



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

Beverly Eaves Perdue  
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Director

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

**CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL  
LARGE TYPE 1 SOLID WASTE COMPOST AND REPROESSING FACILITY**

**PERMIT NO. 92-30-CDLF-**

**Highway 55 C&D Landfill, LLC. (Owner)**  
**Greenway Waste Solutions, LLC**  
Parent company of  
**Greenway Waste Solutions of Apex, LLC (Operator)**

is hereby issued a

**PERMIT TO OPERATE**

Phase 2 Cell 1B

Located north of and accessed by Old Smithfield Road and west of Highway 55 By-pass and further described in Apex, Wake County, North Carolina, in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The facility is located and described by the legal description of the site or the property map contained within the approved application and previous permits.

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

## ATTACHMENT 1

### PART I: PERMITTING HISTORY

FACILITY PERMIT NO: 92-30	ISSUANCE DATE	DIN
Original Issue date (PTC)	August 12, 2002	
Amendment 1 (PTO)	December 10, 2002	
Amendment 1 Modification, Compost & Reprocessing Facility (PTO)	December 27, 2002	3187
PTC Issued (C&D Phase I Expansion)	February 14, 2002	
PTO Issued (C&D Expansion)	July 24, 2002	
PTC Issued (C&D Phase 2, Large Type 1 Solid Waste Compost & Reprocessing Facility & Name Change)*	February 24, 2009	5929
PTO Issued (Phase 2 Cell 1A, 1.83 acres)	March 27, 2012	16176
PTO Issued (Phase 2 Cell 1B, 4.32 acres)	November 28, 2012	17687

\*Greenway Waste Solutions, LLC (previously C&D Management Company, LLC) is the parent company of Greenway Waste Solutions of Apex, LLC (Previously Highway 55 C&D Landfill, LLC).

### PART II: LIST OF DOCUMENTS FOR THE APPROVED PLAN

1.	Report – Site Application – <i>Highway 55 C&amp;D Landfill and Recycling Center</i> – prepared for Highway 55 C&D Landfill, LLC Construction & Demolition Landfill – Wake County, North Carolina; application dated 19 April 2002 and received 24 April 2002 from Enviro-Pro, P.C.
2.	Response to Comment dated 19 March 2002 – Site Suitability Permit Application, response received 24 April 2002 and 8 May 2002 from Enviro-Pro for information dated 19 April 2002 and 7 May 2002
3.	Second Response to Comment letter dated 3 July 2002 – Site Suitability Permit Application – response dated 11 July 2002 “Revised Site Plan Application Report” from Enviro-Pro
4.	Certified minutes from Wake County dated 3 December 2001 and 19 November 2001 indicating the vote of the Wake County Commissioners in approving the franchise for Highway 55 C&D Landfill, LLC, received in the Revised Site Suitability application dated April 2002 received 24 April 2002
5.	Special Use Permit recorded in Deed Book: 9099 and Pages: 1039 thru 1044, as part of the Site Suitability application dated April 2002 received 24 April 2002

6.	Deed description for re-combination of properties consisting of Book: 9099 and Pages: 1039 – 1044 representing 116.333 acres and Book: 9488 and Pages: 0922 – 0923 representing 0.963 acres.
7.	Reprocessing facility application dated December 17, 2002, signed by design engineer on December 18, 2002, received by the Solid Waste Section on December 19, 2002.
8.	<i>Phase II Construction Plan Application, Phase I Closure Update, and Composting Permit.</i> Prepared for: Highway 55 C&D Landfill, LLC. Prepared by: BP Barber. August 2007. Revised June 26, 2008. As Amended February 5, 2009 and February 19, 2009. DIN 5054
10.	Operations Plan, Construction And Demolition Debris Landfill Facility, Permit No. 92-30. Prepared For: Greenway Waste Solutions Of Apex, LLC. Prepared By: Civil & Environmental Consultant, Inc., Charlotte, North Carolina, CEC Project 111-370, December 21, 2011. DIN 16177
11.	<i>Construction Quality Assurance Report, Phase 2 Cell 1A.</i> Construction and Demolition Landfill Permit No. 92-30. Prepared for: Greenway Waste Solutions of Apex, LLC. Prepared by: Civil & Environmental Consultant Inc. February 1, 2012. DIN 16175.
12.	<i>Construction Quality Assurance Report, Phase 2 Cell 1A, Revision 1.</i> Construction and Demolition Landfill Permit No. 92-30. Prepared for: Greenway Waste Solutions of Apex, LLC. Prepared by: Civil & Environmental Consultant Inc. March 3, 2012. DIN 16361.
13.	Operations Plan Revision 1, Construction And Demolition Debris Landfill Facility, Permit No. 92-30. Prepared For: Greenway Waste Solutions Of Apex, LLC. Prepared By: Civil & Environmental Consultant, Inc., Charlotte, North Carolina, CEC Project 111-370. March 20, 2012. DIN 16359.
14.	<i>Construction Quality Assurance Report, Phase 2 Cell 1B.</i> Construction and Demolition Landfill Permit No. 92-30. Prepared for: Greenway Waste Solutions of Apex, LLC. Prepared by: Civil & Environmental Consultant Inc. November 1, 2012. DIN 17687.

**Part III: PROPERTIES APPROVED FOR THE SOLID WASTE FACILITY**

<b>Wake County, N.C. Register of Deeds</b>				
Book	Page	Acreage	Grantor	Grantee
9099	1039-1044	116.333	Fon Associates Limited Partnership	Highway 55 C&D Landfill, LLC
9488	0922-0923	0.963	R. Markham and Ruth B. Stewart (50%), Melissa S. Woodell and Anthony K. Woodell (50%)	Highway 55 C&D Landfill, LLC

#### **PART IV: GENERAL CONDITIONS**

1. This permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B .0201(d), a solid waste management facility permit shall have two parts: a Permit to Construct and a Permit to Operate. The Permit to Construct will expire on March 24, 2014. The Permit to Operate must be implemented in accordance with Attachment 3 of this permit. The Permit to Operate will expire on March 24, 2014.
2. The persons to whom this permit is issued (“permittee”) are the owners and operators of the solid waste management facility.
3. [Intentionally Blank].
4. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer shall contain in the description section in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as a sanitary landfill and a reference by book and page to the recordation of the permit.
5. By receiving waste at this facility the permittee shall be considered to have accepted the terms and conditions of this permit.
6. Operation of this solid waste management facility shall 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.
7. This permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in Attachment 1, Part II: *List of Documents for the Approved Plan* and which constitute the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.
8. This permit may be transferred only with the approval of the Section, through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules. In accordance with NCGS 130A-295.2(g) the permittee shall notify the Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator, including but not limited to a proposed transfer of

ownership of the facility or a change in the parent company of the owner or operator of the facility.

9. The permittee is responsible for obtaining all permits and approvals necessary for the development of this project including approval from appropriate agencies for a General or Individual NPDES Stormwater Discharge Permit. Issuance of this permit does not remove the permittee's responsibilities for compliance with any other local, state or federal rule, regulation or statute.

*-End of Section -*

## **ATTACHMENT 2 CONDITIONS OF PERMIT TO CONSTRUCT**

- Not Applicable -

## ATTACHMENT 3 CONDITIONS OF PERMIT TO OPERATE

### PART I: OPERATING CONDITIONS

1. This permit approves the continued operation of Phases 1 and Phase 2-Cell 1A and 1B of the landfill, as well as the onsite environmental management and protection facilities as described in the approved plans.
2. The following table lists the dimensions and details for the landfill, both existing and planned. Total gross capacity is defined as the volume measured from the bottom of waste through the top of final cover. The total disposal area of Phases 1 through 3 is 43.8 acres.

Area	Gross Capacity (cy)	Acreage
Phase 1	1,100,000	17.8
Phase 2- Total, including Cell 1A	1,100,000	14.8
* Cell 1A only	49,360	1.83
* Cell 1B only	240,810	4.32
Phase 3	900,000	11.2
<b>Totals</b>	<b>3,100,000</b>	<b>43.8</b>

The Total Volume Constructed = 1,3390,170 cy

3. The permittee must maintain permanent markers that accurately identify the edge of the approved waste disposal boundary.
4. The landfill is permitted to receive the following waste types:
  - a. "C&D solid waste" as defined in 15A NCAC 13B, Rule .0532(8) means solid waste generated solely from the construction, remodeling, repair, or demolition operations on pavement and buildings or structures. C&D waste does not include municipal and industrial wastes that may be generated by the on-going operations at buildings or structures.
  - b. "Inert debris" as defined in G.S. 130A-290 (a)(14) means solid waste that consists solely of material such as concrete, brick, concrete block, uncontaminated soil, rock, and gravel.

- c. "Land-clearing debris" as defined in G.S. 130A-290 (a)(15) means solid waste which is generated solely from land clearing activities, limited to stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.
    - d. "Asphalt" in accordance with G.S. 130-294(m).
5. Regulated asbestos-containing material must be managed in accordance with 40 CFR 61. Disposal of asbestos waste must be in accordance with 15 NCAC 13B .0542 (c).
6. Those wastes listed in 15A NCAC 13B .0542 (e) must not be accepted for disposal including, but not limited to, hazardous waste, municipal solid waste, liquid waste, commercial and industrial wastes, and yard trash.
7. Wastewater treatment sludge is not approved for disposal. Wastewater treatment sludge may be accepted, with the approval of the Section, for utilization as a soil conditioner and incorporated into or applied onto the vegetative growth layer. The wastewater treatment sludge must not be applied at greater than agronomic rates nor to a depth greater than six inches.
8. The facility is approved to accept approximately 200,000 tons per year. Maximum variance shall be in accordance with NCGS 130A-294(b1)(1).
9. The facility is permitted to receive C&D waste generated within Wake County.
10. The permittee must not knowingly dispose of C&D waste that is generated within the boundaries of a unit of local government that by ordinance:
  - a. Prohibits generators or collectors of C&D waste from disposing of 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.
11. The facility operator must complete an approved operator training course in compliance with G.S. 130A-309.25.
  - a. A responsible individual certified in landfill operations must be on-site during all operating hours of the facility while open for public use to ensure compliance with operational requirements.
  - b. All pertinent landfill-operating personnel must receive training and supervision necessary to properly operate the landfill units in accordance with G.S. 130A-309.25 and addressed by memorandum dated November 29, 2000.

12. The permittee must actively employ a training and screening program at the facility prepared in accordance with Rule .0544 (e) for detecting and preventing the disposal of excluded or unauthorized wastes. At a minimum, the program must include:
  - a. Random inspections of incoming loads or other comparable procedures.
  - b. Records of all inspections.
  - c. Training of personnel to recognize hazardous, liquid and other excluded waste types.
  - d. Development of a contingency plan to properly manage any identified hazardous, liquid, MSW or other excluded or unauthorized wastes. The plan must address identification, removal, storage and final disposition of these wastes.
13. The use of alternative periodic cover requires approval, prior to implementation, by the Section. Requests for alternative periodic cover approval must include a plan detailing the comprehensive use and a demonstration of the effectiveness of the alternative cover, developed according to Section guidelines. Plans that are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.
14. Financial assurance must be continuously maintained for the duration of the facility in accordance with Rule 15A NCAC 13B .0546. The owner and operator must annually adjust cost estimates for closure and post-closure activities for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s), pursuant to 15A NCAC 13B .0546.
15. All sedimentation and erosion control activities must be conducted in accordance with the Sedimentation Control Act N.C.G.S. 113A-50, et seq., and rules promulgated under 15A NCAC 4. All required sedimentation and erosion control measures must be installed and operable to mitigate excessive on-site erosion and to prevent silt from leaving the area of the landfill unit during the service life of the facility.
16. Facility construction, operations or practices must not cause or result in a discharge of pollution, dredged material, and/or fill material into waters of the state in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
17. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The Section must be notified of any sedimentation and erosion control plan modifications.
18. An updated closure and post-closure plan must be submitted for approval at least ninety (90) days prior to closure or partial closure of any landfill unit. The plan must include all steps and measures necessary to close and maintain the C&DLF in accordance with all rules in effect at that time. At a minimum, the plan must address the following:

- a. Design of a final cover system in accordance with 15 NCAC 13B .0543(c), or the solid waste management rules in effect at the time of closure;
- b. Construction and maintenance/operation of the final cover system and erosion control structures;
- c. Surface water, groundwater, and landfill gas monitoring.

## **PART II: MONITORING AND REPORTING REQUIREMENTS**

19. Groundwater, surface water, and landfill gas monitoring locations must be established and monitored as identified in the approved plans. Any proposed modification to an approved plan must be submitted to the Section and approved prior to implementation.
20. A licensed geologist must be present to supervise the installation of groundwater monitoring wells and landfill gas monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the Section Hydrogeologist at the time of well installation.
21. The permittee must obtain approval from the Section for the design, installation, and abandonment of any groundwater or landfill gas monitoring well.
22. Groundwater monitoring wells and surface water sampling locations must be sampled at least semi-annually in accordance with 15A NCAC 13B .0544, the approved water quality monitoring plan, and the current policies and guidelines of the Section in effect at the time of sampling. In accordance with 15A NCAC 13B .0544(d), landfill gas monitoring must be conducted quarterly, unless otherwise specified by the Section.
23. Hydraulic conductivity and effective porosity values must be established for each screened interval at each monitoring well in order to develop groundwater flow characteristics.
24. Monitoring reports of the analytical results for surface water and groundwater monitoring sampling events must be submitted to the Section within 120 days of the sample collection date. Analytical laboratory data must be submitted in electronic portable document format (pdf) and in a spreadsheet format in an Electronic Data Deliverable (EDD) Template. All monitoring reports must contain:
  - a. a potentiometric surface map for the current sampling event,
  - b. analytical laboratory reports and summary tables,
  - c. a completed Solid Waste Environment Monitoring Data Form, and
  - d. laboratory data submitted in accordance with the EDD Template.
25. A readily accessible unobstructed path must be maintained so that groundwater and landfill gas monitoring wells and surface water sampling locations are accessible using four-wheel drive vehicles.

26. Documentation of well completion, development details, repair, abandonment, and all other pertinent activities associated with each groundwater and landfill gas monitoring well must be maintained in the facility operating record. The permittee must maintain a record of all groundwater, surface water, and landfill gas monitoring events and analytical data in the operating record.
27. Within 30 days of completed construction of each new groundwater and landfill gas monitoring well, a well construction record, well schematic, boring log, field log and notes, and description of well development activities must be submitted to the Section. Form GW-1 must be used for both groundwater and landfill gas wells. The submittal must also include a scaled topographic map, showing the location and identification of new, existing, and abandoned wells and piezometers, and hydraulic conductivity and effective porosity values.
28. Each groundwater monitoring well and landfill gas well must be surveyed for location and elevation. Each groundwater monitoring well and landfill gas monitoring well must have an identification plate permanently attached to the well, in accordance with 15A NCAC 2C .0108(o).
29. Within thirty (30) days of the abandonment of any groundwater monitoring well, the well abandonment record (GW-30 form) and any additional information included in the abandonment record must be certified by a Licensed Geologist, and submitted to the Section. A copy of the well abandonment records submitted to the Division of Water Quality, consistent with 15A NCAC 2C .0114(b), must be submitted to the Section.
30. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.
31. All landfill gas monitoring must be conducted by properly trained personnel and must include monitoring for hydrogen sulfide. Landfill gas monitoring must include interior monitoring of onsite buildings.
32. Landfill gas monitoring results must be recorded on forms provided by the Section and be maintained in the facility's operating record.
33. Within thirty (30) days of the abandonment of a landfill gas monitoring well, an abandonment record must be submitted to the Section. The boring must be abandoned in accordance with 15A NCAC 2C .0113(d) and be certified by a Licensed Geologist.

### **PART III: REPORTING AND RECORDKEEPING**

34. Copies of this permit, the approved plans, and all records required to be maintained in the operating record by the permittee must be maintained at the facility and made available to the Section upon request during normal business hours.
35. The owner or operator must maintain records of the following. Scales must be used to weigh the amount of waste received. The daily reports are to be summarized into a monthly report for use in the required annual reports.
  - a. The amount of all accepted solid waste materials as (i) C&D wastes, (ii) material used as alternate periodic cover, and (iii) recyclable material.
  - b. Daily records of waste received, and origins of the loads.
36. On or before August 1 annually, the Permittee must submit an annual facility report to the Section, on forms prescribed by the Section.
  - a. The reporting period shall be for the previous year beginning July 1 and ending June 30.
  - b. The annual facility report must list the amount of waste received in tons and be compiled:
    - i. On a monthly basis.
    - ii. By county, city or transfer station of origin.
    - iii. By specific waste type.
    - iv. By disposal location within the facility.
    - v. By diversion to alternative management facilities.
  - c. A measurement of volume utilized in the landfill cells must be performed during the second quarter of the calendar year. The date and volumes, in cubic yards, must be included in the report.
  - d. The amount of waste, in tons from scale records, disposed in landfill cells from December 10, 2002 through the date of the annual volume survey must be included in the report.
  - e. The tons of C&D waste recycled, recovered or diverted from disposal including a description of how and where the material was ultimately managed, as applicable, must be included in the report.
  - f. The completed report must be forwarded to the Regional Environmental Senior Specialist for the facility by the date due on the prescribed annual facility report form.

- g. A copy of the completed report must be forwarded to each county manager for each county from which waste was received the facility. Documentation that a copy of the report has been forwarded to the county managers must be sent to the Regional Environmental Senior Specialist by the date due on the prescribed annual facility report form.

- End of Section -

## **PART IV- MISCELLANEOUS TREATMENT AND PROCESSING UNIT OPERATING CONDITIONS**

### General Conditions

37. All treatment and processing and or storage areas must be located on the facility as shown on the approved drawings. The permittee must obtain Section approval before re-locating any of these operations or revising the Operations Plan.
38. Wastes received and product stored shall be maintained in reasonably sized piles with adequate fire breaks and lanes in accordance with the approved operational plans and the pertinent rules.
39. Surface water in operational areas and under or around storage Surface water shall be diverted from all operational and storage areas to prevent standing piles. Water that comes in contact with solid waste is deemed to be leachate and shall be contained on-site or properly treated prior to discharge.
40. These areas must be operated and maintained with sufficient dust control measures to minimize airborne emissions and to prevent dust from becoming a nuisance or safety hazard. The Permit does not include the grinding of sheetrock (wallboard).
41. Areas must be operated and maintained in a manner so as to minimize odors, prevent the creation of a nuisance, potential health hazard, or a potential fire hazard.
42. Effective vector control measures shall be applied as necessary to control flies, rodents, insects, and vermin.
43. Operation and maintenance of this facility shall be in accordance with the Solid Waste Compost Rules (15A NCAC 13B, Section .1400), the permit application and the

Operation and Maintenance Manual, dated June 26, 2008 and revised through March 20, 2012.

#### Treatment & Processing (Wood Grinding)

44. The facility is permitted to operate a treatment and processing facility as defined in 15A NCAC 13B, Rule .0101(49).
45. The facility is permitted to receive land clearing waste as defined in 15A NCAC 13B, Rule .0101(23).
46. The facility is permitted to receive wooden pallets constructed of unpainted and untreated natural wood.
47. The facility is permitted to receive yard trash as defined in 15A NCAC 13B, Rule .0101(55). However, this ground material containing yard trash may not be distributed to the public unless it has been composted in accordance with Rule .1400.

#### Recycling, Treatment and Processing Facility

48. The facility must manage the treatment and processing (recycling) according to the Operation Plan included in Attachment 1, Part II: "List of Documents for the Approved Plan". Any revisions to the approved plan shall be approved by the Section, prior to implementation.
49. Only materials specifically listed in the permit application or Operating Plan may be managed at this facility without adequate testing and prior approval of the Division of Waste Management. The facility is permitted to operate a treatment and processing facility as defined in 15A NCAC 13B, Rule .0101(49).

#### Mobile Home Deconstruction Area Conditions

51. The permittee must implement the approved plan to store mobile homes, stockpile recyclable materials, and conduct deconstruction activities. The storage and deconstruction activities shall take place only in the designated areas.
52. Regulated asbestos-containing material as defined in 40 CFR 61 must be managed in accordance with 40 CFR 61. The permittee must follow the approved plan to properly remove asbestos-containing material from a mobile home. Disposal of asbestos waste must be in accordance with 15 NCAC 13B.0542 (c).

53. White goods, as defined in NCGS 130A-290(a)(44), which are within mobile homes to be deconstructed, must be properly removed to the White Goods Handling Area prior to deconstruction activities. White goods must be managed in accordance with all federal, state, and local applicable statutes and rules.
54. All mobile homes must be deconstructed within 45 days from acceptance into the deconstruction area. The date of receipt at the landfill shall be posted on the mobile home or its frame.
55. All material not planned for recycling must be placed in an appropriate approved disposal unit before the end of the day in which deconstruction takes place.
56. Recyclable materials may be stockpiled at the mobile home deconstruction area for no more than 45 days from the date of deconstruction.
57. Records shall be kept at the facility in accordance with the approved plan.

*- End of Permit Conditions -*