

Permit No.	Date	DIN
06-02	January 28, 2011	12816



RECEIVED  
**January 28, 2011**  
Solid Waste Section  
Asheville Regional Office

January 27, 2011

Mr. Allen Gaither, P.E.  
Environmental Engineer  
**Solid Waste Section – NC DENR**  
2090 US Hwy. 70  
Swannanoa, NC 28778

**Re: Request for Operating Permit Renewal  
Avery County Transfer Facility – Permit 06-02-T**

Dear Mr. Gaither:

On behalf of Avery County, Richardson Smith Gardner & Associates (RSG) is hereby submitting the permit renewal application for the solid waste transfer station. The permit application request was prepared in general accordance with the operational requirements governing transfer stations per 15A NCAC 13B .0400. Please note that the Operations Manual included in this application has been updated to include guidance for each waste management activity (landfill, transfer or recovery) conducted at the facility addressing best management practices and emergency response.

We appreciate your review of the Avery County transfer station permit renewal application and are prepared to immediately address any questions or concerns regarding our submission. Please feel free to contact us at (919) 828-0577 or by e-mail.

Sincerely,  
Richardson Smith Gardner & Associates

Jeryl W. Covington, P.E.  
Senior Engineer  
[jeryl@rsgengineers.com](mailto:jeryl@rsgengineers.com)

Stacey A. Smith, P.E.  
Project Manager, ext. 127  
[stacey@rsgengineers.com](mailto:stacey@rsgengineers.com)

Attachment: Avery County Transfer Facility Permit 06-02-T Renewal Application

cc: Mr. Henry "Buddy" Norris, Avery County  
Mr. Bill Wagner, NCDENR  
File

H:\Projects\Avery County (NC)\Avery 11-2(Transfer Station)\Correspondence\TS Permit Renewal Ltr to DENR Jan 2011.doc

# Permit Renewal Application

## **Avery County Transfer Station**

Ingalls, North Carolina  
NC Solid Waste Permit No. 06-02

Prepared For:



**Avery County Solid Waste Department**  
Newland, North Carolina

**January 2011**

**PERMIT ISSUE**

Prepared By:



PRINTED ON 100% RECYCLED PAPER

# PERMIT RENEWAL APPLICATION

## Avery County Transfer Station Avery County, North Carolina

Prepared for:



**Avery County**  
175 Linville Street  
Newland, North Carolina  
28657

To The Attention of:  
**Mr. Buddy Norris**  
Avery County

RSG Project No. **Avery-11-2**

### Applicant Certification

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that the information provided in this application is true, accurate, and complete to the best of my knowledge.*

*I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars (\$15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.*

Henry C. Norris, Jr. Director      Date      January 27, 2011  
Avery County Solid Waste Department

Jeryl W. Covington, P.E.  
Senior Engineer

Stacey A. Smith, P.E.  
Project Manager



**January 2011**

**RICHARDSON SMITH GARDNER**  
AN ASSOCIATED  
ENGINEERING & GEOLOGICAL  
SERVICES

PRINTED ON 100% RECYCLED PAPER

## EXECUTIVE SUMMARY

### GENERAL

The following is a Permit Application submitted on behalf of Avery County, North Carolina for the permit renewal of the transfer station at the County's facility located near Ingalls, NC (Permit 06-02T). This facility is an existing transfer station operation that was originally constructed in 1995. This permit application has been prepared to satisfy the requirements of Rule 15A NCAC 13B .0400 of the North Carolina Solid Waste Management Rules, the Solid Waste Management Act of 2007 (General Assembly Session Law 2007-550), and the North Carolina Department of Environment and Natural Resources Division of Waste Management's *Application Guidance For MSW Transfer Station* (dated 9-22-08).

### CONTACT INFORMATION

All correspondence and questions concerning the operation of the Avery County Solid Waste Management Facility should be directed to the appropriate County personnel listed below.

Avery County Solid Waste Department  
175 Linville Street  
Newland, NC 28657  
Phone: 828-737-5420  
Contact: Henry "Buddy" Norris  
[buddy.norris@averycountync.gov](mailto:buddy.norris@averycountync.gov)

### PROPERTY DESCRIPTION

The Transfer Station lies within site property of the current Avery County C&D landfill as described in the table below.

Deed Book	Page Number	Grantor	Grantee	Acreage
266	0646-0648	Allan Arbuthnot and wife, Marie W. Arbuthnot	Avery County, NC	78.115
440	2195-2196	Mark S. Lechler and wife, Brenda A. Lechler	Avery County, NC	1.27

The complete tract is approximately 80 acres which is accessed from Brushy Creek Road (SR1101). Legal descriptions for this property are included in **Attachment A**.

The solid waste management facility property is bounded on the south by Brushy Creek Road and to all other directions by private property. Access to the site is from Brushy Creek Road

which connects with Highway 19E to the west. Both of these roads serve as primary routes of waste transportation.

## **REGULATORY REFERENCES**

This submittal has been prepared in accordance with the requirements of the North Carolina Solid Waste Management Rules (15A NCAC 13B), applicable sections of Session Law 2007-550 (Solid Waste Management Act of 2007), *Guidelines for Preparation of Permit Applications for Transfer*, and the North Carolina Sedimentation Control Rules (15A NCAC 4), which are enforced by the Division of Waste Management (DWM) and the Division of Land Quality, respectively, of the North Carolina Department of Environment and Natural Resources (NCDENR). Included in this submittal are the following documents (*with applicable rule(s) in italics*):

Property Description (.0401 (3));  
Permit Description (0203);  
Operations Manual (13B.0402, 0542);  
FEMA Firm Map (.0401 (3));  
Erosion and Sedimentation Control Plan (13B.0540 and 15A NCAC 4);  
Permit Drawings (13B.0401 and 15A NCAC 4); and  
Financial Assurance [G.S. Article 9, Chapter 130A – 294(b2)].

## **APPLICATION REQUIREMENTS**

The following sections correspond with the permit application for a transfer facility as outlined in the North Carolina Solid Waste Facilities Rules. The site was originally developed and permitted in 1995 satisfying all siting and zoning requirements at that time. A copy of the current permit to operate (PTO) is provided in **Attachment B**. This application satisfies all elements that require update per the current regulations.

### **Site Plan and FEMA Map**

The site plan drawing was prepared by a professional engineer duly registered in the State of North Carolina previously permitted by Municipal Engineering Services and has been updated as **Figure 2** in the site operations manual below. The site features or the transfer station has not changed since that time. The current Flood Insurance Rate Map (FEMA Map) for the facility is provided in **Attachment C** and does not include any impact to floodplain areas.

### **Operations Manual**

The Operations Manual outlines and describes protocols for facility operations and maintenance and was prepared to provide on-site personnel with a clear understanding of how the Design Engineer assumed that the disposal facility should be operated. Along with the Permit Drawings, the Operations Manual has been prepared to comply with the

requirements of 15A NCAC 13B.0402 and 15A NCAC 13B .0542. In this application, the Operations Manual has been combined with the C&D landfill operation to simplify site operations that are currently in close proximity to each other. A copy of the Operations Manual is provided in **Attachment D**.

### **Erosion and Sedimentation Control Plan**

An Erosion and Sedimentation Control Plan outlines the measures to be taken during facility construction to minimize erosion and sediment runoff due to land disturbance. The erosion and sediment control structures are designed, and will be maintained, to manage the 24-hour and 25 year storm events. The Plan for the transfer station was originally submitted in 1995 with the application to comply with the requirements of 15A NCAC 13B.0540 and the Sediment Pollution Control Law 15A NCAC 4. No change has been made to this plan.

### **FINANCIAL ASSURANCE**

In accordance with the North Carolina General Statutes 130A-294(b2), financial assurance will be provided by Avery County in the form of a Financial Test submitted directly to the Department. A copy of the engineer's remedial cost estimate is referenced in **Attachment E**.

**Attachment A**

Legal Description

BK | PG  
2660646

FILED #

95 JAN 20 PM 3:14

THE H. T. BAKER  
REGISTER OF DEEDS  
AVERY COUNTY, N.C.

AVERY  
16

01-20-95



\$370.00

Real Estate  
Excise Tax

Excise Tax 370.00

Recording Time, Book and Page

Tax Lot No. .... Parcel Identifier No. ....

Verified by ..... County on the ..... day of ....., 19.....

by .....

NO Recording fee due to being County Work - Nonce Cook

Mail after recording to William B. Cocks, Jr., P.O. Box 606, Newland, NC 28657

This instrument was prepared by William B. Cocks, Jr., Attorney at Law

of description for the Index

78.115 acres, Toe River Tsp.

### NORTH CAROLINA GENERAL WARRANTY DEED

THIS DEED made this 20th day of January, 19 95, by and between

GRANTOR

GRANTEE

**ALLAN ARBUTHNOT and wife, MARIE W. ARBUTHNOT**

**AVERY COUNTY, NORTH CAROLINA**

Enter in appropriate block for each party: name, address, and, if appropriate, character of entity, e.g. corporation or partnership.

The designation Grantor and Grantee as used herein shall include said parties, their heirs, successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

KNOWESSETH, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in the City of ....., Toe River Township, Avery County, North Carolina and more particularly described as follows:

See attached Schedule A incorporated herein by reference.

~~Property Transfer and Sale~~  
Date 1-20-95 By CD

Taxes Paid Through  
7994  
By MSA Date 1/20/95

on or prior to March 31, 1995 and continue to use telephone  
and power services through and including March 31, 1995.

2660647

The property hereinabove described was acquired by Grantor by instrument recorded in Book 194, Page 882

A map showing the above described property is recorded in Plat Book ..... page.....

TO HAVE AND TO HOLD the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in fee simple.

And the Grantor covenants with the Grantee, that Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.

Title to the property hereinabove described is subject to the following exceptions:

- 1. Reservations set forth hereinabove.
- 2. Road right-of-way along Brushy Creek Road (NCSR 1101).

IN WITNESS WHEREOF, the Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

.....  
(Corporate Name)

By: .....

.....  
President

ATTEST: .....

.....  
Secretary (Corporate Seal)

USE BLACK INK ONLY

*Allan Arbuthnot* ..... (SEAL)

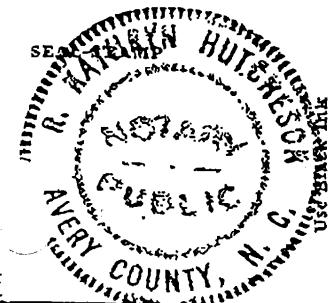
Allan Arbuthnot

*Marie W. Arbuthnot* ..... (SEAL)

Marie W. Arbuthnot

..... (SEAL)

..... (SEAL)



NORTH CAROLINA, ..... Avery ..... County.

I, a Notary Public of the County and State aforesaid, certify that Allan Arbuthnot and wife, Marie W. Arbuthnot Grantor,

personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 20th day of January, 1995

My commission expires August 21, 1998 *R. Kathryn Hutcheson* Notary Public

SEAL-STAMP

NORTH CAROLINA, ..... County.

I, a Notary Public of the County and State aforesaid, certify that .....

personally came before me this day and acknowledged that ..... he is ..... Secretary of

Use Black

... a North Carolina corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its President, sealed with its corporate seal and attested by ... as its Secretary. Witness my hand and official stamp or seal, this ... day of ..., 19...

My commission expires: ... Notary Public

The foregoing Certificate(s) of B. Kathryn Hutcherson - NP

is/are certified to be correct. This instrument and this certificate are duly registered at the date and time and in the Book and Page shown on the first page hereof.

Tamela T. Baker REGISTER OF DEEDS FOR Avery COUNTY  
By Rhonda Hallifield Deputy Assistant - Register of Deeds

2660648

## Schedule A

Warranty Deed from Allan Arbuthnot and wife, Marie W. Arbuthnot, to Avery County, North Carolina, dated January 20, 1995.

BEGINNING at a 38-inch chestnut oak at a fence corner in the Radcliff Estate line and running thence with the fence and the Radcliff Estate line the following courses and distances: South 64°35'40" West 573.94 feet to a fence post, South 12°06'40" East 375.32 feet to a 12-inch black gum, South 18°10'50" East 568.98 feet to a fence post, South 45°04'30" West 143.35 feet to a fence post, South 78°34'50" West 189.43 feet to an iron stake, and South 13°24'30" West 131.78 feet to a fence post on the north side of Brushy Creek Road (NCSR 1101); thence leaving the Radcliff Estate line and running with the north side of Brushy Creek Road the following courses and distances: South 64°33'40" West 104.40 feet, South 83°35'40" West 64.40 feet, South 89°00'10" West 169.77 feet, South 72°45'40" West 119.67 feet, South 63°53'20" West 71.48 feet, and South 39°08'00" West 72.72 feet to an iron found, corner of Roger Wise; thence leaving the north side of Brushy Creek Road and running with the Roger Wise line and a fence North 70°46'50" West 342.41 feet to an iron set, North 08°01'50" West 696.52 feet to an iron set, and North 85°50'30" West 345.15 feet to a 10-inch sourwood, corner of Uninin Corporation; thence leaving the Roger Wise line and running with the Uninin Corporation line and the fence North 23°22'50" West 334.16 feet to an 8-inch maple, North 08°35'50" East 242.08 feet to a triple maple, and North 02°56'30" West 1,024.41 feet to an iron set in the Radcliff Estate line; thence leaving the Uninin Corporation line and running with the Radcliff Estate line South 83°31'00" East 974.67 feet to a fence post and South 83°57'50" East 982.21 feet to an oak stump on the east side of a branch; thence with said branch and continuing with the Radcliff Estate line the following courses and distances: South 05°19'20" West 72.09 feet, South 23°17'00" East 214.78 feet, South 51°29'20" East 20.64 feet, South 12°55'30" West 84.42 feet, South 02°04'50" East 37.67 feet and South 07°31'30" East 183.99 feet to the point of beginning. Being two tracts containing 41.50 acres and 36.615 acres, respectively, containing in the aggregate 78.115 acres, as shown on a map of survey prepared by William E. Arrowood, RLS L-1510, dated August 12, 1988.

This conveyance is made subject to the following reservations:

1. Grantor shall have the right to remove the following, provided that the same are removed on or prior to January 20, 1996, to-wit: the two barns measuring 10 feet x 20 feet and 17 feet x 22 feet;
2. Grantor shall have the right to remove the following, provided that the same are removed on or prior to March 31, 1995, to-wit: all hemlock seedlings, boxwood shrubbery, and a total of 30 trees;



2009003925

AVERY CO, NC FEE \$17.00  
STATE OF NC REAL ESTATE EXT

\$36.00

PRESENTED & RECORDED  
08-28-2009 02:01:52 PM

TAMELA BAKER  
REGISTER OF DEEDS  
BY ERIN GRINDSTAFF  
DEPUTY

BK: RE 440  
PG: 2195-2196

# NORTH CAROLINA GENERAL WARRANTY DEED

Excise Tax \$36.00

Prepared by:  Harrison & Poore, P.A., PO Box 248, Spruce Pine NC 28777

Parcel Id Number: A 1.27 acre portion of 1821-00-17-7337

Brief Description: Altamont Township

THIS DEED made this the 31 day of July, 2009, by and between

## GRANTOR

MARK S. LECHLER and wife, BRENDA A. LECHLER

## GRANTEE

AVERY COUNTY, A Body Politic

Property Transfer Card Made

Date 08-29-09

By [Signature]

The designation Grantor and Grantee as used herein shall include said parties, their successors, and assigns, and shall include singular, plural, masculine, feminine or neuter as required by context.

**WITNESSETH**, that the Grantor, for a valuable consideration paid by the Grantee, the receipt of which is hereby acknowledged, has and by these presents does grant, bargain, sell and convey unto the Grantee in fee simple, all that certain lot or parcel of land situated in Altamont Township, Avery County, North Carolina and more particularly described as follows:

**BEGINNING** at an iron found located at the northwest corner of the property herein described, and further being located in the margin of an existing private road; thence N 09° 34' E 131.71 feet to a railroad spike set, a corner common with what is now or formerly Avery County; thence N 74° 02' E 189.85 feet to an iron set; thence N 40° 44' E 142.90 feet to an iron set, a corner common between the Grantor and Avery County; thence S 22° 32' E 189.13 feet to an iron set; thence S 22° 32' E 20.00 feet to a point in the centerline of an existing private road; thence with the center of the existing private road the following courses and distances: S 67° 57' W 149.02 feet, S 75° 29' W 177.57 feet, S 75° 29' W 50.54 feet; thence leaving the centerline N 49° 50' W 24.73 feet to the point of BEGINNING. Containing 1.27 acres and being the property described on the survey map by Michael M. Lacey, PLS No. L-1497, map dated 29 June 2009, map file no. 09-06-23-048.

**FURTHER BEING** a portion of the property of record in Book 400, Page 2518 of the Avery County Register of Deeds.

**ALSO CONVEYED HERewith** a joint non-exclusive easement and right of way over the existing private road which serves Altamont Acres which leads from U.S. Highway 221 to State Road 1101 (Brushy Creek Road).

2009  
A.P. 2 - 8-29-09

**SUBJECT TO** a 22 ½ foot wide joint non-exclusive road right of way easement crossing the above described property as shown on that map of record in Book 38, Page 148A of the Avery County Registry.

This property is conveyed subject to the following restrictions:

- 1. No mobile home, either single-wide or double-wide, shall be placed upon the said property.
- 2. Any modular home to be placed or constructed upon said property must be permanently affixed to the foundation. All residences placed or constructed on the property shall have wood floor joists and wood rafters. There shall be no steel in the foundation framework.

**GRANTORS HEREBY AGREE** that all other restrictions in that Deed of record in Book 400, Page 2518 of the Avery County Registry are hereby lifted and removed from this conveyance.

The property hereinabove described was acquired by the Grantor by instrument recorded in Deed Book 400, Page 2518.

A map showing the above described property is recorded in Plat Book \_\_\_\_, Page \_\_\_\_.

**TO HAVE AND TO HOLD** the aforesaid lot or parcel of land and all privileges and appurtenances thereto belonging to the Grantee in Fee Simple.

And the Grantor covenants with the Grantee that the Grantor is seized of the premises in fee simple, has the right to convey the same in fee simple, that title is marketable and free and clear of all encumbrances, and that the Grantor will warrant and defend the title against the lawful claims of all persons whomsoever except for the exceptions hereinafter stated.

Title to the property hereinabove described is subject to the following exceptions:

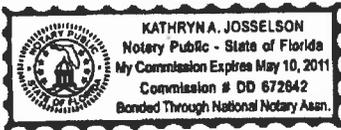
**IN WITNESS WHEREOF**, The Grantor has hereunto set his hand and seal, or if corporate, has caused this instrument to be signed in its corporate name by its duly authorized officers and its seal to be hereunto affixed by authority of its Board of Directors, the day and year first above written.

*Mark S. Lechler* (SEAL)  
 Mark S. Lechler  
*Brenda A. Lechler* (SEAL)  
 Brenda A. Lechler

STATE OF Florida  
 COUNTY OF Calder

I, a Notary Public of the County and State aforesaid, certify that, **Mark S. Lechler and Brenda A. Lechler**, Grantor(s), Personally appeared before me this day and acknowledged the execution of the foregoing instrument. Witness my hand and official stamp or seal, this 31 day of July 2009.

My Commission Expires: 5/10/11 \_\_\_\_\_  
 Notary Public *Kathryn A. Josselson*

SEAL-STAMP  Printed Name Kathryn A. Josselson

STATE OF NORTH CAROLINA  
COUNTY OF AVERY

SUBDIVISION APPROVAL

I, \_\_\_\_\_, REVIEW OFFICER OF AVERY  
COUNTY, CERTIFY THAT THE MAP OR PLAT TO WHICH  
THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY  
REQUIREMENTS FOR RECORDING.

DATE \_\_\_\_\_ ORDINANCE ADMINISTRATOR

DATE \_\_\_\_\_ REVIEW OFFICER

NOTES:

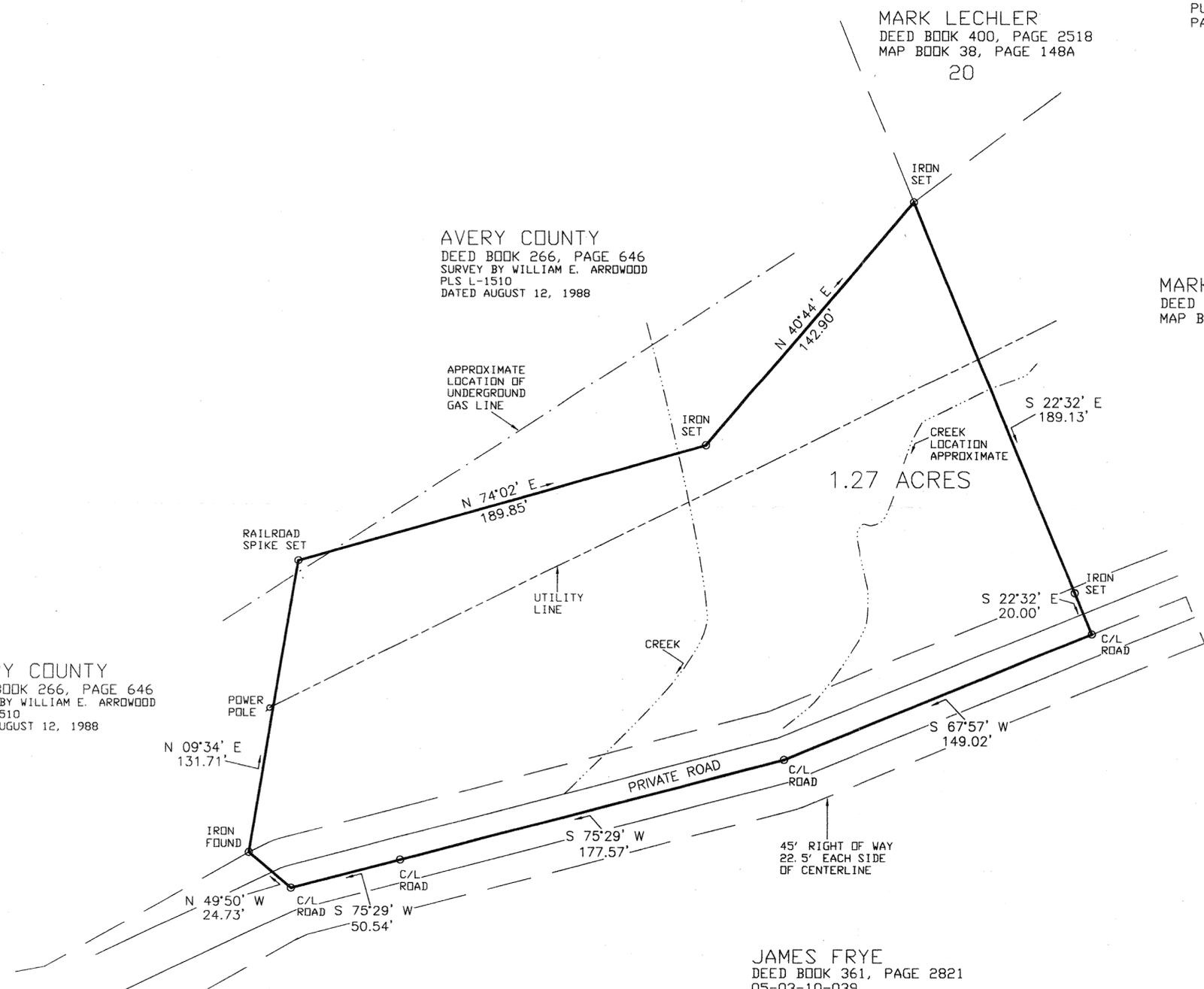
1. NORTH IS RELATIVE TO PREVIOUS SURVEY BY RUSSELL N. VOGEL, PLS L-3106, DATED AUGUST 2, 1999. MAP BOOK 38, PAGE 148A.
2. AREA CALCULATED BY COORDINATE GEOMETRY.
3. FIELD NOTES RECORDED IN FIELD BOOK 300, PAGES 6-7.
4. DEED REFERENCE: PORTION OF DEED BOOK 400, PAGE 2518.
5. THIS SURVEY CREATES A SUBDIVISION OF LAND IN AVERY COUNTY WHICH HAS AN ORDINANCE THAT REGULATES PARCELS OF LAND.
6. THE SUBJECT PROPERTY LIES IN FLOOD ZONE "X", (AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD PLAIN), AS BY THE FLOOD INSURANCE RATE MAP PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, COMMUNITY-PANEL NUMBER 370010 1821 J, DATED DECEMBER 2, 2008.

MARK LECHLER  
DEED BOOK 400, PAGE 2518  
MAP BOOK 38, PAGE 148A  
20

AVERY COUNTY  
DEED BOOK 266, PAGE 646  
SURVEY BY WILLIAM E. ARROWOOD  
PLS L-1510  
DATED AUGUST 12, 1988

MARK LECHLER  
DEED BOOK 400, PAGE 2518  
MAP BOOK 38, PAGE 148A  
15

AVERY COUNTY  
DEED BOOK 266, PAGE 646  
SURVEY BY WILLIAM E. ARROWOOD  
PLS L-1510  
DATED AUGUST 12, 1988



JAMES FRYE  
DEED BOOK 361, PAGE 2821  
05-03-10-039

I, MICHAEL M. LACEY, CERTIFY THAT THIS PLAT  
WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL  
SURVEY MADE UNDER MY SUPERVISION (DEED DE-  
SCRIPTION RECORDED IN BOOK 400, PAGE 2518  
ETC.) (OTHER); THAT THE BOUNDARIES NOT SURVEYED  
ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION  
FOUND IN BOOK 400, PAGE 2518; THAT THE RATIO OF  
PRECISION AS CALCULATED IS 1:100; THAT THIS  
PLAT WAS PREPARED IN ACCORDANCE WITH G. S. 47-30  
AS AMENDED. WITNESS MY ORIGINAL SIGNATURE,  
REGISTRATION NUMBER AND SEAL THIS 23rd DAY OF  
JUNE, A. D., 2009.



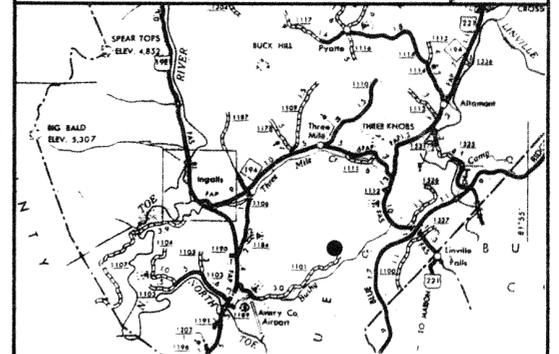
SEAL OR STAMP

*Michael M. Lacey*  
SURVEYOR

PLS L-1497  
REGISTRATION NUMBER

VICINITY MAP

● = SUBJECT PROPERTY  
NOT TO SCALE

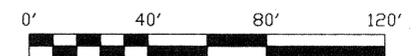


SURVEY PREPARED FOR:

**MARK S. LECHLER and wife  
BRENDA A. LECHLER**

TO BE CONVEYED TO:  
**AVERY COUNTY**

ALTAMONT TOWNSHIP  
AVERY COUNTY, NORTH CAROLINA  
JUNE 23, 2009



SCALE: 1" = 40'

**MICHAEL M. LACEY**

**PROFESSIONAL LAND SURVEYOR L-1497**

**125 PINEOLA STREET**

**NEWLAND, NORTH CAROLINA 28657**

09-06-23-048

## **Attachment B**

Permits



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor  
William G. Ross Jr., Secretary

January 27, 2006

Mr. Robert Wiseman  
P. O. Box 640  
Newland, NC 28657

Subject: Avery County Transfer Facility, Renewal of Permit # 06-02-T, Avery County

Dear Mr. Wiseman:

The Solid Waste Section hereby approves the renewal of the permit for the referenced transfer facility to allow the continued operation of the facility, in accordance with the approved construction plans.

Please note operational conditions outlined on pages three and four for the facility. The contact person for the Section for this facility is Ms. Deb Aja and she can be reached in our Asheville Regional Office at (828) 296-4702.

If you have any questions about this approval, please contact me at (919) 508-8498.

Sincerely,

James C. Coffey,  
Asheville Regional Engineer  
Solid Waste Section

cc: Deb Aja  
Wayne Sullivan, Municipal Engineering Services

1646 Mail Service Center, Raleigh, North Carolina 27699-1646  
Phone 919-508-8400 \ FAX 919-733-4810 \ Internet <http://wastenotnc.org>



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Dexter R. Matthews, Director

Division of Waste Management

Michael F. Easley, Governor  
William G. Ross Jr., Secretary

FACILITY PERMIT NUMBER 06-02-T  
Original Permit Issuance: 10/26/95  
Modification to Permit: 01/01/96  
Permit Issuance: 01/27/06

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

1646 Mail Service Center, Raleigh, NC 27699

**SOLID WASTE PERMIT**

**AVERY COUNTY**  
is hereby issued a  
**PERMIT TO OPERATE a**  
**TRANSFER FACILITY**

located on SR 1101, Avery County, North Carolina in accordance with Article 9, Chapter 130A of the General Statutes of North Carolina and all rules promulgated there under and subject to the conditions set forth in this permit. The facility is located and described by the legal description found in the approved plans and permit application.

Edward F. Mussler III  
CN = Edward F. Mussler III, C = US, O =  
Division of Waste Management, OU = Solid  
Waste Section  
I have reviewed this document and I am  
approving this document  
2006.01.27 15:16:58 -05'00'

Edward F. Mussler, III, P.E.,  
Permitting Branch Supervisor  
Solid Waste Section

1646 Mail Service Center, Raleigh, North Carolina 27699-1646  
Phone 919-508-8400 \ FAX 919-733-4810 \ Internet <http://wastenotnc.org>

An Equal Opportunity / Affirmative Action Employer - Printed on Dual Purpose Paper

## PERMIT TO OPERATE

### CONDITIONS OF PERMIT

#### GENERAL:

1. This facility is permitted to receive solid waste as defined in G.S. 130A-290(35), except that hazardous and liquid wastes are prohibited from acceptance at this facility.
2. This facility may receive solid waste that is generated within Avery County, North Carolina and shall transport that waste to the Bristol City Virginia Landfill.
3. This permit shall be subject to review in accordance with 15A NCAC 13B, Rule .0201(e) on or before January 27, 2011. On or before November 1, 2010, the owner shall submit a request for review and shall update pertinent facility plans including the facility operation and waste screening plans.

If the performance and compliance history of this facility is determined to have been satisfactory by a review by the Division, and no permit revisions are required, the Waste Management Specialist shall issue an approval to continue operation for five (5) additional years under the terms and conditions of this permit.

4. This permit is not transferable.

#### OPERATION:

5. This permit is for operation of the transfer facility in accordance with the approved plans as described in Attachment 1, "List of Approved Documents". Any revisions or modifications to these plans shall be approved by the NC Solid Waste Section.
6. All sedimentation and erosion control activities shall be conducted in accordance with the Sedimentation and Pollution Control Act, 15A NCAC 4, and all applicable permits shall be secured prior to construction.
7. Floor drains, leachate collection devices, sanitary sewer connections or leachate storage tanks for the collection and disposal of wash down water and leachate shall be operational. The tipping floor shall have positive drainage away from the building entrance and toward the sump in the loading pit or a trench drain shall be installed along the entrance to the tipping floor and connected to the leachate collection system.
8. Operation of the facility shall occur in accordance with 15A NCAC 13B .0402, "Operational Requirements for Transfer Facilities", and the approved operations plan

9. The owner or operator of a municipal solid waste management facility shall not knowingly dispose of any type or form of municipal solid waste that is generated within the boundaries of a unit of local government that by ordinance:
  - a. Prohibits generators or collectors of municipal solid waste from disposing of that type or form of municipal solid waste.
  - b. Requires generators or collectors of municipal solid waste to recycle that type or form of municipal solid waste.
10. This facility shall be operated in a manner which is consistent with the State solid waste management plan and with the solid waste management plans that have been adopted by those units of local government served by the facility and approved by the Section.
11. Waste shall not be stored on the "tipping floor" after operating hours. Waste can be stored in transfer trailers, at the facility with covers in place, after operating hours, but no longer than 48 hours.
12. The "tipping floor" and "transfer trailer loading area" shall be maintained in a clean, sanitary condition after operating hours in accordance with the approved Operational Plan and shall be cleaned at least daily.
13. On or before 1 August (or at an earlier date as requested by the Division) of each year, the owner or operator shall report to the NC Solid Waste Section, for the previous year beginning 1 July and ending 30 June, the amount by weight of the solid waste that was received at the facility and disposed of in a landfill, incinerated, or converted to fuel. To the maximum extent practicable, such reports shall indicate by weight the COUNTY of origin of all solid waste. The owner or operator shall transmit a copy of the report to the county in which the facility is located and to each county in which waste originated.

**ATTACHMENT 1**

**LIST OF APPROVED DOCUMENTS**

1. Avery County Transfer Station Operations Plan dated August 13, 2003.

# ***Town of Boone***



REC'D APR 24 2008

April 18, 2008

Mr. Stacey Smith  
Richardson, Smith, Gardner & Associates  
14 N Boylan Avenue  
Raleigh, NC 27603

Dear Mr. Smith:

I have received and reviewed the Industrial User Permit Application that Richardson Smith Gardner & Associates submitted on behalf of Avery County Transfer Station on April 17, 2008. It has been determined that Avery County Transfer Station Leachate may be discharged at the Jimmy Smith Wastewater Treatment Plant at this time in the amounts indicated in the application and by phone (maximum batch volume discussed by phone was 2500 gallons). Avery County Transfer Station will not require an industrial user permit at this time.

Any waste hauler that pumps the tank and brings it to the Jimmy Smith WWTP must first contact Rudy Broschinski, Plant Superintendent, to gain authorization to bring wastes to the plant in general. He can be reached at 828/268-6270. A-1 Appalachian Pumping Inc, the waste hauler indicated on the application, has already acquired authorization to bring wastewater to the WWTP and, therefore, may bring the Avery County Transfer Station Leachate to the facility.

If you have any questions or comments about this or other wastewater issues, please feel free to contact me by email at [karen.reece@townofboone.net](mailto:karen.reece@townofboone.net) or by phone at 828/268-6270.

Sincerely,

A handwritten signature in cursive script that reads "Karen W. Reece".

Karen W. Reece  
Pretreatment Coordinator

cc: Mr. Rudy Broschinski, Plant Superintendent

**Attachment C**

FEMA Map



**Attachment D**

Operations Plan

# **Operations Manual**

**Avery County Solid Waste Facility  
Ingalls, North Carolina  
C&D Landfill Permit No. 06-03  
Transfer Station Permit No. 06-02T**

Prepared for:



**Avery County**  
Newland, North Carolina

## **PERMIT ISSUE DOCUMENTS**

Revised January 2011



PRINTED ON 100% RECYCLED PAPER

# AVERY COUNTY SOLID WASTE FACILITY

## OPERATIONS MANUAL

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## SECTION 1.0 GENERAL FACILITY OPERATIONS

### 1.1 OVERVIEW

This Operations Manual was prepared for operations of the Avery County C&D Landfill (Permit No. 06-03) and Transfer Facility (Permit No. 06-02-T) located in Ingalls, North Carolina as shown in **Figure 1**. These areas are collectively referred to as the “solid waste management facility”. This document discusses the operation of the following solid waste management activities:

- C&D landfill;
- Mobile home deconstruction area;
- White Goods Area;
- Recycling Recovery Areas; and
- Transfer facility.

Refer to **Figure 2** (Facility Plan) for the location of existing solid waste management and disposal activities.

### 1.2 CONTACT INFORMATION

All correspondence and questions concerning the operation of the Avery County Solid Waste Management Facility should be directed to the appropriate County and State personnel listed below. For fire or police emergencies dial 911.

#### 1.2.1 Avery County

Avery County Landfill ( Site and Scale house)  
2175 Brushy Creek Road  
Ingalls, NC 28657

Avery County Solid Waste Department (Office)  
175 Linville Street  
Newland, NC 28657  
Phone: 828-737-5420  
Contact: Henry “Buddy” Norris  
[buddy.norris@averycountync.gov](mailto:buddy.norris@averycountync.gov)

#### 1.2.2 North Carolina Department of Environment and Natural Resources

North Carolina DENR - Raleigh Central Office (RCO)  
401 Oberlin Road, Suite 150  
Raleigh, NC 27605  
Phone: (919) 508-8400  
Fax: (919) 715-3605

North Carolina DENR - Asheville Regional Office (ARO)  
2090 U.S. Highway 70  
Swannanoa, NC 28778  
Phone: (828) 296-4500  
Fax: (828) 299-7043

Division of Waste Management (DWM) - Solid Waste Section:

Permitting Branch Head	Ed Mussler III, P.E.(RCO) <a href="mailto:ed.mussler@ncdenr.gov">ed.mussler@ncdenr.gov</a>
Environmental Engineer	Allen Gaither (ARO) <a href="mailto:allen.gaither@ncdenr.gov">allen.gaither@ncdenr.gov</a>
Field Operations Branch Head:	Mark Poindexter (RCO) <a href="mailto:mark.poindexter@ncdenr.gov">mark.poindexter@ncdenr.gov</a>
Waste Management Specialist:	Bill Wagner (ARO) <a href="mailto:bill.wagner@ncdenr.gov">bill.wagner@ncdenr.gov</a>

Division of Land Resources - Land Quality Section:

Regional Engineer:	Starr Silvis, P.E. (ARO) <a href="mailto:starr.silvis@ncdenr.gov">starr.silvis@ncdenr.gov</a>
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### **1.3 ACCESS CONTROL**

Limiting access to the solid waste management facility is important for the following reasons:

- Unauthorized and illegal dumping of waste materials is prevented.
- Trespassing, and injury resulting therefrom, is avoided and discouraged.
- The risk of vandalism is greatly reduced.

Access to active areas of the waste disposal, recycling recovery areas, and transfer station will be controlled by a combination of fences and natural barriers, signage and traffic barriers, and strictly enforced operating hours. A scale house attendant will be on duty at all times when the facility is open for public use to enforce access restrictions and conduct initial waste screening activities. Visitors to the facility will be requested to check-in at the scale house and are required to remain with site personnel during their visit to ensure their safety.

#### **1.3.1 Physical Restraints**

The site will be primarily accessed by the existing entrance on Brushy Creek Road. The primary entrance has a gate which will be securely locked during non-operating hours. Scales, and a scale house and office are provided at the main entrance. All waste will be initially screened and weighed at the scale house prior to being placed in the landfill or directed to the recycling recovery area or the transfer station facility. Mobile homes scheduled for deconstruction will not be weighed but directed to the mobile home deconstruction area.

### **1.3.2 Security**

The Avery County solid waste management facility is secured by fencing, security gates, and natural buffers. Inspections of gates and perimeter fencing will be performed by facility personnel on a weekly basis. The County will arrange for a random security patrol of the main gate to further discourage trespassing, vandalism, and after-hours illegal disposal activities. Evidence of trespassing, vandalism, or illegal operations will be reported to the County Solid Waste Director in order to coordinate the repair or replacement of the damaged property and to ensure the integrity of the facility's security.

## **1.4 SIGNAGE**

A prominent sign(s) containing the information required by the DWM will be placed at the main facility entrance. This sign(s) will provide information addressing operating hours, procedures, acceptable wastes, as well as each permit number. Additional signage will be provided as necessary within the waste disposal and transfer area complex to distinctly distinguish the roadways to the active waste disposal and transfer areas, manage and direct traffic, communicate posted speed limits, identify groundwater and gas monitoring wells, and define waste boundaries. Service and maintenance roads for use by operations personnel will be clearly marked and barriers (e.g., traffic cones, barrels, etc.) will be provided as required.. Site personnel will routinely inspect the conditions of the posted signage to ensure that they are clearly visible and intact. Damaged or missing signage will be replaced.

## **1.5 COMMUNICATIONS**

Two way radio or cell phone communication will be maintained between the active disposal and transfer areas and the scale house and office. The scale house and office have telephones in case of emergency and for the conduct of day-to-day business. Emergency telephone numbers are displayed in the scale house and office areas.

## **1.6 FACILITY OPERATING HOURS**

The Avery County facility has daily operating hours of 6:00 A.M. to 8:00 P.M. Monday to Saturday. Waste disposal activities will be conducted between 8:00 A.M. to 4:00 P.M. Monday to Friday and 9:00 A.M. to 1:00 P.M. on Saturday. The facility will be closed on Sunday and most recognized County holidays.

In the event of disaster or other emergency situations, the supervisor will request approval from the commission's regional office to allow additional temporary operating hours during these events.

## 1.7 FIRE AND SAFETY

The possibility of fire at the C&D landfill and transfer station facility must be anticipated in the scope of daily operations. Potential fire hazards results from surface conditions and subsurface conditions. Surface conditions include waste receipts and equipment operations. Subsurface conditions include underground fires caused by decomposition of the C&D materials previously landfilled. Smoking is prohibited inside the transfer station building or on the working face of the landfill..

### 1.7.1 Fire Triangle

The “triangle” illustrates the rule that in order to ignite and burn, a fire requires three (3) elements: heat, fuel, and oxygen. A fire is prevented or extinguished by “removing” any one of them. A fire naturally occurs when the elements are combined in the right mixture (e.g., more heat needed for igniting some fuels, unless there is concentrated oxygen). These principles are integral in the prevention and management of potential fire situations.



### 1.7.2 Equipment Safety

A combination of factory installed fire suppression systems and/or portable fire extinguishers will be operational on all pieces of heavy equipment at all times. Potential fire hazards at both the landfill and the transfer station are created from the build-up of fine, dry dust particles on and around operational motors and control panels. The presence of these build-ups can cause overheating and potential fire if periodic equipment cleaning and maintenance are not practiced.

Sources of fire at the transfer station facility can result from ‘hot’ loads or combustible materials being discharged within the facility, the build-up of fine particulates inside the facility, or from the mixing of incompatible materials during the transfer procedures.

Portable fire extinguishers should be maintained in a state of readiness at the screen location and on each piece of moving equipment and equipment should be cleaned periodically. Staff shall be periodically trained on the proper utilization of the fire extinguishers. The fire extinguishers are checked on a regular basis to ensure their utilization. The date of the units’ inspections is document on each tag.

### 1.7.3 Fire Management Strategies

Each fire situation is site/event specific; however, general strategies for active fire management include, but is not limited to the following (in no particular order):

- Accelerated high temperature combustion (displacing fuel);
- Covering of the landfill burn area with soil (reduce oxygen);
- Covering of the burn area with foams (reduce oxygen);

- Flooding the burn area with water (reduce heat);
- Injecting an inert gas such as CO<sub>2</sub> (reduce oxygen); and
- Excavating the burning material (displacing fuel) and then extinguishing it in small controlled areas.

#### **1.7.4 Coordination**

A copy of the site Operations Manual shall be filed with the local fire department including all contact information for the facility.

The occurrence of fire will be reported verbally to the Waste Management Specialist staff member of DWM within 24 hours. Subsequent written notification will be provided to DWM within 15 days of the event utilizing the NC DENR-DWM *Fire Occurrence Notification* form provided in **Appendix C**.

### **1.8 LITTER CONTROL**

The vegetative trees/bushes act as a barrier to keep litter contained within the site boundaries. Staff and operators pick up litter in and around the site on a daily basis and respond to weather and heavy wind conditions that may compromise the appearance of the property. The litter control crew picks up litter outside the site and on access roads each weekday.

Customers are encouraged to contain and cover all waste within their vehicles/trailers prior to entering the facility in an effort to reduce litter. Any load that is not secured in a manner that would prevent material from leaving the vehicle while it is in motion is subject to an additional fee. Trailers are encouraged to be covered by heavy tarp lids to minimize litter and reduce the potential for the entrance of vectors into the disposal operations.

### **1.9 SEVERE WEATHER CONDITIONS**

Inclement weather conditions can directly affect the operation of the landfill and transfer station facility. Some of these weather conditions and recommended operational responses are as follows.

#### **1.9.1 Ice Storms**

An ice storm can make access to the facility and disposal locations dangerous, prevent movement or placement of cover soil, and, thus, may require closure of the landfill until the ice is removed or has melted. The determination to discontinue activities due to inclement weather conditions will be made by the Site Manager.

### **1.9.2 Heavy Rains**

Rainy periods can create a muddy situation in areas of exposed soil surfaces. The control of drainage and use of crushed stone on unpaved roads should provide adequate all weather access for the site and promote drainage away from critical areas. In areas where the aggregate surface is washed away or otherwise damaged, new aggregate should be used for repair.

Intense rains can affect newly constructed drainage structures such as swales, diversions, cover soils, and vegetation. After such a rain event, inspection by site personnel will be initiated and corrective measures taken to repair any damage found before the next rainfall.

### **1.9.3 Electrical Storms**

Employees working on heavy equipment and open areas of the landfill and recovery areas are susceptible to the hazards of an electrical storm. If necessary, disposal and recovery activities will be temporarily suspended during such an event. To guarantee the safety of all field personnel, refuge will be taken in the on-site buildings or in rubber-tired vehicles.

### **1.9.4 Windy Conditions**

Landfill operations during a particularly windy period may require that the working face be temporarily shifted to a more sheltered area. When this is done, the previously exposed face will be immediately covered with soil.

Transfer stations activities conducted during wind events may result in waste escaping the confines of the building and tunnel areas. Results of such weather events may result in the halting of the processing activities until waste can be contained.

### **1.9.5 Violent Storms**

In the event of hurricane, tornado, or severe winter storm warning issued by the National Weather Service, disposal and processing operations may be temporarily suspended until the warning is lifted. Cover will be placed on exposed waste and buildings and equipment will be properly secured.

## **1.10 EQUIPMENT REQUIREMENTS**

The County will maintain on-site equipment required to perform the necessary landfill and transfer station activities (see **Section 2.5.5 Equipment Requirements**). Periodic maintenance of all equipment, and minor and major repair work will be performed at designated maintenance zones outside of the facility.

## 1.11 PERSONNEL REQUIREMENTS

At least one member of the supervisory staff will be certified as a Manager of Landfill Operations (MOLO) by the Solid Waste Association of North America (SWANA) or other NCDENR approved training program. Each employee will go through an annual training course (led by supervisory staff) and is certified as Landfill Operations personnel. As part of this training, personnel will learn to recognize loads which may contain prohibited wastes, address emergency events, and review general operating procedures and requirements. The personnel requirements for the operation and maintenance of the site are listed in **Section 2.5.4 Personnel Requirements**.

*Future requirements to be certified as a Manager of Transfer Station Systems or Transfer Station Operations Specialist are on the horizon and if this certification becomes a requirement, supervisory staff shall comply.*

## 1.12 HEALTH AND SAFETY

All aspects of the solid waste facility operations were developed with the health and safety of the operating staff, customers, and neighbors in mind. Prior to commencement of operations at the facility, a member of the operating staff will be designated the site's safety officer. This individual, together with the facility's management will modify the site's safety and emergency response program to ensure consistency with the Occupational Safety and Health Administration (OSHA) guidance.

Safety equipment provided on-site includes equipment rollover protective cabs, seat belts, audible reverse warning devices, hard hats, safety shoes, and first aid kits. Weekly safety meetings are conducted at the facility to promote a safe workplace. Facility personnel will be encouraged to complete the American Red Cross Basic First Aid Course. Other safety requirements as designated by the Owner will also be implemented.

Each facility employee will go through annual training course in health and safety (led by supervisory staff). All training shall be documented and attested to by signatures of the trainer and trainee. The following are some general recommendations for the health and safety of workers at the Avery County facility.

### 1.12.1 Personal Hygiene

The following items are recommended as a minimum of practice:

- Wash hands before eating, drinking, or smoking.
- Wear personal protective equipment as described in **Section 1.12.2**.
- Wash, disinfect, and bandage ANY cut, no matter how small it is. Any break in the skin can become a source of infection.
- Keep fingernails closely trimmed and clean (dirty nails can harbor pathogens).

### **1.12.2 Personal Protective Equipment**

Personal Protective Equipment (PPE) must be evaluated as to the level of protection necessary for particular operating conditions and then made available to facility employees. The list below includes the PPE typically used and/or required in a solid waste management facility workplace.

- Safety shoes with steel toes.
- Noise reduction protection should be used in areas where extended exposure to continuous high decibel levels are expected.
- Disposable rubber latex or chemical resistant gloves for handling and/or sampling of waste materials.
- Dust filter masks.
- Portable eyewash.
- Safety goggles.
- Safety vests.

Following use, PPE's should be disposed of or adequately cleaned, dried, or readied for reuse.

### **1.12.3 Mechanical Equipment Hazard Prevention**

The loaders and other equipment should be operated with care and caution. Due to the nature of the disposal activities, spotters will regularly commingle with the heavy equipment and passenger vehicles. All safety apparel, equipment such as horns, backup alarms, and lights should worn at all times and be functional. A Lockout-Tagout program shall be used to identify equipment in need or under repair and insure that operation is "off-limits" prior to maintenance or repair. All operators shall be trained in the proper operation of equipment.

### **1.12.4 Employee Health and Safety**

Some general safety rules are:

- Consider safety first when planning and conducting activities.
- Review the equipment manual prior to attempting repairs/changes.
- Remember the buddy system in case of repair of mechanical equipment
- Post emergency contact phone numbers.
- Provide easy and visible access to the Right to Know materials.
- Provide easy and visible access to the first aid kit and fire extinguishers.

### **1.12.5 Physical Exposure**

Facility personnel may come in contact with the fluids, solids, and airborne constituents found at the transfer station and the landfill operations. Routine training should be conducted regarding individual and collective materials and their associated hazards. Training concerning safe workplace practices around these potential exposures should instruct employees on the proper usage of equipment and proper disposal procedures.

### **1.12.6 Material Safety Data Sheets**

Material Safety Data Sheets (MSDS) shall be collected on every waste (if available) that enters the facility. Information shall also be made available for all chemicals stored on site for use by the facility. MSDS sheets shall be stored in a location with all other Right to Know information for the site

## **1.13 UTILITIES**

Electrical power, water, and telephones are available and provided at the scale house, office, transfer station and restrooms.

## **1.14 RECORD KEEPING PROGRAM**

The County will maintain the following records in an operating record at the solid waste management facility:

- A. Waste inspection records (see **Section 2.4 Waste Screening Program**);
- B. Daily tonnage records - including source of generation;
- C. Waste determination records;
- D. Quantity, location of disposal, generator, and special handling procedures for all special wastes disposed of at the site;
- E. List of generators and haulers that have attempted to dispose of restricted wastes;
- F. Employee training procedures and records of training completed;
- G. Documentation of cell activation;
- H. Documentation of mobile home deconstruction (see **Appendix B**)
- I. Gas monitoring results and remediation measures as required (see **Section 3.4 Landfill Gas Management**);
- J. All ground water monitoring and surface water quality information (See the current **Water Quality Monitoring Plan**) including:
  - 1. Monitoring well construction records;
  - 2. Sampling dates and results;
  - 3. Statistical analyses; and
  - 4. Results of inspections, repairs, etc.
- K. Annual waste reports for the landfill, the transfer station, and recovery operations;
- L. All closure and post-closure information, where applicable, including:
  - 1. Testing;
  - 2. Certification; and
  - 3. Recording.

- M. Cost estimates or financial assurance documentation.
- N. OSHA 300 logs.
- O. Leachate disposal records.

The operating record will be kept up to date by the Solid Waste Director or his designee. It will be presented upon request to the DWM for inspection. A copy of this Operations Manual will be kept at the solid waste management facility and will be available for use at all times.

## SECTION 2.0 WASTE HANDLING OPERATIONS

### 2.1 OVERVIEW

This section describes the required waste handling operations for the Avery County C&D landfill (permit number 06-03), the mobile home deconstruction area, the solid waste transfer station facility (permit number 06-02-T), and the recycling recovery areas.

On or before August 1 of every year (or at an earlier date as requested by the Division), the owner or operator shall report to the NC DWM Section, for the previous year beginning 1 July and ending 30 June, the amount by weight of the solid waste that was received at the facility and disposed of in the landfill. To the maximum extent practicable, such reports shall indicate by weight the COUNTY of origin of all solid waste. The owner or operator shall transmit a copy of the report to the county in which the facility is located and to each county in which waste originated.

### 2.2 ACCEPTABLE WASTES

#### 2.2.1 C&D Landfill

The Avery County C&D landfill only accepts wastes generated from within the approved service area (see **Section 2.5.2**). C&D waste is landfilled on-site within the waste disposal permitted boundaries. The acceptance of C&D waste materials must satisfy the following definitions. (List is in accordance with existing permit):

- Land Clearing and Inert Debris: as defined in 15A NCAC 13B.0101(22) means a facility for the disposal of land-clearing waste, concrete, brick, concrete block, uncontaminated soil, gravel and rock, untreated and unpainted wood, and yard trash.
- Land Clearing Waste: as defined in 15A NCAC 13B.0101(23) means solid waste which is generated solely from land-clearing activities, limited to stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.
- Asphalt: in accordance with NCGS 130A-294(m).
- Construction and Demolition Debris: as defined in NCGS 130A-290(a)(4) means solid waste resulting solely from construction, remodeling, repair, or demolition operations on pavement, buildings, or other structures, but does not include inert debris, land-clearing debris, or yard debris.
- Other Wastes as Approved by the Solid Waste Section of the Division of Waste Management.

#### 2.2.2 Transfer Station

The Avery County transfer station only accepts waste that is generated from the approved service area (see **Section 2.5.2**), is consistent with the North Carolina solid waste

regulations and the general conditions established in the operating permit. The acceptance of waste materials must satisfy the following definitions:

- Municipal solid waste as defined by the North Carolina General Statutes 130A-290(a)(18a) means any solid waste resulting from the operation of residential, commercial, industrial, governmental, or institutional establishments that would normally be collected, processed, and disposed of through a public or private solid waste management service. Municipal solid waste does not include hazardous waste, sludge, industrial waste managed in a solid waste management facility owned and operated by the generator of the industrial waste for management of that waste, or solid waste from mining or agricultural operations.
- Solid waste as defined by the North Carolina General Statutes 130A-290(a)(35) means any hazardous or nonhazardous garbage, refuse or sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, domestic sewage and sludges generated by the treatment thereof in sanitary sewage collection, treatment and disposal systems, and other material that is either discarded or is being accumulated, stored or treated prior to being discarded, or has served its original intended use and is generally discarded, including solid, liquid, semisolid or contained gaseous material resulting from industrial, institutional, commercial and agricultural operations, and from community activities.

### **2.2.3 Recycling Recovery Areas**

Only the following wastes may be received at the facility recycling area or as separated in the landfill or transfer area(s):

- White goods;
- Whole Scrap Tires;
- Pallets (damaged and un-damaged);
- Glass;
- Brick and block (undamaged and un-painted); and
- Metal (ferrous and non-ferrous).

### **2.2.4 Mobile Home Deconstruction Area**

Mobile homes are staged, deconstructed, and recycled on-site in accordance with the deconstruction procedures. In addition, waste from the deconstruction of mobile homes described in **Section 2.7 Deconstruction of Mobile Homes**

## 2.2.5 Asbestos Waste Disposal

Special wastes (regulated asbestos only) described in **Section 2.6.4 Special Waste Management** may also be disposed of in the C&D landfill unit. Regulated asbestos-containing material (RACM) means:

- (a) Friable asbestos material;
- (b) Category I nonfriable ACM that has become friable;
- (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; or
- (d) Category II nonfriable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations regulated by this subpart.

Asbestos containing materials are further defined as:

- Category I nonfriable asbestos-containing material (ACM) means asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy.
- Category II nonfriable ACM means any material, excluding Category I nonfriable ACM, containing more than 1 percent asbestos as determined using the methods specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.
- Nonfriable asbestos-containing material means any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763, section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. *This material is non-regulated.*

## 2.3 PROHIBITED WASTES

### 2.3.1 C&D Landfill Unit

Only wastes as defined in **Section 2.2.1** above may be accepted for disposal in the C&D landfill unit. Prohibited wastes include waste exclusions listed in 15A NCAC 13B 0.0542 as follows:

- Wastewater treatment sludge. Wastewater treatment sludge may be accepted, with the approval of the DWM, for utilization as a soil conditioner and incorporated into or applied onto the vegetative soil layer component of the final cover system. In this case, the sludge will be applied at no greater than agronomic rates and to a maximum depth of six inches.
- Containers such as tubes, drums, barrels, tanks, cans, and bottles unless they are empty and perforated to ensure that no liquid, hazardous, or municipal solid waste is contained therein;
- Garbage as defined in G.S. 130A-290(a)(7);
- Hazardous waste as defined in G.S. 130A-290(a)(8), to also include hazardous waste from conditionally exempt small quantity generators;
- Industrial solid waste unless a demonstration has been made and approved by the DWM that the landfill meets the requirements of Rule .0503(2)(d)(ii)(A);
- Liquid wastes;
- Medical waste as defined in G.S. 130A-290(a)(18);
- Municipal solid waste as defined in G.S. 130A-290(a)(18a);
- Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761;
- Radioactive waste as defined in G.S. 104E-5(14);
- Septage as defined in G.S. 130A-290(a)(32);
- Sludge as defined in G.S. 130A-290(a)(34);
- Special wastes as defined in G.S. 130A-290(a)(40);
- White goods as defined in G.S. 130A-290(a)(44); and
- Yard trash as defined in G.S. 130A-290(a)(45).

The following wastes cannot be received if separate from C&D waste:

- lamps or bulbs including but not limited to halogen, incandescent, neon or fluorescent;
- lighting ballast or fixtures;
- thermostats and light switches;
- batteries including but not limited to those from exit and emergency lights and smoke detectors;
- lead pipes;
- lead roof flashing;
- transformers;
- capacitors; and
- copper chrome arsenate (CCA) and creosote treated woods.

Waste accepted for disposal in the C&D landfill unit must be readily identifiable as C&D waste and must not have been shredded, pulverized, or processed to such an extent that the composition of the original waste cannot be readily ascertained except as specified as follows:

- C&D waste that has been shredded, pulverized, or otherwise processed may be accepted for disposal from a facility that has received a permit from an authorized regulatory authority which specifies such activities are inspected by the authority, and whose primary purpose is recycling and reuse of the C&D material. For this case, a waste screening plan and waste acceptance plan will be prepared and made available to the DWM upon request.

The County shall not dispose of C&D waste that is known to be generated within the boundaries of a unit of local government that by ordinance:

- (A) Prohibits generators or collectors of C&D waste from disposing that type or form of C&D waste.
- (B) Requires generators or collectors of C&D waste to recycle that type or form of C&D waste.

### **2.3.2 Transfer Station**

Only wastes as defined in **Section 2.2.2** above may be accepted in the transfer station. No other wastes may be accepted including the following wastes, otherwise considered under NC Landfill Bans (G.S. 130A-309.10):

- Whole Scrap Tires (Except as diverted to the recovery area);
- Used Oil;
- White Goods (Except as diverted to the recovery area);
- Lead Acid Batteries;
- Yard Waste;
- Construction and Demolition Debris (C&D) (Except as allowed in the C&D landfill);
- Discarded computer equipment and televisions;
- Oyster Shells;
- Rigid plastic containers;
- Aluminum Cans;

In addition, operating criteria prohibit other materials from receipt within the transfer station. These materials include:

- Hazardous waste as defined by NC General Statute 130A-290 (a) (8), including hazardous waste from conditionally exempt small quantity generators.
- Polychlorinated biphenyls (PCB) wastes as defined in 40 CFR 761 with the exception of trace amounts found in materials such as consumer electronics.
- Bulk or non-containerized liquid wastes unless the waste is household waste other than septic waste and waste oil. A liquid determination will be performed by the paint filter test.
- Containers holding liquid wastes unless the waste is household waste.

### **2.3.3 Recycling Area**

Only wastes, as defined in **Section 2.2.3** above may be accepted in the Recycling and Recovery Areas. No asbestos containing wastes will be accepted.

## **2.4 WASTE SCREENING PROGRAMS**

In order to assure that prohibited wastes are not entering the site, waste screening procedures have been developed and implemented at the facility. Waste received at the scale house entrance, discharged onto the transfer station floor, taken to the mobile home deconstruction area, recovery areas, or working face of the C&D landfill is inspected by trained personnel. These individuals have been trained to spot indications of suspicious or prohibited materials, including: hazardous placarding or markings, liquids, powders or dusts, sludges, bright or unusual colors, drums or commercial size containers, smoke, flames, and “burnt” or “chemical” odors. Screening programs for visual and olfactory characteristics of prohibited wastes are an ongoing part of the facility’s inspection program.

### **2.4.1 Waste Receiving and Inspection**

All vehicles must stop at the scale house located at the main entrance of the facility and each visitor to the facility is required to sign-in. All waste transportation vehicles are weighed and the content of the load assessed. The scale attendant(s) requests from the driver of the vehicle a description and origin of the waste it is carrying to ensure that unacceptable waste is not allowed into the site and that the source of generation is compatible with each operations’ service area. The attendant(s) then visually checks the vehicle as it crosses the scale. Signs informing users of the acceptable and unacceptable

types of waste are posted at the scale house. Once passing the scales, the vehicles are routed to the C&D landfill, the transfer station, the mobile home deconstruction area, or recovery area, as appropriate.

Vehicles are randomly selected for screening on a regular basis, depending on personnel availability. Site personnel will ensure that each waste stream received at the site is equitably inspected. At least one vehicle per week, but not less than 1% by weight of the waste stream entering the facility (based on the previous week's total), will be randomly selected by inspection personnel. A random truck number and time will be selected (e.g., the tenth load after 10:00 a.m.) on the day of inspections. However, the scale house attendant has the discretion to recommend further inspection of any load suspected to contain prohibited materials.

Vehicles selected for inspection are directed to the inspection area located inside the transfer station or to an area of intermediate cover adjacent to the working face of the landfill, as appropriate. The vehicle is unloaded and the waste is carefully spread using suitable equipment. An attendant trained to identify prohibited materials is outfitted in appropriate personnel protection equipment and initiates waste screening activities by physically entering the discharged materials and visually evaluating the waste stream. If unacceptable waste is found, including wastes generated from outside of the service area, the load will be isolated from other waste receipts and secured within the transfer station or bermed from the landfill. For unacceptable wastes that are non-hazardous, the Solid Waste Director will then notify the Waste Management Specialist of the DWM (see **Section 1.2.2**) within 24 hours of attempted disposal of any waste the facility is not permitted to receive in order to determine the proper course of action. In most cases, the transporter will be responsible for the removal of the non-hazardous, unacceptable materials. For unacceptable wastes that are hazardous, the Hazardous Waste Contingency Plan outlined in **Section 2.4.2** will be followed. The hauler is responsible for removing unacceptable waste from the facility.

If no unacceptable material is found, the load will be commingle with other waste receipts and processed through the transfer station or pushed into the working face and incorporated into the waste cell. All random waste inspections will be documented by staff using the waste screening forms provided in **Appendix A**.

In addition to the random waste screening described above, waste unloaded onto the transfer station floor or into the active face of the landfill will be inspected by the

equipment operators, trained to spot unacceptable wastes, before and during the processing, spreading, or compaction operations. Any suspicious looking waste is reported immediately to the designated primary inspector for further evaluation.

## **2.4.2 Hazardous Waste Contingency Plan**

In the event that identifiable hazardous waste or waste of questionable character is detected at the transfer station or the landfill, appropriately trained personnel, equipment, protective gear, and necessary emergency response materials will be employed to isolate the wastes. The Waste Management Specialist of the DWM will be notified immediately (see **Section 1.2.2**) that an attempt was made to dispose of hazardous waste at the facility. If the vehicle attempting disposal of such waste is known, all attempts will be made to prevent that vehicle from leaving the site or, if the vehicle has left the site, immediate notice will be served on the owner of the vehicle that hazardous waste, for which they have responsibility, has been disposed of at the transfer station or the landfill.

The County will assist the DWM as necessary and appropriate in the removal and disposition of the hazardous waste and in the prosecution of responsible parties. If needed, the hazardous waste will be covered with either on-site soils or other tarping material until such time when an appropriate method can be implemented to properly handle the removal of the waste. The cost of the removal and disposing of the hazardous waste will be charged to the owner of the vehicle involved. Any vehicle owner or operator who knowingly dumps hazardous waste at the facility may be barred from future disposal services.

Should an incident of hazardous waste discovery occur at the transfer station or the landfill, the event will be documented by staff using the waste screening form provided in **Appendix A**.

Records of information gathered as part of the waste screening programs will be maintained at the site during its active life and as long as required by the County and the DWM.

## **2.5 FACILITY OPERATIONS**

### **2.5.1 Operating Capacity**

The operating capacity for the solid waste facility is estimated to be approximately 15,000 tons per year (~50 tons per day based on a 312 operating days per year) for the transfer station, 10,000 tons per year of C&D waste, and an allowance of up to two mobile homes on-site at one time for deconstruction purpose.

### **2.5.2 Service Area**

The service area for the facility includes both North Carolina and Tennessee counties as follows and as shown in **Figure 3**.

North Carolina counties: Avery County, Burke County, Caldwell County, McDowell County, Mitchell County, and Watauga County.

Tennessee counties: Carter County, Johnson County, and Unicoi County.

### **2.5.3 Disposal Facility**

The anticipated disposal facilities for the transfer station (subject to change) includes the following facilities:

1. Bristol Integrated Waste Management Facility, Bristol, VA - Permit No. 588
2. Iris Glen Environmental Center, Johnson City, TN - Permit No. SNL-901040262
3. Caldwell County Foothills Landfill, Lenoir, NC - Permit No. 14-03  
(*NC Originated Wastes Only*)

In the event that new disposal facility agreements are negotiated other than the list (above), the facility will provide a notice to the Division of Waste Management within 30 calendar days and a permit modification may be required.

### **2.5.4 Personnel Requirements**

The personnel requirements for operation and maintenance of the site are listed in the following table. Augmentations to this listing of on-site personnel will occur as needed.

<b>Description</b>	<b>Primary Function (Allocation)</b>
1) Site Manager (1)	Overall management of the facility
2) Scale house Attendant (1)	Receiving and weight for incoming loads
3) Operators (2)	Management of transfer station and the landfill areas.
4) Labor (1)	General labor and operational staff around the site

### **2.5.5 Equipment Requirements**

The anticipated equipment requirements for operation and maintenance of the site are listed in the following table.

<b>Description</b>	<b>Primary Function (Allocation)</b>
1) Dozer (1)	C&D operations, soil cover loading, and site maintenance
2) Solid Rubber-tired Front End Loader (1)	Loading, site cleanup, and transfer operations
3) Trackhoe (1)	C&D operations, excavation, and site maintenance.
4) Off-road Truck (1)	Site transportation and hauling.

Additional equipment will be purchased, leased, or rented as needed.

## **2.6 WASTE MANAGEMENT AND DISPOSAL**

### **2.6.1 Access**

Following the completion of the initial waste screening procedures, access to the processing areas and disposal location will be granted by the scale house attendant. The scale house attendant will provide overall site instructions and directions to the drivers of the waste transportation vehicles to ensure that the waste receipts are transported to the appropriate processing or disposal area. Additional directional signage will assist the drivers with the identification of these areas.

### **2.6.2 General Procedures**

Waste transportation vehicles will arrive at the scales and scale house and be directed to the appropriate area such as the transfer station, white goods area, or the working face of the C&D landfill at random intervals. In order to ensure safety and maintain control over the unloading of waste, a minimal number of vehicles will be allowed on to the tipping floor of the transfer station or on the working face of the landfill at a single time. The actual number of vehicles allowed at each location will be determined by the truck spotter. This procedure will be used in order to allow visual inspection of the waste by the equipment operator and to minimize the potential of unloading unacceptable waste. Operations at each location will be conducted in a safe manner which will encourage the efficient movement of transportation vehicles to and from the disposal locations, and to expedite the unloading of waste.

### **2.6.3 C&D Landfill Disposal Procedures**

The approach to the working face will be maintained such that two or more vehicles may safely unload side by side. A vehicle turn-around area large enough to enable vehicles to arrive and turn around safely with reasonable speed will be provided adjacent to the unloading area. The vehicles will back to a vacant area near the working face to unload. Upon completion of the unloading operation, the transportation vehicles will immediately leave the working face area. Personnel will direct traffic necessary to expedite safe movement of vehicles.

Waste unloading at the landfill will be controlled to prevent disposal in locations other than those specified by site management. Such control will also be used to confine the working face to a minimum width, yet allow safe and efficient operations. The width and length of the working face will be maintained as small as practical in order to maintain the appearance of the site, control windblown waste, and minimize the amount of cover required each day. Normally, only one working face will be active on any given day, with all deposited waste in other areas covered by either periodic, intermediate, or final cover, as appropriate.

The procedures for placement and compaction of solid waste include: unloading of vehicles, spreading of waste into 2 foot lifts, and compaction on relatively flat slopes (i.e. 5H:1V max.) using a dozer and a minimum number of three full passes.

Wind screens adjacent to the working face may be used as required to control windblown waste.

The use of portable signs with directional arrows and portable traffic barricades will facilitate the unloading of wastes to the designated disposal locations. These signs and barricades will be placed along the access route to the working face of the landfill or other designated areas which may be established.

#### **2.6.3.1 Periodic Cover**

At the completion of waste placement each week, a six (6) inch layer of earthen material or other material as approved by the DWM will be placed over the exposed waste. Cover will be placed sooner if the area of exposed waste exceeds one-half acre in size, or as necessary to control vectors, fire, odors, and blowing debris. The date and time of cover placement will be recorded by landfill employees.

### 2.6.3.2 Intermediate Cover

A 12 inch layer of soil cover should be placed on all waste surfaces that have not received waste in 30 days but are below final elevation. This intermediate cover should be seeded immediately and graded such that all precipitation run-off is channeled to the surface water systems.

### 2.6.3.3 Height Monitoring

Approximately every month, the landfill staff will monitor landfill top and side slope elevations with a level. When such elevations approach design grades, the final top-of-waste grades will be staked to limit over-placement of waste.

### 2.6.3.4 Special Considerations

The waste fill operations within the valley between existing Phases I and II will require additional procedures to manage stormwater and potential residual stormwater within the waste mass. A description of the fill operations is included in the Phase III permit to construct final grade drawing.

## **2.6.4 Special Waste Management**

### 2.6.4.1 Asbestos Management

The County may dispose of regulated asbestos within the C&D landfill. Asbestos will only be accepted if it has been processed and packaged in accordance with State and Federal (40 CFR 61) regulations. Asbestos will arrive at the site in vehicles that contain only the asbestos waste and only after advance notification by the generator.

Once the hauler brings the asbestos to the landfill, the hauler will be directed to the designated asbestos disposal area by operations personnel. The designated disposal area will be prepared by operations personnel by leveling a small area using a dozer or loader. Prior to disposal, the landfill operators will stockpile

cover soil near the designated asbestos disposal area. The volume of soil stockpiled will be sufficient to cover the waste and to provide any berms, etc. to maintain temporary separation from other landfill traffic.

Once placed in the prepared area, the asbestos waste will be covered with a minimum of 18 inches of cover soil placed in a single lift. The surface of the cover soil will be compacted and graded using a tracked dozer or loader. The landfill dozer will be prohibited from operating over asbestos disposal areas until at least 18 inches of cover are in-place.

The landfill staff will record the approximate location and elevation of the asbestos waste once cover is in-place. The Solid Waste Director will then review pertinent disposal and location information to assure compliance with regulatory requirements and enter the information into the Operating Record.

Once disposal and recording for asbestos waste is completed, the disposal area may be covered with waste. No excavation into designated asbestos disposal areas will be permitted.

## **2.7 DECONSTRUCTION OF MOBILE HOMES**

The deconstruction of mobile homes is handled in an area adjacent to the C&D landfill unit. A description of the process is provided in **Appendix B**.

## **2.8 ANIMAL CARCASSES**

Methods approved by the State Veterinarian include the disposal of domesticated animal carcasses in landfills. Animal carcasses are handle in an area adjacent to the C&D landfill unit as identified on **Figure 2**. In accordance with 02 NCAC 52C .0102, animal carcasses will be buried three feet beneath the surface of the ground.

## **2.9 TRANSFER STATION MANAGEMENT**

### **2.9.1 Access**

Traffic will be clearly directed to the transfer station by the scale house and be directed by the spotter on the tipping floor. Traffic speed on the site should be less than 7 MPH.

### **2.9.2 Building Features**

The transfer station and tipping floor area includes the features listed in the following table.

<b>Description</b>	
1) Roof	Yes
2) Sides (3)	Yes
3) Concrete Floor	Yes
4) Bi-Level Direct Push	Yes
5) Leachate Collection and Storage	Yes
6) Ventilation	Yes
7) Water Supply	Yes
8) Lighting	Yes
9) Interior Office & Bathrooms	Yes
10) Explosive Gas Monitoring	No
11) Communications (Telephone, Radios, Cell Phones)	Yes
12) Built In Fire Suppression/Sprinkler System	No
13) Odor Control Equipment	Yes

### **2.9.3 General Procedures**

The transfer operations will be conducted in accordance with the approved Operation Plan and conditions of the Solid Waste Permit issued by the North Carolina Division of Solid Waste Management (DWM).

Facility operations are anticipated as follows:

1. Collection vehicles delivering waste to the facility will enter through the main entrance;
2. Pass by and over the scales and scale house for weight;
3. Continue along the access road until reaching the transfer station tipping area;
4. The tipping area has “push” walls running along the interior of the building that direct the waste to feed “hoppers” overlying the transfer trailers and/or equipment on the lower level of the building. The attendant (“spotter”) will direct vehicles, waiting to unload, to back into the facility through the entrance. Adequate area is

available in front of the transfer area for drivers to queue their vehicles into a backing maneuver. Station operating personnel will be on the station floor to direct and guide the vehicles.

5. The vehicles will back onto the tipping floor to an area designated by the attendant.
6. Once the vehicle is in position, the waste load will be discharged directly onto the tipping floor.
7. The spotter will inspect the discharged waste before it is mixed with other waste on the tipping floor and pushed by a rubber-tired loader into the open top transfer trailers, specifically designed for hauling wastes located in the lower level of the Transfer Station. All waste will stay in the covered area of the transfer station.
8. The equipment operator will complete a secondary visually screening of the waste and, if acceptable, direct the driver of the waste collection vehicle to exit the transfer facility. If unaccepted waste is identified, the driver of the vehicle will be instructed to retrieve and remove the prohibited waste from the site.

Documentation of the event will following the procedures outlined in **Section 2.4 Waste Screening Program**. Subsequent vehicles will be directed to the transfer area and similar procedures will be completed.

#### 2.9.3.1 Storage

Waste volume is allowed to accumulate on the tipping floor only to facilitate adequate waste placement into the transportation hauling vehicles. The equipment operator will mix the waste with the front-end loader, conduct a tertiary waste screening and remove any prohibited waste, and distribute the material types and weights prior to pushing the waste into the tractor trailers located toward the rear of the building and beneath the tipping floor.

#### 2.9.3.2 Transfer Truck Loading

The placed waste is compacted inside the trailers by gently tamping with the interchangeable bucket attachment. The equipment operator is responsible for loading each transportation vehicle in a fashion to comply with the Department of Transportation's roadway weight limits. Once the tractor trailer is filled with compacted waste, the vehicle is moved to an exterior location to allow the placement of the vehicle's tarp and ensure containment of the waste inside the trailer body

### 2.9.3.3 Transfer Area Maintenance

At the end of each operating day, the transfer station will be cleared of all waste inside and around the facility. Windblown materials resulting from the operation will be collected and returned to the site and disposed. The tipping floor will be maintained in a sanitary fashion by washing the entire floor and discharging the wash water into the leachate collection drainage system and holding tank. The tarps for the loaded but not transported trailers will be securely fastened to each tractor trailer remaining on site. Barricades will be erected around the hopper to prevent falling hazards.

### 2.9.3.4 Leachate Management

Liquids are generated from waste receipts and floor washing activities. The transfer station's floor is sloped in a fashion to promote drainage toward the sump and to two floor drains located in the lower level loading area. Leachate generated from waste processing activities is collected in floor drains and discharged to an exterior, 3,000-gallon holding tank. The liquid volume of the holding tank is inspected on a weekly basis to ensure that adequate capacity is available.

As needed, the contents of the leachate holding tank are pumped and transported to the Jimmy Smith Wastewater Treatment Plant (WWTP) located in the Town of Boone. The WWTP conditionally approved the acceptance of batch volumes (2,500 gallons) from the Avery County facility with prior notification.

## **2.10 RECYCLING AND RECOVERY AREA OPERATIONS**

The facility's recycling/recovery areas are located around the transfer station and are used to store, separate, and contain recyclable materials. These materials are generated from separated waste from the transfer station and/or pre-sorted materials such as tires, white goods, or other materials off-loaded into an appropriate container.

### **2.10.1 White Goods Handling Area**

A white goods handling area is located adjacent to and north of the existing transfer station (see **Figure 2**). The operation of the white goods handling area is as follows:

Within the white goods handling area, white goods and scrap metal are stockpiled up to about 10 feet high over an approximate 100 foot by 200 foot area. Once the stockpile

reaches capacity (typically once per quarter), a recycler removes Freon and hauls the white goods and scrap metal off-site to be recycled. A certificate of disposal for the removed Freon is provided to Avery County by the subcontractor.

### **2.10.2 Used Tire Storage Area**

Used tires are collected at an area adjacent to and south of the existing transfer station (see **Figure 2**) and placed in a tire trailer. Once the trailer is full, the trailer is picked up by a recycling contractor.

### **2.10.3 Other Storage Areas**

- **Glass**  
A glass recovery and recycling area for clear, brown, and green glass is located just west and behind the transfer station (see **Figure 2**). This area contains three (3) bays constructed of concrete masonry unit (CMU) walls and are periodically removed for recycling when they reach capacity.
- **Pallets**  
A pallet recovery area is located adjacent just southwest of the transfer station (see **Figure 2**). Once a truckload is generated, the pallets will be picked up by a recycling contractor.
- **Brick and Block Area**  
A undamaged and unpainted brick and block area is located adjacent to and southwest of the existing transfer station (see **Figure 2**) for utilization for site access roads and the active face area of the landfill.

### **2.10.4 Markets**

The final destination of the recyclable materials separated from the waste may vary depending on market prices for such materials. Contracts are established with subcontractors to facilitate processing and product removal. Subject to contract renewal, the final markets are anticipated as follows:

- a. **Metals:** State Line Scrap Metal
- b. **Pallets:** To be determined and as needed.
- c. **Glass:** Strategic Materials, Inc.
- d. **Tires:** U.S. Tire

## **SECTION 3.0 ENVIRONMENTAL MANAGEMENT**

### **3.1 OVERVIEW**

This section reviews the overall environmental management tasks required for the successful operation of the disposal facility.

### **3.2 SURFACE WATER CONTROL**

As used herein, the definition of “surface water” is water which results from precipitation or site run-on that has not contacted the waste.

Proper control of surface water at the disposal facility will accomplish the following goals:

- Prevent the run-on of surface water into the landfill unit or the active face(s);
- Limit the erosion caused by surface waters; and
- Limit sediments carried off-site by surface waters.

Separate erosion and sedimentation control plan(s) have been provided for the facility. These plans describe both short and long term engineered features and practices for preventing erosion and controlling sedimentation at this site. The following is a brief discussion of some of these features and practices, focusing more on the landfill units.

#### **3.2.1 Surface Water Run-On Control**

The perimeter channels around the landfill unit are designed to prevent the run-on of surface water from adjacent land into the landfill. Additional structures such as diversion berms, channels, down pipes, etc. carry surface water away from the landfill.

The waste fill operations within the valley between existing Phases I and II will require additional procedures to manage stormwater and potential residual stormwater within the waste mass. Refer to the Phase III permit to construct application for the final grading plan drawing.

#### **3.2.2 Erosion Control**

The serviceability of the disposal facility relies heavily on soil berms, barrier layers, and agricultural layers that are readily eroded by flowing water. Erosion control provisions incorporated in the landfill include the following:

- The slope of the working face must be no steeper than 5H:1V where practical to limit erosion of the periodic cover.

- Intermediate cover that has been exposed for more than 30 days must be seeded immediately and repaired when erosion features are identified.
- Drainage breaks (diversion berms, etc.) are provided on the final cover to limit the flow length of run-off.
- Water collected by each drainage break is routed to stormwater drainage channels or down pipes so that the run-off volume does not accumulate going down the slope.
- The vegetative soil layer placed over the final cover must be seeded immediately.

Additional erosion control measures have been taken within the drainage channels and at points of stormwater discharge. All final cover should be inspected regularly for erosion damage and promptly repaired.

### **3.2.3 Sedimentation Control**

Stormwater run-off from the disposal and processing areas is conveyed to the on site sediment basin. This basin should be inspected regularly for sediment build-up or erosion damage. The basin should be cleaned out when sediment fills the lower half of the basin and damage(s) caused by erosion will be repaired.

## **3.3 WATER QUALITY MONITORING**

The monitoring program and procedures outlined in the current Water Quality Monitoring Plan will be followed for the monitoring of site groundwater monitoring wells and surface water monitoring locations. The results of the water quality monitoring program will be placed in the facility operating record as described in **Section 1.14**.

## **3.4 LANDFILL GAS MANAGEMENT**

Monitoring shall be performed to identify (if any) subsurface migration of landfill gas at explosive levels are present in on-site structures and/or at the property boundary in gas monitoring probes. Methane or other explosive gas concentrations shall not exceed 25 percent of the lower explosive limit (LEL) (1.25% of CH<sub>4</sub>) in on-site structures, such as scale houses, or 100% of the LEL (5% of CH<sub>4</sub>) at the facility property boundary. Subsurface methane monitoring wells are installed between the landfill perimeter and the property line, and are spaced approximately 500 feet apart. Additional wells will be installed as necessary and consistent with landfill expansion.

If landfill gas levels exceed these limits, the following must be performed:

- Immediately take all steps necessary for the protection of personnel, staff, or neighboring properties and notify the DWM;
- Within seven (7) days, place in the operating record a description of events taken following the detection event; and
- Within 60 days, implement a remediation plan for the explosive gas releases, place a copy in the operating record, and notify the DWM that the plan has been implemented

### **3.5 VECTOR CONTROL**

Vector control within and around the transfer station will be managed by removing all waste from the facility on a daily basis. All transfer station waste deposits will be removed from the tipping floor by the end of each working day. At the end of each operating day, the tipping floor will be cleaned and washed in a manner to remove all waste remnants or liquids that could promote or attract vectors to the facility. Portable, forced air odor control equipment is utilized as needed. Routinely, the entire interior of the transfer station will be pressure-washed to remove the accumulation of dust, dirt, and waste particles. Leachate generated from the routine washing activities will be discharged to the leachate holding tank and pumped to the WWTP as needed.

Due to the nature of the waste disposed in the C&D landfill unit, vector control is not anticipated to be of concern. Note that the use of periodic cover will discourage animals from nesting in the waste.

### **3.6 ODOR CONTROL**

Odor control within the transfer station will be managed by minimizing the volume of waste accumulated on the tipping floor and by transferring waste into the tractor trailers as soon as practical. Portable, forced air odor control equipment is utilized as needed. Staff will routinely inspect the floor drainage system to ensure that the leachate collection system remains free-flowing and stagnant water does not persist. Additional housekeeping efforts employed at the facility to reduce and eliminate the occurrence of odor will include inspecting exterior stormwater downspouts, removing litter, cleaning the tunnel area, maintaining the appearance of the access areas and roadways, and ensuring that the tractor trailer tarps are in good condition.

Due to the nature of the waste disposed in the C&D landfill unit, odor control is not anticipated to be of concern. However, if odors do occur, additional cover will be placed or other mitigation alternatives will be provided.

### **3.7 DUST CONTROL**

If required, a water truck will be utilized to limit dust on the gravel portion of the access roadways. Dust accumulation inside the transfer station will be eliminated by routinely pressure washing the interior of the facility as needed. Dust generated by excavation of cover soil will be limited by watering the cut soil areas if accessible to the water truck.

Appendix A

Waste Screening Form

C&D Landfill  
Permit No. 06-03

Transfer Station  
Permit No. 06-02T

Avery County Waste Management Facility  
(828) 737-5420

**WASTE SCREENING FORM**

Day / Date: \_\_\_\_\_ Time Weighed in: \_\_\_\_\_  
Truck Owner: \_\_\_\_\_ Driver Name: \_\_\_\_\_  
Truck Type: \_\_\_\_\_ Vehicle ID / Tag No: \_\_\_\_\_  
Weight \_\_\_\_\_ Tare: \_\_\_\_\_  
Waste Generator / Source: \_\_\_\_\_

Reason Load Inspected: Random Inspection \_\_\_\_\_ Staff Initials \_\_\_\_\_  
Detained at Scales \_\_\_\_\_ Staff Initials \_\_\_\_\_  
Detained by Operating Staff \_\_\_\_\_ Staff Initials \_\_\_\_\_

Inspection Location: \_\_\_\_\_

Approved Waste Determination Form Present? Yes \_\_\_\_\_ No \_\_\_\_\_ N/A \_\_\_\_\_

Description of Load: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Load Accepted (signature) \_\_\_\_\_ Date \_\_\_\_\_  
Load Not Accepted (signature) \_\_\_\_\_ Date \_\_\_\_\_

Reason Load Not Accepted (complete only if load not accepted)

Description of Suspicious Contents: Color \_\_\_\_\_ Haz. Waste Markings \_\_\_\_\_  
Texture \_\_\_\_\_  
Drums Present \_\_\_\_\_ Smell \_\_\_\_\_  
Est. Cu. Yds. Present in Load \_\_\_\_\_  
Est. Tons Present in Load \_\_\_\_\_

Avery County Emergency Management Contacted? Yes \_\_\_\_\_ No \_\_\_\_\_

Company or Authority Contacted? \_\_\_\_\_  
Hazardous Materials Present: \_\_\_\_\_

Hauler Notified (if waste not accepted) \_\_\_\_\_ Phone: \_\_\_\_\_ Time Contacted: \_\_\_\_\_

Other Observations: \_\_\_\_\_  
\_\_\_\_\_

Final Disposition  
Signed \_\_\_\_\_ Date \_\_\_\_\_  
Waste Screening Inspector or Solid Waste Director

Attach related correspondence to this form.  
File completed form in Operating Record.

Appendix B

Mobile Home Deconstruction

# AVERY COUNTY C&D LANDFILL

## OPERATIONS MANUAL

### APPENDIX B: MOBILE HOME DECONSTRUCTION

#### 1.0 OVERVIEW

This portion of the Operations Manual was prepared for the Mobile Home Deconstruction Area located adjacent to the Avery County Construction and Demolition Debris (C&D) Landfill unit. The Mobile Home Deconstruction Area is strictly for the deconstruction of mobile homes in order to recycle materials from the mobile homes. Avery County plans to recycle as many varieties of materials as possible as end users are available. Initially, scrap metal recycling will be conducted. Once an end-user of another material (i.e. glass) is located, these other materials may be recycled. Any non-recyclable material will be disposed of appropriately by the County upon completion of the deconstruction process.

#### 2.0 MOBILE HOME DECONSTRUCTION PROCESS

Mobile homes will be deconstructed using the following processes.

##### 2.1 Access

Mobile home owners seeking disposal will contact the landfill facility and be placed on a waiting list. No more than TWO (2) mobile homes will be allowed on-site for deconstruction at one time. Once space is available for a mobile home, landfill personnel will contact the next owner on the waiting list. The owner will have a 48 hour window in which to contact the landfill facility with information regarding the delivery date and hauler. If owner cannot arrange delivery within this initial 48 hour period, the owner may make alternate arrangements for delivery and must notify the landfill facility a minimum of 48 hours prior to planned delivery. The delivered mobile home will not be weighed on the scales at time of delivery, but the owner will be charged based upon the size and dimensions of the mobile home.

If delivery is not made within 48 hours of the scheduled delivery date, the owners name will be placed on the waiting list and the owner will be notified. If an owner has more than one mobile home, they will be rotated with others on the waiting list.

##### 2.2 Waste Disposal

All mobile homes must be free of garbage, household hazardous waste, and all other non-construction and demolition waste prior to acceptance by the landfill.

##### 2.3 White Goods

White goods will be accepted with the mobile home. White goods will be removed and handled in accordance with all State and Federal regulations. Any white goods containing CFC's will have them managed properly prior to removal of the white goods

and deconstruction of the mobile home.

## **2.4 Asbestos**

Since asbestos may be located in the building materials of mobile homes constructed prior to 1983, all mobile homes built before 1/1/1983 will be thoroughly sprayed with water (both interior and exterior) to minimize dust. Upon demolition of a mobile home constructed prior to 1983, the waste generated will be placed in the C&D landfill and covered with six inches of soil or approved alternate cover.

## **2.5 Deconstruction of Mobile Homes**

Once accepted, the mobile home will be placed in the mobile home deconstruction area. Mobile home deconstruction will be dependant upon weather conditions and manpower availability and will ONLY take place in the deconstruction area. Prior to deconstruction, mobile homes constructed before 1983 will be thoroughly sprayed with water to minimize dust (as noted above). The home will then be deconstructed using a track-hoe. The track-hoe will tear the trailer apart and lay the pieces on the ground to be separated by landfill personnel. The personnel will separate the non-recyclable materials from the recyclable materials. Initially, scrap metal is planned for recycling. As other end-users for other materials are available, other materials may be separated for recycling. All material not planned for recycling will be placed in the C&D landfill before the end of the day in which the deconstruction takes place. Material from mobile homes constructed prior to 1983 will be covered prior to the end of the day. All recyclable materials will be stockpiled in the deconstruction area for future recycling. **NO OPEN FLAMES OR CUTTING WITH TORCHES WILL BE ALLOWED WITHIN 100 FEET OF THE C&D LANDFILL.**

## **2.6 Holding Time for Mobile Homes**

All mobile homes must be deconstructed within 45 days from acceptance into the deconstruction area. Upon receipt at the landfill, the date shall be painted on the side or end of the mobile home, or on the frame, for identification purposes for Solid Waste Section personnel.

## **2.7 Holding Time for Recyclables**

Once a recyclable material is removed from a mobile home, it may be stockpiled in the mobile home deconstruction area for up to 45 days. No materials shall be kept in this area for more than 45 days, nor shall they be stockpiled in other areas awaiting recycling.

## **3.0 RECORD KEEPING PROGRAM**

The County shall maintain the following records related to the Mobile Home Deconstruction in an operating record at the landfill (see also **Section 1.11** of the Operations Manual):

- A. Mobile Home Acceptance records including dates and description;
- B. Owner and hauler information for each mobile home;
- C. Date of deconstruction for each mobile home and materials to be recycled;
- D. Date and disposal information for all recycled materials ton include location and vendor of recipient of recycled materials.
- E. Date and certification of CFC's removed.

Appendix C

NC DENR Fire Occurrence Notification Form

**SOLID WASTE MANAGEMENT FACILITY  
FIRE OCCURRENCE NOTIFICATION  
NC DENR Division of Waste Management  
Solid Waste Section**



Notify the Section verbally within 24 hours and submit written notification within 15 days of the occurrence.  
(If additional space is needed, use back of this form.)

NAME OF FACILITY: \_\_\_\_\_ PERMIT # \_\_\_\_\_

DATE AND TIME OF FIRE: \_\_\_\_\_ @ \_\_\_\_\_

HOW WAS THE FIRE REPORTED AND BY WHOM:  
\_\_\_\_\_

LIST ACTIONS TAKEN:  
\_\_\_\_\_

WHAT WAS THE CAUSE OF THE FIRE:  
\_\_\_\_\_

DESCRIBE AREA, TYPE, AND AMOUNT OF WASTE INVOLVED:  
\_\_\_\_\_

WHAT COULD HAVE BEEN DONE TO PREVENT THIS FIRE:  
\_\_\_\_\_

DESCRIBE PLAN OF ACTIONS TO PREVENT FUTURE INCIDENTS:  
\_\_\_\_\_

NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_ DATE: \_\_\_\_\_

\*\*\*\*\*

THIS SECTION TO BE COMPLETED BY SOLID WASTE SECTION REGIONAL STAFF  
DATE RECEIVED \_\_\_\_\_

List any factors not listed that might have contributed to the fire or that might prevent occurrence of future fires:

FOLLOW-UP REQUIRED:  
 NO     PHONE CALL     SUBMITTAL     MEETING     RETURN VISIT    BY: \_\_\_\_\_ (DATE)

ACTIONS TAKEN OR REQUIRED:  
\_\_\_\_\_

**Attachment E**

Financial Assurance

**Financial Assurance**  
**Avery County Waste Management Facility**  
**Engineer's Remedial Cost Estimate**

Item No.	Item Description	Unit	Contractor			Comments
			Quantity	Unit Price	Total Price	
<b>Facility Area (Horizontal Plan) ----&gt;</b>			<b>AC</b>	<b>5</b>		
<b>1.0</b>	<b>Pre-Remedial Response</b>			<b>Subtotal</b>	<b>\$2,500.00</b>	
1.1	Coordination, Contracts, and Management	AC	5	\$500.00	\$2,500.00	
<b>2.0</b>	<b>Remedial Response Activities</b>				<b>\$119,300.00</b>	Ref. 1
2.1	Surveys and Layout	AC	5	\$500.00	\$2,500.00	RSGA Estimate
2.2	Mobilization, Demobilization, and Project Closeout	AC	5	\$500.00	\$2,500.00	RSGA Estimate
2.3	Wash Down & Cleanup of the Transfer Station	DY	2	\$1,500.00	\$3,000.00	Assume single work crew per day.
2.4	Fencing & Concrete Barrier Protection	LS	1	\$5,000.00	\$5,000.00	Assume close transfer station and place concrete barriers across access road.
2.5	Excess Waste Disposal (MSW)	TN	250	\$60.00	\$15,000.00	Five (5) days of waste as specified by NCDENR. Hauling and loading included. Disposal locations: Bristol City, VA; or Foothills landfills (~\$40/Ton)
	Excess Hazardous Materials Disposal	DRUM	2	\$1,500.00	\$3,000.00	Assumes cost of waste characterization, sampling, removal, treatment or disposal.
2.6	Excess Recycling & Processing Material	CY	2,450	\$30.00	\$73,500.00	Assume cost of loading, transportation, and disposal.
2.7	Leachate Disposal	GAL	3,000	\$0.10	\$300.00	Assume cost of loading and Transport.
2.8	Erosion & Sediment Control (grading, silt fence, maintenance, etc.)	AC	5	\$500.00	\$2,500.00	RSGA Estimate
2.9	Revegetation	AC	8	\$1,500.00	\$12,000.00	RSGA Estimate
2.10	Fuel Storage Removal	GAL	2,000.0	\$0.00	\$0.00	Usable product to be sold.
<b>3.0</b>	<b>Quality Assurance, Certification, &amp; Deed Notation</b>				<b>\$3,000.00</b>	
3.1	Engineering and Reporting	LS	1	\$2,500.00	\$2,500.00	RSGA Estimate
3.2	Surveying and Deed Notation	LS	1	\$500.00	\$500.00	RSGA Estimate
<b>Remedial Response Estimate ----&gt;</b>					<b>\$124,800</b>	
<b>10% Contingency ----&gt;</b>					<b>\$12,480</b>	
<b>Total Estimate ----&gt;</b>					<b>\$137,280 (2011\$) (See Note 1)</b>	

Notes:

- All costs are presented in current dollars and should be increased at an inflation rate of 1.5% if additional review is not performed annually.
- This ESTIMATE has been prepared for financial assurance purposes only and shall not be considered a replacement for an actual bid from a licensed contractor and is considered acceptable within a +/- 10% of the Total Estimate value.

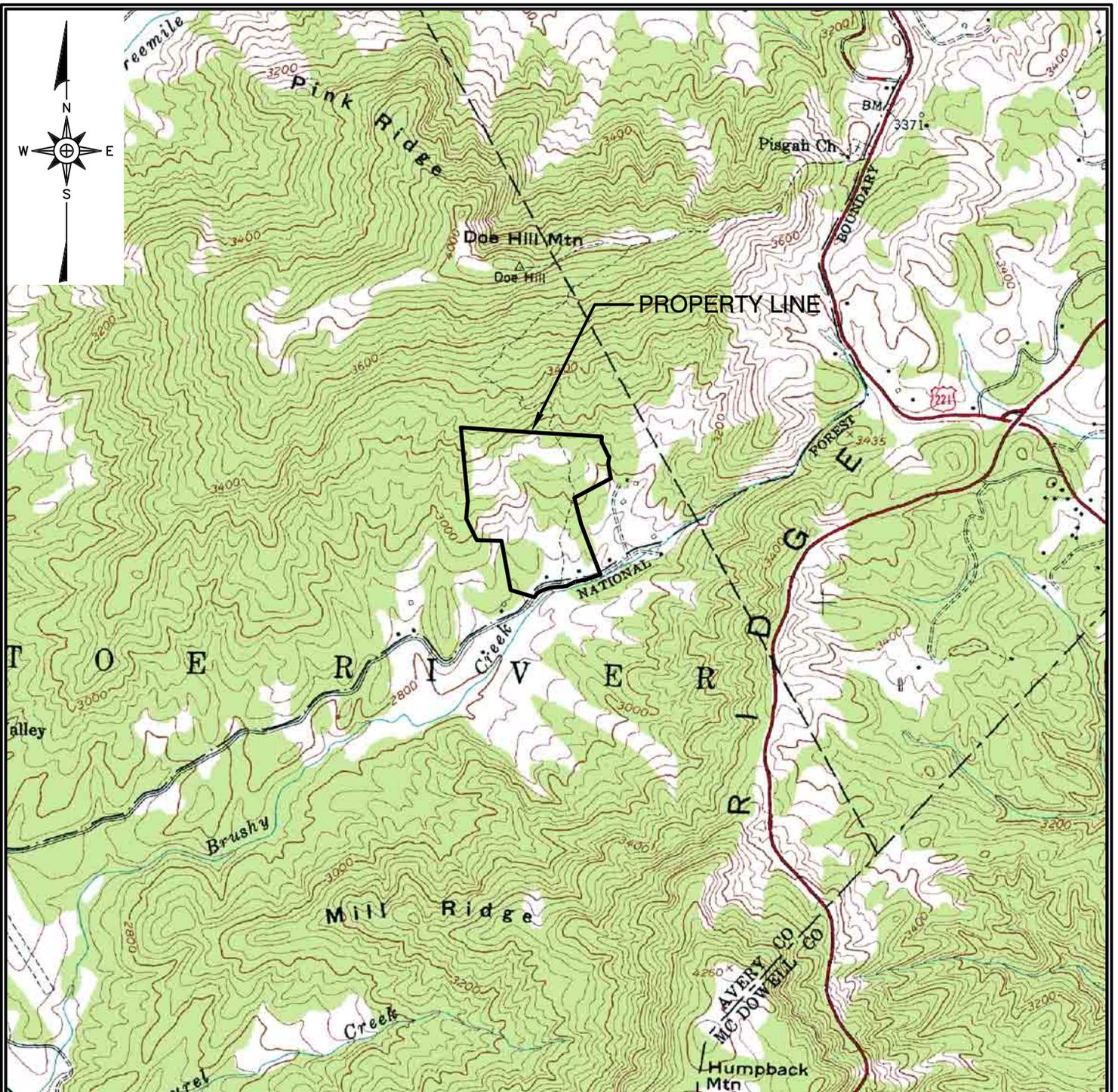
References:

- Avery County Waste Disposal and Recycling Permit Application by Richardson Smith Gardner & Associates, Inc dated January 2011.

 Denotes values calculated in spreadsheet.

## **Figures**

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**REFERENCES**

1. U.S.G.S. QUADRANGLE "LINVILLE FALLS, NC" 1956, PHOTO INSPECTED 1984
2. SITE PROPERTY LINE FROM FIELD SURVEY DATED 1/14/08, BY SURVEYING SOLUTIONS, P.C.

**AVERY COUNTY C&D LANDFILL  
SITE VICINITY MAP**



**RICHARDSON SMITH GARDNER  
& ASSOCIATES**

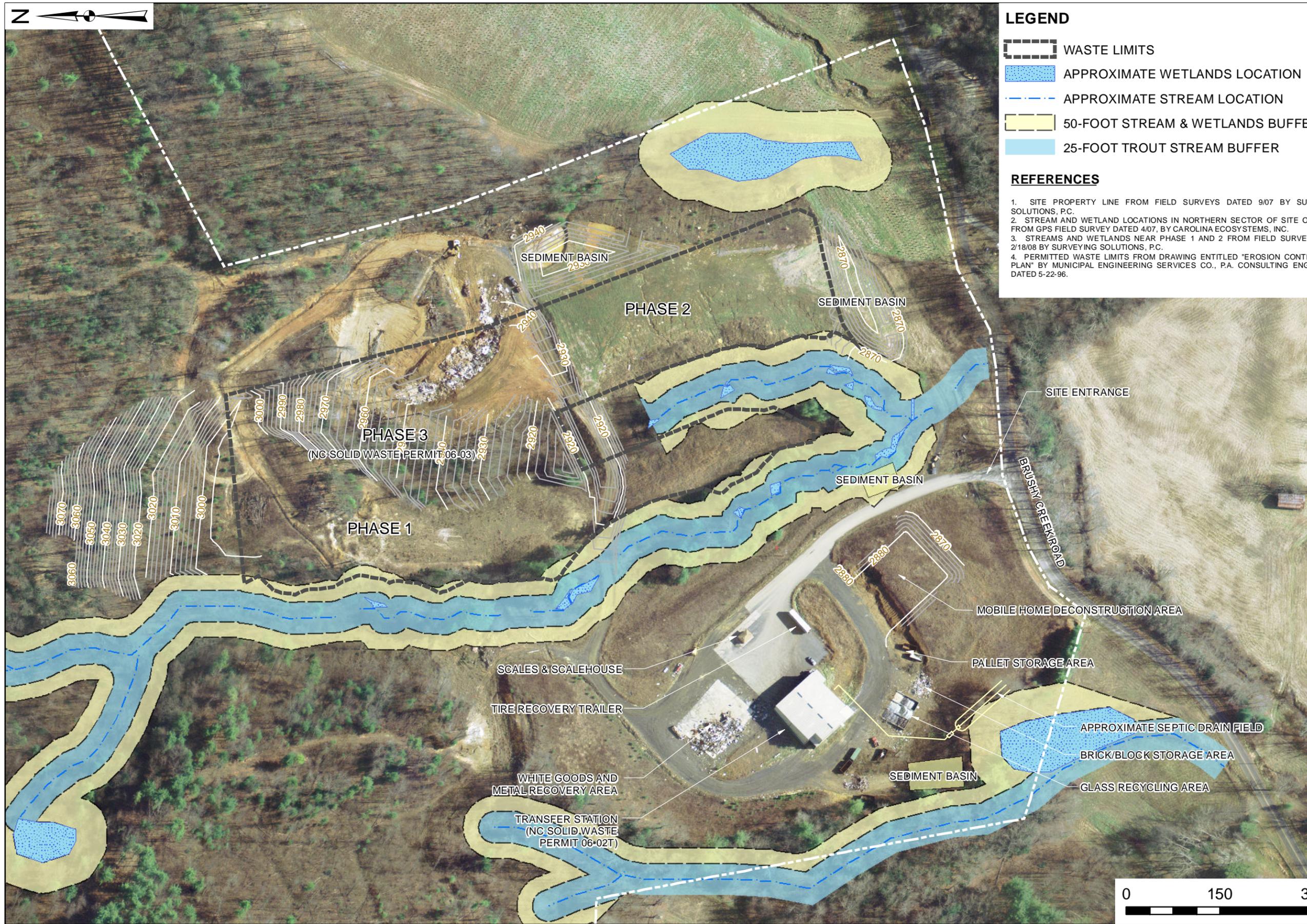
14 N. Boylan Ave.  
Raleigh, N.C. 27603

www.rsgengineers.com

ph: 919-828-0577  
fax: 919-828-3899

SCALE:	DRAWN BY:	CHECKED BY:	DATE:	PROJECT NO.	FIGURE NO.	FILE NAME
AS SHOWN	J.A.L.	J.A.S.	Jan. 2011	AVERY 07-1	1	AVERY-A0048

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**LEGEND**

- WASTE LIMITS
- APPROXIMATE WETLANDS LOCATION
- APPROXIMATE STREAM LOCATION
- 50-FOOT STREAM & WETLANDS BUFFER
- 25-FOOT TROUT STREAM BUFFER

**REFERENCES**

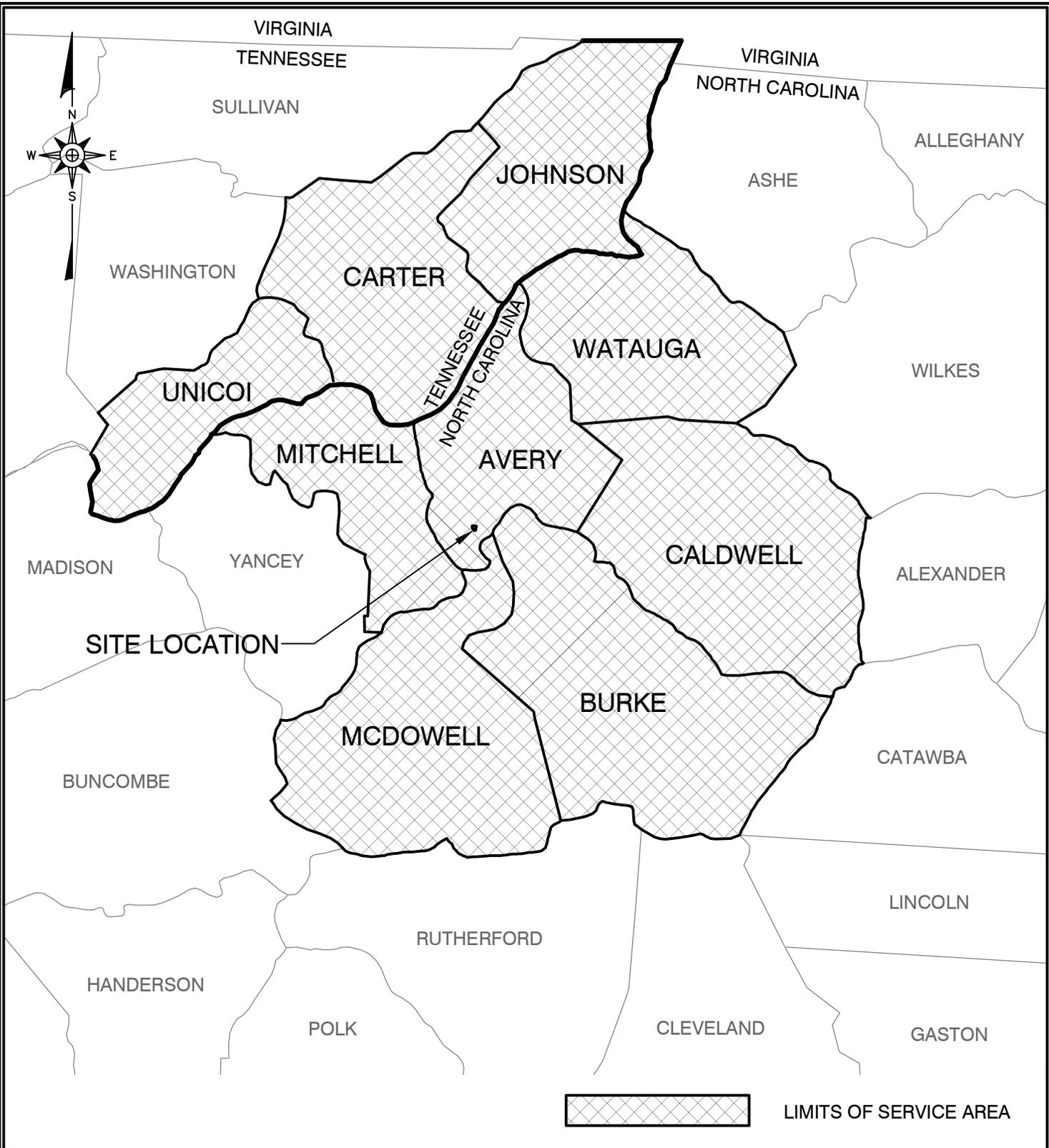
1. SITE PROPERTY LINE FROM FIELD SURVEYS DATED 9/07 BY SURVEYING SOLUTIONS, P.C.
2. STREAM AND WETLAND LOCATIONS IN NORTHERN SECTOR OF SITE OBTAINED FROM GPS FIELD SURVEY DATED 4/07, BY CAROLINA ECOSYSTEMS, INC.
3. STREAMS AND WETLANDS NEAR PHASE 1 AND 2 FROM FIELD SURVEY DATED 2/18/08 BY SURVEYING SOLUTIONS, P.C.
4. PERMITTED WASTE LIMITS FROM DRAWING ENTITLED "EROSION CONTROL SITE PLAN" BY MUNICIPAL ENGINEERING SERVICES CO., P.A. CONSULTING ENGINEERS, DATED 5-22-96.



FIGURE NO.	2
SCALE:	AS SHOWN
CHECKED BY:	S.A.S.
DRAWN BY:	C.T.J.
PROJECT NO.	AVERY 11-2
DATE:	JAN. 2011
FILE NAME	AVERY-B0150

TITLE:  
**AVERY COUNTY SOLID WASTE  
 MANAGEMENT FACILITY**





 LIMITS OF SERVICE AREA

**AVERY COUNTY LANDFILL  
FACILITY SERVICE AREA**



**RICHARDSON SMITH GARDNER  
& ASSOCIATES**  
14 N. Boylan Ave.  
Raleigh, N.C. 27603  
www.rsgengineers.com  
ph: 919-828-0577  
fax: 919-828-3899

SCALE: NOT TO SCALE	DRAWN BY: C.T.J.	CHECKED BY: S.A.S.	DATE: Feb. 2009	PROJECT NO. AVERY 07-1	FIGURE NO. 3	FILE NAME AVERY-A0035
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