NCDENR

North Carolina Department of Environment and Natural Resources

Division of Waste Management

July 5, 2005

Mr. Thomas C. Schmaltz
Corporate Environmental Manager
Headwaters Inc.
1160 Millstone Run
Bogart, GA 30622

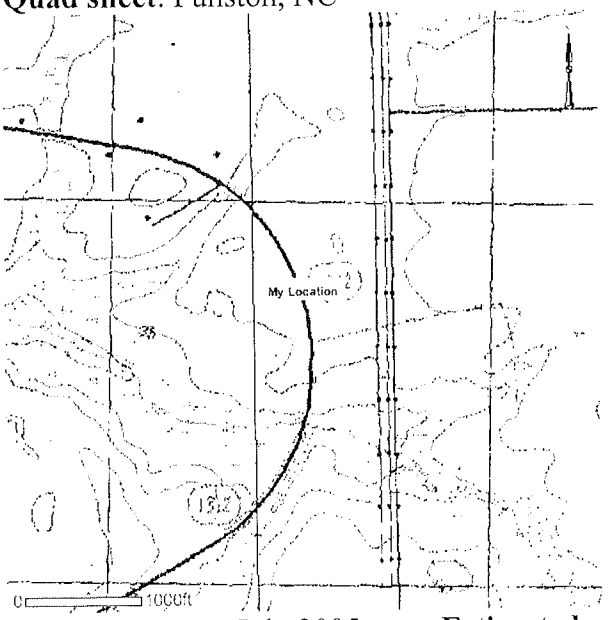
Subject: Notification – Roans Branch Hunting Preserve Project – Bolivia, Brunswick County, NC

Reference: 1) Letter dated June 23, 2005 from Thomas C. Schmaltz of Headwaters Inc. to Ellen B. Lorscheider of NCDENR-DWM.

Dear Mr. Schmaltz,

This letter acknowledges receipt of the above referenced letter which satisfies the Notification requirements specified in Section .1700 of the North Carolina Solid Waste Management 15A NCAC 13B Rules. This notification included the following information as required by Rule .1703:

1. **Nature, purpose and location of the project**: This project utilizes stabilized coal ash in the improvement of roughly 1.5 miles of existing agricultural access roads on the property of Mr. Warren Knox and Mr. David Knox. Coal ash used will be stabilized with approximately 4% cementitious binder to produce a stabilized structural fill product used as roadbase.
   Quad sheet: Funston, NC



   Estimated start: July 2005 **Estimated completion**: 18 – 24 months

3. **Estimated volume**: 28000 cy or 22000 tons
4. **TCLP analysis**: included
5. **Signed statement from the owner**: to be sent to the DWM
6. **CCB generator**: DuPont DAK Americas Plant
   Location of generating plant: 3500 Daniels Rd NE Leland NC
   Address: PO Box 2260 Leland NC 28451
   Contact:
   Telephone number: 910-371-4000
   Statement that notification will be given to DWM if changes are to occur.

Construction can now begin on this project.

In addition, please be aware of Rule .1707 (a), (b), (c), and (d) which are the requirements concerning recordation of the structural fills.

The structural fill must comply with any and all applicable permits, laws and regulations from other agencies that may include, but not limited to NCDENR Division of Water Quality (NPDES), Division of Coastal Management (CAMA), Division of Land Quality and US Army Corp of Engineers.

Coal ash that is derived from co-burning anything other that coal, for example tire chips, petroleum products or wood chips, is not considered a coal combustion by-product and cannot be included in a structural fill which is built under the .1700 rules. The definition of a coal combustion by-product by definition is "residuals, including fly ash, bottom ash, boiler slag and flue gas desulfurization- residue produced by coal fired electrical or steam generation units" according to .1701(2).

Please be aware that analysis of groundwater samples collected from monitoring wells located at a North Carolina coal ash structural fill site revealed that levels of sulfate and arsenic were elevated above the background well values and exceeded the 15A NCAC 2L Standards. It was later found that the ash had been placed in the groundwater at the site and the ash has been subsequently removed. The Division of Waste Management strongly recommends that you retain the services of a qualified hydrogeologic consulting firm to assist you in determining the vulnerability of the groundwater at the site based on site attenuation, waste extractability and end use to inhibit infiltration. You can then consider installation of groundwater monitoring wells depending on vulnerability before commencing fill operations.

If you have any questions or comments, please contact myself at 919-508-8495 or Ellen Lorscheider at 919-508-8506 respectively.

Sincerely,

Donald J. Barber
Permitting Supervisor
Solid Waste Section – Division of Waste Management

JB:ebl

CC: John Crowder, SWS
Ellen Lorscheider, SWS
Warren Knox, Landowner
Ray Williams, SWS
Raleigh Central Files: Brunswick/Coal Ash fill
David Knox, Landowner

Subject: Roans Branch Hunting Preserve Mailing Address
From: "Tom Schmaltz" <tschmaltz@headwaters.com>
Date: Thu, 7 Jul 2005 08:21:21 -0600
To: <jim.barber@ncmail.net>

Jim,

The best mailing address for Warren and David Knox is below:

Roans Branch Hunting Preserve
Warren and David Knox
4288 Main Street (Bus. 17E)
Bolivia, NC 28422

Please copy me on any correspondence to the Bogart, Georgia address below.

Thanks,
Tom Schmaltz

Thomas C. Schmaltz, PhD
Corporate Environmental Manager

Headwaters Incorporated
1160 Millstone Run
Bogart, GA 30622

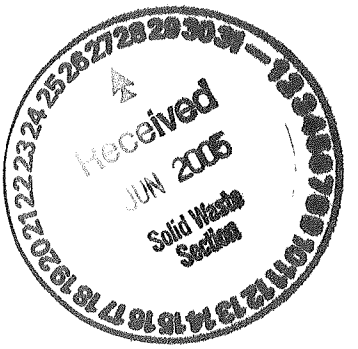
Office: (706) 549-7903
Cell: (404) 661-5485

HEADWATERS INCORPORATED

Adding Value to Energy™

June 23, 2005

Ms. Ellen Lorscheider
NC DENR
Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, North Carolina 27605



RE: Roans Branch Hunting Preserve Project – Bolivia, NC
Road Improvement and CCBP Beneficial Use Project
Information Request for NC DENR Division of Waste Management

Dear Ms. Lorscheider:

As we discussed earlier this month, please find included in this letter and its attachments the information you requested concerning the Roans Branch Hunting Preserve Project ("Project"). Much of the information you requested is provided in the attached Erosion and Sedimentation Control Plan ("Plan") and its original cover letter. Also attached is the most recent TCLP for the coal ash (Coal Combustion By-Product or "CCBP") used for the Project. A TCLP is conducted annually for this CCBP source. Additional information requested by you that is not included in the Plan is provided below.

Headwaters Resources, Inc.'s (Headwaters, formerly ISG Resources, Inc.) is conducting this Project on behalf of the property owners, Warren and David Knox. The project is a 1.5 road improvement project (about 0.75 miles on each property owners land). This represents a total volume of approximately 28,000 cubic yards or 22,000 tons of CCBP. Headwaters plans to begin this project in July 2005, next month. The project is anticipated to last 18 to 24 months. All CCBP for the project comes from DuPont's DAK Americas Plant located at 3500 Daniels Road NE, in Leland, North Carolina (Phone 910.371.4000). As you are aware, this project is being conducted under Section .1708 (6) of 15A NCAC 13B of the Solid Waste Management Regulations.

If you have any other questions or require further information, do not hesitate to contact me directly at (706) 549-7903.

Sincerely,
Headwaters Incorporated

Thomas C. Schmaltz

Thomas C. Schmaltz, Ph.D.
Corporate Environmental Manager

Attachments: E&S Plan w/Drawings and Cover letter
TCLP

1160 Millstone Run
Bogart, GA 30622
P: 706.549.7903
F: 706.543.9772

envirochem (SM)

ANALYTICAL & CONSULTING CHEMISTS

Environmental Chemists, Inc.

6602 Windmill Way • Wilmington, NC 28405
(910) 392-0223 (Lab) • (910) 392-4424 (Fax)

710 Bowsertown Road • Manteo, NC 27954
(252) 473-5702

NCDENR: DWQ CERTIFICATE #94. DLS CERTIFICATE #37729

Customer:

DAK - AMERICAS –CAPE FEAR PLANT
Post Office Box 2260
Leland, NC 28451
Attn: Walter Kelly

Date of Report: August 13, 2004

Purchase Order No.: 4500027525

Report Number: 4-5171

REPORT OF ANALYSIS

Date Sampled: 08/09/04

Sampled By: Walter Kelly

Report To: Walter Kelly

Project No:

Sample ID EPA 1311 TCLP Metals	Coal Fly Ash # 11084	Coal Bottom Ash # 11085	Date Analyzed	HW
Arsenic, As mg/L (GW .05)	0.06	0.18	08/11/04	5.0
Barium, Ba mg/L (2.0)	0.21	0.23	08/12/04	100.0
Cadmium, Cd mg/L (.00175)	<0.01	<0.01	08/12/04	1.0
Chromium, Cr mg/L (.05)	<0.05	<0.05	08/12/04	5.0
Lead, Pb mg/L (.015)	<0.05	<0.05	08/12/04	5.0
Silver, Ag mg/L (.0175)	<0.05	<0.05	08/12/04	5.0
Mercury, Hg mg/L (.00105)	<0.002	<0.002	08/13/04	0.2
Selenium, Se mg/L (.05)	<0.05	<0.05	08/12/04	1.0

Comments:

Reviewed by Sheila Casterline / Jennie Hicks

HEADWATERS INCORPORATED

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May 9, 2005

Ms. Carol N. Miller, CPESC
NC Department of Environment and Natural Resources
Division of Land Resources
Land Quality Section
127 Cardinal Drive Extension
Wilmington, North Carolina 28405

RE: Roans Branch Hunting Preserve Project – Bolivia, NC
Road Improvement and CCBP Beneficial Use Project
Brunswick County - Lumber River Drainage Basin
Erosion and Sedimentation Control Plan

Dear Ms. Miller:

Please find attached Headwaters Resources, Inc.'s (Headwaters, formerly ISG Resources, Inc.) Erosion and Sedimentation Control Plan for the referenced project. Headwaters is submitting this plan on behalf of the property owners, Warren and David Knox. Also included is the required Financial Responsibility / Ownership Form. The project will disturb approximately 8.5 acres and a corresponding fee of $450 is included with the attachments.

Due to the project being discontinuous and spread-out through the property, plan drawings and other information provided are somewhat generalized. This project, as with the similar and previous Clemmons Farm Road Project submitted to your Section, utilizes stabilized coal combustion by-products (CCBPs), that is, CCBPs bound with a cementing agent. As such, this project does not require a solid waste permit per Section .1708 (6) of 15A NCAC 13B Solid Waste Management Regulations.

Headwaters appreciates your prompt handling of this matter. If you have any questions or require further information, do not hesitate to contact me directly at (706) 549-7903.

Sincerely,
Headwaters Incorporated

Thomas C. Schmaltz, Ph.D.
Corporate Environmental Manager

Attachments: E&S Plan w/Drawings
FR/O Form and Fee (check)

cc: William R. Hocutt — NC DENR-Solid Waste w/ E&S Plan only
Vernon Davis — Headwaters Resources
Jody Bacher — Headwaters Resources

1160 Millstone Run
Bogart, GA 30622
P: 706.549.7903
F: 706.543.9772

EROSION AND SEDIMENTATION CONTROL PLAN

HEADWATERS RESOURCES, INC.

Roans Branch Hunting Preserve Project
Stabilized CCBP Beneficial Use Project
Brunswick County, North Carolina

Project Location and Description:

The Roans Branch Hunting Preserve Project is located near Bolivia in Brunswick County, North Carolina at the 600 block of Green Lewis Road (east side). This address and land disturbing activities will occur near latitude of 34° 03' 16" North and longitude of 78° 07' 24" West. The project location is identified on the attached location map. The project site is located on the Funston, N.C., USGS 7.5 minute series quadrangle.

This project utilizes stabilized coal ash in the improvement of roughly 1.5 miles of existing agricultural access roads on the property of Mr. Warren Knox and Mr. David Knox. Coal ash, a coal combustion by-product (CCBP), used will be stabilized with approximately 4% cementitious binder to produce a stabilized structural fill product used as roadbase. Such beneficial use of combustion by-products as stabilized structural fill does not require a solid waste permit as allowed under state regulation Section .1708 (6) of 15A NCAC 13B Solid Waste Management Rules.

General Site Features:

The major topographic and geologic features are accurately portrayed on the attached location map (Funston, N.C. USGS 7.5 minute series quadrangle). The disturbed area will be confined to the roadways designated for improvement, the general area of which is delineated on the location map. An estimated total of 8.4 acres will be disturbed. The area is topographically flat, typical of coastal plain. The nearest waterway is Middle Swamp leading to the Lockwood Folly River. There are no planned buildings on the site (see attached location map).

The project area is located on agricultural land that has been previously farmed and logged. The property is now managed as a stocked exotic fowl game preserve. This road improvement project will provide elevated and drained access roads through actively hunted areas. Disturbed areas of the project will be limited to the road and immediate adjacent areas. Detailed review of project areas was conducted to assure that no wetlands would be impacted (see attachments). All property involved in the project is owned by Warren Knox and his son, David Knox.

Borrow and/or Waste Areas:

There are no borrow or waste areas on or associated with the project site. The use of CCBPs for base material eliminated the need for borrow materials and thus provides additional environmental benefits over conventional earthen materials.

Site Drainage Features:

During construction, drainage from active areas will be completely contained on-site. Drainage from adjacent areas will controlled through existing established drainage patterns and a minimum of additional diversion features. Active project areas will be minimized as to not disrupt these existing patterns. Soils in the project area consist primarily of Lynchburg fine sandy loam (0 to 2 percent slopes) and Rains fine sandy loam (0 to 2 percent slopes). Both soils are somewhat poorly to poorly drained soils and suited for the purpose of a hunting preserve. A small area of the project is Goldsboro fine sandy loam (0 to 2 percent slopes). This is a moderately well-drained soil suited for cropland and is use for food plots.

Design Calculations:

There are no discharge points on the project site; thus the area is only exposed to runoff from the natural grade. There are no culverts and storm sewers at the project site, nor will any be installed. There are no existing or planned open channels at the project site. There are no energy dissipaters at the project site, since there are no discharge points. There are no sediment basins, pits, or check dams planned for the project site.

Financial Responsibility/Ownership (FR/O) Form:

The completed notarized FR/O form is attached to this plan.

Vegetation Stabilization:

The project area has been highly disturbed from past logging activities and has become revegetated by native and naturalized herbaceous and scrub vegetation. Some vegetation exists currently along the planned road areas. Any areas that were vegetated prior to disturbance by this project and all newly created road berms will be revegetated. Also, any non-vegetated project areas that show evidence of erosion potential will be vegetated. In areas that are to be revegetated, the native soils will be disced, harrowed, or otherwise adequately prepared to insure seed and fertilizer are thoroughly mixed with the topsoil. The following seed types and rates will be employed at the project site:

Spring or summer planting:
Yuma Bermuda @ 10 lbs/acre
Fall and winter planting:
Yuma Bermuda @ 10 lbs/acre
Rye Grass @ 12 lbs/acre

The following fertilizer type and rates will be employed at the project site: 10-10-10 applied at 500 lbs/acre. If circumstances dictate germination will be impaired or erosion will be enhanced without the application of mulch, a mixture of chopped hay, wood chips, sawdust or other suitable materials will be utilized at the project site. Grass seed and fertilizer will be applied to promote the establishment of a year-round, self-perpetuating ground cover.

Erosion Control Measures:

Silt fences will serve as temporary erosion control measures along the boundaries of the project site on an as needed basis. Construction details showing the installation of the silt fences are presented on the attached drawing ("Roans Branch Hunting Preserve Project"). The silt fence will be maintained in compliance with standard operating practice and replaced immediately when the structural integrity is compromised. The Headwaters Resources representative responsible for erosion control measures will be Mr. Vernon Davis and he can be contacted at (404) 915-5694.

Narrative and Construction Sequence:

This project is designed to utilize stabilized CCBPs to provide stabilized road base for approximately 1.5 miles of access road that will replace the existing access roads. All roads are on private property and adjacent to actively hunted fields that only receive traffic from client hunters and maintenance equipment during normal maintenance practices. The stabilized structural fill will be used to raise, level, and crown the new roads. In their present state, roads are undulating with an irregular surface and do not support vehicle traffic well, especially during adverse weather conditions.

Work on the roads will be limited to segments of approximately 400 feet in length at any one time. Generally the disturbed width will be only slightly wider than the road width of 20 to 24 feet. Stockpiles of soil, CCBPs and cementitious agent will be placed on planned or completed roads whenever possible. With consideration for stockpiled materials and equipment traffic, when unable to store on road areas, the maximum width disturbed will be 80 feet; this will occur only in very limited areas. The maximum disturbed area at any time will be limited to less than one half acre. The estimated total disturbed area for the entire project is 8.4 acres.

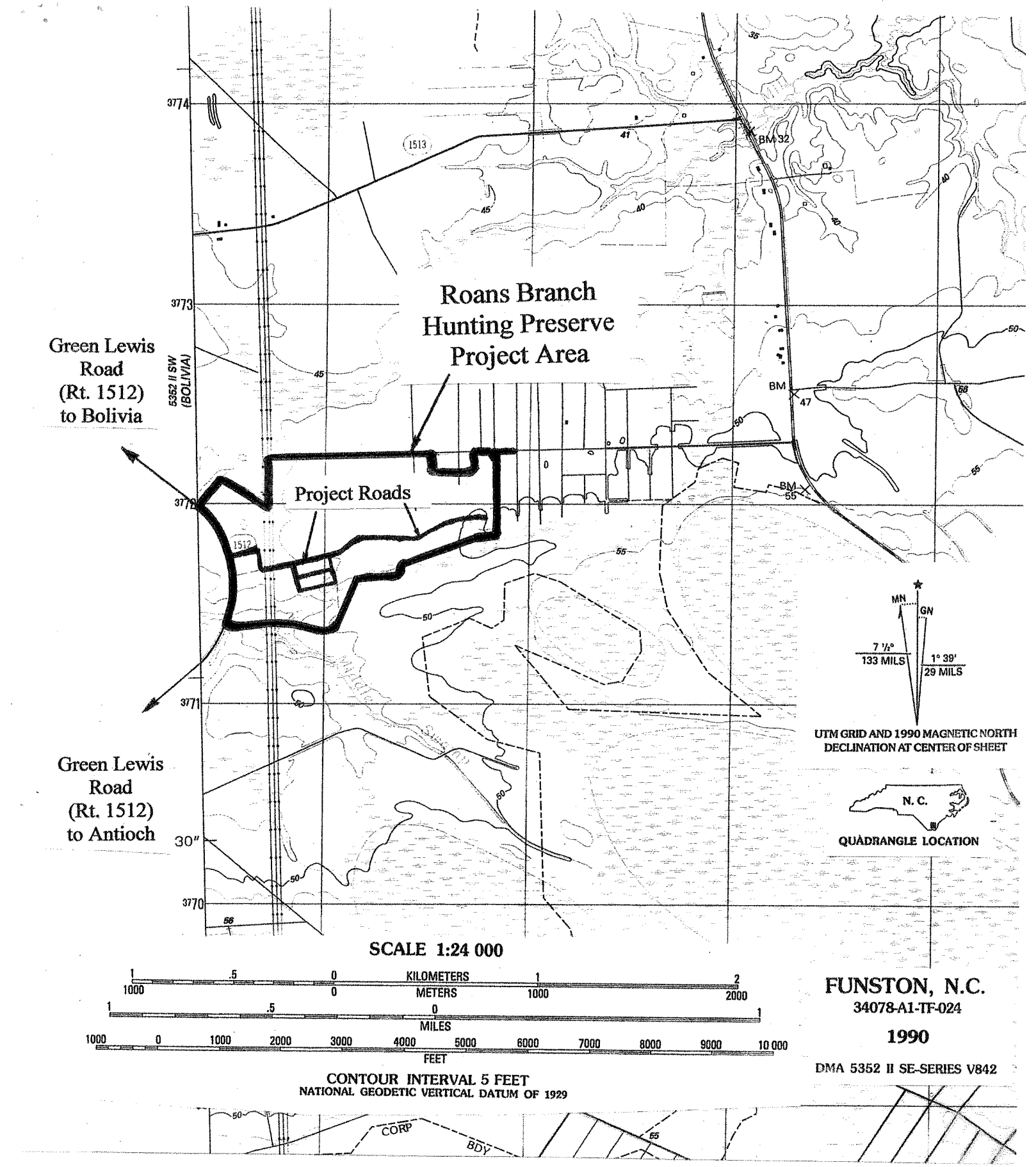
The construction of roads will begin with grading of the surface to prevent water from entering the site during construction. Topsoil and localized pockets of soft materials will be removed from beneath the planned road. The removed soil will be retained on-site and used to: cover CCBP base

material; create temporary berms to control run-on and run-off; control dusting, and support re-vegetation.

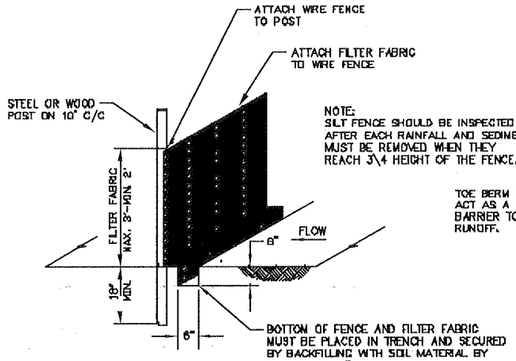
A toe berm composed of native soils will be constructed and compacted around the edge of the active construction area. This berm will act to control sediment and stormwater runoff, as well as prohibit run-on. Activity by heavy equipment will take place within the confines of the bermed area; thus disturbed areas will be within the confines of the berm and not result in erosion of surface soils outside of the project area. As construction progresses, silt fences will be installed at the onset of land disturbance along the margins of the actively disturbed areas, when construction activity warrants these erosion control measures. The toe berm and the silt fences will be continuously maintained throughout the project and zero discharge conditions will be maintained at all times.

CCBPs will be delivered to prepared road areas. Cementitious agent(s) will be added to and mixed with CCBPs by disking or with appropriate construction equipment. Cementitious binding agent (Portland cement or cement kiln dust) will be stored, under cover as needed, on planned roads or adjacent areas until needed for use; quantities stored will be limited to approximately one week's supply of stabilizing agent. The stabilization agent and CCBPs will be placed upon the prepared native soil, mixed, spread and compacted in six-inch lifts. The stabilized structural fill total thickness will average two to three feet, as required to achieve proper elevation, grade and shape (see attached drawing "Roans Branch Hunting Preserve Project").

The final cover over the stabilized fill will be 12 inches of compacted soil topped with a six-inch topsoil cover. The topsoil will be graded to provide a smooth roadway surface and the natural drainage patterns will be maintained and restored. Following the establishment of a stabilized cover, the applied silt fences will be removed.

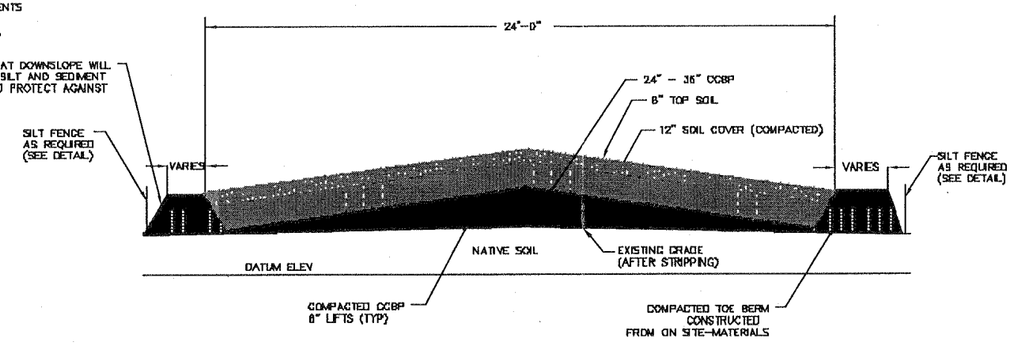


Location Map for Roans Branch Hunting Preserve Project

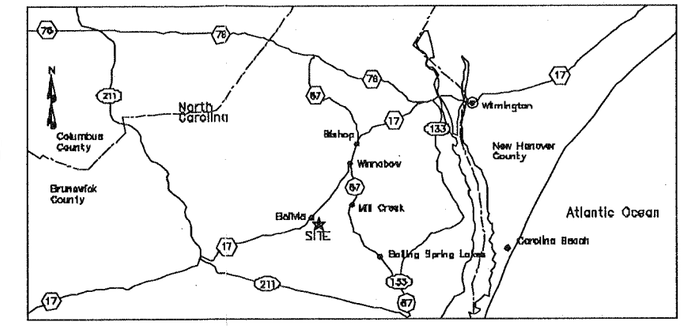


NOTE:
SILT FENCE SHOULD BE INSPECTED AFTER EACH RAINFALL AND SEDIMENTS MUST BE REMOVED WHEN THEY REACH 3\4 HEIGHT OF THE FENCE.

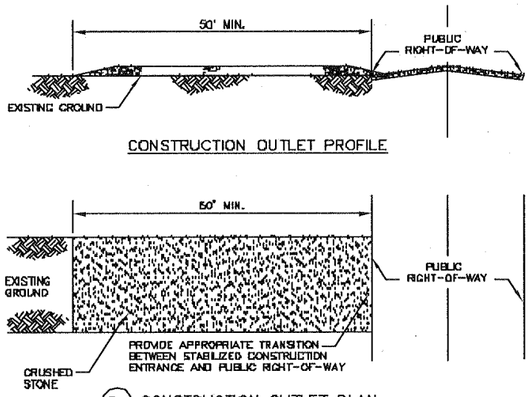
(sd1) TYPE 1 SILT FENCE
SCALE: N.T.S.



TYPICAL CROSS SECTION
COAL COMBUSTION BY-PRODUCTS (CCBP) PLACEMENT
SCALE: N.T.S.



VICINITY MAP
SCALE: N.T.S.

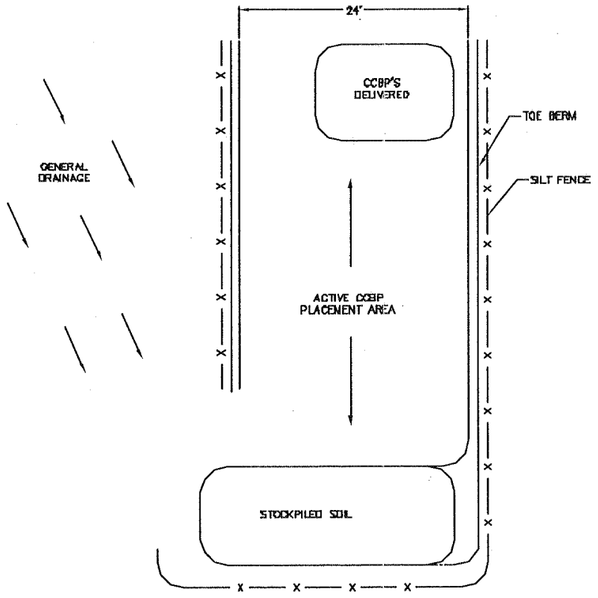


CONSTRUCTION OUTLET PROFILE

(Co) CONSTRUCTION OUTLET PLAN

CONSTRUCTION OUTLET NOTES

1. STONE SIZE - USE MSHA SIZE NO. 2 (2-1/2" TO 1") OR AASHTO DESIGNATION M43, SIZE NO. 2 (2-1/2" TO 1-1/2"). USE CRUSHED STONE.
2. LENGTH - AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WASHING - WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH THE USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.



TYPICAL CONSTRUCTION PLAN
PRESERVE ACCESS ROADWAY
SCALE: N.T.S.

CCBP PLACEMENT NOTES

1. EXISTING TOP SOIL TO BE STRIPPED AND STOCKPILED.
2. EXISTING SOIL TO BE REMOVED AND STOCKPILED FOR FUTURE USE AS COVER MATERIAL AND BERM CONSTRUCTION.
3. TOE BERM TO BE CONSTRUCTED AND COMPACTED WITH EXISTING ON-SITE SOILS. BERM WILL CONTROL SEDIMENT AND STORMWATER RUNOFF.
4. CCBP TO BE MIXED WITH 4% CEMENTITIOUS BINDER MATERIAL (PORTLAND CEMENT, CEMENT KILN DUST, OR OTHER SUITABLE MATERIAL) PRIOR TO PLACEMENT AND COMPACTION AS STABILIZED FILL.
5. STABILIZED FILL TO BE PLACED AND COMPACTED IN 6" LIFTS.
6. BERMS AND SHOULDERS TO BE STABILIZED WITH VEGETATION AS NEEDED.

GENERAL NOTES

1. ALL EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH NORTH CAROLINA'S EROSION CONTROL AND SEDIMENTATION REQUIREMENTS.
2. EROSION CONTROL DEVICES ARE TO BE CONTINUOUSLY MAINTAINED AS NEEDED TO MINIMIZE EROSION.
3. STABILIZATION IS THE BEST FORM OF EROSION CONTROL. ALL GRADED AREAS SHALL BE SEEDED AND MULCHED AS REQUIRED WITHIN 30 DAYS OF COMPLETION OF GRADING.
4. SEED AND FERTILIZATION RATES WILL MEET STANDARDS SET BY DENR AND PROVIDED IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
5. CONSTRUCTION AREAS WILL BE OPENED AND CLOSED IN LESS THAN ONE-HALF ACRE INCREMENTS. A CONSTRUCTION AREA WILL HAVE INDIVIDUAL SEDIMENTATION CONTROLS AS SHOWN IN THE PLAN.

DATE	NO.	REVISION DESCRIPTION	APPD.	DATE	NO.	REVISION DESCRIPTION	APPD.

HEADWATERS RESOURCES

HEADWATERS RESOURCES, INC.
10653 S. RIVER FRONT PARKWAY
SOUTH JORDAN, UT 84095
(801) 984-9400
FAX (801) 984-9410
www.headwaters.com

SCALE:	N.T.S.
DATE:	1-20-05
DESIGN BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	

ROANS BRANCH - STABILIZED STRUCTURAL FILL
ROANS BRANCH HUNTING PRESERVE PROJECT
STABILIZED CCBP BENEFICIAL USE PROJECT
BRUNSWICK COUNTY, NORTH CAROLINA

DRAWING NO.	REVISION NO.	SHEET NO.
ROANSFILL		1 OF 1

Wiro
MAY 17 2005

HEADWATERS INCORPORATED

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May 16, 2005

FedEx Delivery

Mr. Todd C. Walton
NC Department of Environment and Natural Resources
Division of Land Resources
Land Quality Section
127 Cardinal Drive Extension
Wilmington, North Carolina 28405

RE: Roans Branch Hunting Preserve Project – Bolivia, NC
Project Number: BRUNS - 2005 - 331
Additional Information

Dear Mr. Walton:

Please find attached the additional information for the referenced project that you requested in your May 13th letter to Mr. Vernon Davis. The information includes the two current Deeds covering the entire project property and wetlands delineation/determination documents (with maps). These Deeds, with boundary maps, and wetlands information have also been submitted to Rhonda Hall of the Division of Water Quality of your Department. Also please note that the location map in the E&S Plan is a USGS map that has many of the geologic features of the site.

Headwaters Incorporated appreciates your prompt handling of this matter. If you have any questions or require further information, do not hesitate to contact me directly at (706) 549-7903.

Sincerely,
Headwaters Incorporated

Thomas C. Schmaltz

Thomas C. Schmaltz, Ph.D.
Corporate Environmental Manager

Attachments: Deeds
Wetlands Determination/Delineation

ec: Vernon Davis — Headwaters Resources (w/out attachments)
Jody Bacher — Headwaters Resources (w/out attachments)

1160 Millstone Run
Bogart, GA 30622
P: 706.549.7903
F: 706.543.9772