Name of Plant)
P.O. Drawer 339, Kinston, NC 28502
(Address)
252-939-3375 do hereby authorize R. Haywood Pittman II
(Phone Number) (Owner/Operator of Septage Management Firm)

of Alliwood Septic Service NCS# 01232
(Septage Management Firm Name)

to dispose of domestic septage , portable toilet waste .

grease septage (grease trap pumpings) _____ commercial/industrial septage _____ from
Lenoir and surrounding counties
(County or other Geographic Area)

at the above named wastewater treatment facility. Septage shall be discharged at:
Kinston Regional Water Reclamation Facility - 2101 Becton Farm Rd, Kinston, NC 28501
(Location)

between the hours of 8:00 a.m. to 4:00 p.m. (Monday thru Friday)

Reintroducing partially treated liquid into a grease trap is acceptable _____ Yes No

This authorization shall be valid until December 31, 2012

Signed Charles W. Cauley, Jr. Date 3/19/2012
(Facility Operator)

Sworn to and subscribed before me this 19 day of March, 2012

Mary Elizabeth Poythress My commission expires: May 15, 2014
Mary Elizabeth Poythress

(OFFICIAL SEAL)

Note: Falsification of this document by the septage management firm shall lead to permit revocation.

Septage Nutrient Management Plan
for
Alliwood Septic Service
Onslow County, NC

Owner: R. Haywood Pittman II
1003 Gregory Fork Road
Richlands, NC 28574
910-330-2784
(new application)

Purpose: The purpose of this document is to present the septage nutrient management plan proposed for the 1003 Gregory Fork Road site.

Site Conditions: The relevant maps, property lines, site limits, natural geographic conditions, and known site improvements are incorporated from the application permit.

A. General Information:

1. Septage will be sampled at least three (3) times per year for waste analysis. These samples will be used to monitor nutrient loadings. The recommended procedure for collecting the samples is as follows:
 - a) Make sure the septage has been stabilized at a pH of 12 with hydrated lime for 30 minutes (domestic septage) or for 2 hours (grease trap septage).
 - b) Set out some pans in the path where the truck will be disposing the septage. Plastic pans are recommended. Do not use zinc plated or galvanized metal pans; the metals content will be distorted.
 - c) Mix contents of 3-4 pans and fill a 16-20 ounce plastic bottle $\frac{3}{4}$ full. Squeeze out some of the excess air and label the bottle with your name and septage sample identification.

If samples are collected over a couple of days or from different truckloads, it makes for a more representative sample; however, samples should be kept cool. Only one sample is needed, as long as it is mixed from several different sub-samples.

Bring the samples by the Extension Office for forwarding to the NCDA&CS lab.

Please use a check made out to NCDA&CS (\$5.00 per sample). Bottles need to be clearly labeled as a household -lime stabilized- septage sample (waste code MLS). For extra security, place the bottle in a plastic freezer bag. The form and check can be put in an envelope and placed in the bag with the bottle. The NCDA&CS Septage Sample Cover Sheet (blank copy attached to this plan) is also to be completed.

2. An annual soil sampling will be conducted and the results maintained on file. Pay

particular attention to: soil pH, zinc index, and copper index. Plans cannot be written for sites with zinc or copper indexes greater than 3,000.

3. Total available area for septage application on this site is six (6) acres.
4. The dominant soil series at this site are 4.4 acres of Norfolk B (NoB: 2-6% slope) and 1.6 acres of Alpin B (AnB: 1-6% slope) according to the Onslow Co. Soil Survey, sheet 8, and the recent soil survey conducted by the soils consultant.
5. Septage will not be applied when and where the site is untrafficable. Untrafficable is defined as soil that will allow a loaded truck to leave a depression in sod greater than 3 inches in depth. It also will not be applied when the field is flooded, frozen, or snow covered.
6. Grease septage is to be diluted at least 1:1 from its original concentration when pumped with domestic septage or water. Grease septage applications shall not exceed 25,000 gallons/acre/yr.
7. Septage storage shall be provided to account for the average volume of septage pumped per week, or an alternative plan, such as disposal at a waste treatment plant, should be in place.
8. If the forage is to be grazed, the nitrogen recommendations are to be reduced by 25% for each applicable portion of the field.

B. Crops to be grown and approximate planting and harvest times:

1. The field is to have Bermuda during the warm season; and cereal rye, wheat, or small grain mix for the cool season.
2. The owner will seed the field with Bermudagrass (Cheyenne or another seeded variety, NOT “giant Bermuda”). See the “General Note”, item #3 below, for establishment of Bermudagrass.

Once established, the first Bermuda hay harvest each year will be when the grass is 12 to 15 inches tall. Subsequent cuttings should occur at four- to five-week intervals or when it is 12 to 15 inches tall, whichever comes first. Recommended Bermudagrass practices are detailed in the attached Extension publication, *Bermudagrass Management in North Carolina*. It should be noted that true “common” Bermudagrass does not grow very tall and will be shorter than the Cheyenne. Mowing all varieties of Bermudagrass will help the grass spread and reduce weed problems. Maintaining proper soil pH is very important. If the pH gets above 6.5, it is recommended that 200 lbs/acre of elemental sulfur be applied to the field.

Overseeding with cereal rye, wheat, or small grain mix (“winter overseed”) will occur near mid-October of each year, at a rate of approximately 2.5 bu/acre to 3 bu/acre (roughly 100-120 lbs per acre). This seeding rate is from *Planting Guide for Forage Crops in North Carolina*, to obtain the proper crop stand density required to meet the realistic yield expectations. Failure of sufficient germination will likely require reseeding

in affected areas. The winter overseed crop will be harvested as hay, preferably by late April to very early-May.

3. General Note: grass establishment

Prior to initial seeding with Bermuda, the existing crop will be cut, removed, and the remaining vegetation sprayed with plant killer, especially if ryegrass is present. For better germination, it is recommended that a cultipacker be used during seeding to improve seed/soil contact. If the stand of Bermuda grass in any field falls below 80% coverage, then the field (or specific problem areas) will be sprigged, in March or April, with 30-40 bushels of Bermuda grass sprigs per acre or seeded, in April or May, with 10-15 lbs per acre Cheyenne Bermuda (or another seeded variety) grass seed. If weeds caused the problem with the grass coverage, the weed problem is to be addressed **before** re-seeding or sprigging. In bare areas, a light discing can be used to incorporate the sprigs. The winter cover crop needs to be removed before the Bermuda is put out and the pumping schedule adjusted accordingly.

Bermuda grass establishes best at a pH of 6-6.5. Use the soil test report to determine if lime, phosphorus and potassium additions are needed. If the soil pH is greater than 6.5, apply 200 lb/acre elemental sulfur. When growth starts, 30 pounds of nitrogen per acre can be applied. After the plants begin to make runners, an additional 30 pounds of nitrogen per acre can be applied. These nitrogen applications are to be documented and kept along with the other application records. If weedy grasses are not a problem, let the new grass grow 8-10 inches tall before clipping. During establishment, clipping (short mowing) will encourage the plants to spread across the soil, and will also help control some weeds.

4. Weed control

Well-managed bermudagrass is competitive with most perennial and summer annual weeds. If weeds become a problem, especially during grass establishment, contact your technical specialist for assistance and/or the most recent *North Carolina Agricultural Chemicals Manual* for herbicides to control specific weeds. Promptly removing the winter overseed crop is important to avoid shading out and competing with the Bermuda early in its growing season. Pre-emergent herbicides can be used to control crabgrass and other warm season annual weeds; **do not use in areas that are to be reseeded.**

C. Nitrogen needs for crops grown:

RYE = Realistic Yield Expectation for Norfolk B (NoB) soil and Alpin B (AnB) soil

N App. Rate = Suggested nitrogen application rate

Field	Crop (as hay)	RYE tons/acre	N App. Rate lbs/dry ton	Total lbs N/ac	**Gal/ac/yr	Adjusted Gal/ac/yr	Actual lbs N/ac
NoB	*Overseed	9.8	11.4	112	43,077	20,000	52
	Bermuda	4.9	46	225	86,538	30,000	78
AnB	Overseed	5.9	12.5	74	28,461	20,000	52
	Bermuda	3.4	50	172	66,154	30,000	78

* “Overseed” represents cereal rye, wheat, or small grain mix; all harvested as hay.

** This column represents the number of gallons needed to meet the total nitrogen needs of the crops. The maximum permitted application is 50,000 gal/acre/yr, with a maximum winter monthly application of 5,000 gal/acre.

Crops will be harvested as hay and removed from site for feed, bedding, or other approved uses. The **Adjusted gal/acre/year** column represents what can be applied so as not to exceed the maximum permitted application rate of 50,000 gal/acre/yr.

Because the nitrogen needs will not be met with the septage applications, commercial nitrogen fertilizer, such as 10-0-0 can be used IF NEEDED. A Plant Tissue Analysis sample can be collected to determine if the plants are deficient. If fertilizer is used, it is important that the crop N requirements not be exceeded! The difference between the “Actual lbs N/ac” and the “Total lbs N/ac” is the amount of supplemental nitrogen that can be added. All such additions are to be documented.

D. Monthly/yearly application rate estimates in gallons:

<i>Crop</i>	<i>Maximum Uptake Period</i>
Bermudagrass (hay)	May-September
Winter overseed (hay)	February-April

As shown in the above table, the winter overseed has its maximum nutrient uptake during February through April. There is some uptake, however, as the crop first grows and becomes established. It is generally recommended that 1/3 of the nutrients be applied during the lower growth months (November-January) and the remaining 2/3 be applied during February-April.

It is understood that homeowner pumping requests are greatest during the winter months. The application recommendations in the table below, therefore, are given as the permissible amount WEATHER, CROP, AND FIELD CONDITIONS PERMITTING. In order to get more customers to request summer pumping, you may want to offer a “price incentive” (i.e., have a summer price that is less than the winter price). This would reduce your risk of either an application or crop cover violation. Again, this is just a recommendation.

<i>Month</i>	<i>Bermuda & Overseed</i>
January*	low
February*	low
March*	medium
April	low
May	medium
June	high
July	high
August	high
September	medium
October	medium
November*	low
December*	low

Low = up to 5,000 gallons; medium = up to 10,000 gallons; high = up to 15,000 gallons

* These months can have wetter soil conditions than during the other months. It is exceedingly important that the applications be applied to the largest surface area practicable, so as not to have any ponding or runoff, and to minimize untrafficable areas

Note: Application dates are approximate and subject to adjustments due to harvesting (30 day rest periods) and weather. They are given as an application guide.

It is understood that weather conditions can cause the winter crop to mature earlier or later than the specified field harvest date. Regulations mandate that a crop be planted or break dormancy within 30 days of any application of septage. No crop can be harvested until at least 30 days after the last septage application to that crop if it is to be used as forage or bedding. Harvests should, therefore, be staggered at intervals among the fields such that at least one is available for application while the others go through the 30 day rest period.

E. Application method:

The preceding information is based on septage being **evenly applied** over the entire permitted site by pumper truck with a splash plate. If the entire area within a field is not covered each time, markers or some form of consistent rotation are needed to ensure that one portion of the field is not more heavily loaded than other portions of the field. This can be accomplished by dividing each field into sub-fields.

An application record for each sub-field is highly recommended. Waste record forms SLUR-1 and SLUR-2 can be used for record keeping. These and additional forms are available from the local Cooperative Extension office.

F. Additional fertility requirements:

Optimum nitrogen uptake will not occur if the concentrations of other nutrients limit the crop growth. Septage does not provide adequate supplies of all necessary nutrients over a prolonged period of time, so periodic supplements may be required. These maintenance applications should be based on annual soil test analyses. The soil samples should be taken in late fall or early winter, so that the supplements can be added in the spring prior to the Bermudagrass breaking dormancy. **DO NOT FOLLOW THE NITROGEN RECOMMENDATION FROM THE SOIL TEST REPORT!** You are to use the nitrogen amounts given in this waste application plan.

A separate soil sample should be collected for the buffer areas. Commercial fertilizer applications to the buffers are to be based on the soil sample results. If you have questions, feel free to ask a Certified Waste Management Plan person in the local Cooperative Extension or Soil & Water Conservation offices. You can also contact Tim Hall, NCDA&CS Regional Agronomist, for stand health questions (324-9924).

G. Harvest of the crops and their use:

1. The Bermudagrass will be cut as hay and baled at four- to five-week intervals or when it is 12 to 15 inches tall, whichever comes first. Recommended Bermudagrass practices are detailed in the Extension publication, *Bermudagrass Management in North Carolina*.

2. The winter overseed will be cut and baled as hay during April to early May. This is necessary to prevent the winter crop from shading out the Bermuda, which is beginning to grow at this time.
3. The baled crops will be transported off site and used as livestock feed or other approved uses.
4. A 30-day waiting period must be observed between the last application of septage and harvest if the material is to be used as livestock feed or bedding; therefore, an application rotation will need to be established among the fields. Record keeping will be an important factor in documenting proper application. This cycle will continue until your next plan update or other instructions from either DENR or a Certified Waste Management Plan person. Any changes are to be put into writing, placed in your plan file, and copies given to the appropriate agencies.

H. Records required to be kept for five years:

1. Soil tests are to be done annually and the reports kept. Although nitrogen and phosphorus are the main nutrients of interest, some micronutrients are also of concern. Check your soil test results and compare them to the follow table:

<i>Pollutant</i>	<i>Maximum Cumulative Loading Rate (kilograms per hectare)</i>	<i>Equivalent Soil Test Report Value (parts per million)</i>
Zinc	2800	1400
Copper	1500	750
Cadmium	39	19.5
Nickel	420	210
Lead	300	150
Selenium	100	50
Arsenic	41	20.5
Mercury	17	8.5

2. Septage pumping log
3. Septage land application log
4. Septage land application log cover sheet with signed certification

The NC Septage Management Rules (15A NCAC 13B .0822(e)) and the Federal Rules (40 CRF 503.17(b)) require that specific information be recorded and maintained for septage land application sites. Incomplete record keeping may result in penalties. If you do not include the required records your site may not be re-permitted. If you have more than one site and each site has a separate permit number, the records for each must be maintained separately.

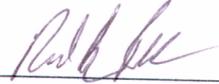
Questions regarding the regulations? Contact Chester Cobb (Division of Waste Management, Land Application and Composting Branch) at 919-707-8283.

Soil Erosion and Runoff Control Plan

Natural Resource Conservation Service best management practices (BMPs) are readily available and directly applicable to septage application sites. Some recommended BMPs for this site include:

1. Maintain a vegetative cover. At any time of the year, crops or their residue should be present on the site.
2. Manage soil surface for maximum infiltration. Minimize soil disturbance by drill planting the winter small grain crop. If soil compaction should become evident (ponding of applied septage), use a subsoiler to loosen the soil and improve infiltration. Field traffic should be kept to a minimum.
3. Maintain vegetation on swales, ditch channels, and all other field exits for stormwater runoff. Bermudagrass buffers at least 50 feet wide should be maintained around the site. A 200 ft buffer is to be maintained in areas adjacent to streams. If additional control or screening is needed, contact the Soil & Water Conservation office to see if the site qualifies for Cost Share assistance. They may be able to help you get trees or shrubs.
4. Extra care and control may be needed on those areas with increased slope. If possible, field edges should be shaped to detain runoff.

Nutrient management and erosion control plans are not static instruments; they are blueprints for planning and optimizing the defined crop use goals. As crop use goals or site conditions change, the management plan may need to be amended. Information sources, such as Cooperative Extension or Soil & Water Conservation, should be used on an ongoing basis.

Submitted by: 

Date: 6-12-12

Plan prepared by: Diana M.C. Rashash

Date: 06/11/12

Address: Diana M.C. Rashash, PhD, EI
North Carolina Cooperative Extension
4024 Richlands Hwy.
Jacksonville NC 28540

Phone: (910) 455-5873

Fax: (910) 455-0977

email: diana_rashash@ncsu.edu

Please sign both copies and send one copy to:

*Chester Cobb, Soil Scientist
NC DENR, Division of Waste Management
1646 Mail Service Center
Raleigh NC 27699-1646*

Septage Land Application Log Cover Sheet

Site Operator: R. HAYWOOD PITTMAN II
SLAS Permit #: NCS-01232
Site Location: 1003 GREGORY FARM ROAD, RICHMOND, NC 28574
(street address for the site **or** latitude and longitude)

Number of Acres Permitted: 6.0
(from SLAS permit)

Application Rate: 50,000
(from SLAS permit: gallons septage per acre per year)

Crop Present: BERMUDA

Crop Nitrogen Requirement: _____
(pounds nitrogen per acre) (permitted) / (applied)

CERTIFICATION:

"I certify, under penalty of law, that the pathogen requirements in (503.32(c)(1) or 503.32 (c)(2)) and the vector attraction reduction requirements in (503.33(b)(9), 503.33(b)(10) or 503.33 (b)(12)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fines and imprisonment."

(signature)

(date)

NCDA&CS Septage Sample Cover Sheet

Site Operator: _____

SLAS Permit #: _____

Site Location: _____
(street address for the site **or** latitude and longitude)

CERTIFICATION:

"I certify, under penalty of law, that the pathogen requirements in (503.32(c)(1) or 503.32(c)(2)) and the vector attraction reduction requirements in (503.33(b)(9), 503.33(b)(10) or 503.33(b)(12)) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fines and imprisonment."

The pH of the septage was raised to a pH of 12 and stabilized at 12 for 2 hours. The increase in pH is obtained through the addition of hydrated lime. This level of treatment is required to reach **Class B biosolids** as classified by EPA.

(signature)

(date)

John J. Kase

*1728 Hessler Lane
Farmington, NC 27526
Phone (910)539-5439*

May 8, 2012

Ref: Alliwood Septic Service Land Application Site
Owner-R. Haywood Pittman II
1003 Gregory Fork Road
Richlands, NC 28574

A soil evaluation was conducted on the proposed septage land application site listed above. The purpose of this evaluation was to classify the soils and land features within the proposed land application site.

The evaluation was conducted with a hand auger and consisted of auger borings and soil profile descriptions utilizing the Munsell Soil Color Chart.

A map and detailed soil descriptions has been prepared and is attached to this document.

The soil within the application area was found to be Norfolk and Alpin, and would be classified as well suited for the intended use. The soil wetness condition ranged from 24" to >48", and was typically found around 40". The soils showed good structure and good internal drainage.

The attached map also shows the minimum required setbacks which in this case include a stream, a groundwater lowering ditch, wetlands, property line, well, and a tree line. It appears that there is approximately 6 acres of suitable soil remaining when the setbacks are in place.

If you have any questions please feel free to contact me at 910-539-5439. Thank You.

Sincerely,



John J. Kase
NC Licensed Soil Scientist

AUGER BORINGS of PITTMAN SEPTAGE SITE

BORING 1 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-3	LS	GR	NS, NE	2.5Y 4/4			
3-30"	LS	GR	NS, NE	2.5Y6/4			
30-42"	SCL	SBK	SS,SE	10YR5/8			42"
42-48"	SCL	SBK	SS,SE	10YR5/8	7.5YR 5/8	2.5Y6/1	

BORING 2 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-12	LS	GR	NS, NE	2.5Y 4/3			
12-24"	LS	GR	NS, NE	2.5Y6/4			
24-36"	SCL	SBK	SS,SE	10YR5/8			36"
36-48"	SCL	SBK	SS,SE	10YR5/8	7.5YR 5/8	2.5Y6/1	

BORING 3 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-8	LS	GR	NS, NE	2.5Y 4/4			
8-30"	LS	GR	NS, NE	2.5Y6/4			
30-36"	SCL	SBK	SS,SE	10YR5/8			36"
36-48"	SCL	SBK	SS,SE	10YR5/8	7.5YR 5/8	2.5Y6/1	

BORING 4 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-12	LS	GR	NS, NE	2.5Y 4/4			
12-24"	LS	GR	NS, NE	2.5Y6/4	2.5Y 6/3		
24-36"	SCL	SBK	SS,SE	10YR5/8			36"
36-48"	SCL	SBK	SS,SE	10YR5/8	7.5YR 5/8	2.5Y6/1	

BORING 5 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-14	LS	GR	NS, NE	2.5Y 4/2			
14-30"	LS	GR	NS, NE	2.5Y 6/3			
30-32"	SCL	SBK	SS,SE	10YR5/6			32"
32-48"	CL	SBK	SS,SE	10YR5/6	7.5YR 5/8	2.5Y6/1	

BORING 6 ALPIN

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-12	LS	GR	NS, NE	2.5Y 4/3			
12-30"	LS	GR	NS, NE	2.5Y6/4	2.5Y 6/3		
30-40"	SCL	SBK	SS,SE	10YR5/6	2.5Y6/1	7.5YR 5/8	40"
40-48"	SL	GR	NS, NE	2.5Y6/4	7.5YR 5/8	2.5Y6/1	
						10YR5/6	

BORING 7 ALPIN

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-8	LS	GR	NS, NE	2.5Y 4/4			
8-18"	LS	GR	NS, NE	2.5Y6/4			
18-48"	LS	GR	NS, NE	2.5Y6/3			48+"
48+	SL	GR	NS, NE	10YR 5/8			

BORING 8 ALPIN

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-6	LS	GR	NS, NE	2.5Y 4/3			
6-28"	LS	GR	NS, NE	2.5Y6/3			
28-42"	SL	GR	NS, NE	10YR 5/8	7.5YR 5/8		42"
42-48"	SL	GR	NS, NE	10YR 5/8	7.5YR 5/8	2.5Y6/2	

BORING 9 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-12	LS	GR	NS, NE	2.5Y 4/4			
12-24"	LS	GR	NS, NE	2.5Y6/3			
24-30"	SL	GR	NS, NE	2.5Y6/3	2.5Y6/4		48+"
30-48"	SCL	SBK	SS,SE	10YR 5/8			

BORING 10 ALPIN

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-12	LS	GR	NS, NE	2.5Y 4/4			
12-39"	LS	GR	NS, NE	2.5Y6/3			
39-42"	SL	GR	NS, NE	10YR 5/8			42"
42-48"	SL	GR	NS, NE	10YR 5/8	7.5YR 5/8	2.5Y6/1	

BORING 11 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-10	LS	GR	NS, NE	2.5Y 4/4			
10-18"	LS	GR	NS, NE	2.5Y6/4			
18-33"	SCL	SBK	SS,SE	10YR 5/8			42"
33-42"	SCL	SBK	SS,SE	10YR 5/6	7.5YR 5/8	2.5Y6/1	
42-48"	SCL	SBK	SS,SE	10YR 5/6	7.5YR 5/8	2.5Y6/1	

BORING 12 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-6"	LS	GR	NS, NE	2.5Y 4/4			
6-18"	LS	GR	NS, NE	2.5Y6/4			
18-28"	CL	SBK	SS,SE	10YR 5/8			24"
28-48"	SC	M	VS,VP	10YR 5/8	7.5YR 5/8	2.5Y6/1	

BORING 13 NORFOLK

DEPTH (IN)	TEXTURE	STRUCTURE	MINERALOGY	MATRIX	MOTTLES	MOTTLES	SWC
0-6"	LS	GR	NS, NE	2.5Y 4/4			
6-18"	LS	GR	NS, NE	2.5Y6/4			
18-30"	SCL	SBK	SS,SE	10YR 5/8			36"
30-36"	SCL	SBK	SS,SE	10YR 5/6			
36-48"	SCL	SBK	SS,SE	10YR 5/6	7.5YR 5/8	2.5Y6/1	





Soil Test Report

4/16/2012 SERVING N.C. RESIDENTS FOR OVER 60 YEARS

Grower: Pitman, Haywood
 1003 Gregory Fork Rd
 Richlands, NC 28574

Farm: Allwood

Onslow County

Copies To:

Agronomist Comments

The heavy metal report is found on a separate page. Using Mehlich 3 as a soil test extractant, background levels of these metals typically seen in NC soils when analyzed are as follows: arsenic (As) - 4.5 ppm, cadmium (Cd) - 0.1 ppm, chromium (Cr) - 0.2 ppm, lead (Pb) - 4.2 ppm, nickel (Ni) - 0.8 ppm, & selenium (Se) - 0.2 ppm (FY2005-2007). Although the above metals here are not believed to pose a concern for plant growth, continue to monitor these and note where elevated above background levels.

Note any lime and fertilizer recommendations. Where soil test phosphorus (P) is very high (P-1 > 100), crops will not respond to additional P applied.

David H. Hardy, Agronomist
 April 16, 2012

Field Information		Applied Lime		Recommendations																		
Sample No.	Last Crop	Mo	Yr	T/A	Crop or Year		Lime	N	P2O5	K2O	Mg	S	Cu	Zn	B	Mn	See Note					
3					1st Crop:	Bern Hay/Pas,E	0	60-80	0	70-90	0	0	0	0	0	0	12					
					2nd Crop:	Bern Hay/Pas,M	0	180-220	0	160-180	0	0	0	0	0	0	12					
Test Results																						
Soil Class	HM%	W/V	CEC	BS%	Ac	pH	P-1	K-1	Ca%	Mg%	Mn-1	Mn-A(1)	Mn-A(2)	Zn-1	Zn-A	Cu-1	S-1	SS-1	NO3-N	NH4-N	Na	
MIN	0.56	1.43	5.6	82.0	1.0	6.1	427	27	70.0	9.0	146	103	103	715	715	639	29					0.1

Heavy Metal Soil Test Report

Report #: 40716

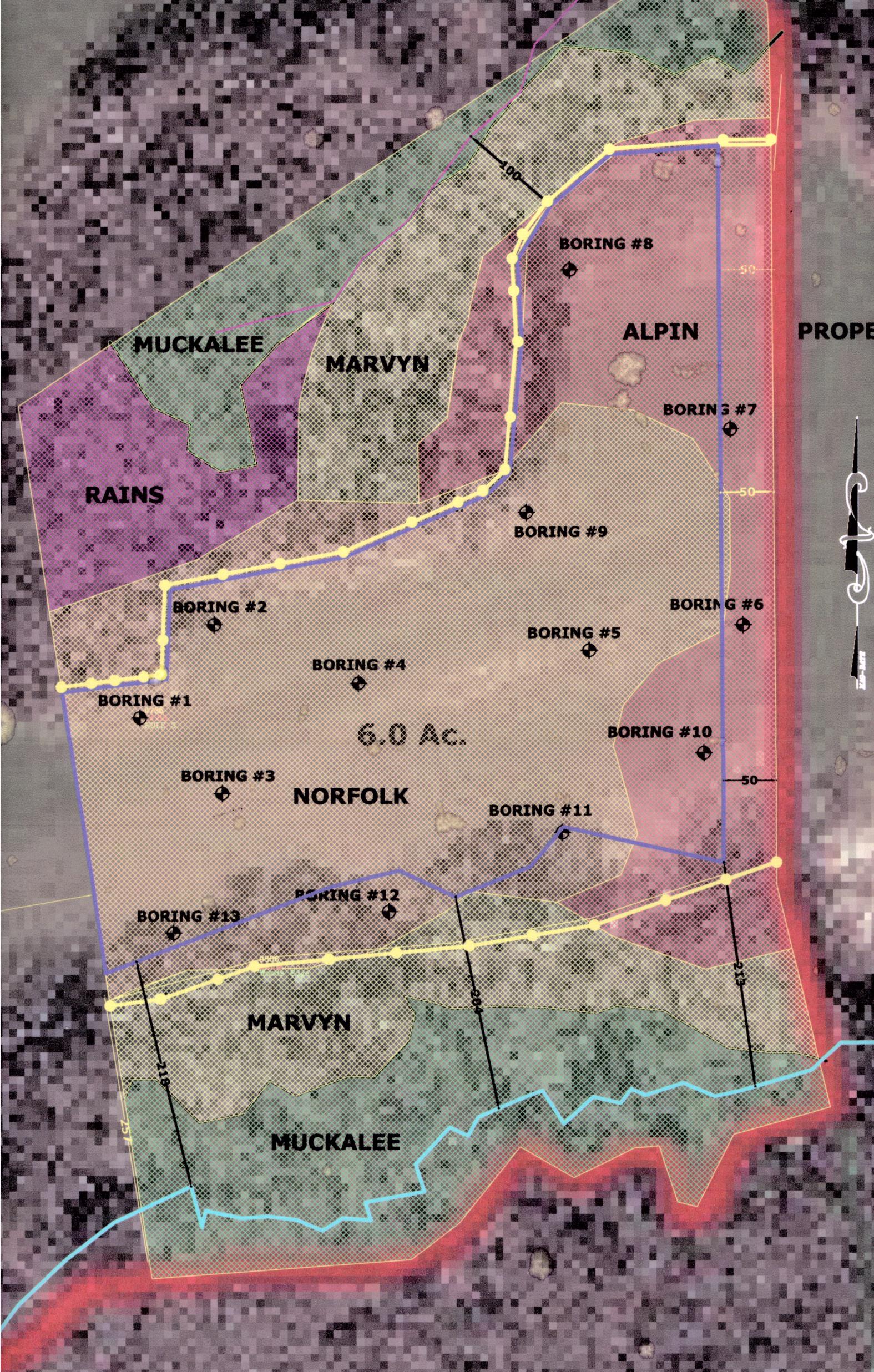
MEHLICH-3 EXTRACTION

Pitman, Haywood
 1003 Gregory Fork Rd
 Richlands, NC 28574
 Onslow County

Questions concerning these analyses should be referred to the Agronomic Division, Soil Testing

Sample ID	Cd Cadmium	Ni Nickel	Pb Lead	Se Selenium	Cr Chromium	As Arsenic	Al Aluminum	Fe Iron
3	0.10	0.20	4.00	0.00	0.30	0.30	1,000.00	174.60

mg/dm³ (ppm)



PITTMAN SEPTAGE SITE

LEGEND

- APPROX WETLANDS MUCKALEE
- MARVYN
- DITCH
- SEPTAGE AREA

THIS WETLAND AND SOIL SKETCH WAS PREPARED FIELD DATA WAS COLLECTED WITH SUBFOOT GPS. AREAS MAY BE LOCATED WITHIN PROJECT. THIS I COUNTY GIS. IT IS NOT SURVEY QUALITY AND S