



**FACILITY COMPLIANCE AUDIT REPORT**  
**Division of Waste Management**  
**Solid Waste Section**

<b>UNIT TYPE:</b>											
Lined MSWLF	<input checked="" type="checkbox"/>	LCID		YW	<input checked="" type="checkbox"/>	Transfer		Compost	<input checked="" type="checkbox"/>	SLAS	<b>COUNTY:</b> Haywood  <b>PERMIT NO.:</b> 44-07  <b>FILE TYPE:</b> COMPLIANCE
Closed MSWLF		HHW		White goods		Incin		T&P	<input checked="" type="checkbox"/>	FIRM	
Closed CDLF	<input checked="" type="checkbox"/>	Tire T&P / Collection		Tire Monofill		Industrial Landfill		DEMO		SDTF	

**Dates of Audit:** 03/30/2010 (multiple site visits)

**Date of Last Audit Report:** 06/23/09

**FACILITY NAME AND ADDRESS:**

Haywood County Municipal Solid Waste Landfill  
 State Road 1338, White Oak Community  
 Waynesville, N. C. 28786

**GPS COORDINATES:**    N: 35.66343    W: -82.99866

**FACILITY CONTACT NAME AND PHONE NUMBER:**

Stephen King, Haywood County Solid Waste Director  
 Telephone 828-627-8042

**FACILITY CONTACT ADDRESS:**

Stephen King, Director  
 Haywood County Solid Waste Department  
 278 Recycle Drive  
 Clyde, N. C. 28721

David Cotton, County Manager  
 215 N. Main Street  
 Waynesville, NC 28786

**AUDIT PARTICIPANTS:**

Andrea Keller, NCDENR, Division of Waste Management (DWM), Solid Waste Section (SWS)  
 Bill Wagner, NCDENR, DWM, SWS (08/21/09)  
 Paul Crissman, NCDENR DWN, SWS (03/30/10)  
 Stephen King, Haywood County Solid Waste Director (08/07/09, 08/22/09, 08/25/09, 3/30/10)  
 Denise Ballew, Haywood County White Oak Landfill Manager (08/22/09, 08/25/09, 3/30/10)  
 Jeff Bishop, McGill & Associates (08/25/09)  
 Dave Pasco, McGill & Associates (08/25/09)

**STATUS OF PERMIT:**

Original Permit to Construct: July 22, 1992  
 Original Permit to Operate: October 8, 1993  
 Permit Amendment: June 30, 1999  
 Permit Amendment: November 27, 2001  
 Permit Amendment/PTO: November 8, 2006  
 Permit Amendment /Modification PTC Phase 3: May 5, 2009

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**PURPOSE OF AUDIT:**

Comprehensive Audit

**STATUS OF PAST NOTED VIOLATIONS:**

N/A

**NOTED VIOLATIONS:**

15A NCAC 13B .1626 Operational Requirements for MSWLF Facilities states: The owner or operator of any MSWLF unit must maintain and operate the facility in accordance with the requirements set forth in this Rule and in the operation plan as described in Rule .1625 of this Section.

15A NCAC 13B .1626 (1)(g)(ii) states: waste placement at existing MSWLF units designed and constructed with a base liner system permitted by the Division prior to October 9, 1993 and approved for operation by the Division shall be within the areal limits of the base liner system and in manner consistent with the effective permit.

15A NCAC 13B .1626 (8)(d) states: leachate shall be contained on site or properly treated prior to discharge. A NPDES permit may be required prior to the discharge of leachate to surface waters.

Haywood County self-reported waste outside of the base liner system on August 6, 2009. During the August 7, 2009 audit, and ensuing follow-up site inspections, it was estimated that the violation occurred during the 2001-2003 time frame in Areas 1 and 2 (see map below). On August 21, 2009, a site inspection documented leachate release off the base liner system in both Area 1 and Area 2. The release occurred onto soils already impacted by the waste outside of the liner in the Phase 3 expansion region. Removal of waste outside the liner system was completed by August 25, 2009. Assessment activities relating to the leachate-impacted soils in the Phase 3 expansion region were directed by a Section hydrogeologist and were completed and reported to the Section by October 28, 2009.

Haywood County was in **violation of 15A NCAC 13B .1626 (1)(g)(ii)** for waste placement outside of the base liner system and was in **violation of 15A NCAC 13B .1626 (8)(d)** for failure to contain leachate on site, within the base liner system, that was not properly treated prior to discharge.

**In order to achieve compliance, Haywood County must, within 30 days, submit a plan detailing actions the County will take to prevent waste outside of the base liner system during future fill activities associated with all current and future waste disposal activities. Other actions may be required of the Division at a later date.**

15A NCAC 13B .1626 (2)(c) states: Areas which will not have additional wastes placed on them for 12 months or more, but where final termination of disposal operations has not occurred, shall be covered with a minimum of one foot of intermediate cover.

During the August 2009 activities associated with the self-reported waste outside of liner violation, intermediate soil cover was removed from several locations (in Phase 1 and Phase 2 fill areas). Follow-up site inspections documented the uncovered waste in Areas 1 and 2 (see map below). The inspection conducted on March 30, 2010 confirmed the lack of intermediate soil cover in these regions.

Haywood County is in **violation of 15A NCAC 13B .1626 (2)(c)** for failure to replace the minimum of one foot of intermediate soil cover over exposed waste resulting from activities in August, 2009.

**In order to achieve compliance, Haywood County must, within 30 days, place a minimum of one foot of intermediate soil cover over all exposed waste in Area 1 and Area 2.**

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15A NCAC 13B .0203 (d) states that: by receiving solid waste at a permitted facility, the permittee(s) shall be considered to have accepted the conditions of the permit and shall comply with the conditions of the permit.

In the Municipal Solid Waste Landfill Facility Permit No. 44-07 Permit to Operate and Permit to Construct, dated May 5, 2009, the following conditions are outlined:

**PART IV: General Permit Conditions**

5. By initiating construction or receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
  
6. Construction and operation of this solid waste management facility must be in accordance with the Solid Waste Management Rules, 15A NCAC 13B, Article 9 of the Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, et seq.), the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition.

**ATTACHMENT 2: Conditions of Permit to Construct**

**PART I: Municipal Solid Waste Landfill Unit Specific Conditions**  
**Geologic, Ground Water and Monitoring Requirements**

12. Any modification to the approved water quality monitoring, sampling, and analysis plan must be submitted to the Section Hydrogeologist for review.

**ATTACHMENT 3: Conditions of Permit to Operate**  
**Monitoring and Reporting Requirements**

7. Groundwater, surface water, and methane monitoring locations must be established and monitored as identified in the approved plans.

During the March 30, 2010 Comprehensive Audit of the facility, and ensuing document reviews, it was revealed that several wells (groundwater and landfill gas) documented as part of the approved monitoring system had been destroyed in the August-September, 2009 time frame without notification to the Section. Proper abandonment of these wells was not conducted and submitted site plans did not accurately reflect site conditions at the time of submittal.

Haywood County is **in violation of 15A NCAC 13B .0203 (d)** for failure to abide by General Permit condition No. 6, Permit to Construct condition No. 12, and Permit to Operate condition No. 7 in that modifications to the approved Environmental Monitoring Plan were conducted without Section approval.

**In order to achieve compliance, Haywood County must, within 30 days, submit updated site maps which reflect accurate well locations for both groundwater monitoring wells and landfill gas wells. Additionally, any modifications to the current approved Environmental Monitoring Plan, including but not limited to the destruction, replacement, and/or abandonment of any wells on site, must be communicated in writing to the Section Hydrogeologist for review. As the current explosive gas monitoring language and associated site maps found in the Permit to Construct do not reflect current site conditions, a stand-alone Landfill Gas Monitoring Plan is required. This Landfill Gas Monitoring Plan must be submitted to the Section for review, within 60 days, in accordance with 15A NCAC 13B .1626 (4) and shall include, at a minimum, landfill gas well construction diagrams, a site map indicating existing and proposed landfill gas wells, a schedule for installation for all proposed well locations, and a monitoring data collection sheet indicating all site wells and reporting standards.**

Other actions may be required by the Division at a later date.

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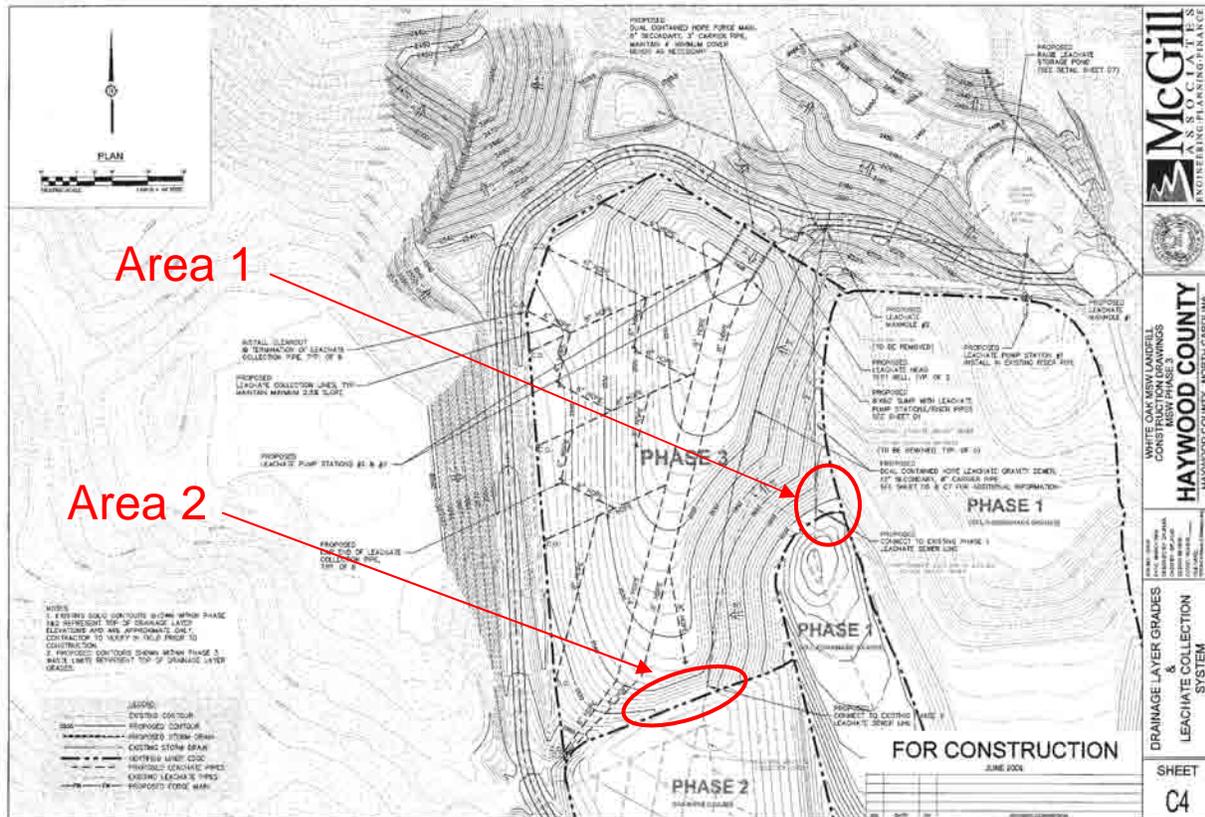
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You are hereby advised that, pursuant to N.C.G.S. 130A-22, an administrative penalty of up to \$15,000 per day may be assessed for each violation of the Solid Waste Statute or Regulations. For the violation(s) noted here, you may be subject to enforcement actions including penalties, injunction from operation of a solid waste management facility or a solid waste collection service and any such further relief as may be necessary to achieve compliance with the North Carolina Solid Waste Management Act and Rules.

**AREAS OF CONCERN AND COMMENTS:**

August 6-7, 2009

1. The Section was notified on 08/06/09 (verbal communication from S. King) that during the Phase 3 construction activity waste was discovered outside the liner system (Phase 1, Cell 2 to Cell 4 junction and at the sump pump at the eastern edge of Phase 2).
2. During the site inspection on 08/07/09, two areas of concern were noted:  
**Area 1** is at the junction of Phase 1, Cells 2 and 4. It was estimated (by McGill and S. King) that this region was actively receiving waste in the 2000-2002 timeframe.  
**Area 2** is located near a sump pump/cleanout line in the Phase 2 portion of the MSWLF.



Noted during site audit:

- a. The county had taken the initiative to collect a water sample from the Phase 3 under-drain system in order to verify that leachate had not impacted the water collecting in the basin of the Phase 3 construction.
- b. It was communicated that Haywood County needed to directly contact Ervin Lane, DENR DWM SWS hydrogeologist assigned to 44-07, regarding required assessment activities for impacted areas.

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- c. Not all waste was cleared from the corner junction of Area 1 at the time of the site inspection (some waste outside of liner), and waste appeared to have been spread outside the liner in Area 2. However, the Area 2 waste appeared to be incidental (mixed with soil – unable to determine cause of waste in this area). It was communicated that this waste needed to be removed from outside the liner (brought back up to the working face for proper disposal).
- d. In Area 1, during the attempt to uncover the liner system (in order to tie-in the liner with the new Phase 3 liner system) a vertical wall of waste was exposed. No dimensions were noted as to how far the waste exceeded the liner system. The vertical “wall” of waste was approximately 20-25’ in height and, during the time of the audit, extended onto the edge-of-liner shelf.



Edge of Liner Shelf, Area 1

- e. It was stated (by Haywood County) that this area would be amended to pull the waste further back off the liner (in order to stabilize the area). It was communicated to Haywood County that from a compliance standpoint, the critical elements were: remove all waste from outside the liner system, contain all leachate within the liner, and manage the waste and impacted soils (return them to the working face).

August 21-22, 2009

- 1. On site with Bill Wagner (8/21/09) to follow-up on waste removal/leachate containment.
- 2. Area 1 exhibited leachate seeps from the vertical wall (exposed during attempt to clear to liner of Phase 1). Leachate was leaving the liner system during the inspection and contacting soils in the new Phase 3 area in the region which had previously been impacted by the waste outside the liner.



- 3. The County was notified that the existing leachate containment was not adequate. A follow-up meeting with the County was conducted on 8/22/09 to discuss containment actions:

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- The County and Thale (contractors for Phase 3-4 expansion) had continued to dig out the Area 2 sump pump region to verify the edge-of-liner (slope and rain events making progress difficult);
- The County had dug a ditch/containment berm in the sump area to contain the flow of leachate during pumping activities;
- Approximately 480,000 gallons of leachate pumped from this sump area to the leachate pond over the course of June and July to avoid leachate discharge in Area 2.

August 25, 2009

1. On site to discuss containment options.

County actions taken:

- Continuous leachate pumping of the sump area (Area 2);
- Plans were in place to bypass the pump and tie in 2 lines temporarily to direct pump to leachate lagoon (will require approval by permitting);
- Purchase of an electric submersible pump for continuous pumping from various locations across Phase 1 and Phase 2;
- Waste to be removed from junction location (above Area 1) to improve slope (being brought to the working face). County stated that Thale is being utilized to move waste back to the working face; and
- All exposed waste in junction area would be covered with plastic/tarps, and waste hauling would be completed by the end of the week.

2. Section (A. Keller) to County in conclusion:

- All waste outside liner must be removed (as best as can be determined, and safely);
- Area 2 needs additional effort to uncover liner edge;
- Leachate control should be the number one priority;
- Uncovered waste on the slopes above Area 1 and Area 2 require attention/soil cover;
- Continue to communicate with the Section on all activities/improvements; and
- Contact Ervin Lane immediately to discuss assessment options/requirements.

October 28,, 2009 update: White Oak LF submitted an assessment report to the Section regarding the waste outside of liner/leachate release at Areas 1 and 2.

November 10, 2009 update: verbal approval was given from the Section to the County regarding the assessment report and the continued construction of the Phase 3 expansion. It was stated that additional monitoring may be required at a later date but that no further soil sampling was required in Areas 1 and 2.

November 20, 2009 update: Large storm/excessive rains hit area. County update included:

- a. Area 1: leachate contained within liner.
- b. Area 2: sump area being pumped with vac truck/tanker with approximately 1000-4000 gallons removed/day, leachate contained within liner.
- c. Extra tank (for leachate) placed at leachate pond in order to increase capacity.
- d. Approximately 1.25 million gallons of leachate hauled to Evergreen WWTP over course of leachate event.

March 30, 2010

1. On site to conduct Comprehensive Audit of the White Oak LF (A. Keller, P. Crissman, S. King, D. Ballew).
2. Permit to Construct authorized May 5, 2009.
3. Service area is Haywood County, leachate treated at the Waynesville WWTP, and recirculation of leachate is only approved as an emergency management technique.
4. Waste screening is conducted at the LF working face (1% = 1 load per day). Waste screening records were reviewed at the scale house. Approval was granted to dispose of several years worth of screening records (it was suggested that records could be kept between audit reviews and for approximately the previous six months of operation).

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5. Asbestos is accepted on Thursdays only, at designated areas, non-friable only and with advance warning.
6. Approved Alternative Daily Covers (ADC): tarps only at this time. County has been approved to conduct a demonstration period for a soil/mulch ADC mixture but demonstration has not been conducted at the time of the audit.
7. Waste tonnages were reviewed for the previous six months of operation:

Month	Waste Acceptance (tons)
Sept. '09	3925
Oct. '09	4035
Nov. '09	3606
Dec. '09	3426
Jan. '10	3227
Feb. '10	3113

8. Training records were reviewed:

LF Operator	Expiration Date
Ronnie Wilson	5/3/2010 (LF Operator)
Billy Owenby	8/21/2012 (LF Operator)
Gregory Cordell	8/21/2012 (LF Operator)
Denese Ballew	8/9/2011 (MOLO)
Stephen King	5/25/2010 (MOLO)

9. Access roads at the facility are required to be maintained in good condition. The Phase 3 construction activities had impacted the access roads the landfill and continued maintenance is advised.
10. Groundwater and Landfill Gas Monitoring: The current (approved) Operations Plan (submitted with the PTC application dated May 5, 2009) was reviewed. Please note that the section on explosive gas control referenced Appendix 3 – titled Explosive Gas Control Plan for Haywood County White Oak Landfill. It appears as though this Appendix 3, the current governing document for the LF, is appears to be the same plan that was submitted in the original PTC/PTO time frame (1992-93). The only map of LFG available at the time of the audit was a DSAntlantic figure (dated September 7, 1994) that depicted six LFG wells (LFG-1 through LFG-6).

According to the LFG monitoring data, the following data was recorded:

	LFG-1	LFG-2	LFG-3	LFG-4	LFG-5	LFG-6
3/30/2009	X	X	X	X	X	X
6/26/2009	X	X	X	Closed	Closed	Closed
9/29/2009	X	X	Closed	Closed	Closed	Closed

According to the Overall Site Plan (Sheet C1 in PTC and also included in the approved Environmental Monitoring Plan) the following LFG wells are noted: LFG-1, LFG-4, LFG-6 and the proposed LFG-7 through LFG-10. Ensuing conversations with site personnel indicated that LFG-4 was destroyed by accident/part of grading below the leachate pond (as well as MW-3 and MW-3D). It also appears that perhaps LFG-4 was mistaken for LFG-3 during the June 26, 2009 sampling event.

The destruction of these three wells was not communicated to the Section and proper abandonment was unable to be conducted. Additionally, it was not communicated that LFG-3, LFG-4, MW-3, and MW-3D were in the path of construction and would require replacement. The submitted maps do not reflect current site conditions.

Issues of note:

- The submitted Explosive Gas Control Plan did not reflect the current site conditions.
- The submitted Environmental Monitoring Plan contained maps that did not reflect the current site conditions at the time.
- LFG-2 (in existence as of 3/30/09) was missing from submitted documentation;

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- LFG-3 and LFG-5 were missing from submitted documentation;
- LFG-4 was destroyed without proper abandonment. This well, according to approved documents, was intended to be part of the monitoring network;
- The most recent GW monitoring report stated that MW-4A was damaged and unable to be sampled; and
- Recent communication to the Section discussed damage to MW-9.

Please contact the Section Hydrogeologist (Zinith Barbee, 919-508-8401) to resolve this issues regarding abandonment of wells, replacement of wells, and correction of associated documentation Environmental Monitoring Plan. In addition, an updated and accurate Landfill Gas Monitoring Plan should be submitted for approval by the Section.

11. Areas 1 and 2, noted above, did not have adequate soil cover in place on the intermediate sections of the existing Phase/cell regions at the time of the audit. While these regions have steep, unstable slopes due to the excavation to uncover the liner (for the Phase 3 expansion), the areas are required [15A NCAC 13B .1626 (2)(c)] to have one foot of intermediate soil cover in place.



**Area 1 03/30/2010**



**Area 2 03/30/10**

12. The treatment and processing area (grinding of land clearing debris) exhibited a large amount of stockpiled raw material in place during the audit (no grinding had occurred). This area needs to be maintained and operated such that materials are processed and utilized on site.
13. Items 9, 11, and 12 refer to facility requirements which involve manpower/staffing. Rule 15A NCAC 13B .1604 General Requirements for MSWLF Facilities states in section (b)(2)(I) Proper Operation and Maintenance: ***proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures.*** The

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County may wish to review the funding and staffing of this facility in order to insure that adequate staffing is available to properly maintain the facility in compliance with all Division requirements.

Please contact me if you have any questions or concerns regarding this audit report.



Phone: 828-296-4700

*Andrea Keller*  
Environmental Senior Specialist  
**Regional Representative**

<b>Mailed on : <u>05/11/10</u> by</b>		hand delivery		US Mail		<b>Stephen King: Certified No.</b> <b>[7006 2150 0005 2458 9211]</b>
						<b>David Cotton: Certified No.</b> <b>[7006 2150 0005 2458 9235]</b>

cc: Mark Poindexter, Field Operations Branch Supervisor  
Deb Aja, Western District Supervisor  
Donald Herndon, Compliance Officer  
Zinith Barbee, Section Hydrogeologist  
Ed Mussler, Permitting Branch Manager