

October 8, 2013

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

**RE: Corrective Action Permit Modification Application
Granville County – Closed Butner Landfill, Permit No. 39-02
JOYCE Project No. 660.1301.12, Task 01**

Dear Ms. Drummond:

On behalf of Granville County, Joyce Engineering is submitting this *Corrective Action Permit Modification Application* for the Butner Landfill, Permit No. 39-02, in accordance with Title 15A, Chapter 13, Subchapter 13B, Section .1636 of the North Carolina Solid Waste Management Regulations. Included as attachments to the application are:

- Minutes of the public meeting, held on September 3, 2013, for the Assessment of Corrective Measures;
- A resolution signed by the Granville County Board of Commissioners selecting monitored natural attenuation and phytoremediation as the remedies for this site;
- A site map designating the locations of monitoring wells and surface water sampling locations at the site;
- A copy of the 1982 permit for the Butner Landfill facility; and
- A copy of the most recent Financial Assurance Letter for the Granville County landfills.

If you have any questions or need additional information, please feel free to contact Mark Shumpert or me at (336) 323-0092.

Sincerely,
JOYCE ENGINEERING, INC.



Van Burbach Ph.D., P.G.
Technical Consultant

Enclosures

Copy: Jason Falls, Granville County
Mark Shumpert, Joyce Engineering



**North Carolina Department of Environment and Natural Resources
Division of Waste Management
Solid Waste Section**

North Carolina Solid Waste Groundwater Corrective Action Permit Modification Application

Pursuant to 15A NCAC 13B .1636, "Within 14 days of selecting a remedy, the permittee shall submit an application to modify the permit describing the selected remedy to the Division for evaluation and approval." The application shall include the demonstrations necessary to comply with the financial assurance requirements set forth in Paragraph (d) of Rule .1628.

Please attach the following: (1) a copy of the minutes from the public meeting discussing the Assessment of Corrective Measures, (2) a signed resolution/proclamation/document adopting the remedy, (3) a site map designating locations of groundwater monitoring wells and surface water monitoring locations that will be impacted by the remedy, (4) any draft conceptual schematics/figures/plans relating to the selected remedy, (5) a list of any required registrations, permits, and approvals, (6) a copy of most recent permit issued by the Solid Waste Section, and (7) an amendment to the Financial Assurance Mechanism, including a break-down of the cost estimates for closure, post-closure and corrective action.

Send the application and attachments to NCDENR-DWM, Solid Waste Section, Compliance Unit, 1646 Mail Service Center, Raleigh, NC 27699-1646. This application and any documents attached to this application are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Please type or print all information legibly.

I. Site Identification

Permit Number: 39-02
Solid Waste Rule Designation (.0500 or .1600): .1600
Facility Name: Butner Landfill
Facility Physical Address: 2796 Old Route 75
City: Butner
Zip: 27509
County: Granville
Waste Type: MSW

II. Owner and Operator Information

Check box, if owner and operator are the same.

Owner

Name: Granville County
Address: P.O. Box 906 Oxford, NC 27565
Phone Number: (919) 603-1355

Operator

Name: _____
Address: _____
Phone Number: _____

III. Groundwater Corrective Action

Selected remedy (include addition lines if needed):

(1) Monitored Natural Attenuation

(2) Phytoremediation

(3) _____

Contingency Plan A: Constructed Wetlands

Contingency Plan B: Air Sparging

IV. Financial Assurance

Financial Assurance Mechanism: Financial Test per Rule .1628(e)(1)(F)

Total Cost Estimate for 30 Years (based upon ACM): \$ 246,000.00

V. Project Schedule (upon Division approval)

Approximate Date of Remedy Construction Completion (if applicable): Not applicable

Approximate Date of Implementation of Remedy: 2nd Quarter 2014 (1st MNA sampling event)

Approximate Date of Baseline Sampling Completion (if applicable): 4th Quarter 2015 (4th MNA sampling event)

Approximate Date of First Remedy Performance and Effectiveness Report Submittal: First Quarter 2016

VI. Environmental Consultant

Consulting Company: Joyce Engineering, Inc.

Address: 2211 W. Meadowview Rd., Greensboro, NC 27407

Phone Number: (336) 323-0092

VII. Signatures

To the best of my knowledge, the information reported and statements made in this North Carolina Solid Waste Groundwater Corrective Action Permit Modification Application are true and correct. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of fine and imprisonment.

If Owner and Operator are the same, please sign for Owner and type or write SAME for Operator.

Owner

Owner Name (Printed or Typed): Jason Falls, Director of Environmental Programs, Granville Co.

Owner Signature: *Jason Falls*

Date: 10/9/13

Operator

Operator Name (Printed or Typed): Same.

Operator Signature: _____

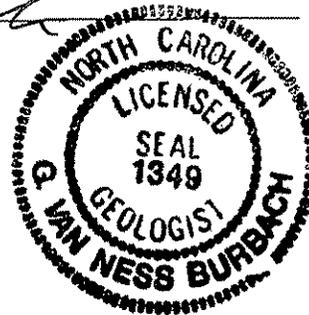
Date: _____

NC Professional Geologist or NC Professional Engineer

Name (Printed or Typed): G. Van Ness Burbach, Ph.D., P.G.

Signature: *G. Van Ness Burbach*
Affix NC Professional Geologist/Engineer Seal:

Date: 10/9/13



ATTACHMENT 1

Minutes from ACM Public Meeting



GRANVILLE COUNTY BOARD OF COMMISSIONERS

141 Williamsboro Street • Post Office Box 906 • Oxford, North Carolina 27565-0906
Phone: 919-693-4761 • Fax: 919-690-1766

AFTER HOLDING PUBLIC HEARING, BOARD APPROVED RESOLUTION AND RECOMMENDATION FOR THE CLOSED BUTNER LANDFILL

Chairman Smoak stated that a representative from Joyce Engineering would present the results of an Assessment of Corrective Measures (ACM) for the closed Butner Landfill in accordance with the North Carolina Solid Waste Management Regulations [15A NCAC 13B.1636]. This information is required to be presented in a public meeting at the end of a 30-day public comment period. All required public notices have been completed. He noted that this was a hearing to receive comments from the public on the closed Butner Landfill Assessment of Corrective Measures. He then recognized Jason Falls, Environmental Programs Director.

Mr. Falls stated that all notices had been published and advertised per State requirements. He said that Van Burbach with Joyce Engineering was present to discuss the closed Butner Landfill Assessment of Corrective Measures along with the recommended Corrective Measures.

Mr. Burbach stated that North Carolina Solid Waste Management regulations lay out a clear path that has to be followed whenever there are detections of constituents in the groundwater around a landfill that are in exceedance of groundwater protections standards. He then read from a report the following:

Assessment of Corrective Measures (ACM)

- Identify contaminants of concern (COCs).
- Review the nature and extent of the contamination.
- Assess the risk to potential environmental and human receptors.
- Screen available remedial technologies relative to:
 - The nature and extent of the contaminants,
 - The site geology and hydrology,
 - The risk to human health and the environment, and
 - Other site-specific considerations.

- Select the remedial technologies that are most appropriate for the site.
- Prepare a detailed evaluation of the selected technologies, including:
 - Performance and Reliability,
 - Implementation Requirements,
 - Remediation Impacts,
 - Remediation Timeframe,
 - Permitting or Institutional Requirements, and
 - Remedy Costs.
- Present the results of the ACM in a public meeting at the end of 30-day public comment period.

Butner Landfill Monitoring History

- The Butner Landfill is a closed municipal solid waste (MSW) landfill, located off State Route 1004 near the Town of Butner, in Granville County, North Carolina.
- The Butner facility started receiving waste prior to May 1973.
- Permit Number 39-02, was issued from the State of North Carolina on March 3, 1982.
- The facility stopped receiving waste in August 1998.
- The Butner Landfill entered an Assessment Monitoring Program in December of 1997 as a result of detections of volatile organic compounds and pesticides.
- An Assessment of Corrective Measures (ACM) was initiated in 2003, and then suspended by North Carolina Department of Environment and Natural Resources (DENR) because there had been no more exceedances.
- Due to detections of benzene above NC 2L Groundwater Standards during the December 2012 semiannual sampling event and subsequent verification sampling events, Granville County is proceeding with corrective action for the Butner Landfill.
- An ACM was submitted to the DENR in May 2013. After DENR approval of the ACM, a public comment period began with a public notice published on August 1st, 2013.
- A copy of the ACM report has been available for review in the County Manager's office since August 1st and will continue to be available through September 4th.

At this point he referenced maps showing the Butner Landfill relative to the Town of Butner and a map of the Butner Landfill groundwater flow site. He then continued the presentation as follows:

Contaminants of Concern (COCs)

- Benzene

Benzene is an aromatic hydrocarbon which naturally occurs in crude oil, and is found in refined petroleum products, such as gasoline. Benzene is also used to make other chemicals; plastics, resins, synthetic fibers, some types of rubber, lubricants, dyes, detergent, solvents, drugs, and pesticides.

The primary human exposure pathway for benzene is via inhalation. Benzene is a known human carcinogen and clastogen, but is not considered to be a reproductive toxicant.

- The NC-2L Groundwater Standard =1 µg/L, or one part per billion.
- The US EPA Maximum Contaminant Level (MCL) = 5 µg/L.
- The maximum historical concentration at the Butner landfill = 1.9 µg/L.

The most recent (May 2013) concentration at the Butner landfill = 1.3 µg/L

At this point Mr. Burbach showed a map of the Butner Landfill Benzene Concentrations in Groundwater noting the well impacted and another deeper well next to it that does not have exceedances of the groundwater. He added that the creek is sampled twice a year and have been doing so since 1998. He noted that there have never been any constituents detected in the creek. He also referred to another well that has been sampled several times and is clean, leading to the conclusion that the plume is not impacting the creek or that it is migrating off site. He then explained a Screening of Potential Remedies chart and continued his presentation.

Retained Remedial Technologies

Remedial Technologies retained by the ACM for further consideration:

1. **Monitored Natural Attenuation (MNA)** - Degradation of groundwater contaminants by natural physical, chemical, and biological processes in the subsurface;
2. **Phytoremediation** – Plants (especially trees) remove contaminants from groundwater by direct uptake and/or by microbial degradation in the root zone;
3. **Constructed Wetlands** - Converted natural or constructed shallow ecosystems designed to provide material filtration, chemical transformation, and biological degradation of contaminants;
4. **Control of Landfill Gas** – Installation of passive gas vents in the landfill, and/or an active gas extraction system;
5. **Permeable Reactive Barrier** – A trench filled with reactive materials (iron, carbon, etc.) designed to intercept shallow groundwater so that the reactive materials remove contaminants as the water flows through it;
6. **Air Sparging** – Injection of air into the aquifer to strip volatile organic compounds from the groundwater;
7. **Pump and Treat** – removal of groundwater through a set of extraction wells and ex-situ treatment of the water to remove contaminants using and air stripper, carbon filters, etc., and discharge of the treated water under a NPDES permit; and
8. **Enhanced Bioremediation** – Injection of chemicals (ORC, HRC, etc.) into the groundwater plume to accelerate biological and/or chemical degradation of the contaminants.

Next Steps

- The minutes of this public meeting and any written comments from the public will be submitted to the DENR Solid Waste Section and comments will be addressed as appropriate.
- After the public meeting, Granville County shall **select an effective remedy;**
- Within 14 days of selecting a remedy, the County shall submit a completed **Groundwater Corrective Action Permit Modification Application;**

- The Solid Waste Section will then review the County's selected remedy.
- Once the Solid Waste Section approves the selected remedy, Granville County must submit a **Corrective Action Plan (CAP)** within 90 days of the approval;
- The Solid Waste Section will review the County's CAP, approve, or request additional information prior to its implementation; and
- The implementation of the approved CAP shall take place in accordance with 15A NCAC 13B .1637.

Selection of Remedy

- Joyce Engineering recommends that Granville County approve a combination of Monitored Natural Attenuation (MNA) and Phytoremediation as the selected remedy for the Butner Landfill.
- We request that the board issue a signed resolution or proclamation adopting the above-described remedy.
- Upon receipt of the signed document and minutes of this meeting, Joyce Engineering will prepare the required Permit Modification Application and submit it to the DENR on the County's behalf.

**Projected Costs of the Implementation of Corrective Action
at the Butner Landfill
Monitored Natural Attenuation & Phytoremediation**

Item	Timeframe	Estimated Cost
Permit Amendment Application	within 14 Days of Selection of Remedy	\$500
Corrective Action Plan (CAP)	within 90 days of DENR Approval of Remedy	\$12,800
Implementation of CAP		
	1 st semiannual event after CAP approval	
MNA Sampling Additional Lab Costs	each semiannual event	\$1,500 - \$2,000
Additional Field Sampling Costs	each semiannual event	\$500 - \$600
Additional Semiannual Reporting Costs	each semiannual WQMR	\$2,250 - \$2,750
Corrective Action Evaluation Report (CAER)	after two years, then every 5 years	\$10,000 - \$12,000

Estimated 1st Year Costs	\$23,000
Estimated Total 5-year Costs	\$50,000
Estimated Total 20-year Costs	\$150,000

Mr. Burbach asked the Board to consider adopting the Resolution approving a selection of remedy.

Chairman Smoak declared the public hearing open and asked that anyone wishing to speak to come forward at this time.

With no one wishing to speak, Chairman Smoak declared the public hearing closed.

Commissioner Currin asked if the land is currently forested.

Mr. Burbach answered that the land is forested and was harvested a few years ago, but that there is still wooded area and new growth.

Commissioner Karan referred to one of the maps and asked if the site flow was directly towards the Falls Lake impound or if it curves back to the Lake Holt Reservoir.

Mr. Burbach stated that the flow direction is towards the south toward the Town of Butner.

Commissioner Mims asked Mr. Burbach to expand on the absorption rates and how long it will be before reaching the standards.

Mr. Burbach noted that it is difficult to predict how long before standards are reached and the plume is not growing because the natural process is keeping pace. He stated that there has to be three consecutive years of no exceedances of groundwater standards before the State can be petitioned to get out of corrective action.

Upon a motion by Commissioner R. David Currin, Jr., seconded by Commissioner Timothy Karan, and unanimously carried, the Board approved the following Resolution to Adopt Monitored Natural Attenuation plus Phytoremediation as the Remedy for Groundwater Impacts at the Closed Butner Landfill:

***RESOLUTION BY GRANVILLE COUNTY TO ADOPT
MONITORED NATURAL ATTENUATION PLUS PHYTOREMEDIATION
AS THE REMEDY FOR GROUNDWATER IMPACTS
AT THE CLOSED BUTNER LANDFILL***

WHEREAS, the North Carolina Solid Waste Management Regulations [15A NCAC 13B.1636] require the owner or operator of a solid waste facility with confirmed solid waste constituent concentrations in groundwater in excess of established groundwater protection standards to select a remedy based on the results of an Assessment of Corrective Measures (ACM), as described under 15A NCAC 13B.1635; and

WHEREAS, Granville County and its consultants have prepared and submitted an ACM for groundwater impacts at the Butner Landfill (Permit No. 39-02), which was

approved by the North Carolina Department of Environment and Natural Resources (DENR), in accordance with State regulations; and

WHEREAS, Granville County and its consultants have concluded, based on the ACM and in conformance with 15A NCAC 13B.1636, that Monitored Natural Attenuation (MNA) plus Phytoremediation is the most appropriate and cost-effective remedy;

NOW, BE IT RESOLVED, that the Granville County Board of Commissioners supports and approves the adoption of MNA plus Phytoremediation as the selected remedy for groundwater impacts at the Butner Landfill.

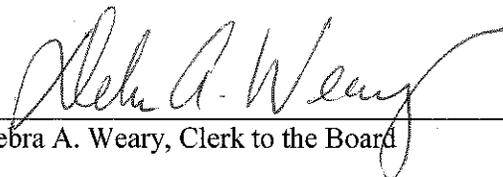
**North Carolina
Granville County**

I, Debra A. Weary, Clerk to the Board of the Granville County Commissioners, do hereby certify that the foregoing is a true and correct copy of a portion of the minutes of a regular meeting held on September 3, 2013 and recorded in Minute Book 23, pages 382-386.

WITNESS my hand and official seal this the 8th day of October 2013.

(SEAL)




Debra A. Weary, Clerk to the Board

ATTACHMENT 2

Selection of Remedy Resolution

**RESOLUTION BY GRANVILLE COUNTY TO ADOPT
MONITORED NATURAL ATTENUATION PLUS PHYTOREMEDIATION
AS THE REMEDY FOR GROUNDWATER IMPACTS
AT THE CLOSED BUTNER LANDFILL**

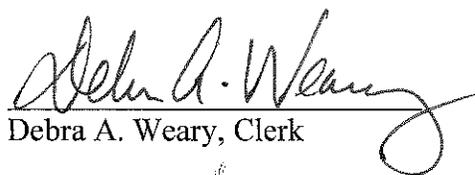
WHEREAS, the North Carolina Solid Waste Management Regulations [15A NCAC 13B.1636] require the owner or operator of a solid waste facility with confirmed solid waste constituent concentrations in groundwater in excess of established groundwater protection standards to select a remedy based on the results of an Assessment of Corrective Measures (ACM), as described under 15A NCAC 13B.1635; and

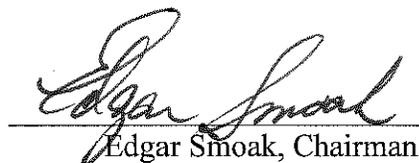
WHEREAS, Granville County and its consultants have prepared and submitted an ACM for groundwater impacts at the Butner Landfill (Permit No. 39-02), which was approved by the North Carolina Department of Environment and Natural Resources (DENR), in accordance with State regulations; and

WHEREAS, Granville County and its consultants have concluded, based on the ACM and in conformance with 15A NCAC 13B.1636, that Monitored Natural Attenuation (MNA) plus Phytoremediation is the most appropriate and cost-effective remedy;

NOW, BE IT RESOLVED, that the Granville County Board of Commissioners supports and approves the adoption of MNA plus Phytoremediation as the selected remedy for groundwater impacts at the Butner Landfill.

Adopted by the Granville County Board of Commissioners on September 3, 2013.

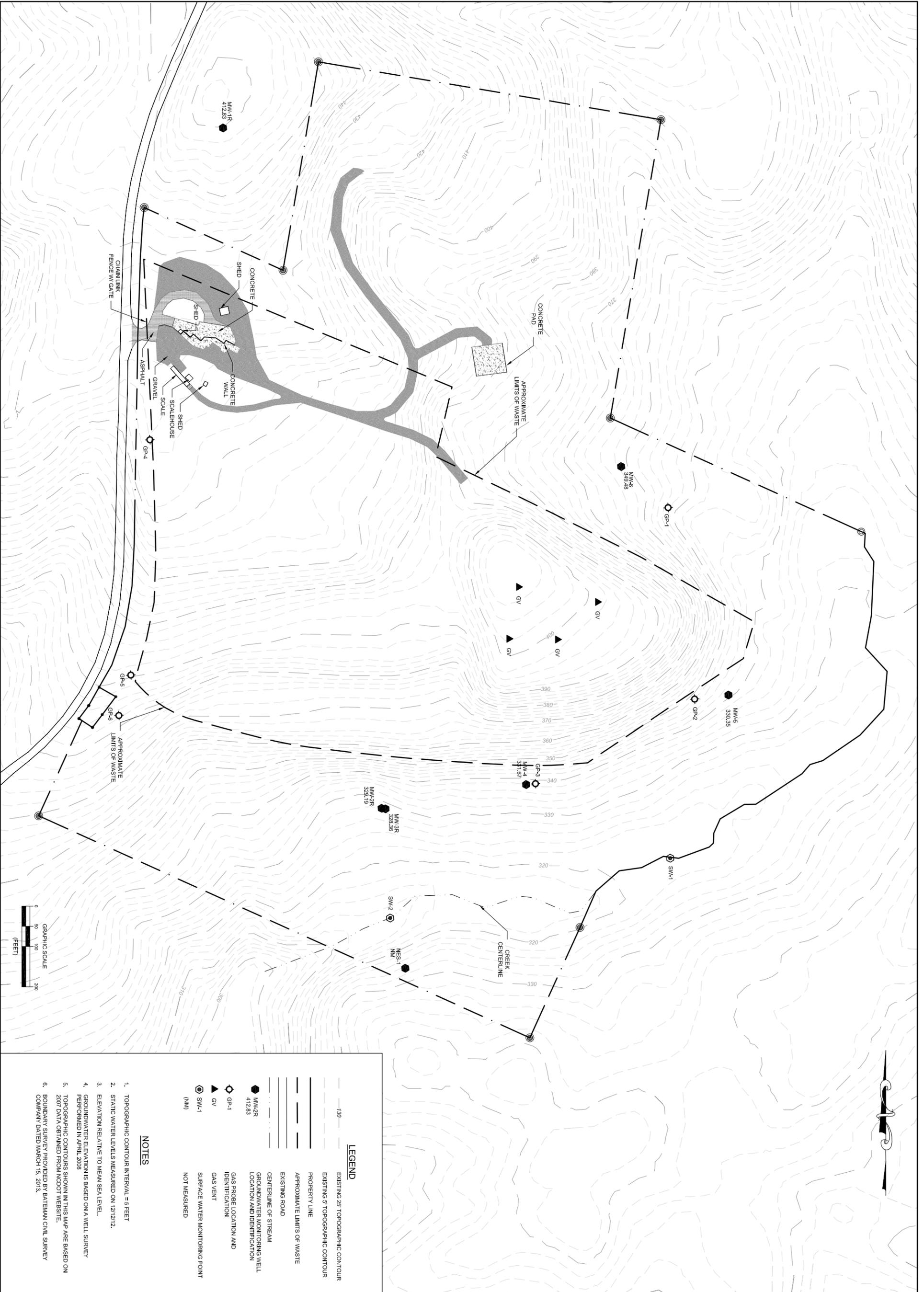

Debra A. Weary, Clerk


Edgar Smoak, Chairman



ATTACHMENT 3

Site Map with Sampling Locations



LEGEND

- 120 --- EXISTING 25' TOPOGRAPHIC CONTOUR
- EXISTING 5' TOPOGRAPHIC CONTOUR
- PROPERTY LINE
- APPROXIMATE LIMITS OF WASTE
- EXISTING ROAD
- CENTERLINE OF STREAM
- MW-2R 417.83 GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
- MW-3R 328.38 GROUNDWATER MONITORING WELL LOCATION AND IDENTIFICATION
- MW-4 341.87 GAS PROBE LOCATION AND IDENTIFICATION
- MW-5 330.35 GAS PROBE LOCATION AND IDENTIFICATION
- MW-6 349.48 GAS PROBE LOCATION AND IDENTIFICATION
- MW-1R 412.83 SURFACE WATER MONITORING POINT NOT MEASURED
- GP-1 GAS VENT NOT MEASURED
- GP-2 GAS VENT NOT MEASURED
- GP-3 GAS VENT NOT MEASURED
- GP-4 GAS VENT NOT MEASURED
- GP-5 GAS VENT NOT MEASURED
- GP-6 GAS VENT NOT MEASURED
- SW-1 SURFACE WATER MONITORING POINT NOT MEASURED
- SW-2 SURFACE WATER MONITORING POINT NOT MEASURED
- NES-1 SURFACE WATER MONITORING POINT NOT MEASURED

NOTES

1. TOPOGRAPHIC CONTOUR INTERVAL = 5 FEET
2. STATIC WATER LEVELS MEASURED ON 12/12/12.
3. ELEVATION RELATIVE TO MEAN SEA LEVEL.
4. GROUNDWATER ELEVATIONS BASED ON A WELL SURVEY PERFORMED IN APRIL 2008
5. TOPOGRAPHIC CONTOURS SHOWN IN THIS MAP ARE BASED ON 2007 DATA OBTAINED FROM NCDOT WEBSITE.
6. BOUNDARY SURVEY PROVIDED BY BATEMAN CIVIL SURVEY COMPANY DATED MARCH 15, 2013.

**BUTNER LANDFILL
GRANVILLE COUNTY, NORTH CAROLINA**

SITE MAP WITH SAMPLING LOCATIONS

PROJECT NO.
660.1301.12

SCALE
AS NOTED

DRAWING NO.
1

JOYCE ENGINEERING
2211 W. MEADOWVIEW ROAD
GREENSBORO, NC 27407
PHONE: (336) 323-0092
NC CORP LIC: C-0782

DESIGNED ACE
DRAWN HRW
CHECKED ACE
APPROVED GVB
DATE 04/16/13

DATE	REVISIONS AND RECORD OF ISSUE	NO	BY	CK	APP

ATTACHMENT 4

1982 Permit for the Butner Landfill

*Granville
JTH*

March 3, 1982

William L. Hopper
Watkins, Finch & Hopper
111 Gilliam St.
Oxford, NC 27565

Re: Granville Co. Landfill, Permit #39-02
S.R. 1004, Butner, N.C.

Dear Mr. Hopper:

The enclosed plan is approved in accordance with
G.S. 130-166. Permit No. 39-02 is issued under
conditions provided for on the permit.

If you have any questions, please advise.

Respectfully,

Thomas C. Karnoski, Environmental Engineer
Solid & Hazardous Waste Management Branch
Environmental Health Section

TCK:ns
Enclosure
cc: Joseph H. Deakins

PERMIT NO. 39-02

DATE ISSUED 3/3/82

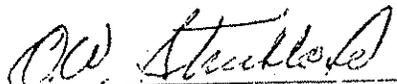
STATE OF NORTH CAROLINA
DEPARTMENT OF HUMAN RESOURCES
Division of Health Services
P.O. Box 2091 Raleigh 27602

SOLID WASTE PERMIT

GRANVILLE COUNTY is hereby issued a permit to
operate a SANITARY LANDFILL
located ON S.R. 1004, BUTNER, N.C.

in accordance with Article 13B of the General Statutes of North Carolina and all
rules promulgated thereunder. The facility is located on the below described
property.

BEGINNING at an iron pipe located east of SR 1004 and S 33° 27' W, 287.0 feet
from the southwest leg of the fire tower and being a part of land now or
formally owned by the State of North Carolina; thence, S 58° 30' E, 1949.1 feet
to a branch; and thence with the branch S 05° 02' E, 65.8 feet to a point; thence
with the branch S 07° 05' E, 200.4 feet to a point; thence with the branch S 13°
57' E, 83.8 feet to a point; thence with the branch S 23° 49' W, 101.8 feet to
a point; thence with the branch S 63° 47' W, 183.9 feet to a point; thence with
the branch S 62° 34' W, 279.2 feet to a point; thence with the branch S 26° 44' W,
100.7 feet to a point; thence with the branch S 84° 58' W, 127.5 feet to a point;
thence with the branch S 61° 41' W, 225.5 feet to a point; thence with the branch
N 64° 25' W, 197.2 feet to an iron pipe; and thence leaving the branch N 58° 30'
W, 1,159.2 feet to State Road 1004; and thence with SR 1004 N 38° 56' E, 58.3
feet to a point; and thence with SR 1004 N 31° 51' E, 100.0 feet to a point;
and thence with SR 1004 N 21° 06' E, 100.0 feet to a point; and thence with SR
1004 N 12° 36' E, 100.0 feet to a point; and thence with SR 1004 N 08° 23' E,
800.0 feet to a point; and thence with SR 1004 N 12° 29' E, 100.0 feet to the
point; and thence leaving SR 1004 S 58° 30' E, 31.7 feet to an iron pipe the
point of beginning.


O. W. Strickland, Head
Solid & Hazardous Waste Management
Branch
Environmental Health Section

PERMIT NO. 39-02

DATE ISSUED 3/3/82

SOLID WASTE PERMIT

Conditions of Permit:

1. This permit may be subject to review at an administrative hearing upon petition of anyone whose legal rights, privileges and duties may have been affected by the issuance thereof.
2. The following requirements shall be met prior to receiving solid waste at the site:
 - a. Filing of the certified copy of the permit with the register of deeds in the grantor index under the name of the owner of the land.
 - b. Site preparation in accordance with operational plan.
 - c. Site inspection made by a representative of the Division of Health Services.
 - d. The permit number and the words "NO HAZARDOUS OR LIQUID WASTE ACCEPTED WITHOUT WRITTEN PERMISSION FROM THE DIVISION OF HEALTH SERVICES" shall be posted on an entrance sign.
3. All items noted by John Holley's (Regional Engineer, Land Quality Section, NRCD) letter, dated February 11, 1982, shall be addressed. His letter is now a part of the operational plan.
4. A copy of the operational plan shall be made available at all times to the landfill operator.

August 6, 1973

Mr. Charles Noblin
Granville County Health Department
P. O. Box 367
Oxford, N. C. 27565

Dear Mr. Noblin:

Plans for the continued use of the Granville County sanitary landfill near Butner have been reviewed and found to be acceptable for approval with provisions. Provisions for approved operations are as follows:

1. Operation of the site in accordance with the N. C. Department of Human Resources, Division of Health Services "Rules and Regulations Providing Standards for Solid Waste Disposal."
2. Maintain a separation distance of at least 4 feet between solid waste placed in natural or excavated areas and the site's ground water table.
3. Construction of terracing on finished elevations, especially from cross section "G" south to the property line, to divert surface water and to minimize erosion potential.
4. Construction of any peripheral diking necessary to stabilize fill slopes for minimizing erosion.

This site, being in operation prior to May 1973, is exempt from site recordation requirements. However, if the County so desires, recordation documents can be prepared upon receipt of a site legal description in narrative form. If this office can be of further assistance, do not hesitate to call.

Yours truly,

Jerry C. Perkins, Assistant Head
Solid Waste & Vector Control Branch
Sanitary Engineering Section

JCP/ct
Attachments

cc: Mr. Julian M. Foscoe, III

ATTACHMENT 5

Granville Co. Financial Assurance Letter



County Of Granville, North Carolina

Post Office Box 1286, Oxford, North Carolina 27565

finance@granvillecounty.org

Finance Department
(919) 693-4182

December 28, 2012 (REVISED 1/7/2013)

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

Dear Ms. McKee:

I am the chief financial officer of Granville County. This letter is in support of this unit of local governments use of the financial test to demonstrate financial assurance, as specified in 15A NCAC Rule .1628 (e)(1)(F).

This unit of local government is owner and operator of the following facilities for which financial assurance for closure and post-closure is demonstrated through the financial test specified in 15A NCAC 13B Rule .1628 (e) (1) (F). The closure and post-closure cost estimates covered by the test are shown for each facility:

Facility Name:	Butner Landfill & Oxford Landfill
Facility Address:	P.O. Box 906 Oxford, NC 27565
Permit Numbers	39-02 (Butner) 39-01 (Oxford)
Post-Closure Estimate:	Butner - \$ 513,592
Closure Estimate:	Oxford - \$ 1,718,090
Post-Closure Estimate:	Oxford - \$ 1,205,562
Closure Estimate:	Oxford - \$ 1,873,731
Post-Closure Estimate:	Oxford - \$ 1,646,012
Required Minimum	Oxford - \$ 3,000,000

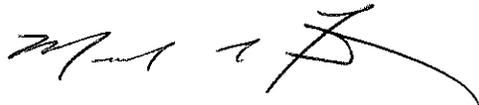
(See Attached Sheet for Calculation of Estimates)

The fiscal year of this unit of local government ends on June 30th. The figures for the following items marked with an asterisk are derived from this unit of local government's Annual Financial Information Report (AFIR) for fiscal year ended June 30, 2012.

RATIO INDICATORS OF FINANCIAL STRENGTH

1.	Sum of current closure, post closure, and corrective action cost estimates	\$ 9,956,987
2.	Sum of cash and investments*	\$ 41,317,254
3.	Total Expenditures*	\$ 65,144,852
4.	Annual debt service*	\$ 8,129,930
5.	Assured environmental cost to demonstrate financial Responsibility in the following amounts under Division rules:	
	MSWLF under 15A NCAC 13B Section .1600	\$ 9,956,987
	Total assured environmental costs	\$ 9,956,987
6.	Total Annual Revenue*	\$ 52,507,541
7.	Is line 5 divided by line 6 less than or equal to 0.43?	Yes
8.	Is line 2 divided by line 3 greater than or equal to 0.05?	Yes
9.	Is line 4 divided by line 3 less than or equal to 0.20?	Yes

I certify that the wording of this letter is identical to the wording specified in 15A NCAC 13B .1628 (e) (2) (G) as such rules were constituted on the date shown immediately below. I further certify the following: (1) that the unit of local government has not operated at a total operating fund deficit equal to five percent or more of total revenue in either of the past two fiscal years, (2) that the unit of local government is not in default on any outstanding general obligations bonds or long-term obligations, and (3) does not have any outstanding general obligation bonds rated lower than Baa as issued by Moody's, BBB as issued by Standard & Poors, or 75 as issued by the Municipal Council



Michael S. Felts
 Finance Director
 December 28, 2012 (REVISED 1/7/2013)

Granville County
Closure Post-Closure Estimates
Butner (3902-MSWLF-1982)
Oxford (Unit 1: 3901-MSWLF-1981, 3901-CDLF-1997)
(Unit 2: 3901-MSWLF-2012)

Adjustment and Justification	Yrs Remaining	Butner Landfill 3902-MSWLF-1982	Yrs Remaining	Unit 1		Yrs Remaining	Unit 2		Reserve for Potential Assessments & Corrective Action
				3901-MSWLF-1981 3901-CDLF-1997			3901-MSWLF-2012		
<i>Subtotal as of August 1, 2009 (Restated)</i>	19	\$ 547,740	30	\$ 2,955,098				\$ 3,000,000	
Decrease for Expenditures Incurred		\$ (16,725)		\$ (80,915)					
Increase for 1.2% inflation		\$ 6,372		\$ 34,490					
<i>Subtotal as of June 30, 2010 (Restated)</i>	18	\$ 537,387	30	\$ 2,908,674				\$ 3,000,000	
Decrease for Expenditures Incurred		\$ (17,466)		\$ (47,559)					
Increase for 1.1% inflation		\$ 5,719		\$ 31,472					
<i>Subtotal as of June 30, 2011 (Restated)</i>	17	\$ 525,641	30	\$ 2,892,588		\$ -		\$ 3,000,000	
Decrease for Expenditures Incurred		\$ (22,612)		\$ (29,069)					
Increase for 2.1% inflation		\$ 10,564		\$ 60,134					
Estimated Closure Costs for 3901-MSWLF-2012						\$ 1,873,731			
Estimated Post Closure Costs for 3901-MSWLF-2012						\$ 1,646,012			
<i>(above estimates were adjusted for inflation to June 2012)</i>									
<i>Subtotal as of June 30, 2012 (Restated)</i>	16	\$ 513,592	30	\$ 2,923,652	30	\$ 3,519,743		\$ 3,000,000	