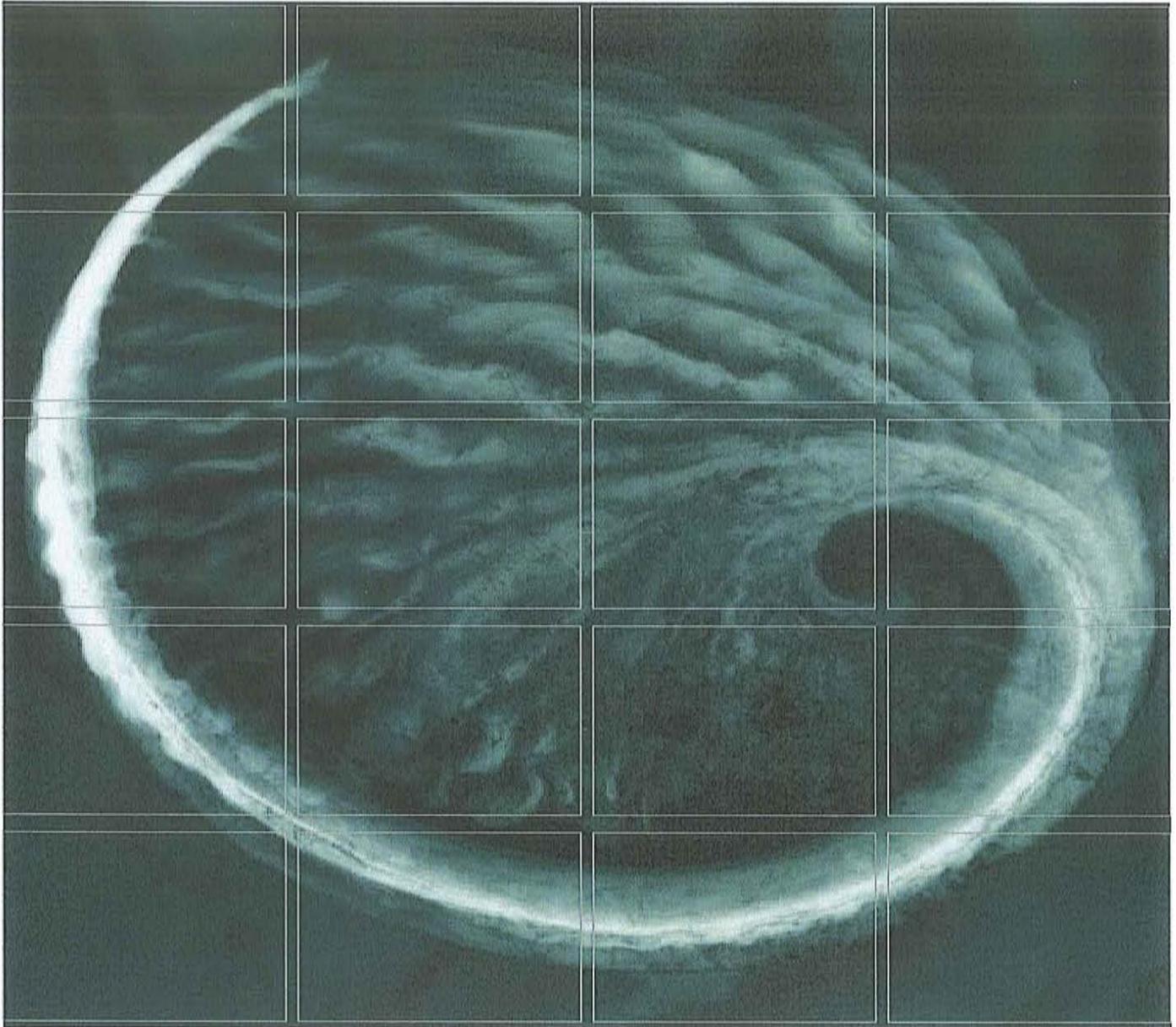
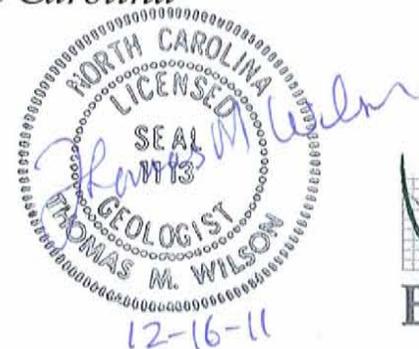
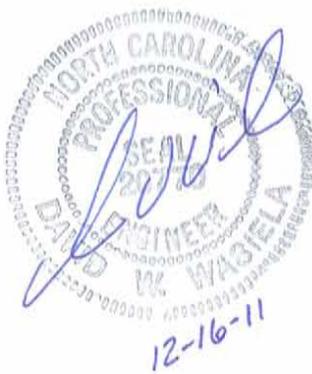


Fac/Perm/Co ID #	Initials Trail	Date	Doc ID #
Application P1246	Geoffrey H. Little	12/19/2011	DIN16560



Green Recycling Solutions LLC
 Site Suitability Report
 Proposed Construction & Demolition
 Debris Landfill
 Maysville, North Carolina

December 2011



Delivering sustainable solutions in a more competitive world

ERM NC, Inc.

8000 Corporate Center Dr.
Suite 200
Charlotte, NC 28226
(704) 541-8345
(704) 541-8416 (fax)

December 16, 2011

NCDENR – Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646



Attention: Mr. Geoffrey Little

Reference: Site Suitability Study
Proposed Green Recycling Solutions LLC – C&D Landfill
Maysville, Jones County, North Carolina

Mr. Little:

On behalf of Green Recycling Solutions LLC, ERM NC, Inc. (ERM) is submitting the attached Site Suitability Study for a Construction & Demolition Debris (C&D) Landfill in accordance with NCDENR Division of Waste Management regulations 15A NCAC 13B .0536(a) through .0536(c) for the referenced project. The proposed C&D landfill site is located within the jurisdictional limits of Maysville, North Carolina approximately one mile north of the intersection of US Highway 17 and NC Route 58 and encompasses approximately 43.5 acres. This proposed C&D Landfill will only receive waste from the proposed neighboring Green Recycling Solutions LLC recycling and recovery facility. This facility will be permitted separately via permit applications submitted to Division of Waste Management. All waste that is delivered to the proposed landfill for disposal will be processed prior to disposal. This will allow for inspection of all waste received at the facility due to the coupling of a recycling and recovery facility.

Local government approvals including executed franchise agreement with the Town of Maysville have been obtained and included in this submittal. During development of the site hydrogeologic investigation program, ERM submitted a proposed boring location plan for the Maysville site on August 4, 2011 to Division of Waste Management to receive comments or suggestions. The proposed boring location plan included 15 soil test boring locations with installation of temporary observation wells (installed as Type II Monitoring Wells) at each location. The depths of the proposed borings and wells ranged from 15 to 20 feet below ground surface. Ms. Elizabeth Werner responded to ERM on August 15, 2011 with no suggested revisions concerning the locations of the proposed borings or proposed depths. ERM subcontracted Geologic Exploration, Inc. to perform drilling and well installation services and mobilized to the site on August 22, 2011. Representatives from Division of Waste Management; Elizabeth Werner and Ray Williams, visited the site on August 24, 2011 during the installation of soil test borings and observation wells. Field work for the borings and well installation was completed on August 26, 2011. Following installation of the wells, ERM performed field permeability testing for the surficial aquifer

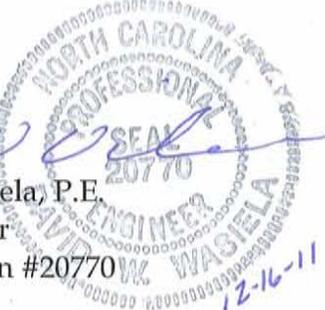
and made several site visits to obtain ground water level measurements. The results of our field testing and observations are included in the attached Site Hydrogeologic Report (Appendix III).

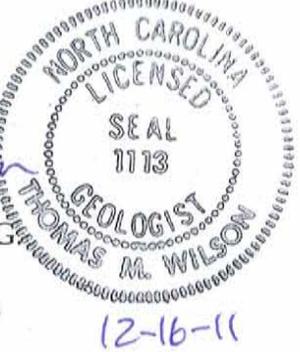
The Site Suitability Report for the Maysville Green Recycling Solutions site has been compiled to match the order of information requested in regulation 15A NCAC 13B .0536(a) through (c). For simplicity purposes, each portion of the regulation is listed prior to the associated discussion of information to illustrate completeness.

If you should have any questions or require additional information concerning this Site Suitability Report please contact us at your convenience.

Sincerely,

ERM NC, Inc.


David W. Wasiela, P.E.
Senior Engineer
NC Registration #20770



Thomas M. Wilson, P.G.
Senior Geologist
NC Registration #1113


- cc: Mr. James Maides - Green Recycling Solutions LLC
Ms. Elizabeth Werner - NCDENR - Division of Waste Management
Mr. Ray Williams - NCDENR - Division of Waste Management

Attch: Site Suitability Report

Site Suitability Report

Proposed Green Recycling Solutions LLC - C&D Landfill

Maysville, Jones County, North Carolina

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Regulation 15A NCAC 13B .0536(a) SITE STUDY FOR C&DLF FACILITIES (a)

(a) Purpose. As required under Rule .0535 of this Section, the owner or operator must prepare a site study which meets the requirements of this Rule. The Division shall review the site study for a proposed new facility prior to consideration of an application for a permit to construct. Following review of the site study, the Division shall notify the applicant that:

- (1) the site is deemed suitable and the applicant is authorized to prepare an application for a permit to construct in accordance with Rule .0535 of this Section; or*
- (2) the site is deemed unsuitable for establishing a C&DLF unit(s) and shall specify the reasons that would prevent the C&DLF unit(s) from being operated in accordance with G.S. 130A Article 9, or this Subchapter, and any applicable federal laws and regulations.*

Discussion

ERM NC, Inc. (ERM) has been contracted by Green Recycling Solutions, LLC of Jacksonville, North Carolina to perform services to complete a Site Suitability Study for the proposed site in accordance with NCDENR regulations 15A NCAC 13B .0536(a) through (c).

Regulation 15A NCAC 13B .0536(b) SITE STUDY FOR C&DLF FACILITIES (b)

(b) Scope. The site is the land which is proposed for the landfill facility. The site study presents a characterization of the land, incorporating various investigations and requirements pertinent to suitability of a C&DLF facility. The scope of the site study includes criteria associated with the public health and welfare, and the environment. The economic feasibility of a proposed site is not within the scope of this study. The information in the site study must accurately represent site characteristics and must be prepared by qualified environmental professionals as set forth in Subparagraph (a)(3) of Rule .0202 of this Subchapter. New C&DLF unit(s) and lateral expansions must comply with the siting criteria set forth in Paragraph (c) of this Rule, Subparagraphs (4) through (10). In order to demonstrate compliance with specific criteria for each of the respective location restrictions, documentation or approval by agencies other than the Division of Waste Management, Solid Waste Section may be required. The scope of demonstrations including design and construction performance must be addressed in the site study.

Discussion

ERM NC, Inc. (ERM) has been contracted by Green Recycling Solutions, LLC of Jacksonville, North Carolina to perform services to complete a Site Suitability Study for the proposed site in accordance with NCDENR regulations 15A NCAC 13B .0536(a) through (c). The Site Study was performed under the supervision of ERM's David W. Wasiela, P.E., a Professional Engineer registered in North Carolina (Registration #20770), and Thomas M. Wilson, P.G., a licensed Professional Geologist registered in North Carolina (Registration #1113). The results of ERM's study are presented in this Site Suitability Report. Local and State agencies have provided individual approval for components of this study as needed. Individual approvals are referenced within the study pertaining to the specific regulation requiring such approvals.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(1)(A-I)

(c) The site study prepared for a C&DLF facility must include the information required by this Paragraph.

(1) Characterization study. *The site characterization study area includes the landfill facility and a 2000foot perimeter measured from the proposed boundary of the landfill facility. The study must include an aerial photograph taken within one year of the original submittal date, a report, and a local map. The map and photograph must be at a scale of at least one inch equals 400 feet. The study must identify the following:*

(A) the entire property proposed for the disposal site and any on-site easements;

(B) existing land use and zoning;

(C) the location of residential structures and schools;

(D) the location of commercial and industrial buildings, and other potential sources of contamination;

(E) the location of potable wells and public water supplies;

(F) historic sites;

(G) state nature and historic preserves;

(H) the existing topography and features of the disposal site including: general surface water drainage patterns and watersheds, 100-year floodplains, perennial and intermittent streams, rivers, and lakes; and

(I) the classification of the surface water drainage from landfill site in accordance with 15A NCAC 02B .0300.

Discussion

The site characterization map, including the proposed landfill facility boundary and a 2,000-foot perimeter study area is presented in **Appendix I**. Topography on the site ranges from a high elevation of 40.0 MSL to 37.0 MSL based on the most recent Lidar data available from the North Carolina Floodplain Mapping Program updated through 2010. There is no predominant direction of topographic relief; the site is relatively flat.

Within the 2,000-ft characterization limits, the following items do not exist:

- Private residences with water supply wells
- Water supply intakes
- Natural surface waters
- 100-yr Floodplain
- Commercial or Industrial Buildings
- Historic sites
- State Nature or historic preserves

The nearest surface water is an unnamed tributary to the White Oak River beyond the limits of this characterization study. In this area, the White Oak River is classified as class "C"

waters. The definition of a class “C” water provided by NCDENR – Division of Water Quality follows:

“Class C

Waters protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner.”

Due to the sandy soil conditions within this area of Jones County, rainfall generated runoff typically infiltrates into the underlying soils within unpaved or built upon areas. In the event that storm water generated from the landfill facility traveled to the White Oak River, the Division of Water Quality does not require special provisions for landfill development for this water quality classification (See Below).

GUIDE TO SURFACE FRESHWATER CLASSIFICATIONS IN NORTH CAROLINA

NC Department of Environment and Natural Resources – Division of Water Quality – 2009

Surface Freshwater Classifications	AREA AFFECTED	WASTEWATER DISCHARGES ALLOWED ⁷	DEVELOPMENT ACTIVITIES			EROSION & SEDIMENTATION CONTROLS ¹⁵	AGRICULTURE BEST MANAGEMENT PRACTICES MANDATED ¹⁶	FORESTRY BEST MANAGEMENT PRACTICES MANDATED ¹⁵	TRANSPORTATION BEST MANAGEMENT PRACTICES MANDATED	LANDFILLS ALLOWED	DAMS/ WATER RESOURCE PROJECTS
			ALLOWABLE DENSITY								
			LOW DENSITY OPTION (DU = DWELLING UNIT) (AC = ACRE)	HIGH DENSITY OPTION ¹²	STREAM BUFFERS ^{13, 14}						
DWQ Primary Classifications											
WATER SUPPLY - I (WS-I) ¹	entire water supply watershed	none allowed	none -- undeveloped	none -- undeveloped	N.A.	more stringent rules apply	yes ¹⁷	yes	stricter NC Div. of Land Resources erosion controls apply ²⁰	none allowed	no specific restrictions
WATER SUPPLY - II (WS-II) ¹	1/2 mile critical area ³	general permits ⁸	1 du / 2 ac or 6% built upon area	6-24% built upon area	low density - 30' high density - 100'	more stringent rules apply	yes ¹⁷	yes	stricter NC Div. of Land Resources erosion controls apply ²⁰	no new landfills	no specific restrictions
	rest of watershed	general permits ⁸	1 du / 1 ac or 12% built upon area	12-30% built upon area	low density - 30' high density - 100'	more stringent rules apply	yes	yes	stricter NC Div. of Land Resources erosion controls apply ²⁰	no new discharging landfills ²¹	no specific restrictions
WATER SUPPLY - III (WS-III) ¹	1/2 mile critical area ³	general permits ⁸	1 du / 1 ac or 12% built upon area	12-30% built upon area	low density - 30' high density - 100'	standard rules	yes ¹⁷	yes	yes ²⁰	no new landfills	no specific restrictions
	rest of watershed	domestic & non-process industrial	1 du / 1/2 ac or 24% built upon area	24-50% built upon area	low density - 30' high density - 100'	standard rules	yes	yes	yes ²⁰	no new discharging landfills ²¹	no specific restrictions
WATER SUPPLY - IV (WS-IV) ¹	1/2 mile critical area ³	domestic and industrial ⁹	1 du / 1/2 ac or 24% built upon area ¹⁰	24-50% built upon area ¹⁰	low density - 30' high density - 100'	standard rules	yes ¹⁷	yes	yes ²⁰	no new landfills	no specific restrictions
	protected area ⁴	domestic and industrial	1 du / 1/2 ac or 24% built upon area ^{10, 11}	24-70% built upon area ^{10, 11}	low density - 30' high density - 100'	standard rules	yes	yes	yes ²⁰	no specific restrictions	no specific restrictions
WATER SUPPLY - V (WS-V) ¹	river segment	domestic and industrial	no restrictions		none required	standard rules	yes	yes	applied as practical	no specific restrictions	no specific restrictions
CLASS B (B)	receiving stream	domestic and industrial (reliability requirements)	no restrictions ²²		none ²² required	standard rules	yes	yes	no specific BMPs required	no specific restrictions	no specific restrictions
CLASS C (C)	receiving stream	domestic and industrial	no restrictions ²²		none ²² required	standard rules	yes	yes	no specific BMPs required	no specific restrictions	no specific restrictions

Current Zoning of the property is I-1 in accordance with the Maysville Zoning Ordinance. a Conditional Use Permit to operate a Construction and Demolition Debris (C&D) Landfill and Recycling Center in 1-1 zoning district as a permitted use under §7.07C of the Maysville Zoning Ordinance was approved on August 4, 2011. A copy of the Conditional Use Approval is included in **Appendix IX** along with other Local Government approvals.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(2)

(2) Proposed Facility Plan. *A conceptual plan for the development of the facility including drawings and a report must be prepared which includes the drawings and reports described in Subparagraphs (d)(1), (e)(1), (e)(2), and (e)(3) of Rule .0537 of this Section.*

Discussion

A Facility Plan Report was prepared for the Franchise Agreement with the Town of Maysville and is included in **Appendix II**. The Facility Plan includes discussions pertaining to the proposed recycling & recovery center that will be permitted separately with the Division of Waste Management.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(3)

(3) Site Hydrogeologic Report. *The study must be prepared in accordance with the requirements set forth in Paragraph (a) of Rule .0538 of this Section.*

Discussion

A Site Hydrogeologic Study has been completed for the proposed Green Recycling Solutions LLC, C&D Landfill and is included in **Appendix III**. This study was prepared as a “stand alone” document to document the specific requirements of regulations **15A NCAC 13B .0538(a)**.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(4)(A-B)

(4) Floodplain Location Restrictions;

(A) *C&DLF units or constructed embankments used to construct a C&DLF unit must not be located in a 100-year floodplain unless a variance for the facility has been issued in accordance with G.S. 143-215.54A.*

(B) *C&DLF units must not be located in floodplains unless the owners or operators demonstrate that the unit will not restrict the flow of the flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment.*

Discussion

The 100-yr floodplain does not encroach on any portion of the proposed C&D Landfill facility based on the FEMA Flood Insurance Rate Map Number 3720542200K, Panel 5422, which is presented in **Appendix IV**. The closest mapped floodplain area is on the west side of White Oak River Road and has a base flood elevation of 27.0 MSL; nine (9) feet lower than the proposed sites lowest elevation.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(5)(A-H)

(5) Wetlands Location Restriction. *New C&DLF units and lateral expansions must not be located in wetlands, unless the owner or operator can make the following demonstrations to the Division:*

(A) Where applicable under Section 404 of the Clean Water Act or applicable State wetlands laws, the presumption that a practicable alternative to the proposed landfill facility is available which does not involve wetlands is clearly rebutted.

(B) The construction and operation of the C&DLF unit(s) will not cause or contribute to violations of any applicable State water quality standards and will not violate any applicable toxic effluent standard or prohibition under Section 307 of the Clean Water Act.

(C) The construction and operation of the C&DLF unit(s) will not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Federal Endangered Species Act of 1973. The construction and operation of the C&DLF unit(s) will not violate any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary.

(D) The construction and operation of the C&DLF unit(s) will not cause or contribute to significant degradation of wetlands.

(E) The owner or operator must demonstrate the integrity of the C&DLF unit(s) and its ability to protect ecological resources by addressing the following factors: (1) erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the C&DLF unit; (2) erosion, stability, and migration potential of dredged and fill materials used to support the C&DLF unit; the volume and chemical nature of the waste managed in the C&DLF unit; (3) impacts on fish, wildlife, and other aquatic resources and their habitat from release of the solid waste; (4) the potential effects of catastrophic release of waste to the wetland and the resulting impacts on the environment; and (5) any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected to the extent required under Section 404 of the Clean Water Act or applicable State wetlands laws.

(F) The owner or operator must demonstrate that steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent practicable as required by Part (c)(5)(A) – (D) of this Rule, then minimizing unavoidable impacts to the maximum extent practicable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and practicable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands).

(G) The owner or operator must also demonstrate that sufficient information is available to make a reasonable determination with respect to each of the demonstrations required by this Rule.

(H) For purposes of this Rule, wetlands means those areas that are defined in 40 CFR 232.2(r).

Discussion

A comprehensive wetlands delineation was performed for the Green Co Land, LLC property including the proposed C&D Landfill facility limits. The delineation was performed by Mr. Haywood Pittman of Pittman Soil Consulting in Richlands, North Carolina. Following original identification and field designation/flagging of wetland areas, Mr. Pittman met with Army Corp of Engineers (ACOE) Representatives on site to review the results of the delineation. Following approval of the field delineation by ACOE, surveying of the limits of wetland areas identified in the field was surveyed by Parker & Associates, Inc. of Jacksonville, North Carolina. A surveyed sealed plat was prepared and submitted to the ACOE by Parker & Associates, Inc. for final approval. ACOE signed the surveyed plat for wetland delineation on November 30, 2011. A copy of the final wetlands survey plat signed by ACOE is included in **Appendix V**.

The surveyed wetland limits have been incorporated into proposed Facility Plans for the proposed C&D Landfill facility. A copy of the Facility Plan submitted with the Town of Maysville Franchise Agreement including these wetland limits is included in **Appendix V**. As shown on the Facility Plan, development of the proposed C&D Landfill will not impact any of the areas designated as wetlands by ACOE. The proposed limits of landfill have been defined on the facility plan to maintain a 50-ft buffer between proposed landfill and wetland areas.

Maintaining a buffer between the landfill units and wetland areas allows for installation of appropriate erosion and sedimentation control devices to restrict the transport of sediments into wetland areas. Such devices will be incorporated into the erosion and sedimentation control plan during the design permitting phase of the project for approval by NCDENR – Division of Land Quality.

The proposed final slopes for the C&D Landfill will be 4H:1V to allow for ample slope stability during operation and following closure to avoid a catastrophic release of waste into wetlands. The proposed C&D Landfill will be constructed with a base liner system and storm water control measures designed for the 25-year, 24-hour storm event to further protect impacts to surrounding wetland areas.

This C&D Landfill will be unique since all waste received will be processed at the neighboring proposed C&D recycling and recovery center. The processing of the waste will allow for inspection of all incoming waste to the facility and only acceptable C&D waste as defined under NCDENR regulation that is not deemed a recyclable or recoverable material will be directed to the landfill for disposal. Unacceptable waste by C&D waste definition will be identified and removed during the processing. The coupling of these two facilities allows for an additional level of environmental protection.

In summary, development of the proposed facility has been designed to avoid all wetland impacts identified within the facility limits. Further measures will be incorporated into the final design of the landfill facility to avoid impacts due to storm water runoff, sediment transport or catastrophic release of waste into wetlands. Protection of endangered or threatened species and their habitats is addressed later in this study (Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(10) and Appendix VIII).

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(6)(A-C)

(6) Unstable Area Location Restrictions. Owners and operators of new C&DLF unit(s) and lateral expansions proposed for location in an unstable area must demonstrate that engineering measures have been incorporated in the C&DLF unit's design to ensure that the integrity of any structural components of the C&DLF unit will not be disrupted. The owner and operator must consider the following factors, at a minimum, when determining whether an area is unstable:

- (A) On-site or local soil conditions that may result in significant differential settling;
- (B) On-site or local geologic or geomorphologic features; and
- (C) On-site or local human-made features or events (both surface and subsurface).

Discussion

No unstable areas have been identified within the proposed landfill limits during this site study and site hydrogeologic investigation. Some "low blow count" soils were identified during the installation of soil test borings at depths well below ground surface that will be evaluated further during the design permitting phase for this project. In all cases these materials are below the ground water table and may be accounted for by predicting long term settlement and increasing the slope of landfill floor elevations.

Unstable areas may exist within the delineated wetland limits. These areas are not included within proposed C&D Landfill units or ancillary development.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(7)

(7) Cultural Resources Location Restrictions. A new C&DLF unit or lateral expansion must not damage or destroy a property of archaeological or historical significance which has been listed or determined eligible for a listing in the National Register of Historic Places. To aid in making a determination as to whether the property is of archeological or historical significance, the State's Historic Preservation Office in the Department of Cultural Resources may request the owner and operator to perform a site-specific survey which must be included in the Site Study.

Discussion

ERM submitted a letter and site plan to Ms. Renee Gledhill-Earley of the State of North Carolina Deputy State Historic Preservation Office to request information concerning the probability of significant sites on March 24, 2011 (a copy of the letter is included in **Appendix**

VI). Ms. Gledhill-Earley responded via letter dated April 11, 2011 that her office reviewed the project and "are aware of no historic resources which would be affected by the project. Therefore we have no comment on the project as proposed." A copy of Ms. Gledhill-Earley's letter is included in **Appendix VI**.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(8)

(8) State Nature and Historic Preserve Location Restrictions. A new C&DLF unit or lateral expansion must not have an adverse impact, considering the purposes for designation of the Preserve lands and the location, access, size and operation of the landfill, on any lands included in the State Nature and Historic Preserve.

Discussion

ERM submitted a letter and site plan to Ms. Renee Gledhill-Earley of the State of North Carolina Deputy State Historic Preservation Office to request information concerning the probability of significant sites on March 24, 2011 (a copy of the letter is included in **Appendix VI**). Ms. Gledhill-Earley responded via letter dated April 11, 2011 that her office reviewed the project and "are aware of no historic resources which would be affected by the project. Therefore we have no comment on the project as proposed." A copy of Ms. Gledhill-Earley's letter is included in **Appendix VI**.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(9)(A-B)

(9) Water Supply Watersheds Location Restrictions;

(A) A new C&DLF unit or lateral expansion must not be located in the critical area of a water supply watershed, or in the watershed for a stream segment classified as WS-I, or in watersheds of other water bodies which indicate that no new landfills are allowed in accordance with the rules codified at 15A NCAC 02B Section .0200 entitled "Classifications and Water Quality Standards Applicable To Surface Waters Of North Carolina."

(B) Any new C&DLF unit or lateral expansion, which proposes to discharge leachate to surface waters and must obtain a National Pollution Discharge Elimination System (NPDES) Permit from the Division of Environmental Management pursuant to Section 402 of the United States Clean Water Act, must not be located within watersheds classified as WS-II or WS-III, or in watersheds of other water bodies which indicate that no new discharging landfills are allowed, in accordance with the rules codified at 15A NCAC 02B Section .0200.

Discussion

This item was previously discussed in the Site Characterization discussion for Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(1)(A-I) and is repeated below.

The nearest surface water is an unnamed tributary to the White Oak River beyond the limits of this characterization study. In this area, the White Oak River is classified as class “C” waters. The definition of a class “C” water provided by NCDENR – Division of Water Quality follows:

“Class C

Waters protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner.”

Due to the sandy soil conditions within this area of Jones County, rainfall generated runoff typically infiltrates into the underlying soils within unpaved or built upon areas. In the event that storm water generated from the landfill facility traveled to the White Oak River, the Division of Water Quality does not require special provisions for landfill development for this water quality classification (See Below).

GUIDE TO SURFACE FRESHWATER CLASSIFICATIONS IN NORTH CAROLINA

NC Department of Environment and Natural Resources – Division of Water Quality – 2009

Surface Freshwater Classifications	AREA AFFECTED	WASTEWATER DISCHARGES ALLOWED ⁷	DEVELOPMENT ACTIVITIES			EROSION & SEDIMENTATION CONTROLS ¹⁵	AGRICULTURE BEST MANAGEMENT PRACTICES MANDATED ¹⁶	FORESTRY BEST MANAGEMENT PRACTICES MANDATED ¹⁹	TRANSPORTATION BEST MANAGEMENT PRACTICES MANDATED	LANDFILLS ALLOWED	DAMS/ WATER RESOURCE PROJECTS
			ALLOWABLE DENSITY								
			LOW DENSITY OPTION (DU = DWELLING UNIT) (AC = ACRE)	HIGH DENSITY OPTION ¹²	STREAM BUFFERS ^{13, 14}						
DWQ Primary Classifications											
WATER SUPPLY - I (WS-I) ¹	entire water supply watershed	none allowed	none -- undeveloped	none -- undeveloped	N.A.	more stringent rules apply	yes ¹⁷	yes	stricter NC Div. of Land Resources erosion controls apply 20	none allowed	no specific restrictions
WATER SUPPLY - II (WS-II) ¹	1/2 mile critical area ³	general permits ⁸	1 du / 2 ac or 6% built upon area	6-24% built upon area	low density - 30' high density - 100'	more stringent rules apply	yes ¹⁷	yes	stricter NC Div. of Land Resources erosion controls apply 20	no new landfills	no specific restrictions
	rest of watershed	general permits ⁸	1 du / 1 ac or 12% built upon area	12-30% built upon area	low density - 30' high density - 100'	more stringent rules apply	yes	yes	stricter NC Div. of Land Resources erosion controls apply 20	no new discharging landfills ²¹	no specific restrictions
WATER SUPPLY - III (WS-III) ¹	1/2 mile critical area ³	general permits ⁸	1 du / 1 ac or 12% built upon area	12-30% built upon area	low density - 30' high density - 100'	standard rules	yes ¹⁷	yes	yes ²⁰	no new landfills	no specific restrictions
	rest of watershed	domestic & non-process industrial	1 du / 1/2 ac or 24% built upon area	24-50% built upon area	low density - 30' high density - 100'	standard rules	yes	yes	yes ²⁰	no new discharging landfills ²¹	no specific restrictions
WATER SUPPLY - IV (WS-IV) ¹	1/2 mile critical area ³	domestic and industrial ⁹	1 du / 1/2 ac or 24% built upon area ¹⁰	24-50% built upon area ¹⁰	low density - 30' high density - 100'	standard rules	yes ¹⁷	yes	yes ²⁰	no new landfills	no specific restrictions
	protected area ⁴	domestic and industrial	1 du / 1/2 ac or 24% built upon area ^{10, 11}	24-70% built upon area ^{10, 11}	low density - 30' high density - 100'	standard rules	yes	yes	yes ²⁰	no specific restrictions	no specific restrictions
WATER SUPPLY - V (WS-V) ¹	river segment	domestic and industrial	no restrictions	none required	standard rules	yes	yes	yes	applied as practical	no specific restrictions	no specific restrictions
CLASS B (B)	receiving stream	domestic and industrial (reliability requirements)	no restrictions ²²	none ²² required	standard rules	yes	yes	yes	no specific BMPs required	no specific restrictions	no specific restrictions
CLASS C (C)	receiving stream	domestic and industrial	no restrictions ²²	none ²² required	standard rules	yes	yes	yes	no specific BMPs required	no specific restrictions	no specific restrictions

At the time of this study, it has not been determined if the site will contain a discharge. The Facility Plan submitted with the Franchise Agreement has set aside an area that may include temporary storage tanks for pumping and hauling of leachate if needed. A final determination will be made during the design permitting portion for this project.

Additionally we have included the Environmental Sensitive Areas Map for Jones County made available by the NCDENR – Division of Water Quality in **Appendix VII**. There are no “environmentally sensitive areas” noted within the immediate vicinity of the proposed site.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(10)

(10) Endangered and Threatened Species Location Restrictions. A new C&DLF unit or lateral expansion must not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Federal Endangered Species Act of 1973.

Discussion

ERM submitted a letter and site plan to Mr. Pete Benjamin of the US Fish & Wildlife Service, Raleigh Ecological Services Field Office to request information concerning the probability of endangered or threatened species that may be impacted by the proposed project on March 24, 2011 (a copy of the letter is included in **Appendix VIII**). Mr. Benjamin responded to ERM on April 12, 2011 via a letter stating “Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites.” A copy of Mr. Benjamin’s letter is included in **Appendix VIII**. Mr. Benjamin did note in his letter that his office is concerned about aquatic resources susceptible to sedimentation. The design will include appropriate erosion and sedimentation control devices for permitting purposes and development is not located in the immediate vicinity of surface water bodies.

Regulation 15A NCAC 13B .0536 SITE STUDY FOR C&DLF FACILITIES (c)(11)(A-E)

(11) Local government approvals for C&DLFs.

(A) If the permit applicant is a unit of local government in which jurisdiction the proposed C&DLF site is located, the approval of the governing board shall be required. Approval may be in the form of either a resolution or a vote on a motion. A copy of the resolution or the minutes of the meeting where the vote was taken must be submitted to the Division as part of the site study.

(B) A permit applicant other than the unit of local government with jurisdiction over the proposed landfill site must obtain a franchise in accordance with G.S 130A-294(b1)(3) from each unit of local government in whose jurisdiction the site is located. A copy of the franchise must be submitted to the Division as part of the site study.

(C) Prior to issuance of approval or a franchise, the jurisdictional local government(s) where the landfill is to be located shall hold at least one public meeting to inform the community of the proposed waste

management activities as described in the proposed facility plan prepared in accordance with Subparagraph (2) of this Paragraph. The local government where the landfill is to be located shall provide a public notice of the meeting at least 30 days prior to the meeting. For purposes of this Part, public notice must include a legal advertisement placed in a newspaper or newspapers serving the county and provision of a news release to at least one newspaper serving the county. Public notice must include time, place, and purpose of the meetings required by this Part. The application for a franchise or other documentation as required by the appropriate local government(s), must be placed at a location that is accessible by the public. This location must be noted in the public notice. The permit applicant must notify the property owners of all property that shares a common border with the proposed facility by means of a U.S. Postal Service registered letter, return receipt requested. The notice must give the date, time and place of the public meeting, and must describe the facility plan for the landfill, including the areal location and final elevation of all waste disposal units, the type and amount of waste to be disposed at the landfill, any other waste management activities to be conducted at the facility, and the proposed location of the entrance to the facility. Mailings must be postmarked a minimum of 30 days prior to the public meeting which is being noticed. The applicant must provide documentation of the content and mailing of the notices in the site study.

(D) Public notice of the meeting must be documented in the site study. A tape recording or a written transcript of the meeting, all written material submitted representing community concerns, and all other relevant written material distributed or used at the meeting must be submitted as part of the site study.

(E) A letter from the unit of local government(s) having zoning jurisdiction over the site which states that the proposal meets all the requirements of the local zoning ordinance, or that the site is not zoned, must be submitted to the Division as part of the site study.

Discussion

A copy of all local government approvals from the Town of Maysville are included in **Appendix IX**. The Town of Maysville executed a Franchise Agreement with Green Recycling Solutions LLC dated July 7, 2011. The agreement was executed following a unanimous vote for approval during a public hearing conducted at Maysville Town Hall on July 7, 2011 at 7:00pm. A copy of the meeting minutes is included in **Appendix IX**. A copy of the public notification for the public hearing is also included in **Appendix IX**.

During the referenced public hearing, the town also voted to approve voluntary annexation of the property into the Town of Maysville limits and grant zoning approval to allow development and operation of a C&D Landfill and recycling & recovery facility in I-1 designated zoning. A copy of the Zoning/Subdivision Text Amendment Application is also included in **Appendix IX** for reference.

The copy of the executed Franchise Agreement includes the attachments referenced including the proposed Facility Plan prepared in accordance with *Subparagraphs (d)(1), (e)(1), (e)(2), and (e)(3) of Rule .0537*. A copy of the Facility Plan is also included in **Appendix II**.

Appendix I

Site Characterization Study
2,000-Ft Radius Study Area Map
1" = 400' Scale

Appendix II

Facility Plan Report

This Facility Plan Report was submitted to the Town of Maysville for Franchise Agreement Approval.

CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING AND LANDFILL FACILITY PLAN

Prepared for:

Division of Solid Waste, NC Dept. of Environment and Natural
Resources
Town of Maysville

Prepared by:

ERM NC, Inc.
8000 Corporate Center Drive
Suite 200
Charlotte, North Carolina 28226

On behalf of:

Green Recycling Solutions, LLC
Maysville, North Carolina

Regulatory Authorities:

North Carolina General Statutes – G.S. 130-294
NCDENR Division of Waste Management Rules 15ANCAC 13B .0536 & .0537
Maysville Franchise Ordinance for Construction Debris Landfills

May 27, 2011

I. Introduction

Green Recycling Solutions, LLC (“Green Recycling”) proposes to construct and operate a construction and demolition debris recycling and disposal facility on a 58 acre site, on Highway 17 near White Oak River Road, in Jones County. Green Recycling is petitioning to have the property annexed into the Town of Maysville, and has applied for the requisite conditional use permit and franchise from Maysville. The site location is shown on the property annexation boundary survey prepared by Parker & Associates, Inc. and attached with this report.

The facility would receive waste from within the limits of Jones County and surrounding counties including Craven, Carteret, Onslow, Duplin and Lenoir. Only waste that is initially received and processed at the recycling center will be disposed of in the proposed C&D Landfill. Per the requirements of 15 NCAC 13B.0537 and Maysville’s Franchise Ordinance for Construction Debris Landfills, this Facility Plan focuses on the proposed landfill.

II. Facility Drawings (Rule 13B .0537(d)(1)(A-F))

A site plan prepared by ERM NC, Inc. is attached with this report in accordance with NCDENR – Division of Waste Management Rule 15A NCAC .0537(d)(1)(A-F). In accordance with rule requirements, that site plan illustrates aerial limits of landfill units and buffer requirements. The site plan includes limits of grading and proposed borrow areas located on-site. As required, the site plan illustrates the proposed final contours at 2-ft intervals reaching a maximum elevation of 88.0 feet above mean seal level utilizing 4H:1V slopes during landfilling operations. The site plan was developed utilizing topographic data supplied by the North Carolina Flood Plain Mapping Program (2005) and available for public use. The property annexation boundary survey shown on the site plan was performed by Parker & Associates, Inc. A copy of the sealed survey and legal description is attached for reference.

The site plan also includes locations for the proposed recycling facility and site access to US Highway 17. A potential leachate storage area is shown adjacent to the proposed C&D Landfill if deemed necessary during the permitting process. Scales and scale house are shown at the recycling center.

As shown on the site plan, there are six, 5-year phases of development and use of the landfill, for a total operational life of 30 years.

Floodplains do not encroach on lands within the proposed site property boundary according to the FEMA NC FIRM Panel 5422 dated November 3, 2005. Cultural resources will not be impacted by development of the C&D Landfill as confirmed by NC Department of Cultural Resources letter dated April 11, 2011 (copy attached).

Wetlands located on site will not be impacted by development of the proposed C&D landfill. A wetland delineation was performed by Pittman Soil Consulting, confirmed by United States Army Corp of Engineers and surveyed by Parker & Associates, Inc. as shown on the Facility Plan.

Additionally, US Fish & Wildlife confirmed that project development will not impact endangered or threatened species or their habitat (letter dated April 12, 2011 – attached).

III. Facility Report (Rule 13B .0537(e)(1)(A-E))

The proposed C&D Landfill will receive waste as defined by North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management as Construction & Demolition Debris, Yard Waste and Land Clearing & Inert Debris only. All waste received at the facility will first be processed at the recycling center where it will be determined if it can be recycled. Waste will be thoroughly inspected by processing through a tipping floor and sorting lines at the recycling center. This will greatly reduce the potential for unacceptable waste to reach the landfill. (The desired recycling recovery rates are discussed below.) Any acceptable waste that is not recycled will be transported from the recycling center to for deposit in the landfill. Unacceptable waste, i.e., any waste the facility is not permitted to accept, will be identified at the recycling center and either returned to the hauler delivering the waste or transported to and disposed of at a permitted facility followed by invoicing the hauler for permitted disposal.

The facility will serve the population, businesses, municipalities and industry within the counties of Jones, Craven, Carteret, Onslow, Duplin and Lenoir.

The C&D Landfill will be operated utilizing a bulldozer for spreading waste in manageable lifts and equipment for delivering cover soils; either a pan excavator or combination of trackhoe and dump truck. If permitted by NCDENR, the C&D

Landfill will utilize a tarp system to reduce the amount of cover soils placed in the landfill.

IV. Facility Report – Landfill Capacity (Rule 13B .0537(e)(2)(A-B))

As noted, the proposed C&D Landfill is anticipated to have an operational life of 30 years operating 6, 5-year phases. A “Preliminary Facility Capacity & Assumptions” is attached with this report for reference. As illustrated in this attachment, the anticipated annual waste stream arriving at the facility is 300 tons per day and reaches a maximum of 575 tons per day for years 24 through 30. As the facility begins operation an anticipated recycling/recovery rate of 63% is utilized based on facility start up. The recycling rate steadily increases to a maximum of 87% of waste received at year 9 and continues through year 30. Therefore, as the waste received increases the efficiency of recycling and recovering materials increases. This study is based on results seen at similar facilities in operation in Florida utilizing the same equipment and recycling facility plan. (The anticipated waste received at the facility is based upon current disposal rates of C&D waste by the larger construction and contracting companies in the proposed service area.)

Based on the results of our analysis, the maximum waste anticipated to be received at the C&D landfill will be 31,635 tons per year. With an operating year consisting of 285 days, this tonnage equates to an average of 111 tons per day. The proposed waste stream is anticipated to be less in the years following initial start-up of the recycling facility. Refer to the “Preliminary Facility Capacity & Assumptions” attachment for detailed information concerning anticipated waste stream.

The proposed C&D landfill as shown on the site plan has a gross capacity of 831,516 cubic yards. Given the recycling component of the operation, waste material delivered to the landfill will lack heavier constituents such as metals, concrete and wood. As a result, the density of waste will be less than typically seen at C&D landfills. Therefore, we have assumed an in place waste density for this facility of approximately 0.5 tons per cubic yard. This rate also includes the use of soil cover during operations at a rate of 7.9 percent.

Based on our study included in the “Preliminary Facility Capacity & Assumptions”, the landfill will require 318,614 cubic yards of clean fill soils to provide for construction of landfill Phases, cover soils and final cover soil. Construction of the C&D landfill will require 58,806 cubic yards of low

permeable soil for permitting requirements concerning a base liner system. These soils are present on site within the proposed landfill footprint based on preliminary test pits performed under the supervision of Pittman Soil Scientists (copy attached). Depth to ground water is included in the test pit logs and indicate that a 4-ft vertical separation from groundwater and minimum post settlement landfill floor grade of 2 percent may be achieved with minimal site grading.

Borrow soils are available from on-site and adjacent properties owned by Green Co Land, LLC. Additionally, non-select cover soil will be available to the C&D landfill from the recycling facility process.

V. Facility Report – Special Engineering Features (Rule .0537(e)(3)(A-D))

The site plan includes an area designated for leachate storage tanks that would utilize a pump and haul operation for delivery to a permitted waste water treatment plant. This area is shown as “potential” on the site plan, and will be dependent upon final design and the State permitting process. By design, the facility will minimize leachate generation by constructing small Cells within each Phase that shall be approximately one acre in size. Each Phase will contain three of these Cells. Once a new Cell is constructed, approximately every 18 months, the first waste lift may be quickly placed across the Cell floor and above the surrounding 6-ft perimeter berm height to promote runoff and reduce leachate generation.

There will be a low permeable barrier across the floor of the proposed C&D landfill. According to the attached test pit reports performed by Pittman Soil Scientists, low permeable soils are in place within the footprint of the proposed landfill (Raines) and could be left in place or reworked to provide a low permeable barrier. These soils will require additional laboratory testing during the permitting process to verify adequacy. Based on the outcome of these studies, an alternative base liner equivalent may be selected if necessary.

The recycling center is a special engineering feature. By virtue of that center, the process of waste presentation and inspection at that center as described above, unacceptable waste may be more readily identified, minimizing the chances of it being deposited in the landfill.

Once the landfill operating capacity is reached, a low permeable cap will be installed across the entire waste disposal limits. The cap will be designed to meet

or exceed the minimum requirements per NCDENR regulations at the time of permitting the landfill. For the purpose of this report, a landfill cap including a 40-mil linear low density polyethylene liner is proposed. Timing of cap installation will be determined during the permitting process.

The C&D landfill facility will include ground water and landfill gas monitoring well networks to meet or exceed the NCDENR regulations at the time of permitting. The number of wells and depths of wells will be determined based on the design hydrogeologic study performed during permitting.

Typical operations of the C&D Landfill will include the following (all items will need approval from NCDENR following review of an operations plan):

- Acceptance of waste solely from the Green Recycling Solutions, LLC recycling facility where waste is weighed and recorded at facility's scales.
- Equipment operators will direct hauler where to place load within the operational landfill Cell.
- The delivered waste will be spread evenly in lifts not to exceed 8 feet in vertical height and visually inspected by the equipment operator for unacceptable waste.
- Waste shall be covered with a minimum six-inch thick soil layer weekly at a minimum frequency provided the working face does not exceed 1/3 of an acre requiring cover placement sooner.
- A tarp system may be considered on a routine basis to reduce the amount of cover soils placed in the landfill.

ATTACHMENTS

List of Attachments

Facility Plan
Legal Description of Facility Property
Sealed Survey Plat for Facility Property Boundary
Letter from NC Department of Cultural Resources
Letter from US Fish & Wildlife
Preliminary Facility Capacity and Assumptions
Test Pits Performed by Pittman Soil Scientists

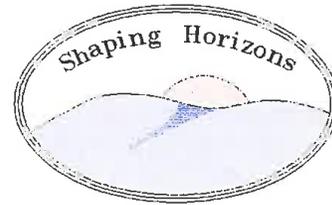
Facility Plan

Legal Description of Facility Property

PARKER & ASSOCIATES, INC.

Consulting Engineers - Land Surveyors - Land Planners

306 New Bridge Street - P.O. Box 976
Jacksonville, North Carolina 28541-0976
Phone (910) 455-2414 - Fax (910) 455-3441
Firm License Number F-0108



ANNEXATION DESCRIPTION May 18, 2011

M & M Land Development, Inc.
Tract on US Highway 17 North, Jones County C & D Landfill
White Oak Township, Jones County, NC

A certain tract of land on the West side of US Highway 17 about 1.4 miles North of the intersection with White Oak River Road, NCSR 1118, and being more particularly described as follows:

Commencing at an iron pipe found on the Western Right-of-Way Line of US Highway 17, said iron being the Northeastern corner of the Woodrow Lassiter property as recorded in Deed Book 44, Page 377 and recorded in Plat Cabinet "A," Slide 119-A; thence with said Right-of-Way Line, South 04 degrees 26 minutes 54 seconds East, 29.50 feet to a point, the TRUE POINT OF BEGINNING; THENCE from said point of beginning and continuing with said Right-of-Way Line, South 04 degrees 26 minutes 54 seconds East, 60.0 feet to a point; thence leaving said Right-of-Way Line, South 85 degrees 32 minutes 26 seconds West, 218.28 feet to a point; thence along the arc of a curve having a radius of 454.52 feet and curving to the Right, 517.39 feet (Chord North 61 degrees 50 minutes 56 seconds West, 489.90 feet) to a point; thence North 29 degrees 14 minutes 19 seconds West, 649.27 feet to a point; thence South 60 degrees 29 minutes 21 seconds West, 386.08 feet to a point; thence North 32 degrees 20 minutes 10 seconds West, 657.69 feet to an iron stake found on the Southern Line of the Woodrow Lassiter property as recorded in Plat Cabinet "B," Slide 334, Page 3, said Southern Line being the Old Buck Savannah Road as shown on said map; thence with said Southern Line, North 50 degrees 09 minutes 31 seconds East, 123.60 feet to a point; thence leaving said Line, North 74 degrees 56 minutes 43 seconds West, 124.47 feet to a point; thence along the arc of a curve having a radius of 323.0 feet and curving to the Right, 394.32 feet (Chord North 39 degrees 58 minutes 19 seconds West, 370.28 feet) to a point; thence North 04 degrees 59 minutes 56 seconds West, 34.33 feet to a point; thence along the arc of a curve having a radius of 297.0 feet and curving to the Left, 105.03 feet (Chord North 15 degrees 07 minutes 48

seconds West, 104.49 feet) to a point; thence North 25 degrees 15 minutes 40 seconds West, 24.49 feet to a point; thence South 90 degrees 00 minutes 00 seconds West, 311.73 feet to a point; thence South 64 degrees 41 minutes 49 seconds West, 136.53 feet to a point; thence North 86 degrees 54 minutes 23 seconds West, 249.06 feet to a point; thence North 86 degrees 21 minutes 09 seconds West, 294.62 feet to a point; thence North 56 degrees 41 minutes 06 seconds West, 276.84 feet to a point; thence North 85 degrees 47 minutes 15 seconds West, 165.72 feet to a point; thence South 85 degrees 08 minutes 26 seconds West, 37.28 feet to a point; thence South 81 degrees 20 minutes 59 seconds West, 324.75 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 407.12 feet (Chord North 40 degrees 20 minutes 04 seconds West, 340.38 feet) to a point on the Western boundary of the aforementioned Woodrow Lassiter property; thence with said Western Line, North 17 degrees 58 minutes 54 seconds East, 204.69 feet to an iron stake found; thence leaving said Line, North 17 degrees 58 minutes 54 seconds East, 52.34 feet to a point; thence North 22 degrees 14 minutes 49 seconds East, 78.27 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 265.52 feet (Chord North 15 degrees 47 minutes 09 seconds East, 246.45 feet) to a point; thence North 53 degrees 49 minutes 08 seconds East, 96.80 feet to a point; thence North 48 degrees 52 minutes 55 seconds East, 84.45 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 211.37 feet (Chord North 79 degrees 09 minutes 31 seconds East, 201.67 feet) to a point; thence South 70 degrees 33 minutes 52 seconds East, 412.60 feet to a point; thence South 78 degrees 17 minutes 26 seconds East, 76.90 feet to a point; thence South 40 degrees 28 minutes 14 seconds East, 295.97 feet to a point; thence South 47 degrees 11 minutes 05 seconds East, 166.17 feet to a point; thence North 06 degrees 42 minutes 34 seconds West, 206.06 feet to a point; thence North 24 degrees 47 minutes 57 seconds West, 468.34 feet to a point; thence North 00 degrees 00 minutes 00 seconds West, 179.77 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 387.17 feet (Chord North 55 degrees 27 minutes 27

seconds East, 329.48 feet) to a point on the Northern Line of the aforementioned Lassiter property; thence with said Line, South 69 degrees 05 minutes 07 seconds East, 111.93 feet to an iron stake found; thence South 69 degrees 05 minutes 07 seconds East, 148.98 feet to a point; thence leaving said Line and along the arc of a curve having a radius of 200.0 feet and curving to the Right, 241.15 feet (Chord South 34 degrees 32 minutes 33 seconds East, 226.81 feet) to a point; thence South 00 degrees 00 minutes 00 seconds West, 20.02 feet to a point; thence South 48 degrees 06 minutes 29 seconds East, 251.52 feet to a point; thence South 19 degrees 32 minutes 12 seconds East, 276.38 feet to a point; thence South 28 degrees 47 minutes 13 seconds East, 278.17 feet to a point; thence South 01 degrees 25 minutes 00 seconds East 378.58 feet to a point; thence South 02 degrees 09 minutes 56 seconds West, 88.73 feet to a point; thence South 43 degrees 30 minutes 46 seconds West, 146.39 feet to a point; thence South 25 degrees 15 minutes 40 seconds East, 23.40 feet to a point; thence along the arc of a curve having a radius of 323.0 feet and curving to the Right, 114.23 feet (Chord South 15 degrees 07 minutes 48 seconds East, 113.63 feet) to a point; thence South 04 degrees 59 minutes 56 seconds East, 34.33 feet to a point; thence along the arc of a curve having a radius of 297.0 feet and curving to the Left, 362.58 feet (Chord South 39 degrees 58 minutes 19 seconds East, 340.48 feet) to a point; thence South 74 degrees 56 minutes 43 seconds East, 142.74 feet to a point on the aforementioned Southern Line of the Lassiter property; thence with said Southern Line, North 50 degrees 09 minutes 31 seconds East, 2.21 feet to an iron stake found; thence North 61 degrees 42 minutes 34 seconds East, 14.85 feet to a point; thence leaving said Line, South 74 degrees 56 minutes 43 seconds East, 280.56 feet to a point; thence along the arc of a curve having a radius of 335.0 feet and curving to the Right, 267.24 feet (Chord South 52 degrees 05 minutes 31 seconds East, 260.21 feet) to a point; thence South 29 degrees 14 minutes 19 seconds East, 895.80 feet to a point; thence along the arc of a curve having a radius of 389.50 feet and curving to the Left, 443.37 feet (Chord South 61 degrees 50 minutes 56 seconds East, 419.82 feet) to a point; thence North 85 degrees 32 minutes 26 seconds East, 232.51 feet to the point and place of beginning.

M&M Land Development, Inc.
Tract on U.S. Highway 17 North, Jones County C& D Landfill
Annexation Description
May 18, 2011
Page 4

The described annexation area contains 58.2 acres, more or less, and being a portion of that property as recorded in Deed Book 318, Page 981, and Deed Book 44, Page 377, and Plat Cabinet "A," Slide 119-A, and Plat Cabinet "B," Slide 334, Page 3. All courses are referenced to GPS Grid North, NAD '83, 2007 adjustment. This description being prepared by Parker & Associates, Inc. from survey and computed information and an electronic overlay of Design Plans furnished by ERM NC, PC is for annexation and rezoning purposes only.

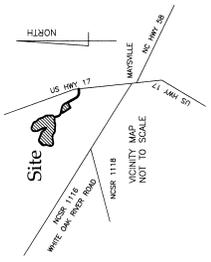

Edwin N. Foley, P.L.S., L-2884



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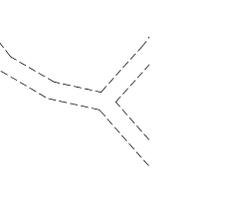
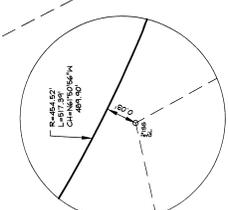
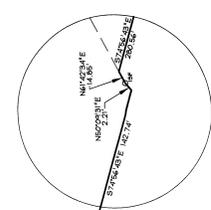
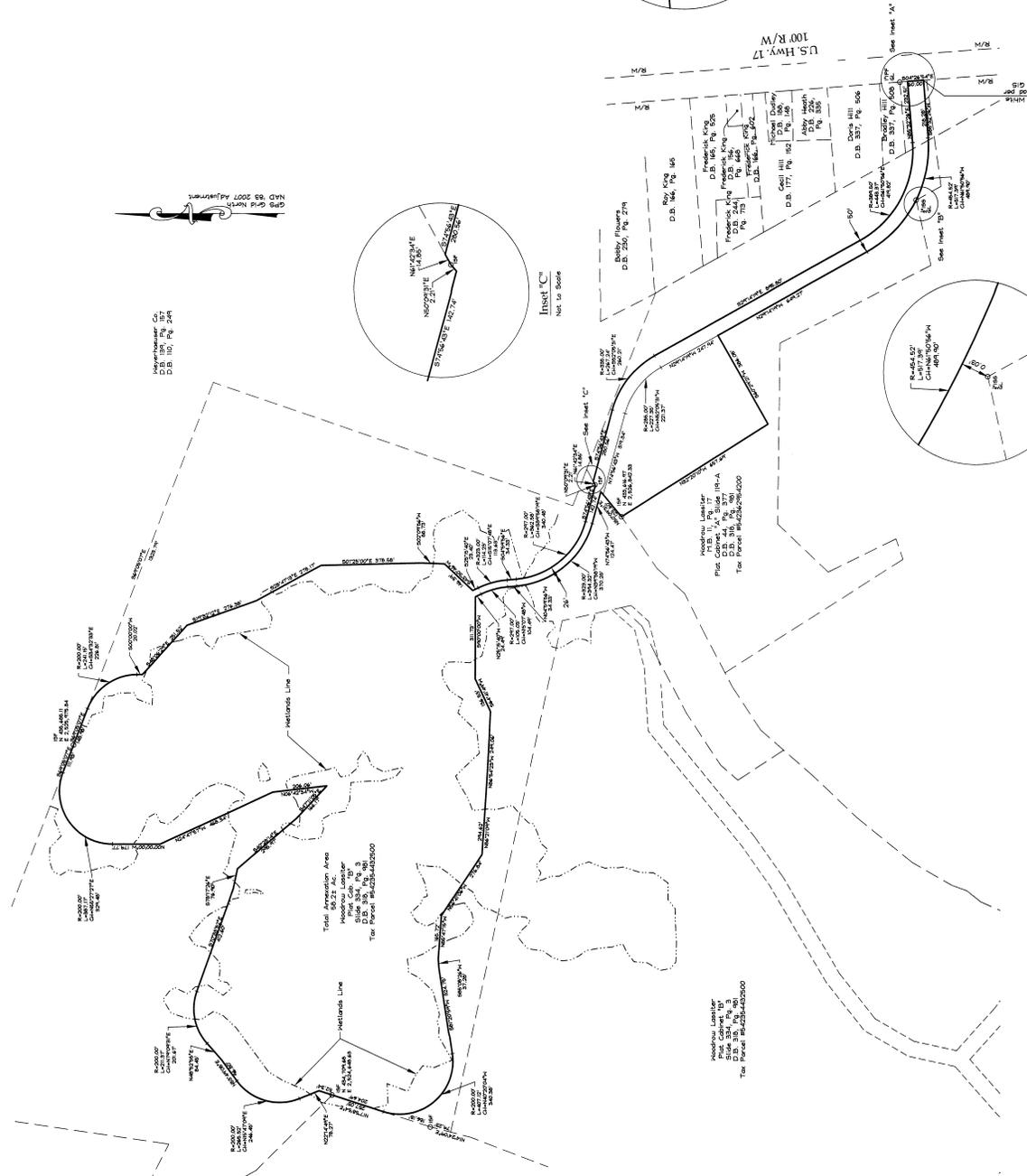
Sealed Survey Plat for Facility Boundary

Legend:
 PF - Iron Pipe Found
 C - Contaminated
 S/P - Right-of-Way
 R - Right-of-Way
 B - Boundary
 C - Contour



Vicinity Sketch
 Not to Scale

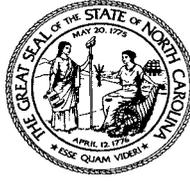
NOTE:
 1. This map prepared from survey data dated May 2001. Computed information.
 2. Metcalf line is located 201' from the centerline of US Hwy 17.
 3. Contained area for landfill site taken from an 812' x 10' PC.
 4. All stations are horizontal ground, U.S. survey feet.
 5. All bearings are true bearings for 2001.
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ANNEXATION AND REZONING MAP
Jones County C&D Landfill
 White Oak Twp., Jones Co., North Carolina
M&M Land Development, Inc.
 146 Center Street
 Jacksonville, North Carolina 28546
 (704) 438-2414
Parker & Associates, Inc.
 Consulting Engineers and Surveyors
 309 New Bridge Street - 28540
 Jacksonville, North Carolina
 (910) 452-2414 - Ext. 6100
 Phone (910) 452-2414 - Ext. 6100
 Fax (910) 452-2414

DATE: 05/16/11
 GRAPHIC SCALE: 1"=200'
 SCALE: 1"=200'
 0 100 200 300 400 FEET

Letter from NC Department of Cultural Resources



**North Carolina Department of Cultural Resources
State Historic Preservation Office**

Claudia Brown, Acting Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

April 11, 2011

David Wasiela
ERM NC, Inc.
800 Corporate Center Drive
Suite 200
Charlotte, NC 28226

Re: Maysville C&D Recycling Center & Landfill, US 17, Maysville, Jones County, ER 11-0456

Dear Mr. Wasiela:

Thank you for your email of March 25, 2011, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

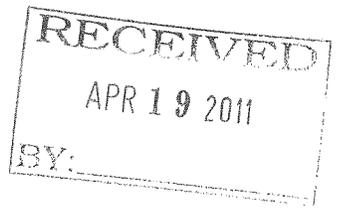
Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Claudia Brown

Letter from US Fish & Wildlife



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

April 12, 2011

David Wasiela
ERM NC, Inc.
8000 Corporate Center Drive, Suite 200
Charlotte, NC 28226

Re: Proposed C&D Recycling Center & Landfill Site.

Dear Mr. Wasiela:

This letter is to inform you that a list of all federally-protected endangered and threatened species with known occurrences in North Carolina is now available on the U.S. Fish and Wildlife Service's (Service) web page at <http://www.fws.gov/raleigh>. Therefore, if you have projects that occur within the Raleigh Field Office's area of responsibility (see attached county list), you no longer need to contact the Raleigh Field Office for a list of federally-protected species.

Our web page contains a complete and frequently updated list of all endangered and threatened species protected by the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act), and a list of federal species of concern¹ that are known to occur in each county in North Carolina.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation and can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes.

¹ The term "federal species of concern" refers to those species which the Service believes might be in need of concentrated conservation actions. Federal species of concern receive no legal protection and their designation does not necessarily imply that the species will eventually be proposed for listing as a federally endangered or threatened species. However, we recommend that all practicable measures be taken to avoid or minimize adverse impacts to federal species of concern.

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

With regard to the above-referenced project, we offer the following remarks. Our comments are submitted pursuant to, and in accordance with, provisions of the Endangered Species Act.

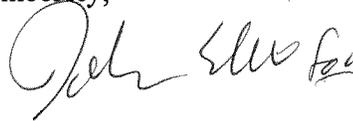
Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites. We believe that the requirements of section 7(a)(2) of the Act have been satisfied for your project. Please remember that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

However, the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.

The North Carolina Wildlife Resources Commission has developed a Guidance Memorandum (a copy can be found on our website at (<http://www.fws.gov/raleigh>) to address and mitigate secondary and cumulative impacts to aquatic and terrestrial wildlife resources and water quality. We recommend that you consider this document in the development of your projects and in completing an initiation package for consultation (if necessary).

We hope you find our web page useful and informative and that following the process described above will reduce the time required, and eliminate the need, for general correspondence for species' lists. If you have any questions or comments, please contact John Ellis of this office at (919) 856-4520 ext. 26.

Sincerely,

A handwritten signature in black ink, appearing to read "Pete Benjamin". The signature is fluid and cursive, with the first name "Pete" being more prominent than the last name "Benjamin".

Pete Benjamin
Field Supervisor

List of Counties in the Service's Raleigh Field Office Area of Responsibility

Alamance	Perquimans
Beaufort	Person
Bertie	Pitt
Bladen	Randolph
Brunswick	Richmond
Camden	Robeson
Carteret	Rockingham
Caswell	Sampson
Chatham	Scotland
Chowan	Tyrrell
Columbus	Vance
Craven	Wake
Cumberland	Warren
Currituck	Washington
Dare	Wayne
Duplin	Wilson
Durham	
Edgecombe	
Franklin	
Gates	
Granville	
Greene	
Guilford	
Halifax	
Harnett	
Hertford	
Hoke	
Hyde	
Johnston	
Jones	
Lee	
Lenoir	
Martin	
Montgomery	
Moore	
Nash	
New Hanover	
Northampton	
Onslow	
Orange	
Pamlico	
Pasquotank	
Pender	

Preliminary Facility Capacity and Assumptions

**Proposed Maysville C&D Recovery Facility & C&D Landfill
Green Recycling Solutions, LLC**

Preliminary Facility Sizing

Year	Avg. Daily C&D Waste (Tons)	Total C&D Waste Received (Tons)	Percentage of C&D Waste Recovered	C&D Waste to Landfill (Tons)	C&D Landfill Airspace Required (CY)	Operational Phase	Structural Fill	Construction and Operational Soils Needed (CY)				
								Compacted Soil Liner	Operational Cover	Weekly Cover	Final Cover	
1	300	85,500	0.63	31,635	42,180	Phase 1, Cell 1	5,445	3,267	4,356	3,326	4,574	
2	310	88,350	0.68	28,272	37,696	Phase 1, Cell 2	5,445	3,267	4,356	3,326	4,574	
3	325	92,625	0.70	27,788	37,050							
4	350	99,750	0.72	27,930	37,240	Phase 1, Cell 3	5,445	3,267	4,356	3,326	4,574	
5	400	114,000	0.85	17,100	22,800	Phase 2, Cell 1	5,445	3,267	4,356	3,326	4,574	
6	400	114,000	0.85	17,100	22,800							
7	450	128,250	0.85	19,238	25,650	Phase 2, Cell 2	5,445	3,267	4,356	3,326	4,574	
8	450	128,250	0.85	19,238	25,650							
9	475	135,375	0.87	17,599	23,465	Phase 2, Cell 3	5,445	3,267	4,356	3,326	4,574	
10	475	135,375	0.87	17,599	23,465	Phase 3, Cell 1	5,445	3,267	4,356	3,326	4,574	
11	475	135,375	0.87	17,599	23,465							
12	500	142,500	0.87	18,525	24,700	Phase 3, Cell 2	5,445	3,267	4,356	3,326	4,574	
13	500	142,500	0.87	18,525	24,700							
14	500	142,500	0.87	18,525	24,700	Phase 3, Cell 3	5,445	3,267	4,356	3,326	4,574	
15	500	142,500	0.87	18,525	24,700							
16	525	149,625	0.87	19,451	25,935	Phase 4, Cell 1	5,445	3,267	4,356	3,326	4,574	
17	525	149,625	0.87	19,451	25,935	Phase 4, Cell 2	5,445	3,267	4,356	3,326	4,574	
18	525	149,625	0.87	19,451	25,935							
19	525	149,625	0.87	19,451	25,935	Phase 4, Cell 3	5,445	3,267	4,356	3,326	4,574	
20	550	156,750	0.87	20,378	27,170	Phase 5, Cell 1	5,445	3,267	4,356	3,326	4,574	
21	550	156,750	0.87	20,378	27,170							
22	550	156,750	0.87	20,378	27,170	Phase 5, Cell 2	5,445	3,267	4,356	3,326	4,574	
23	550	156,750	0.87	20,378	27,170							
24	575	163,875	0.87	21,304	28,405	Phase 5, Cell 3	5,445	3,267	4,356	3,326	4,574	
25	575	163,875	0.87	21,304	28,405	Phase 6, Cell 1	5,445	3,267	4,356	3,326	4,574	
26	575	163,875	0.87	21,304	28,405							
27	575	163,875	0.87	21,304	28,405	Phase 6, Cell 2	5,445	3,267	4,356	3,326	4,574	
28	575	163,875	0.87	21,304	28,405							
29	575	163,875	0.87	21,304	28,405	Phase 6, Cell 3	5,445	3,267	4,356	3,326	4,574	
30	575	163,875	0.87	21,304	28,405							
TOTALS		4,199,475		413,378	831,516	TOTALS	98,010	58,806	78,408	59,868	82,328	

Total Non-Select Structural Fill / Cover Soils Required (CY) = 318,614
Total Compacted Soil Liner Soils Required (CY) = 58,806
Size Near Site Borrow Pit for 366,407 CY
Available Within Landfill Footprint, leave in place or re-work

Test Pits Performed by Pittman Soil Scientists

Pittman Soil Consulting

1073-1 Gregory Fork Road
Richlands, NC 28574
Phone (910)324-2892
Fax (910) 324-6162
pittmansoil@yahoo.com

March 24, 2011

James Maides
166 Center Street
Jacksonville, NC 28540

Ref: C & D Landfill Maysville

Dear Mr. Maides,

On March 25, 2011 excavation pits were dug in the proposed cells of the C & D Landfill, located off White Oak River Road in Maysville, NC. The purpose of this was to determine the water table in the cells.

The pits were allowed to equalize for a period of 24 hours prior to evaluation. The evaluation results are as follows:

- TP 1- Rains soil 52" Cell 1
- TP-2-Rains soil 54" Cell 4
- TP 3-Goldsboro soil 55" Cell 2
- TP 4-Rains soil 49" Cell 5
- TP 5-Rains soil 74" Cell 3 & 6
- TP 6-Rains soil 56" Cell 13
- TP 7-Rains soil 53" Cell 15
- TP 8-Rains soil 49" Cell 12
- TP 9-Rains soil 52" Cell 11
- TP 10-Rains soil 46" Cell 12
- TP 11-Rains soil 54" Cell 9
- TP 12-Rains soil 46" Cell 10
- TP 13-Goldsboro soil 68" Cell 7

TP 14-Rains soil 62" Cell 8

TP 15-Rains soil 55"

TP 16-Goldsboro soil 68"

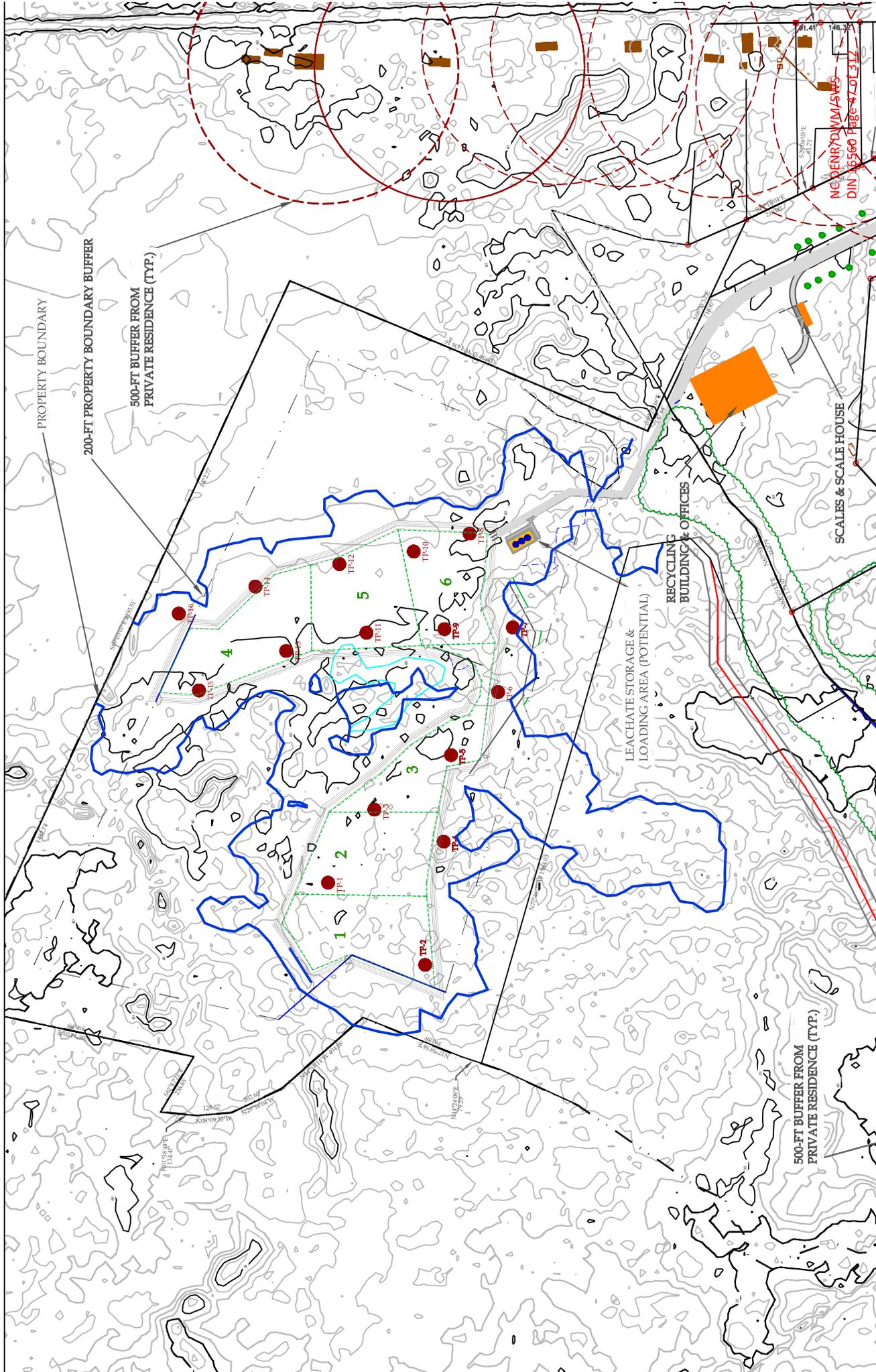
If you have any questions please feel free to contact me at 910-330-2784. Thank You.

Sincerely,



R. Haywood Pittman II
NC Licensed Soil Scientist





PROPERTY BOUNDARY

200-FT PROPERTY BOUNDARY BUFFER

500-FT BUFFER FROM PRIVATE RESIDENCE (TYP.)

TP-1

TP-2

TP-3

TP-4

TP-5

TP-6

TP-7

TP-8

TP-9

TP-10

TP-11

TP-12

TP-13

TP-14

TP-15

TP-16

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6

LEACHATE STORAGE & LOADING AREA (POTENTIAL)

RECYCLING BUILDING & OFFICES

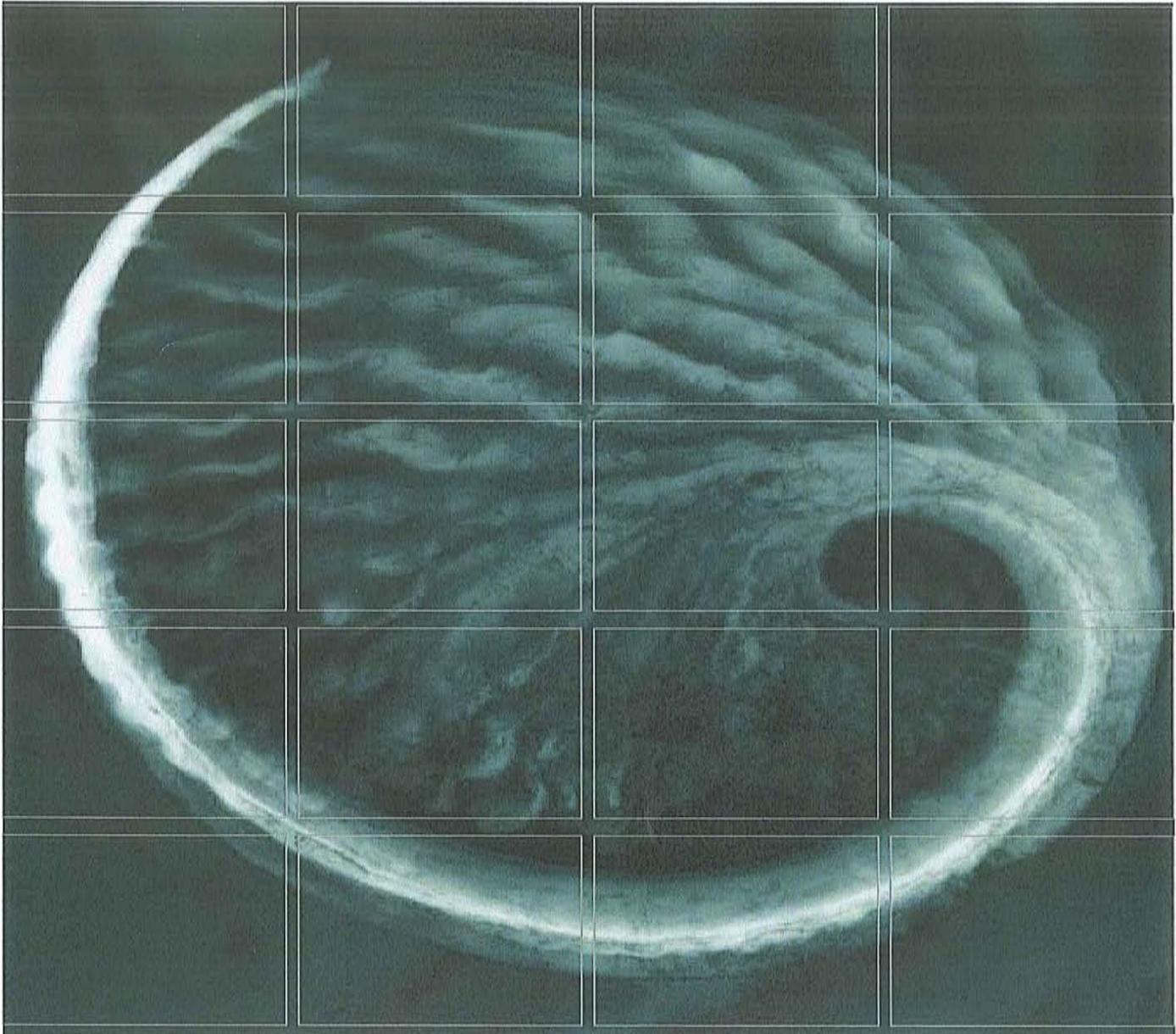
500-FT BUFFER FROM PRIVATE RESIDENCE (TYP.)

SCALES & SCALE HOUSE

McDERRY DAM/MSWS
DIN 16360 Page 4 of 31

Appendix III

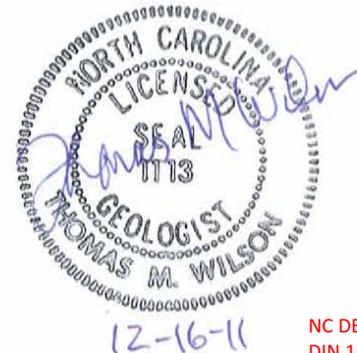
Site Hydrogeologic Report



Green Recycling Solutions LLC

Site Hydrogeologic Report
Proposed Construction & Demolition
Debris Landfill
Maysville, North Carolina

December 2011



Delivering sustainable solutions in a more competitive world

ERM NC, Inc.

8000 Corporate Center Dr.
Suite 200
Charlotte, NC 28226
(704) 541-8345
(704) 541-8416 (fax)

December 16, 2011

NCDENR - Division of Waste Management
610 East Center Avenue
Suite 301
Mooresville, NC 28115



Attention: Ms. Elizabeth Werner

Reference: Site Suitability - Site Hydrogeologic Report
Proposed Green Recycling Solutions LLC - C&D Landfill
Maysville, Jones County, North Carolina

Ms. Werner:

On behalf of Green Recycling Solutions LLC, ERM NC, Inc. (ERM) is submitting the attached Site Study - Site Hydrogeologic Report for a Construction & Demolition Debris (C&D) Landfill in accordance with NCDENR Division of Waste Management regulations 15A NCAC 13B .0536(c)(3) and .0538 (a) for the referenced project. The proposed C&D landfill site is located within the jurisdictional limits of Maysville, North Carolina approximately one mile north of the intersection of US Highway 17 and NC Route 58.

ERM submitted a proposed boring location plan for the Maysville site on August 4, 2011 to Division of Waste Management to receive comments or suggestions. The proposed boring location plan included 15 soil test boring locations with installation of temporary observation wells (installed as Type II Monitoring Wells) at each location. The depths of the proposed borings and wells ranged from 15 to 20 feet below ground surface. Ms. Elizabeth Werner responded to ERM on August 15, 2011 with no suggested revisions concerning the locations of the proposed borings or proposed depths. ERM subcontracted Geologic Exploration, Inc. to perform drilling and well installation services and mobilized to the site on August 22, 2011. Representatives from Division of Waste Management; Elizabeth Werner and Ray Williams, visited the site on August 24, 2011 during the installation of soil test borings and observation wells. Field work for the borings and well installation was completed on August 26, 2011. Following installation of the wells, ERM performed field permeability testing for the surficial aquifer and made several site visits to obtain ground water level measurements. The results of our field testing and observations are included in the attached report.

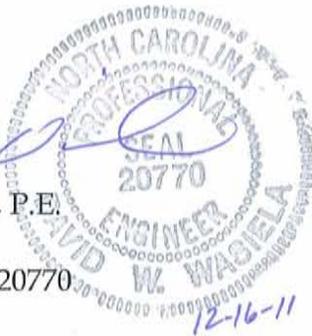
The Site Hydrogeologic Report for the Maysville Green Recycling Solutions site has been compiled to match the order of information requested in regulation 15A NCAC 13B .0538(a). For simplicity purposes, each portion of the regulation is listed prior to the associated discussion of information to illustrate completeness.

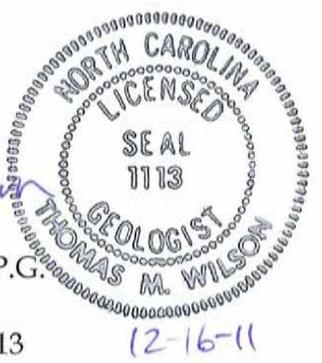
Ms. Elizabeth Werner
December 16, 2011
Page 2

If you should have any questions or require additional information concerning this Site Hydrogeologic Report please contact us at your convenience.

Sincerely,

ERM NC, Inc.


David W. Wasiela, P.E.
Senior Engineer
NC Registration #20770

12-16-11


Thomas M. Wilson, P.G.
Senior Geologist
NC Registration #1113

12-16-11

cc: Mr. James Maides – Green Recycling Solutions LLC

Atch: Site Hydrogeologic Report

**Site Suitability - Site Hydrogeologic Report
Proposed Green Recycling Solutions LLC - C&D Landfill
Maysville, Jones County, North Carolina**

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15A NCAC 13B .0538(a)(1) - Local/Regional Geology... ..	2
15A NCAC 13B .0538(a)(2) - Field Observations... ..	7
15A NCAC 13B .0538(a)(3) - Soil Test Borings... ..	8
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15A NCAC 13B .0538(a)(7) - Water Table Discussion... ..	11
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15A NCAC 13B .0538(a)(9) - Ground Water Contour Map... ..	15
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15A NCAC 13B .0538(a)(12) - Geologic & Hydrologic Considerations... ..	17
15A NCAC 13B .0538(a)(13) - Geologic & Hydrogeologic Summary... ..	18

LIST OF APPENDICES

- Appendix A*** Local and Regional Geology and Hydrology
- Appendix B*** Site Plan
- Appendix C*** Investigatory Well Information
- Appendix D*** Soil Test Results
- Appendix E*** Preliminary Subsurface Test Pits
- Appendix F*** Stratigraphic Cross-Sections
- Appendix G*** Water Level Records
- Appendix H*** Groundwater Contour Map

Regulation - 15A NCAC 13B .0538(a) GEOLOGIC AND HYDROGEOLOGIC INVESTIGATIONS FOR C&DLF FACILITIES

(a) Site Hydrogeologic Report. A permit applicant must conduct a hydrogeologic investigation and prepare a report. An investigation is required to assess the geologic and hydrogeologic characteristics of the proposed site to determine the suitability of the site for solid waste management activities, which areas of the site are most suitable for C&DLF units, and the general ground-water flow paths and rates for the uppermost aquifer. The report must provide an understanding of the relationship of the site ground-water flow regime to local and regional hydrogeologic features with special emphasis on the relationship of C&DLF units to ground-water receptors (especially drinking water wells) and to ground-water discharge features. Additionally, the scope of the investigation must include the general geologic information necessary to address compliance with the pertinent location restrictions described in Rule .0536 of this Section. The Site Hydrogeologic Report must provide, at a minimum, the following information:

Discussion

This Site Hydrogeologic Report has been prepared to meet or exceed the requirements stipulated in the regulation above. The report contains:

- Regional geologic characteristics as available from research and ERM observations.
- Local geologic & hydrologic information as available from research and ERM observations.
- A subsurface investigation program and results
- A field testing program and results
- A laboratory testing program and results
- Potentiometric Map
- Ground water table discussion
- Ground water flow discussion
- Topographic Map
- Geologic & Hydrologic considerations for permitting
- Geologic & Hydrogeologic Summary

Regulation - 15A NCAC 13B .0538(a)(1)

(1) A report on local and regional geology and hydrogeology based on research of available literature for the area. This information is to be used in planning the field investigation. For sites located in piedmont or mountain regions, this report must include an evaluation of structurally controlled features identified on a topographic map of the area.

Discussion

The proposed Green Recycling Solutions LLC, C&D Landfill is located within the physiographic region of the Inner Coastal Plain. "The Inner Coastal Plain Province consists of stair-step-like planar terraces that dip gently towards the ocean. At higher elevations, the land is dissected to form gently rolling hills and valleys. Elevations range from about 600 feet to 25 feet above mean sea level. The boundary between the Piedmont and Coastal Plain is the Fall Zone. This zone represents the elevational break between the resistant rocks of the Piedmont and the more easily eroded sediments of the Coastal Plain." (Ref: North Carolina Geological Survey, *Physiography of North Carolina*, M.A. Medina, J.C. Reid, and R.H. Carpenter, 2004). The site location is shown on the North Carolina Physiography Map (Figure - 1) for reference.

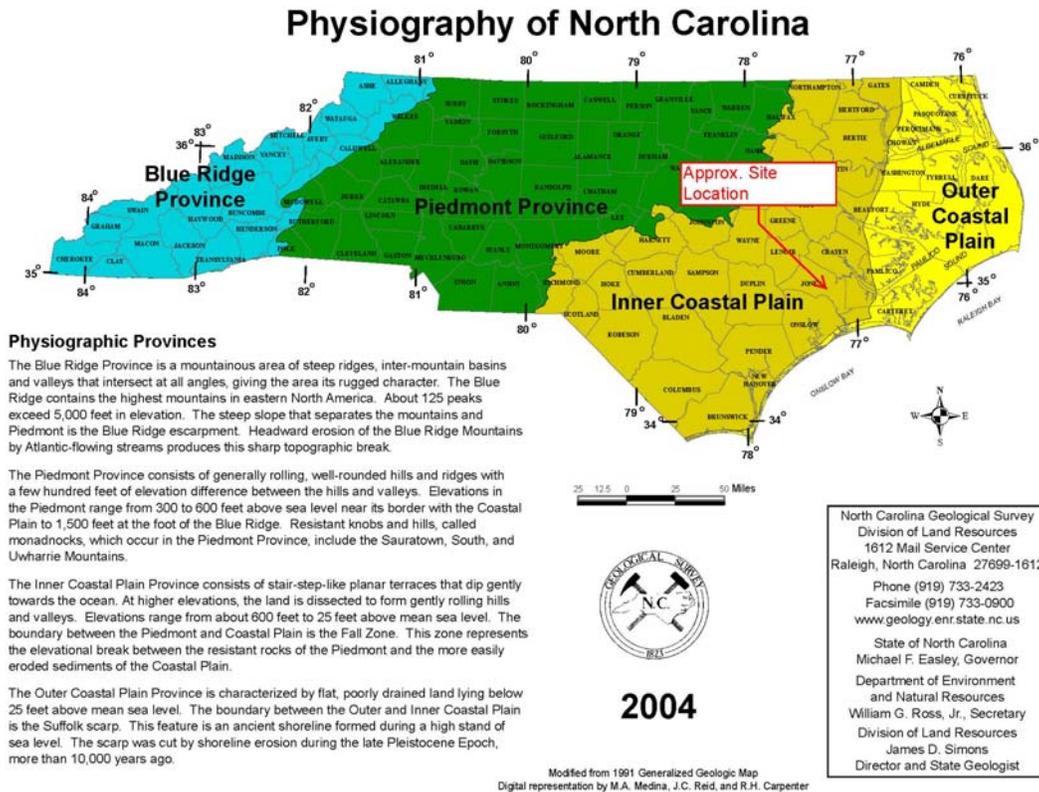


Figure -1

GENERALIZED GEOLOGIC MAP OF NORTH CAROLINA

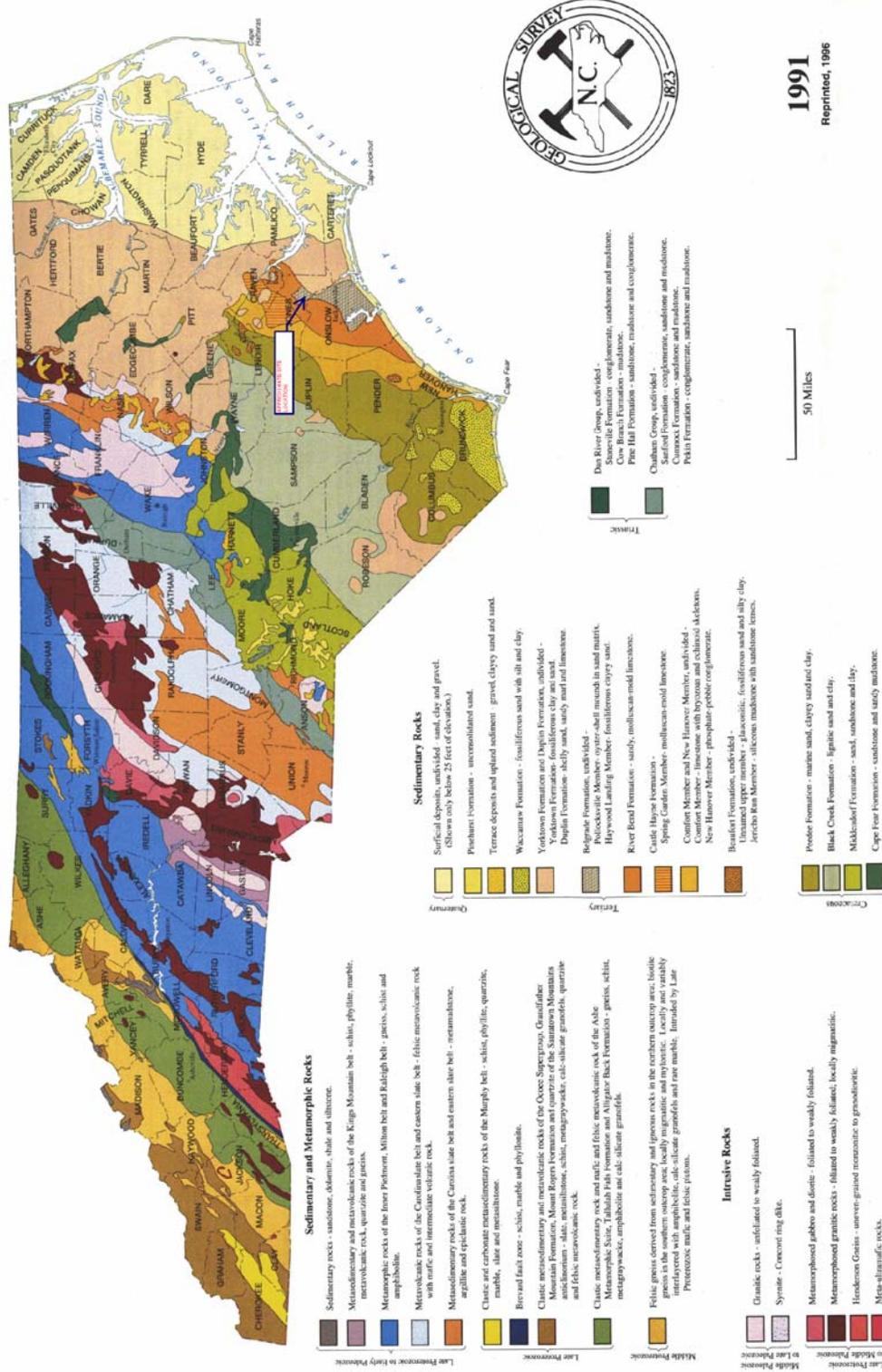


Figure - 2

“The unconfined, surficial aquifer of much of the southeastern North Carolina Coastal Plain typically consists of variably thick, Pliocene, Pleistocene, and Holocene deposits. On the south side of the Neuse River, Pleistocene surficial deposits (sand, mud, shell, gravel) are thin (20 ft thick), and the top of the Cretaceous (Peedee) confining unit occurs at a depth of 132 ft. Between these surfaces is a thick sequence (110 ft) of muddy sand, sand and limestone that includes Paleocene (Beaufort Formation), Eocene (Castle Hayne Formation), and Oligocene (Riverbend/Belgrade Formations) deposits. These formations include a variety of siliciclastic and carbonate facies, some of which form porous and permeable aquifers.” (Reference: *Shallow Aquifers and Confining Units in the Neuse River Basin, Surry to Suffolk Scarp, Fiscal Year 2003 Grant, NC-DENR Contract Number EW04035*).

In Jones County, the Coastal Plain deposits consist primarily of limestone and unconsolidated sands and clays. Geologically, the proposed site is located within the Belgrade Formation (*Ref. North Carolina Geological Survey, Generalized Geologic Map of North Carolina, 1991*) as shown in *Figure - 2* on the previous page. Generally, the surficial soils within the site area consist of silty sands and clayey sands with discrete areas of surface clays/silts that typically support wetland areas. Based on the predominance of silty and clayey sands observed in shallow borings advanced at the proposed site, the site is considered to be within the Haywood Landing Member of the Belgrade Formation.

The sandy soils within the upper 20-feet of soil strata includes the uppermost ground water aquifer for this region. The ground water level within the surficial aquifer may vary several feet based on significant rainfall events as this aquifer is primarily recharged by rainfall. Detailed descriptions of the composition and properties of the soils for the proposed landfill site and surrounding area are provided in a Custom Soil Resource Report from the National Cooperative Soil Survey that is presented in **Appendix A**.

Locally, Martin-Marietta operates a quarry in Belgrade, North Carolina (approximately 2.5 miles south of the site) for extraction of sand and rock. Reportedly, a limestone layer is encountered within the quarry at depths ranging from 40 to 60 feet below natural ground surface. The thickness of the limestone varies and is overlying deposits of sands. Similar reports have been identified for the Morton Trucking, US 17 mine located approximately 8 miles south of the site with a limestone layer encountered approximately 70 to 80 feet below natural ground surface approximately 14 to 18 feet thick. This mine also reports that sand deposits are beneath the limestone layer.

ERM utilized the NCDENR – Division of Water Resources data base to locate wells within the vicinity of the proposed site that contain historical water level data. Three wells were identified; one well in Jones County, well ID U26J8 (Figure 3) has a total depth of 15 feet and is located approximately 10 miles west of the site, and two wells in Onslow County, well ID V23X4 with a total depth of 35 feet (Figure 4) and V23X1 with a total depth of 120 feet (Figure 5) both located approximately 5 miles southwest of the site along US Highway 17.

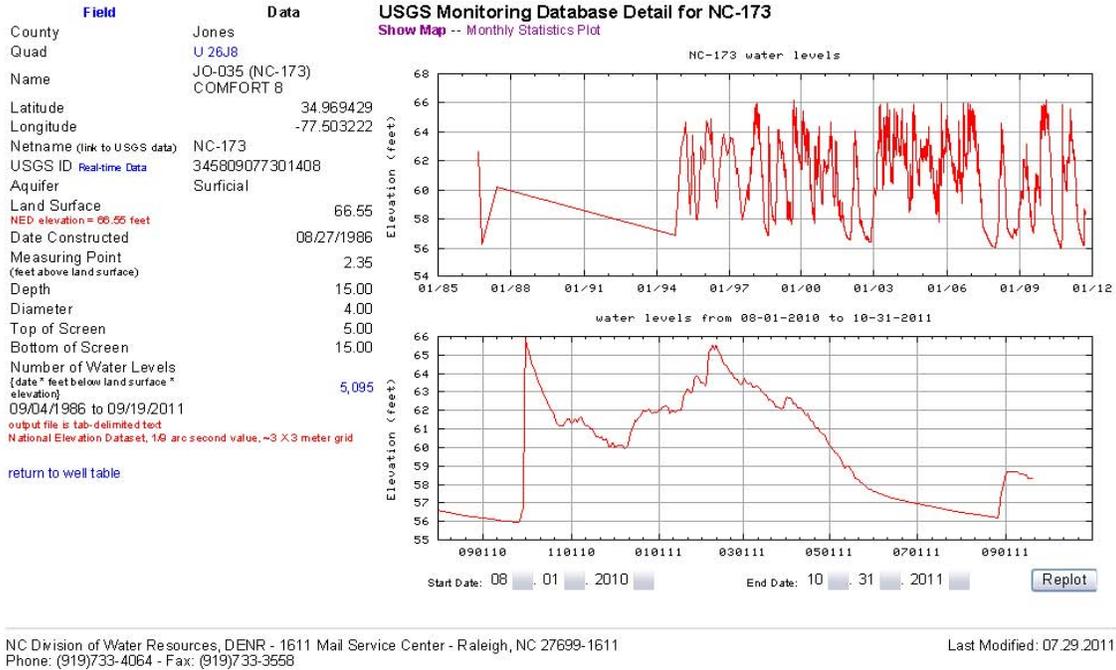
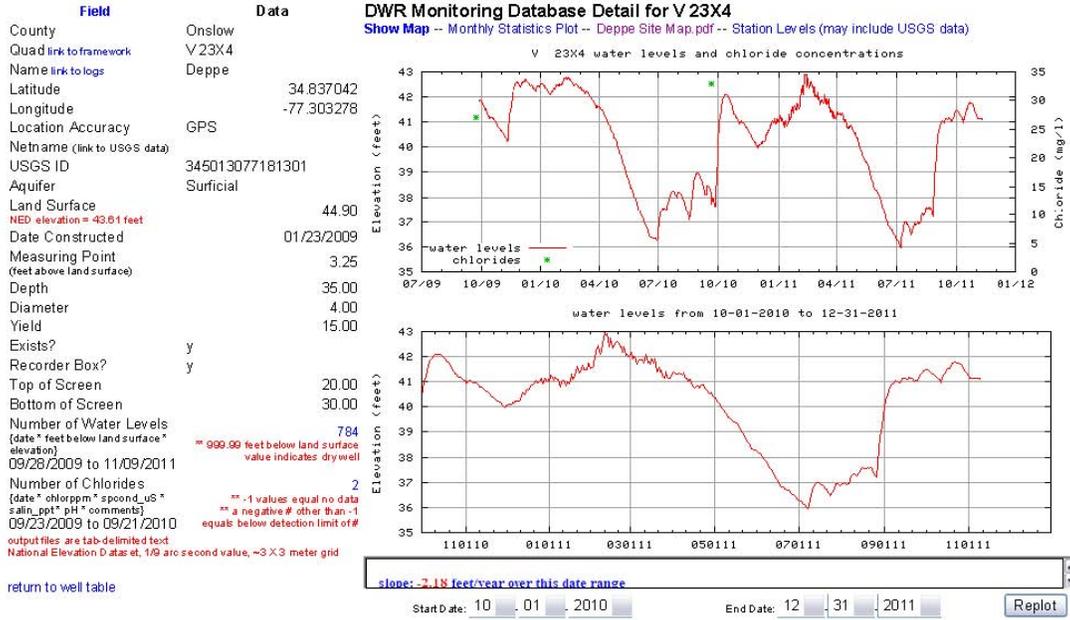


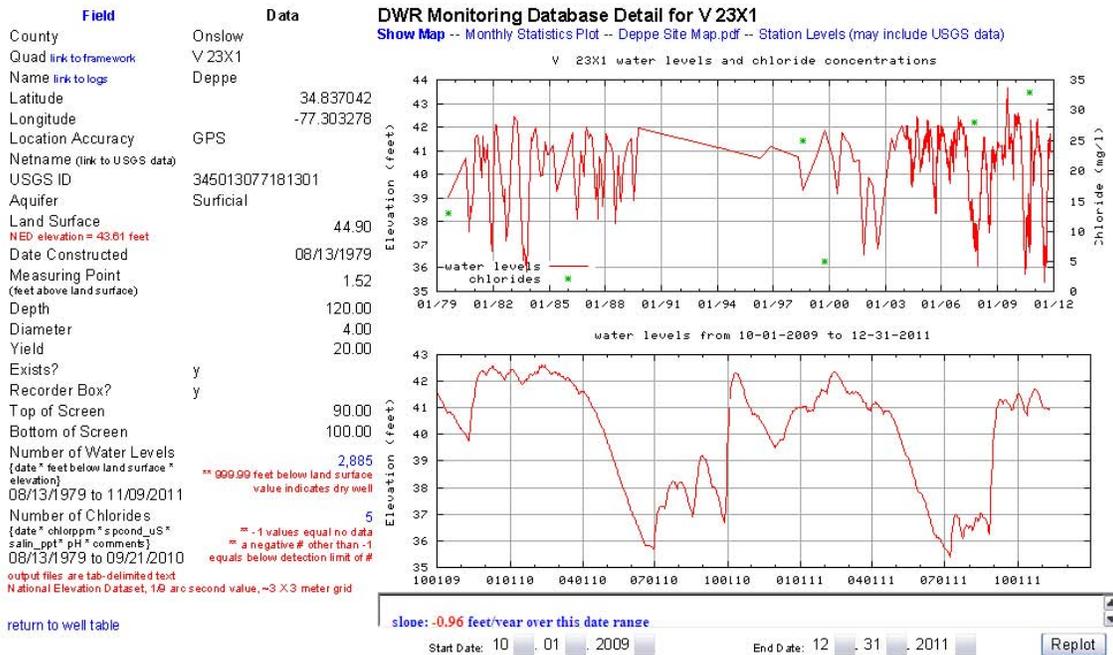
Figure - 3



NC Division of Water Resources, DENR - 1611 Mail Service Center - Raleigh, NC 27699-1611
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Figure - 4



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Figure - 5

Based on the historical water level data for the three identified wells in the vicinity of the site, the water table generally occurs within 10 feet of the land

surface and long term seasonal ground water level fluctuations have generally ranged from 7 to 10 feet over a time period in excess of 30 years.

In summary, the general characterization for the local and regional geologic and hydrogeologic conditions in this area of North Carolina includes:

- Near surface ground water table; 4 to 14 feet below ground surface
- Water table fluctuations of 7 to 10 feet
- Silty sands, clayey sands and sands in surficial aquifer
- Potential to encounter limestone at depths of 40 to 80 feet
- Rainfall recharged surficial aquifer

Regulation - 15A NCAC 13B .0538(a)(2)

*(2) A report on field observations of the site that includes information on the following:
(A) topographic setting, springs, streams, drainage features, existing or abandoned wells, rock outcrops, (including trends in strike and dip), and other features that may affect site suitability or the ability to effectively monitor the site; and
(B) ground-water discharge features. For a proposed site where the owner or operator does not control the property from any landfill unit boundary to the controlling, downgradient, ground-water discharge feature(s), additional borings, geophysics or other hydrogeological investigations may be required to characterize the nature and extent of groundwater flow; and
(C) the hydrogeological properties of the bedrock, if the uppermost ground-water flow is predominantly in the bedrock. Bedrock for the purpose of this rule is defined as material below auger refusal.*

Discussion

A site plan is included in **Appendix B** for reference. In general, the proposed site is relatively flat with approximately 3 feet of topographic relief within the approximately 43.5 acres of the area included in the proposed landfill facility. Topographic elevations at the site range from 40.0 to 37.0 feet MSL. There is no predominant direction of topographic relief. Discrete topographically low areas are present within the site and typically contain wetland areas. The site is generally wooded with cleared access roads and roadside ditches. Standing water is typical within the roadside ditches.

There are no natural creeks, streams or rivers within the proposed landfill facility boundary. The nearest natural drainage feature that may receive groundwater discharge is the head waters of an unnamed tributary to the White Oak River located approximately 2,550 feet west of the proposed landfill footprint on the west side of White Oak River Road. Manmade drainage ditches are located to

the north of the proposed site on property owned by Weyerhaeuser and managed as a pine forest.

There are no known existing or abandoned wells or rock outcrops within the proposed landfill facility boundary.

Regulation - 15A NCAC 13B .0538(a)(3)

(3) Borings for which the numbers, locations, and depths are sufficient to provide an adequate understanding of the subsurface conditions and ground-water flow regime of the uppermost aquifer at the site. The number and depths of borings required will depend on the hydrogeologic characteristics of the site. At a minimum, there must be an average of one boring for each 10 acres of the proposed landfill facility unless otherwise authorized by the Division. All borings intersecting the water table must be converted to piezometers or monitoring wells in accordance with 15A NCAC 02C .0108.

Discussion

ERM submitted a proposed boring location plan for the Maysville site on August 4, 2011 to Division of Waste Management to receive comments or suggestions. The proposed boring location plan included 15 soil test boring locations with installation of temporary observation wells (installed as Type II Monitoring Wells) at each location. The depths of the proposed borings and wells ranged from 15 to 35 feet below ground surface. Ms. Elizabeth Werner responded to ERM on August 15, 2011 with no suggested revisions concerning the locations of the proposed borings or proposed depths. ERM subcontracted Geologic Exploration, Inc. to perform drilling and well installation services and mobilized to the site on August 22, 2011. Representatives from Division of Waste Management; Elizabeth Werner and Ray Williams, visited the site on August 24, 2011 during the installation of soil test borings and observation wells. Field work for the borings and well installation was completed on August 26, 2011.

A total of 15 wells were installed within soil test borings for the characterization of the 43.5-acre study area (3.5 wells per 10 acres), which includes the proposed limits of waste placement, and a 200-foot perimeter (Maysville annexation limits). Wells were advanced to penetrate the surficial aquifer ranging in depths from 15 to 35 feet below ground surface.

Surveyed well locations, depths, and lithologic (well construction) logs and NC DENR Division of Water Quality Non-Residential Well Construction Records are presented in **Appendix C**.

Regulation - 15A NCAC 13B .0538(a)(4)

(4) A testing program for the borings which describes the frequency, distribution, and type of samples taken and the methods of analysis (ASTM Standards or test methods approved by the Division) used to obtain, at a minimum, the following information:

- (A) standard penetration - resistance (ASTM D 1586);*
- (B) particle size analysis (ASTM D 422);*
- (C) soil classification: Unified Soil Classification System (USCS) (ASTM D 2487);*
- (D) formation descriptions; and*
- (E) saturated hydraulic conductivity, porosity, effective porosity, and dispersive characteristics for each lithologic unit of the uppermost aquifer including the vadose zone.*

Discussion

Wells were constructed using hollow-stem auger, with split spoon sampling, including standard penetration testing (ASTM D 1586) approximately every 5 feet. Standard penetration test results are presented in **Appendix C** as shown on the soil test boring records.

In order to characterize the soil properties of the samples collected in the surficial aquifer, eight (8) bulk samples of soil were collected during drilling operations for laboratory testing. The samples were transported to the geotechnical laboratory at ESP Associates, P.A. in Fort Mill, South Carolina for particle size analysis (ASTM D 422). In general, the testing results indicate that all of the samples classify as a sand with a low sand percentage of 50.3% at OWB-14 to a high percentage of sand of 97.6% at OWB-2. The results of particle size analysis (grain size distribution) are presented in **Appendix D**. USCS classifications were field-determined based on physical inspection of split spoon samples in the field and again in our office. The USCS classifications for each split spoon sample retrieved are presented in **Appendix C** as part of the soil test boring records.

Additionally, ERM retrieved two undisturbed 3-inch diameter Shelby tube samples of near surface clayey soils encountered at OWB-5 and OWB-7. These soils are typical for the majority of the boring locations. ERM transported these samples to ESP Associates, P.A. geotechnical laboratory in Fort Mill, South Carolina for permeability testing (ASTM D 5084). These samples were initially identified in the field as candidate soil liner materials. The permeability testing results are included in **Appendix D** for reference. The sample obtained from OWB-7 (4 to 6 feet below ground surface) has a coefficient of permeability of 2.8×10^{-6} cm/sec whereas the sample from OWB-5 (2 to 4 feet below ground surface) has a coefficient of permeability of 2.8×10^{-4} cm/sec. The laboratory noted that upon extracting the OWB-5 sample that small roots were observed that may impact the test results.

In addition to laboratory testing program, ERM attempted to perform field permeability, rising head field slug test, testing at each of the temporary observation wells (OWB-1 through OWB-15). Due to quickly recharging conditions, our attempts were successful at only 5 of the 15 locations. Testing was achieved at OWB-7, OWB-9, OWB-12, OWB-14 and OWB-15 with results ranging from a low of 8.9×10^{-5} cm/sec (OWB-14) to a high of 6.7×10^{-4} cm/sec (OWB-7). These results are reflective of the laboratory grain size distribution testing results and physical classifications of the soils. With the attempts at 10 wells failing due to inability to drawdown the water table, these results should be considered as "Low" when evaluating the rest of the site. The observations of field slug testing and results are presented in **Appendix D**.

In summary, the site subsurface conditions may be generalized to include a thin topsoil layer of approximately 6 to 10 inches in depth at the surface. Beneath the topsoil, a clay, silt or combination of the two is typically encountered ranging in depths from 3 to 10 feet below ground surface. In some instances, clays and silts are absent from the near surface and sand is encountered beneath the topsoil layer (OWB-5, OWB-11, OWB-12 and OWB-14). All well locations reveal sands located in the water bearing zones in the surficial aquifer. Intermittent layers or lenses of silts and/or clays may be present within these sands but the predominant composition of the surficial aquifer soils are sands.

Regulation - 15A NCAC 13B .0538(a)(5)

(5) In addition to borings, other techniques may be used to investigate the subsurface conditions at the site, including but not limited to: geophysical well logs, surface geophysical surveys, and tracer studies.

Discussion

During preliminary site studies and wetland delineations, preliminary subsurface test pits were installed on March 25, 2011 by Mr. Haywood Pittman, a NC Licensed Soil Scientist, of Pittman Soil Consulting. The purpose of the test pits was to determine the approximate depth to water and classification of near surface soils. Test pits remained open for 24 hours before Mr. Pittman recorded the depth to ground water. Water table elevations stabilized within the open test pits generally ranged from 5 to 7 feet below ground surface. These results were used by ERM to develop our preliminary well installation program submitted to the Division of Waste Management in August 2011. The results of the test pit investigation, a summary table of the results, and a map showing the locations of the test pits overlaying the proposed landfill are presented in **Appendix E**.

Regulation - 15A NCAC 13B .0538(a)(6)

(6) Stratigraphic cross-sections identifying hydrogeologic and lithologic units, and stabilized water table elevations.

Discussion

Stratigraphic cross-sections, including a cross-section location plan are presented in **Appendix F**. Cross sections were developed using field and laboratory test data to group similar soil components together, survey information, soil test boring records and water table elevation records for each well. The subsurface cross sections generally indicate a continuous sand aquifer underlying the proposed site with stabilized water table elevations generally ranging from 4 to 5.5 feet below ground surface. Based on our visits to the site to retrieve water table readings, the results obtained on September 9, 2011 appeared to be the most representative for the highest water table.

The cross sections also illustrate the presence of a near surface clay, silt or combination of the two, layer extending across the majority of the site. It appears that ground water in these areas will reach potentiometric elevations dictated by the regional ground water elevation within the sand aquifer; extending into to silts and clays.

Regulation - 15A NCAC 13B .0538(a)(7)

(7) Water table information, including:

(A) tabulations of water table elevations measured at the time of boring, 24 hours, and stabilized readings for all borings (measured within a period of time short enough to avoid temporal variations in ground-water flow which could preclude accurate determination of ground-water flow direction and rate);

(B) tabulations of stabilized water table elevations over time in order to develop an understanding of seasonal fluctuations in the water table;

(C) an estimation of the long-term seasonal high water table based on stabilized water table readings, hydrographs of wells in the area, precipitation and other meteorological data, and streamflow measurements from the site frequent enough to demonstrate infiltration and runoff characteristics, and any other information available; and

(D) a discussion of any natural or man-made activities that have the potential for causing water table fluctuations, including but not limited to, tidal variations, river stage changes, flood pool changes of reservoirs, high volume production wells, and injection wells.

Discussion

Water levels in the temporary observation wells were recorded at termination of boring, approximately 24 hours after termination of boring and several dates

thereafter. Water levels were obtained for all of the wells within the same calendar day. A summary table of water level readings is included on the following page as Table -1 and also included in **Appendix G**.

Following installation of the temporary observation wells on August 26, 2011, Hurricane Irene resulted in over 7 inches of rainfall at the site around August 27, 2011. A significant rise occurred in all wells installed at the site along with the nearby wells in the Division of Water Resources network (Figures 3, 4 & 5). In general water table elevations rose approximately 6 to 7 feet following the storm event. With the transition into colder months and decreasing evapotranspiration, the water levels have remained at or near the levels recorded following Hurricane Irene.

Individual graphs charting the progression of water table elevations along with recorded rainfall over the evaluation period are included in **Appendix G** for reference. Of particular note is that all of the site wells exhibit the same graph shape and very similar groundwater elevations over the study period indicating a laterally continuous, relatively permeable and homogeneous groundwater flow regime within the surficial aquifer zone across the site. These same characteristics are seen in the nearby wells monitored by Division of Water Resources (Figures 3, 4 & 5). As a result, generally the ground water table is located approximately 4 to 6 feet below ground surface across the site.

Based on the nearby wells in the Division of Water Resources monitoring network discussed previously, the water table elevations recorded during our evaluation are near long term seasonal high levels. Historically, the long term seasonal high levels may be an additional 1 foot higher than those recorded.

Proposed Maysville C&D Landfill
Water Table Elevations - Through 11-22-11

Well OWB-#	Top of PVC Elevation (MSL)	Groundwater Level Elevations													
		T.O.B.		24-Hr.		8/26/11		9/6/11		9/9/11		10/10/11		11/22/11	
		Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.
OWB-1	42.03	13.55	28.48	13.92	28.11	13.92	28.11	7.21	34.82	6.82	35.21	7.80	34.23	7.11	34.92
OWB-2	40.89	13.62	27.27	13.62	27.27	6.33	34.56	5.86	35.03	7.02	33.87	6.23	34.66		
OWB-3	40.32	12.75	27.57	12.79	27.53	5.79	34.53	5.38	34.94	6.54	33.78	5.80	34.52		
OWB-4	41.68	13.93	27.75	13.86	27.82	6.89	34.79	6.53	35.15	7.68	34.00	6.92	34.76		
OWB-5	42.29	15.05	27.24	15.00	27.29	7.52	34.77	7.36	34.93	8.22	34.07	7.44	34.85		
OWB-6	42.18	13.70	28.48	13.78	28.40	7.31	34.87	6.94	35.24	7.91	34.27	7.10	35.08		
OWB-7	42.77	15.55	27.22	14.85	27.92	7.69	35.08	7.17	35.60	8.58	34.19	7.79	34.98		
OWB-8	42.83	15.05	27.78	14.97	27.86	7.93	34.90	7.62	35.21	8.68	34.15	7.83	35.00		
OWB-9	41.29	13.89	27.40	13.10	28.19	5.58	35.71	5.30	35.99	5.22	36.07	7.50	33.79		
OWB-10	42.40	13.68	28.72	13.70	28.70	6.68	35.72	5.71	36.69	7.15	35.25	6.20	36.20		
OWB-11	43.41	13.62	29.79	13.65	29.76	6.93	36.48	6.38	37.03	7.61	35.80	6.75	36.66		
OWB-12	43.22	16.25	26.97	15.13	28.09	8.07	35.15	7.76	35.46	8.40	34.82	7.86	35.36		
OWB-13	44.19	15.15	29.04	15.34	28.85	8.51	35.68	8.23	35.96	9.27	34.92	8.40	35.79		
OWB-14	42.49	14.40	28.09	14.09	28.40	6.86	35.63	6.57	35.92	7.65	34.84	6.74	35.75		
OWB-15	43.21	14.61	28.60	14.56	28.65	7.40	35.81	7.23	35.98	8.59	34.62	7.83	35.38		
Average W.T. Elevation			28.03		28.23		35.23		35.62		34.59		35.18		
W.T. Standard Deviation			-0.28		-1.01		-1.01		-0.94		-1.01		-0.73		

Table - 1

ERM will continue to monitor water table elevations throughout the winter months to further evaluate ground water table fluctuations during the design permitting phase of this project. For the purpose of this study, the highest water table elevations are based on readings recorded on September 9, 2011 and are also presented in **Appendix F** as part of the Stratigraphic cross-sections.

Based on our initial investigation, the surficial aquifer appears to be recharged from rainfall infiltration. The surficial aquifer conditions also appear to be consistent beyond the limits of our investigation. Therefore, manmade impacts such as landfilling that may locally reduce the direct rainfall infiltration are not anticipated to significantly affect the behavior of the historic water table fluctuations.

Regulation - 15A NCAC 13B .0538(a)(8)

(8) The horizontal and vertical dimensions of ground-water flow including flow directions, rates, and gradients.

Discussion

The groundwater flow conditions within the surficial aquifer at the site are characterized by very low hydraulic gradients and velocities. The horizontal hydraulic gradient is essentially flat, with a subtle radial groundwater flow pattern occurring in the area around OWB-11 which serves as a local preferential groundwater recharge area. The horizontal gradient can be seen in the stratigraphic cross-section presented in **Appendix F** along with individual hydraulic gradients and ground water velocities from well to well shown on the Potentiometric Map in **Appendix H**. The gradient is most evident in the east-west cross-sections: A-A', B-B' & C-C'. The gradients shown are based on ground water table measurements from September 9, 2011.

Hydraulic gradients and ground water velocities are most pronounced in the vicinity of OWB-11, a local recharge area. Within this area hydraulic gradients range from 0.00563 ft/ft (from west to east) to 0.00218 ft/ft (from south to north). Consequently, the calculated ground water flow velocities at the site are low, ranging from 0.00235 ft/day (west to east) to 0.00091 ft/day (south to north). Velocities were calculated using the hydraulic gradients from well to well and average results of with an average coefficient of permeability of 1×10^{-4} cm/sec determined from the field permeability testing (rising head slug tests). The gradients and velocities decrease in the western portion of the site with increasing distance from the recharge area. Gradients in this area of the site average approximately 0.0005 ft/ft with corresponding ground water flow velocities of .00052 ft/day.

Based on the results of the calculated hydraulic gradients and ground water flow velocities, ground water movement below the site appears to be minimal (approximately 1 foot per year or less) in horizontal directions. Additionally, there does not appear to be a significant vertical gradient present within the surficial aquifer. Water levels within the deepest well OWB-7 at 35 feet are similar to those in the most shallow 15-foot wells.

Regulation - 15A NCAC 13B .0538(a)(9)

(9) Ground-water contour map(s) to show the occurrence and direction of ground-water flow in the uppermost aquifer and any other aquifers identified in the hydrogeologic investigation. The ground-water contours must be superimposed on a topographic map. The location of all borings and rock cores and the water table elevations or potentiometric data at each location used to generate the ground-water contours must be shown on the ground-water contour map(s).

Discussion

A groundwater contour map / potentiometric map of the uppermost aquifer is presented in **Appendix H**. Groundwater contours are based on water level measurements recorded on September 9, 2011, and are intended to be representative of the seasonal high water table. The contour interval chosen is 0.5-ft due to the low hydraulic gradients across the site. The groundwater contours indicate a subtle radial pattern of groundwater flow centered in the vicinity of the well OWB-11 located in the eastern portion of the site. In the western portion of the site, the general groundwater flow direction is southwestward toward the unnamed tributary to the White Oak River located approximately 2,550 feet west.

Regulation - 15A NCAC 13B .0538(a)(10)

(10) A topographic map of the site locating soil borings with accurate horizontal and vertical control, which are tied to a permanent onsite benchmark.

Discussion

The surveyed locations of all borings are presented in the Surveyed Well Location Plan in **Appendix C**. Surveying was performed by Parker & Associates, Inc. of Jacksonville, North Carolina. The well data along with surveyed information is presented on the following page as Table - 2. The topographic information shown on the plan was taken from the North Carolina Floodplain Mapping Program as updated through 2010 based on Lidar data.

MAYSVILLE C&D LANDFILL
SITE SUITABILITY - OBSERVATION WELL DATA
OCTOBER 6, 2011

Well locations survey data supplied by Parker & Associates

Well OWB-#	Date Drilled	Ground Surface Elevation (MSL)	Top of PVC Elevation (MSL)	Well PVC Stick-Up (ft)	Well Depth (ft)	Screened Interval (ft)	NC State Plane Northing	NC State Plane Easting
OWB-1	8/25/11	39.28	42.03	2.75	20.0	20.0 - 7.0	435174.413	2525011.768
OWB-2	8/25/11	38.02	40.89	2.87	20.0	20.0 - 7.0	434771.627	2524752.429
OWB-3	8/25/11	37.61	40.32	2.71	20.0	20.0 - 8.0	434364.284	2524821.444
OWB-4	8/25/11	39.09	41.68	2.59	20.0	20.0 - 8.0	434374.970	2525231.562
OWB-5	8/24/11	39.06	42.29	3.23	15.0	19.0 - 7.0	434726.149	2525228.015
OWB-6	8/24/11	39.25	42.18	2.93	15.0	20.0 - 8.0	435037.893	2525353.817
OWB-7	8/24/11	40.13	42.77	2.64	15.0	34.0 - 21.0	434607.889	2525756.359
OWB-8	8/23/11	39.83	42.83	3.00	20.0	20.0 - 8.0	434252.327	2525656.891
OWB-9	8/23/11	38.72	41.29	2.57	15.0	3.0 - 15.0	434267.169	2526142.940
OWB-10	8/22/11	39.67	42.40	2.73	20.0	20.0 - 8.0	434276.543	2526606.821
OWB-11	8/23/11	40.75	43.41	2.66	15.0	15 - 3.5	434726.217	2526240.239
OWB-12	8/23/11	40.53	43.22	2.69	20.0	20.0 - 8.0	434863.881	2526483.055
OWB-13	8/24/11	41.26	44.19	2.93	20.0	20.0 - 8.0	435049.941	2525899.610
OWB-14	8/23/11	39.63	42.49	2.86	20.0	20.0 - 8.0	435225.240	2526340.903
OWB-15	8/24/11	40.17	43.21	3.04	20.0	20.0 - 8.0	435602.616	2525879.257

Table - 2

Regulation - 15A NCAC 13B .0538(a)(11)

- (11) Information for wells and water intakes within the site characterization study area, in accordance with Rule .0536(c) of this Section including:*
- (A) boring logs, construction records, field logs and notes, for all onsite borings, piezometers and wells;*
 - (B) construction records, number and location served by wells, and production rates, for public water wells; and*
 - (C) available information for all surface water intakes, including use and production rate.*

Discussion

Based on ERM's site reconnaissance, data research and correspondence with local government authorities, there are no known drinking water supply wells within the study area (within 2,000 feet of proposed facility boundaries). ERM confirmed the absence of wells with the Jones County Public Works Department. All residences that are located within the study area along US Highway 17 or White Oak River Road receive public water supply from the Town of Maysville or Jones County. The well that provides the public water supply through utility service is located in the Town of Maysville approximately 1.5 miles south of the proposed landfill site. The location of the well is shown on the next page in Figure - 6 provided by Division of Water Resources.

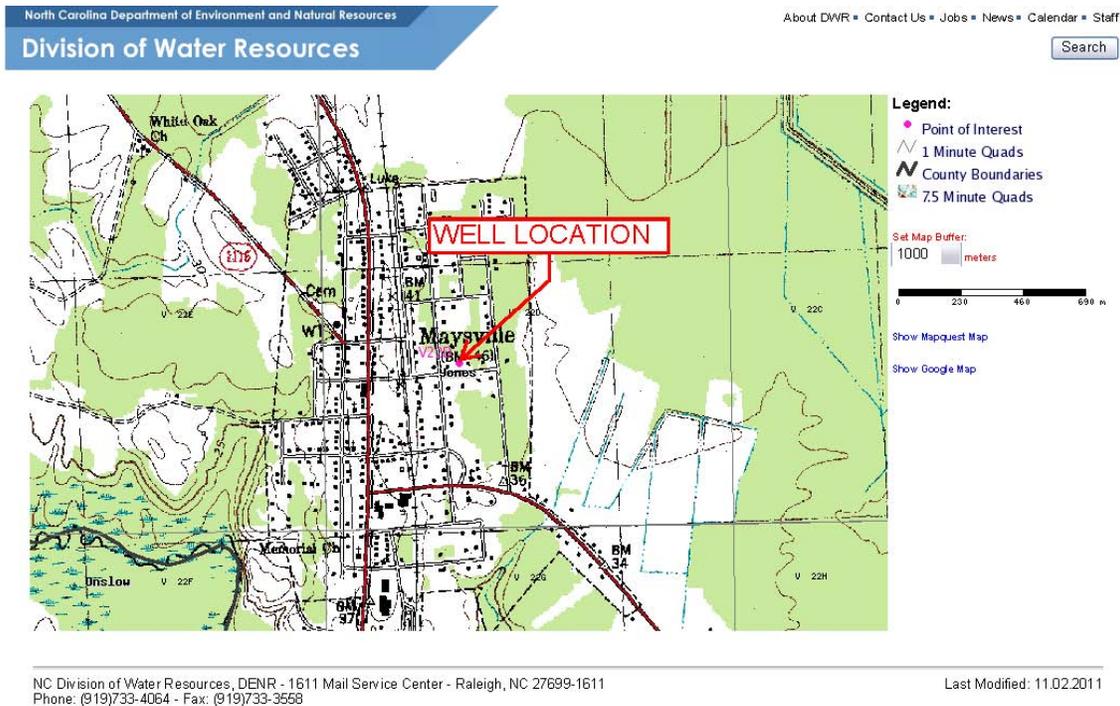


Figure - 6

Regulation - 15A NCAC 13B .0538(a)(12)

(12) Identification of other geologic and hydrologic considerations including but not limited to: slopes, streams, springs, gullies, trenches, solution features, karst terrains, sinkholes, dikes, sills, faults, mines, ground-water discharge features, and ground-water recharge/discharge areas.

Discussion

Based on the results of our subsurface investigation and field observations, the seasonal high water table will be near surface requiring the base grades of the landfill to be elevated above natural ground surface. Additionally, the flow of ground water beneath and surrounding the site appears to be minimal and limited in horizontal direction and velocity. Based on site reconnaissance, the immediate area surrounding the proposed site does not include natural or manmade ground water discharge features. Manmade roadside ditches within the site and surrounding properties may serve as episodic recharge features and intersect the surficial aquifer on a seasonal basis during very wet winter months or following major tropical rain events. The potential affect on the overall groundwater flow pattern is not expected to be significant but will be assessed.

With the availability of public water supply utility in the surrounding area, the potential for a new substantial ground water consumer or intake is minimal.

Regulation - 15A NCAC 13B .0538(a)(13)

(13) A report summarizing the geological and hydrogeological evaluation of the site that includes the following:

- (A) a description of the relationship between the uppermost aquifer of the site to local and regional geologic and hydrogeologic features,*
- (B) a discussion of the ground-water flow regime of the site focusing on the relationship of C&DLF unit(s) to ground-water receptors and to ground-water discharge features,*
- (C) a discussion of the overall suitability of the proposed site for solid waste management activities and which areas of the site are most suitable for C&DLF units, and*
- (D) a discussion of the ground-water flow regime of the uppermost aquifer at the site and the ability to effectively monitor the C&DLF units in order to ensure early detection of any release of constituents to the uppermost aquifer.*

Discussion

The site hydrogeology is characterized by a shallow surficial aquifer within the upper 10 feet of unconsolidated silts, clays and sands of the Inner Coastal Plain deposits. The water table is generally encountered at depths of 2 to 7 feet below land surface at the site. The groundwater flow conditions within the surficial aquifer at the site are characterized by very low hydraulic gradients and groundwater velocities. The groundwater contours indicate a subtle radial pattern of groundwater flow centered in the vicinity of the well OWB-11 located in the eastern portion of the site. The surficial soils in area around well OWB-11 are more sandy than the rest of the site and serve as a local preferential groundwater recharge area. In the western portion of the site, the general groundwater flow direction is southwestward toward the unnamed tributary to the White Oak River located approximately 2,550 feet west. The horizontal hydraulic gradient is essentially flat and the calculated groundwater velocities are on the order of 1 foot per year or less. The wetlands within the site study area do not appear to be connected to the surficial aquifer. Several wells are placed within the immediate vicinity of wetland boundaries; OWB-1, 4, 6, 7, 9 & 14, and reflect water table elevations very similar to those removed from the vicinity of wetland boundaries. The wetland areas contain hydric soils (clays / silts) in localized topographically depressed areas that collect and pool rainfall; not supported by ground water table.

The low gradients and groundwater velocities at the site combine to limit both groundwater movement from the site and discharge to the nearest natural drainage features. The low groundwater flow conditions and relatively consistent surficial aquifer characteristics will allow for effective monitoring and detection of potential releases from the C&DLF units.

There are no known drinking water supply wells, groundwater receptors or groundwater discharge features within 2,000 feet of proposed facility

boundaries. All residences that are located within the study area along US Highway 17 or White Oak River Road are served by public water supply. Based on the lack of groundwater receptors and considering the limited groundwater flow regime at the site, the potential for offsite migration and impacts is considered to be low.

The area within the limits of this hydrogeologic study was pre-determined as the best suited for landfill development based on regulatory requirements beyond hydrogeologic consideration. The abundance of wetland areas within the property boundaries limited the consideration for development footprint. Green Recycling Solutions LLC directed ERM to develop a proposed landfill area with no wetland impacts. Therefore, the study area included in this hydrogeologic study is the best suited for landfill development within this parcel of land.

Based on the results of the subsurface investigation and field observations at the site, the overall suitability of the proposed site for solid waste management activities is good. The seasonal high water table will be near land surface requiring the base grades of the landfill to be elevated above natural ground surface. Other engineering features may require incorporation into the final design based on subsequent investigations throughout the permitting process.

Appendix A

Local and Regional Geology and Hydrogeology



United States
Department of
Agriculture



NRCS

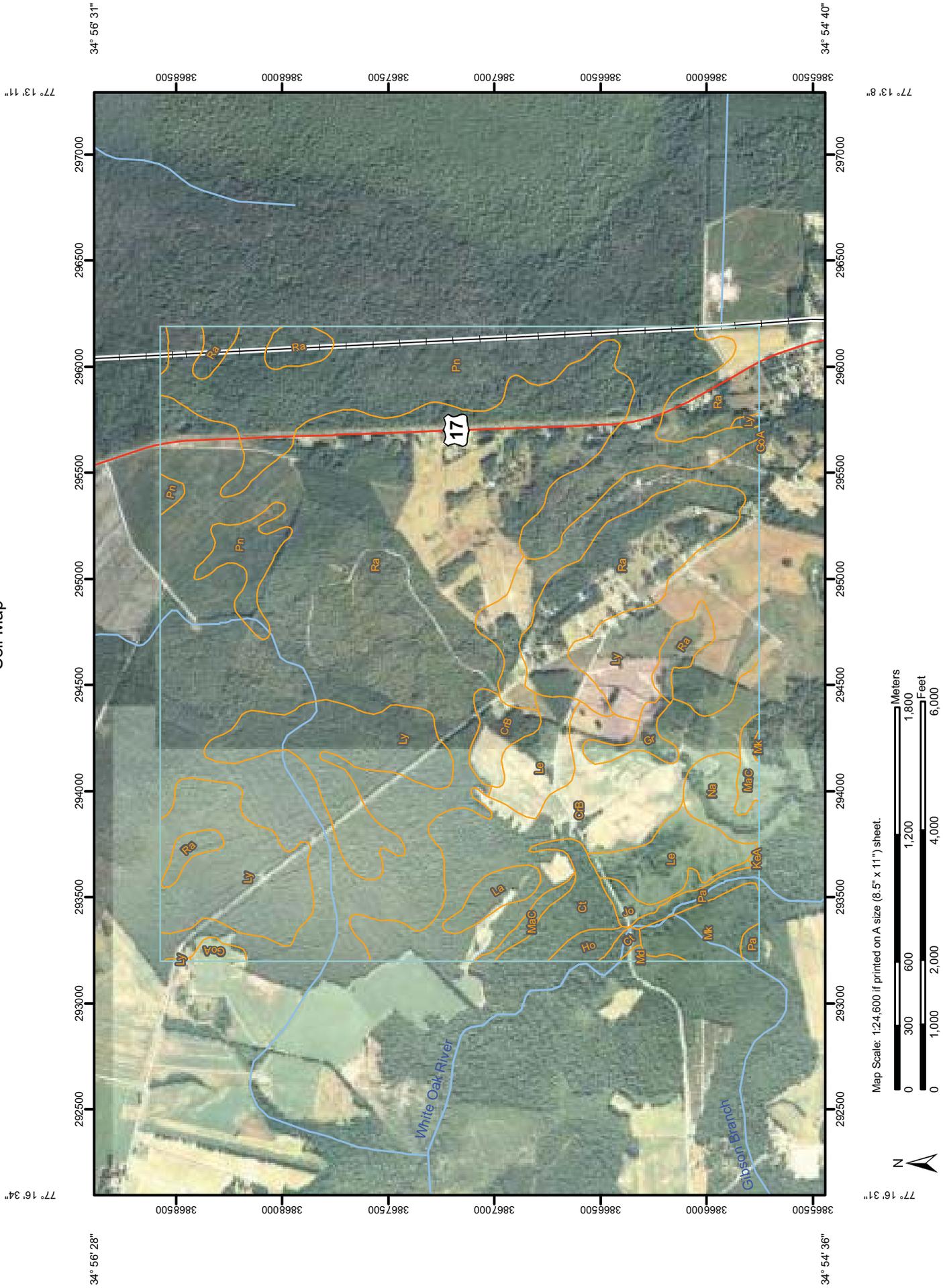
Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Jones County, North Carolina, and Onslow County, North Carolina Maysville



Custom Soil Resource Report Soil Map



Map Scale: 1:24,600 if printed on A size (8.5" x 11") sheet.



MAP INFORMATION

Map Scale: 1:24,600 if printed on A size (8.5" x 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000. Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
 Coordinate System: UTM Zone 18N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jones County, North Carolina
 Survey Area Data: Version 15, Oct 17, 2008

Soil Survey Area: Onslow County, North Carolina
 Survey Area Data: Version 11, Jun 5, 2009

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Date(s) aerial images were photographed: 7/10/2006; 10/14/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

MAP LEGEND

- Area of Interest (AOI)
- Soils
- Soil Map Units
- Special Point Features**
 - Blowout
 - Borrow Pit
 - Clay Spot
 - Closed Depression
 - Gravel Pit
 - Gravelly Spot
 - Landfill
 - Lava Flow
 - Marsh or swamp
 - Mine or Quarry
 - Miscellaneous Water
 - Perennial Water
 - Rock Outcrop
 - Saline Spot
 - Sandy Spot
 - Severely Eroded Spot
 - Sinkhole
 - Slide or Slip
 - Sodic Spot
 - Spoil Area
 - Stony Spot
- Special Line Features**
 - Gully
 - Short Steep Slope
 - Other
- Political Features**
 - Cities
- Water Features**
 - Streams and Canals
- Transportation**
 - Rails
 - Interstate Highways
 - US Routes
 - Major Roads
 - Local Roads
- Very Stony Spot
- Wet Spot
- Other

Map Unit Legend

Jones County, North Carolina (NC103)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrB	Craven very fine sandy loam, 1 to 4 percent slopes	198.8	9.5%
Ct	Croatan muck	30.5	1.5%
GoA	Goldsboro loamy sand, 0 to 2 percent slopes	5.1	0.2%
Gr	Grantham loam	12.9	0.6%
Ho	Hobonny muck	8.5	0.4%
Jo	Johns fine sandy loam	10.3	0.5%
KeA	Kenansville loamy fine sand, 0 to 3 percent slopes	0.8	0.0%
La	Leaf silt loam	16.5	0.8%
Le	Lenoir loam	75.4	3.6%
Ly	Lynchburg fine sandy loam	362.8	17.4%
MaC	Marvyn loamy sand, 6 to 15 percent slopes	17.0	0.8%
Mk	Muckalee loam	0.6	0.0%
Na	Nahunta loam	23.8	1.1%
Pn	Pantego loam	303.9	14.6%
Ra	Rains fine sandy loam	964.0	46.3%
Subtotals for Soil Survey Area		2,031.0	97.5%
Totals for Area of Interest		2,083.7	100.0%

Onslow County, North Carolina (NC133)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ct	Croatan muck	3.8	0.2%
Md	Masontown mucky fine sandy loam	2.5	0.1%
Mk	Muckalee loam	32.5	1.6%
Pa	Pactolus fine sand	13.8	0.7%
Subtotals for Soil Survey Area		52.6	2.5%
Totals for Area of Interest		2,083.7	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named

according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or

Custom Soil Resource Report

anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Jones County, North Carolina

CrB—Craven very fine sandy loam, 1 to 4 percent slopes

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Craven and similar soils: 85 percent

Minor components: 6 percent

Description of Craven

Setting

Landform: Flats on marine terraces, ridges on marine terraces

Landform position (two-dimensional): Shoulder, summit

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Clayey marine deposits

Properties and qualities

Slope: 1 to 4 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 24 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 8.2 inches)

Interpretive groups

Land capability (nonirrigated): 3e

Typical profile

0 to 7 inches: Fine sandy loam

7 to 9 inches: Fine sandy loam

9 to 54 inches: Clay

54 to 80 inches: Sandy loam

Minor Components

Bibb, undrained

Percent of map unit: 3 percent

Landform: Flood plains

Landform position (two-dimensional): Toeslope

Down-slope shape: Concave

Across-slope shape: Linear

Johnston, undrained

Percent of map unit: 2 percent

Landform: Flood plains

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Down-slope shape: Concave

Across-slope shape: Linear

Muckalee, undrained

Percent of map unit: 1 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Ct—Croatan muck

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Croatan, undrained, and similar soils: 80 percent

Croatan, drained, and similar soils: 10 percent

Description of Croatan, Undrained

Setting

Landform: Pocosins

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Woody organic material

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very high (about 16.1 inches)

Interpretive groups

Land capability (nonirrigated): 7w

Typical profile

0 to 28 inches: Muck

28 to 33 inches: Mucky sandy loam

33 to 60 inches: Sandy clay loam

60 to 80 inches: Loamy sand

Description of Croatan, Drained

Setting

Landform: Pocosins
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Woody organic material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very high (about 16.1 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 28 inches: Muck
28 to 33 inches: Mucky sandy loam
33 to 60 inches: Sandy clay loam
60 to 80 inches: Loamy sand

GoA—Goldsboro loamy sand, 0 to 2 percent slopes

Map Unit Setting

Elevation: 20 to 330 feet
Mean annual precipitation: 38 to 55 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 200 to 280 days

Map Unit Composition

Goldsboro and similar soils: 90 percent
Minor components: 6 percent

Description of Goldsboro

Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces
Landform position (two-dimensional): Summit
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 2 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 24 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 10 inches: Loamy fine sand

10 to 13 inches: Fine sandy loam

13 to 72 inches: Sandy clay loam

72 to 80 inches: Clay loam

Minor Components

Rains, undrained

Percent of map unit: 5 percent

Landform: Flats on marine terraces, carolina bays on marine terraces, broad interstream divides on marine terraces

Landform position (two-dimensional): Summit

Down-slope shape: Linear

Across-slope shape: Linear

Muckalee, undrained

Percent of map unit: 1 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Gr—Grantham loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Grantham, drained, and similar soils: 80 percent

Grantham, undrained, and similar soils: 10 percent

Description of Grantham, Drained

Setting

Landform: Broad interstream divides on depressions, broad interstream divides on flats

Custom Soil Resource Report

Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Loamy and silty marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 10.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 14 inches: Loam
14 to 17 inches: Loam
17 to 72 inches: Loam
72 to 80 inches: Loam

Description of Grantham, Undrained

Setting

Landform: Broad interstream divides on depressions, broad interstream divides on flats
Down-slope shape: Concave
Across-slope shape: Concave, linear
Parent material: Loamy and silty marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 10.6 inches)

Interpretive groups

Land capability (nonirrigated): 6w

Typical profile

0 to 14 inches: Loam
14 to 17 inches: Loam
17 to 72 inches: Loam
72 to 80 inches: Loam

Ho—Hobonny muck

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Hobonny, tidal, and similar soils: 80 percent

Description of Hobonny, Tidal

Setting

Landform: Tidal marshes

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Herbaceous organic material

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: Very frequent

Frequency of ponding: Frequent

Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very high (about 13.8 inches)

Interpretive groups

Land capability (nonirrigated): 8w

Typical profile

0 to 16 inches: Muck

16 to 30 inches: Muck

30 to 80 inches: Muck

Jo—Johns fine sandy loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Johns and similar soils: 85 percent

Minor components: 6 percent

Description of Johns

Setting

Landform: Stream terraces

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy alluvium over sandy alluvium

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to strongly contrasting textural stratification

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: Rare

Frequency of ponding: None

Available water capacity: Low (about 5.1 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 7 inches: Fine sandy loam

7 to 11 inches: Fine sandy loam

11 to 37 inches: Sandy clay loam

37 to 80 inches: Sand

Minor Components

Lumbee, undrained

Percent of map unit: 5 percent

Landform: Backswamps on stream terraces

Down-slope shape: Concave

Across-slope shape: Linear

Muckalee, undrained

Percent of map unit: 1 percent

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

KeA—Kenansville loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Kenansville and similar soils: 90 percent

Description of Kenansville

Setting

Landform: Stream terraces

Landform position (three-dimensional): Tread

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy alluvium over sandy alluvium

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 4.2 inches)

Interpretive groups

Land capability (nonirrigated): 2s

Typical profile

0 to 8 inches: Loamy sand

8 to 24 inches: Loamy sand

24 to 36 inches: Sandy loam

36 to 42 inches: Loamy sand

42 to 84 inches: Sand

La—Leaf silt loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Custom Soil Resource Report

Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 200 to 280 days

Map Unit Composition

Leaf, drained, and similar soils: 80 percent
Leaf, undrained, and similar soils: 10 percent

Description of Leaf, Drained

Setting

Landform: Flats on broad interstream divides, terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very high (about 12.0 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 6 inches: Silt loam
6 to 67 inches: Clay
67 to 80 inches: Clay loam

Description of Leaf, Undrained

Setting

Landform: Flats on broad interstream divides, terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very high (about 12.0 inches)

Interpretive groups

Land capability (nonirrigated): 6w

Typical profile

0 to 6 inches: Silt loam

Custom Soil Resource Report

6 to 67 inches: Clay
67 to 80 inches: Clay loam

Le—Lenoir loam

Map Unit Setting

Elevation: 20 to 160 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 200 to 280 days

Map Unit Composition

Lenoir, drained, and similar soils: 80 percent
Lenoir, undrained, and similar soils: 10 percent
Minor components: 8 percent

Description of Lenoir, Drained

Setting

Landform: Flats on broad interstream divides, terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 3 inches: Loam
3 to 8 inches: Loam
8 to 63 inches: Clay
63 to 80 inches: Sandy clay

Description of Lenoir, Undrained

Setting

Landform: Flats on broad interstream divides, terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Clayey marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 30 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 3 inches: Loam
3 to 8 inches: Loam
8 to 63 inches: Clay
63 to 80 inches: Sandy clay

Minor Components

Leaf, undrained

Percent of map unit: 5 percent
Landform: Flats on broad interstream divides, terraces
Down-slope shape: Linear
Across-slope shape: Linear

Bethera, undrained

Percent of map unit: 2 percent
Landform: Flats, depressions
Down-slope shape: Concave
Across-slope shape: Concave

Tomotley, undrained

Percent of map unit: 1 percent
Landform: Depressions on marine terraces, flats on marine terraces
Down-slope shape: Linear
Across-slope shape: Linear

Ly—Lynchburg fine sandy loam

Map Unit Setting

Elevation: 20 to 330 feet
Mean annual precipitation: 38 to 55 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 200 to 280 days

Map Unit Composition

Lynchburg and similar soils: 85 percent

Minor components: 7 percent

Description of Lynchburg

Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces

Landform position (two-dimensional): Summit

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat poorly drained

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)*

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Moderate (about 7.4 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 9 inches: Fine sandy loam

9 to 14 inches: Sandy loam

14 to 65 inches: Sandy clay loam

65 to 80 inches: Clay

Minor Components

Rains, undrained

Percent of map unit: 5 percent

Landform: Flats on marine terraces, carolina bays on marine terraces, broad interstream divides on marine terraces

Landform position (two-dimensional): Summit

Down-slope shape: Linear

Across-slope shape: Linear

Woodington, undrained

Percent of map unit: 2 percent

Landform: Flats on marine terraces, depressions on marine terraces, broad interstream divides on marine terraces

Down-slope shape: Linear

Across-slope shape: Concave

MaC—Marvyn loamy sand, 6 to 15 percent slopes

Map Unit Setting

Elevation: 20 to 160 feet

Custom Soil Resource Report

Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 59 to 70 degrees F
Frost-free period: 200 to 280 days

Map Unit Composition

Marvyn and similar soils: 80 percent
Minor components: 5 percent

Description of Marvyn

Setting

Landform: Ridges on marine terraces
Landform position (two-dimensional): Shoulder, backslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy and clayey marine deposits

Properties and qualities

Slope: 6 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 7.7 inches)

Interpretive groups

Land capability (nonirrigated): 4e

Typical profile

0 to 4 inches: Loamy fine sand
4 to 12 inches: Loamy fine sand
12 to 45 inches: Sandy clay loam
45 to 80 inches: Sandy clay loam

Minor Components

Muckalee, undrained

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear

Mk—Muckalee loam

Map Unit Setting

Elevation: 20 to 160 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 59 to 70 degrees F

Custom Soil Resource Report

Frost-free period: 200 to 280 days

Map Unit Composition

Muckalee, undrained, and similar soils: 80 percent

Description of Muckalee, Undrained

Setting

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Sandy and loamy alluvium

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)*

Depth to water table: About 0 to 12 inches

Frequency of flooding: Frequent

Frequency of ponding: None

Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 24 inches: Loam

24 to 80 inches: Sandy loam

Na—Nahunta loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Nahunta, drained, and similar soils: 80 percent

Nahunta, undrained, and similar soils: 10 percent

Minor components: 5 percent

Description of Nahunta, Drained

Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Loamy and silty marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 10.8 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 6 inches: Loam
6 to 80 inches: Clay loam

Description of Nahunta, Undrained

Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Loamy and silty marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 10.8 inches)

Interpretive groups

Land capability (nonirrigated): 2w

Typical profile

0 to 6 inches: Loam
6 to 80 inches: Clay loam

Minor Components

Grantham, undrained

Percent of map unit: 5 percent
Landform: Broad interstream divides on depressions, broad interstream divides on flats
Down-slope shape: Concave
Across-slope shape: Concave, linear

Pn—Pantego loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Pantego, drained, and similar soils: 80 percent

Pantego, undrained, and similar soils: 10 percent

Description of Pantego, Drained

Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: Rare

Frequency of ponding: None

Available water capacity: High (about 10.2 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 18 inches: Loam

18 to 27 inches: Sandy clay loam

27 to 80 inches: Sandy clay loam

Description of Pantego, Undrained

Setting

Landform: Flats on marine terraces, broad interstream divides on marine terraces

Down-slope shape: Linear

Across-slope shape: Concave

Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Custom Soil Resource Report

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: Rare

Frequency of ponding: None

Available water capacity: High (about 10.2 inches)

Interpretive groups

Land capability (nonirrigated): 6w

Typical profile

0 to 18 inches: Loam

18 to 27 inches: Sandy clay loam

27 to 80 inches: Sandy clay loam

Ra—Rains fine sandy loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Rains, drained, and similar soils: 80 percent

Rains, undrained, and similar soils: 10 percent

Description of Rains, Drained

Setting

Landform: Flats on marine terraces, carolina bays on marine terraces, broad interstream divides on marine terraces

Landform position (two-dimensional): Summit

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: High (about 9.4 inches)

Interpretive groups

Land capability (nonirrigated): 3w

Typical profile

0 to 7 inches: Fine sandy loam
7 to 12 inches: Fine sandy loam
12 to 20 inches: Sandy loam
20 to 62 inches: Sandy clay loam
62 to 85 inches: Sandy clay loam

Description of Rains, Undrained

Setting

Landform: Flats on marine terraces, carolina bays on marine terraces, broad interstream divides on marine terraces
Landform position (two-dimensional): Summit
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy marine deposits

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 1.98 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 9.4 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 7 inches: Fine sandy loam
7 to 12 inches: Fine sandy loam
12 to 20 inches: Sandy loam
20 to 62 inches: Sandy clay loam
62 to 85 inches: Sandy clay loam

Onslow County, North Carolina

Ct—Croatan muck

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Croatan, undrained, and similar soils: 80 percent

Croatan, drained, and similar soils: 10 percent

Description of Croatan, Undrained

Setting

Landform: Pocosins

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Woody organic material

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)

Depth to water table: About 0 to 6 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Very high (about 16.1 inches)

Interpretive groups

Land capability (nonirrigated): 7w

Typical profile

0 to 28 inches: Muck

28 to 33 inches: Mucky sandy loam

33 to 60 inches: Sandy clay loam

60 to 80 inches: Loamy sand

Description of Croatan, Drained

Setting

Landform: Pocosins

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Woody organic material

Properties and qualities

Slope: 0 to 1 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to high (0.00 to 1.98 in/hr)

Custom Soil Resource Report

Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very high (about 16.1 inches)

Interpretive groups

Land capability (nonirrigated): 4w

Typical profile

0 to 28 inches: Muck
28 to 33 inches: Mucky sandy loam
33 to 60 inches: Sandy clay loam
60 to 80 inches: Loamy sand

Md—Masontown mucky fine sandy loam

Map Unit Setting

Elevation: 0 to 20 feet
Mean annual precipitation: 42 to 58 inches
Mean annual air temperature: 61 to 64 degrees F
Frost-free period: 190 to 270 days

Map Unit Composition

Masontown, undrained, and similar soils: 85 percent

Description of Masontown, Undrained

Setting

Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Sandy and loamy alluvium

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water capacity: Moderate (about 9.0 inches)

Interpretive groups

Land capability (nonirrigated): 7w

Typical profile

0 to 27 inches: Mucky loam
27 to 32 inches: Fine sandy loam
32 to 80 inches: Sand

Mk—Muckalee loam

Map Unit Setting

Elevation: 20 to 160 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 59 to 70 degrees F

Frost-free period: 200 to 280 days

Map Unit Composition

Muckalee, undrained, and similar soils: 80 percent

Description of Muckalee, Undrained

Setting

Landform: Flood plains

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Sandy and loamy alluvium

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: About 0 to 12 inches

Frequency of flooding: Frequent

Frequency of ponding: None

Available water capacity: Moderate (about 6.5 inches)

Interpretive groups

Land capability (nonirrigated): 5w

Typical profile

0 to 24 inches: Loam

24 to 80 inches: Sandy loam

Pa—Pactolus fine sand

Map Unit Setting

Elevation: 0 to 20 feet

Mean annual precipitation: 42 to 58 inches

Mean annual air temperature: 61 to 64 degrees F

Frost-free period: 190 to 270 days

Map Unit Composition

Pactolus and similar soils: 85 percent

Minor components: 5 percent

Description of Pactolus

Setting

Landform: Ridges on marine terraces

Down-slope shape: Concave

Across-slope shape: Linear

Parent material: Eolian sands and/or sandy fluviomarine deposits

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 18 to 36 inches

Frequency of flooding: None

Frequency of ponding: None

Available water capacity: Low (about 3.9 inches)

Interpretive groups

Land capability (nonirrigated): 3s

Typical profile

0 to 6 inches: Fine sand

6 to 30 inches: Loamy sand

30 to 80 inches: Loamy sand

Minor Components

Leon

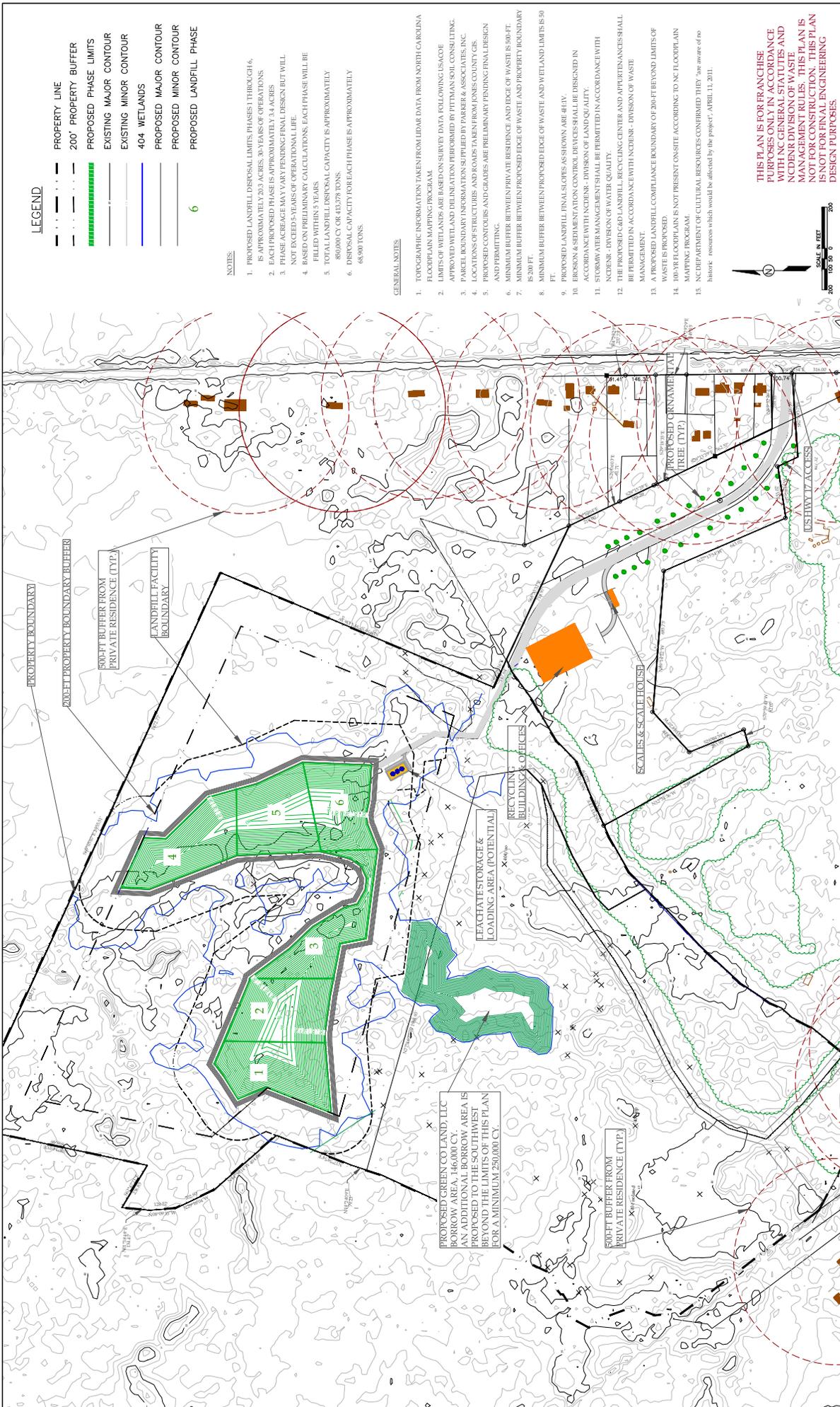
Percent of map unit: 5 percent

Landform: Flats on marine terraces

Down-slope shape: Linear

Across-slope shape: Concave

Appendix B
Site Plan



LEGEND

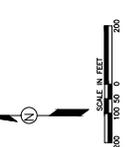
- PROPERTY LINE
- - - 200' PROPERTY BUFFER
- PROPOSED PHASE LIMITS
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 404 WETLANDS
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED LANDFILL PHASE

NOTES

1. PROPOSED LANDFILL DISPOSAL LIMITS, PHASES 1 THROUGH 6, IS APPROXIMATELY 20.3 ACRES, 30 YEARS OF OPERATIONS.
2. EACH PROPOSED PHASE IS APPROXIMATELY 3.4 ACRES.
3. PHASE ACREAGE MAY VARY PENDING FINAL DESIGN BUT WILL NOT EXCEED 5-YEARS OF OPERATIONAL LIFE.
4. BASED ON PRELIMINARY CALCULATIONS, EACH PHASE WILL BE FILLED WITHIN 3 YEARS.
5. TOTAL LANDFILL DISPOSAL CAPACITY IS APPROXIMATELY 860,000 CY OR 413,378 TONS.
6. DISPOSAL CAPACITY FOR EACH PHASE IS APPROXIMATELY 68,900 TONS.

GENERAL NOTES

1. TOPOGRAPHIC INFORMATION TAKEN FROM LIDAR DATA FROM NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM.
2. LIMITS OF WETLANDS ARE BASED ON SURVEY DATA FOLLOWING USACE APPROVED WETLAND DELINEATION PERFORMED BY PITTMAN SOIL CONSULTING.
3. PARCEL BOUNDARY INFORMATION SUPPLIED BY PARKER & ASSOCIATES, INC.
4. LOCATIONS OF STRUCTURES AND ROADS TAKEN FROM JONES COUNTY GIS.
5. PROPOSED CONTOURS AND GRADES ARE PRELIMINARY PENDING FINAL DESIGN AND PERMITTING.
6. MINIMUM BUFFER BETWEEN PRIVATE RESIDENCE AND EDGE OF WASTE IS 500-FT.
7. MINIMUM BUFFER BETWEEN PROPOSED EDGE OF WASTE AND PROPERTY BOUNDARY IS 200 FT.
8. MINIMUM BUFFER BETWEEN PROPOSED EDGE OF WASTE AND WETLAND LIMIT IS 50 FT.
9. PROPOSED LANDFILL FINAL SITES AS SHOWN ARE 4R-VI.
10. EROSION & SEDIMENTATION CONTROL DEVICES SHALL BE DESIGNED IN ACCORDANCE WITH NCDENR - DIVISION OF LAND QUALITY.
11. STORM WATER MANAGEMENT SHALL BE PERMITTED IN ACCORDANCE WITH NCDENR - DIVISION OF WATER QUALITY.
12. THE PROPOSED C&D LANDFILL, RECYCLING CENTER AND APURTENANCES SHALL BE PERMITTED IN ACCORDANCE WITH NCDENR - DIVISION OF WASTE MANAGEMENT.
13. A PROPOSED LANDFILL COMPLIANCE BOUNDARY OF 200-FT BEYOND LIMITS OF WASTE IS PROPOSED.
14. 100-YR FLOODPLAIN IS NOT PRESENT ON SITE ACCORDING TO NC FLOODPLAIN MAPPING PROGRAM.
15. NC DEPARTMENT OF CULTURAL RESOURCES CONFIRMED THEY "are aware of no historic resources which would be affected by the project", APRIL 11, 2011.



THIS PLAN IS FOR PRELIMINARY PURPOSES ONLY IN ACCORDANCE WITH NC GENERAL STATUTES AND NCDENR DIVISION OF WASTE MANAGEMENT RULES. THIS PLAN IS NOT FOR CONSTRUCTION. THIS PLAN IS NOT FOR FINAL ENGINEERING DESIGN PURPOSES.

NO.		DATE	APPR.	NO.	DATE	APPR.	NO.	DATE	APPR.
NO.		DATE	APPR.	<p>MAYSVILLE C&D RECYCLING CENTER & C&D LANDFILL</p> <p>GREEN RECYCLING SOLUTIONS, LLC MAYSVILLE, NC</p> <p>PROJECT ENGINEER DRW</p> <p>DESIGN ENGINEER DRW</p>					
NO.		DATE	APPR.	<p>NOT FOR CONSTRUCTION</p> <p>SCALE AS SHOWN PROJECT NO. 011404GB</p> <p>DATE MAY 27, 2011</p> <p>FACILITY PLANS AND PHASING/DWG</p>					
NO.		DATE	APPR.	<p>FACILITY PLAN</p> <p>DRAWING NO. 1</p> <p>REV. NO. 1</p>					

Appendix C

Investigatory Well Information

Surveyed Well Location Plan

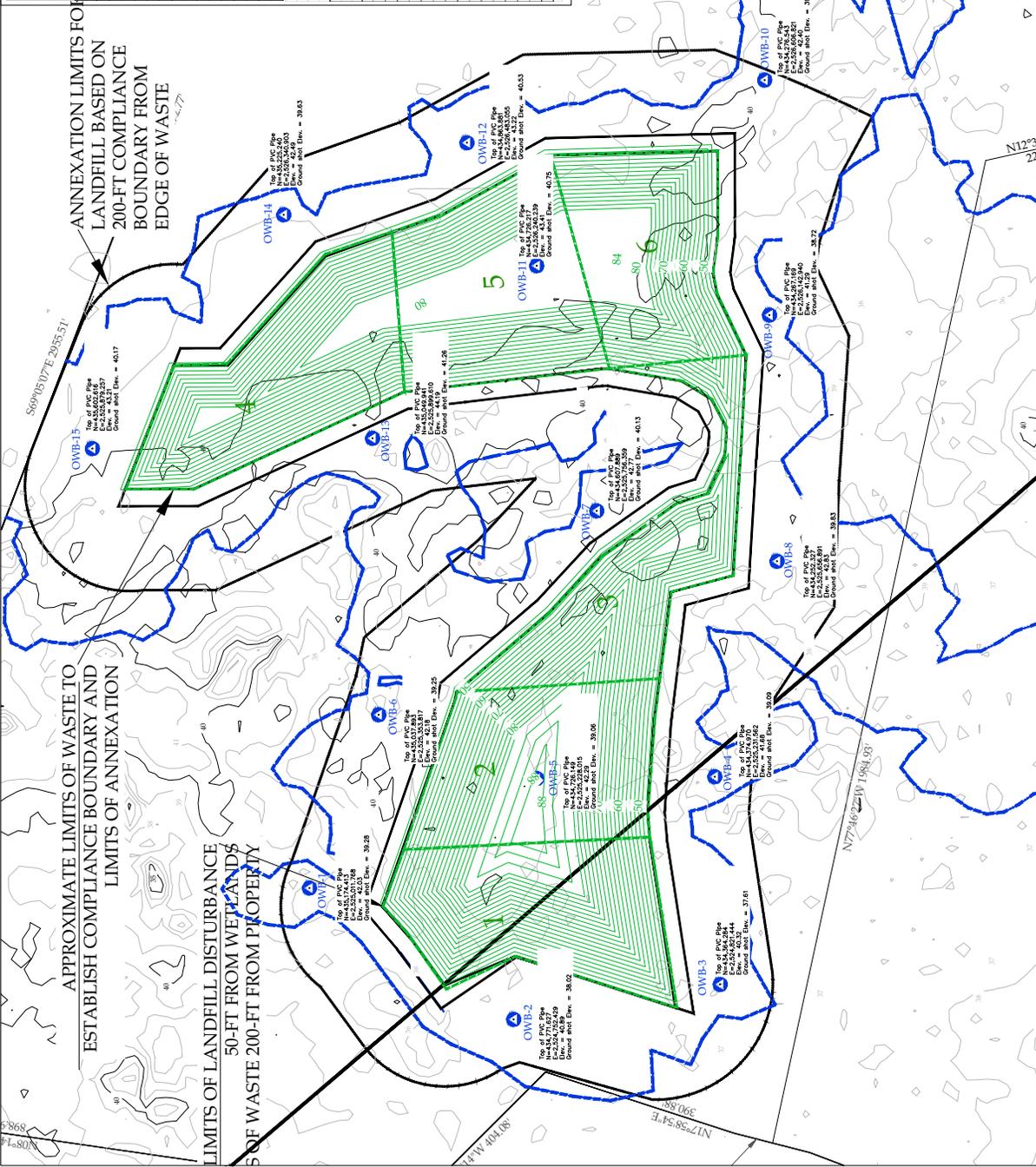
**MAYSVILLE C&D LANDFILL
SITE SUITABILITY - OBSERVATION WELL DATA
OCTOBER 6, 2011**

Well locations survey data supplied by Parker & Associates

Well	Date	Ground Surface Elevation (MSL)	Top of PVC Pipe Elevation (MSL)	Well PVC Stick-Up (ft)	Screened Interval (ft)	NC State Permit Number	NC State Permit Expiration
OWB-1	8/25/11	39.28	42.03	2.00	20.00	430751413	2/25/2017/08
OWB-2	8/25/11	39.02	40.89	2.00	20.00	430751427	2/25/2017/09
OWB-3	8/25/11	39.09	41.42	2.00	20.00	430751430	2/25/2017/10
OWB-4	8/25/11	39.09	41.42	2.00	20.00	430751430	2/25/2017/11
OWB-5	8/24/11	39.66	42.29	2.25	18.00	430245189	2/25/2018/05
OWB-6	8/24/11	39.25	42.00	2.00	20.00	430245193	2/25/2018/07
OWB-7	8/24/11	39.83	42.77	2.44	15.00	430675889	2/25/2018/09
OWB-8	8/23/11	39.83	42.80	2.00	20.00	430252327	2/25/2018/09
OWB-9	8/23/11	39.72	42.40	2.57	15.00	430252327	2/25/2018/09
OWB-10	8/23/11	39.67	42.40	2.73	20.00	430252327	2/25/2018/09
OWB-11	8/23/11	40.75	43.12	2.44	15.00	430252327	2/25/2018/09
OWB-12	8/23/11	40.53	42.92	2.39	20.00	430252327	2/25/2018/09
OWB-13	8/23/11	40.53	42.92	2.39	20.00	430252327	2/25/2018/09
OWB-14	8/24/11	39.63	42.49	2.86	20.00	430252327	2/25/2018/09
OWB-15	8/24/11	40.17	42.21	2.04	20.00	430664516	2/25/2019/27

**Proposed Maysville C&D Landfill
Water Table Elevations - Through 11/22/11**

Well	Top of PVC Elevation (MSL)		Groundwater Level Elevations		M/W/L	11/22/11
	Depth (ft)	Elev. (MSL)	Depth (ft)	Elev. (MSL)		
OWB-1	42.03	39.28	28.11	31.92	6.82	35.31
OWB-2	40.89	39.02	27.27	33.62	6.73	34.56
OWB-3	41.42	39.09	27.53	33.98	6.45	34.53
OWB-4	41.42	39.09	27.53	33.98	6.45	34.53
OWB-5	42.29	39.66	27.29	34.38	7.09	34.85
OWB-6	42.00	39.25	28.00	34.02	6.02	34.85
OWB-7	42.77	39.83	27.22	34.85	5.55	34.88
OWB-8	42.80	39.83	27.22	34.85	5.55	34.88
OWB-9	42.40	39.72	27.86	34.99	4.54	34.88
OWB-10	42.40	39.67	28.19	35.11	4.22	34.88
OWB-11	43.12	40.75	28.78	35.38	4.34	34.88
OWB-12	42.92	40.53	28.90	35.15	4.02	34.88
OWB-13	42.92	40.53	28.90	35.15	4.02	34.88
OWB-14	42.49	39.63	28.85	34.86	3.63	34.88
OWB-15	42.21	40.17	28.65	34.65	3.56	34.88
Average W.T. Elevation			28.63	34.59		34.59



- LEGEND**
- EXISTING CONTOUR (1-FT INTERVAL)
 - ACOE APPROVED WETLAND LIMITS
 - GROUND WATER CONTOUR (0.5-FT INTERVAL)
 - TEST PIT LOCATION
 - PROPOSED SOIL TEST BORING & WELL LOCATION

NO.	DATE	APPROVED	REVISION

NOT FOR CONSTRUCTION

MAYSVILLE C&D LANDFILL

GREEN RECYCLING SOLUTIONS, LLC

PROJECT ENGINEER: DWM
PROJECT MANAGER: DWM
DESIGN ENGINEER: DWM

MAYSVILLE, NC

ERM, INC.
ENVIRONMENTAL & REMEDIATION CONSULTANTS

SURVEYED WELL LOCATION PLAN

SCALE: 1" = 100'

PROJECT NO: 0140408

DATE: NOVEMBER 2011

SUBMITTED WELL LOCATION PLAN/DWG

DRAWING NO. 1

SHEET 1 OF 1

Surveyed Well Location Data

**MAYSVILLE C&D LANDFILL
SITE SUITABILITY - OBSERVATION WELL DATA
OCTOBER 6, 2011**

Well locations survey data supplied by Parker & Associates

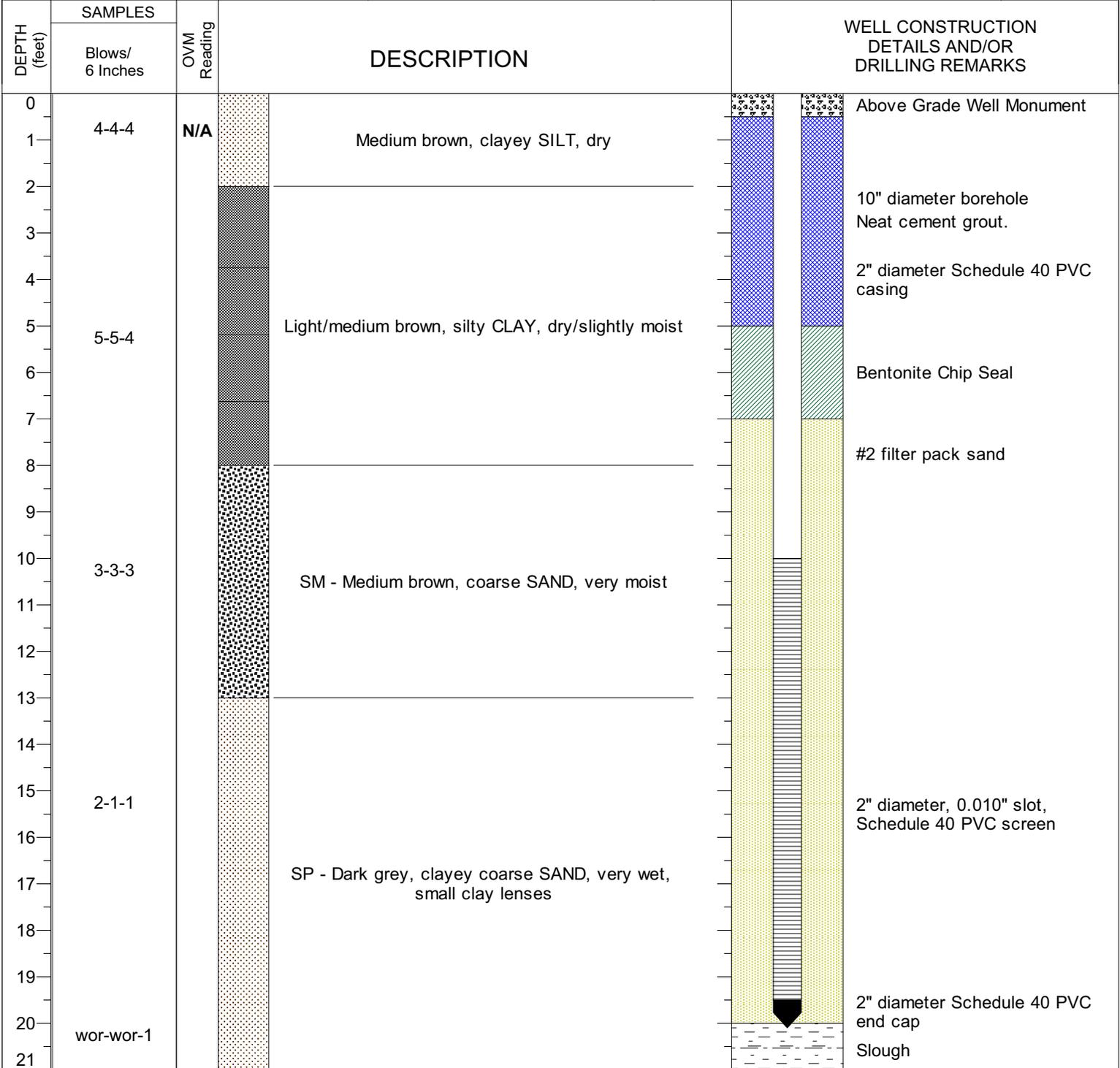
Well OWB-#	Date Drilled	Ground Surface Elevation (MSL)	Top of PVC Elevation (MSL)	Well PVC Stick-Up (ft)	Well Depth (ft)	Screened Interval (ft)	NC State Plane Northing	NC State Plane Easting
OWB-1	8/25/11	39.28	42.03	2.75	20.0	20.0 - 7.0	435174.413	2525011.768
OWB-2	8/25/11	38.02	40.89	2.87	20.0	20.0 - 7.0	434771.627	2524752.429
OWB-3	8/25/11	37.61	40.32	2.71	20.0	20.0 - 8.0	434364.284	2524821.444
OWB-4	8/25/11	39.09	41.68	2.59	20.0	20.0 - 8.0	434374.970	2525231.562
OWB-5	8/24/11	39.06	42.29	3.23	15.0	19.0-7.0	434726.149	2525228.015
OWB-6	8/24/11	39.25	42.18	2.93	15.0	20.0 - 8.0	435037.893	2525353.817
OWB-7	8/24/11	40.13	42.77	2.64	15.0	34.0 - 21.0	434607.889	2525756.359
OWB-8	8/23/11	39.83	42.83	3.00	20.0	20.0 - 8.0	434252.327	2525656.891
OWB-9	8/23/11	38.72	41.29	2.57	15.0	3.0 - 15.0	434267.169	2526142.940
OWB-10	8/22/11	39.67	42.40	2.73	20.0	20.0 - 8.0	434276.543	2526606.821
OWB-11	8/23/11	40.75	43.41	2.66	15.0	15 - 3.5	434726.217	2526240.239
OWB-12	8/23/11	40.53	43.22	2.69	20.0	20.0 - 8.0	434863.881	2526483.055
OWB-13	8/24/11	41.26	44.19	2.93	20.0	20.0 - 8.0	435049.941	2525899.610
OWB-14	8/23/11	39.63	42.49	2.86	20.0	20.0 - 8.0	435225.240	2526340.903
OWB-15	8/24/11	40.17	43.21	3.04	20.0	20.0 - 8.0	435602.616	2525879.257

Soil Test Boring Records

PROJECT: Proposed Maysville C&D Landfill		OWB-1	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/25/11	DATE FINISHED: 8/25/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.55	FIRST: 13.92 COMPL. 13.92 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES		DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Blows/6 Inches	OVM Reading		
0				Above Grade Well Monument
1	4-4-5	N/A	Dark grey/Dark Brown, fine sandy SILT, dry	10" diameter borehole Neat cement grout.
2				2" diameter Schedule 40 PVC casing
3				Bentonite Chip Seal
4				#2 filter pack sand
5	2-6-8		Light/medium brown, clayey medium SAND, dry/slightly moist	
6				
7				
8				
9			SM - Light brown, coarse SAND with very little clay with a few rounded quartz pieces, very moist	
10	3-3-3		Light brown, silty CLAY, slightly moist	
11				
12				
13				
14				
15	4-4-3		SM - Black, clayey coarse SAND with small well rounded quartz pieces, wet	2" diameter, 0.010" slot, Schedule 40 PVC screen
16				
17				
18				
19				
20	woh-woh-woh		SP - Dark grey, clayey coarse SAND, wet	2" diameter Schedule 40 PVC end cap
21				Slough

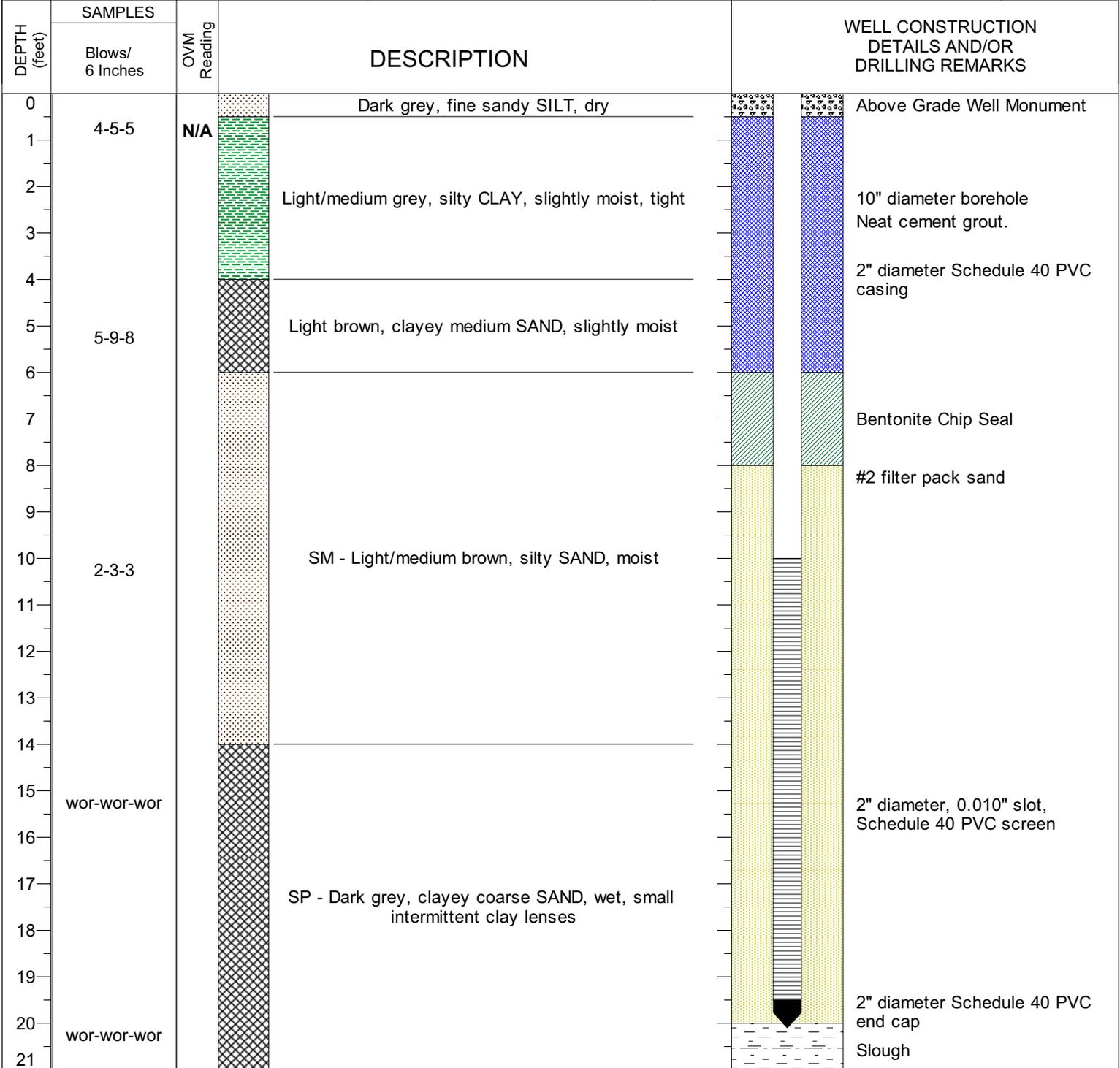
PROJECT: Proposed Maysville C&D Landfill		OWB-2	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/25/11	DATE FINISHED: 8/25/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.62	FIRST: 13.62 COMPL. 13.62 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



PROJECT: Proposed Maysville C&D Landfill		OWB-3	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/25/11	DATE FINISHED: 8/25/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 12.75	FIRST: 12.79 COMPL. 12.79 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES	OVM Reading	DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
	Blows/6 Inches				
0					Above Grade Well Monument
1	2-3-4	N/A	Dark/medium brown, silty CLAY, dry, tight		
2					10" diameter borehole Neat cement grout.
3					2" diameter Schedule 40 PVC casing
4					
5	3-3-3		Light/medium brown, fine sandy CLAY, slightly moist, very fine sand		
6					
7					Bentonite Chip Seal
8			Black, silty CLAY, moist		#2 filter pack sand
9					
10	2-2-3		SM - Light/medium brown, coarse SAND, very moist		
11					
12					
13					
14					
15	woh-woh-1				2" diameter, 0.010" slot, Schedule 40 PVC screen
16					
17			SP - Dark grey, clayey SAND, wet, small intermittent clay lenses		
18					
19					
20	woh-woh-woh				2" diameter Schedule 40 PVC end cap
21					Slough

PROJECT: Proposed Maysville C&D Landfill		OWB-4	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/25/11	DATE FINISHED: 8/25/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.93	FIRST: 13.86 COMPL. 13.86 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



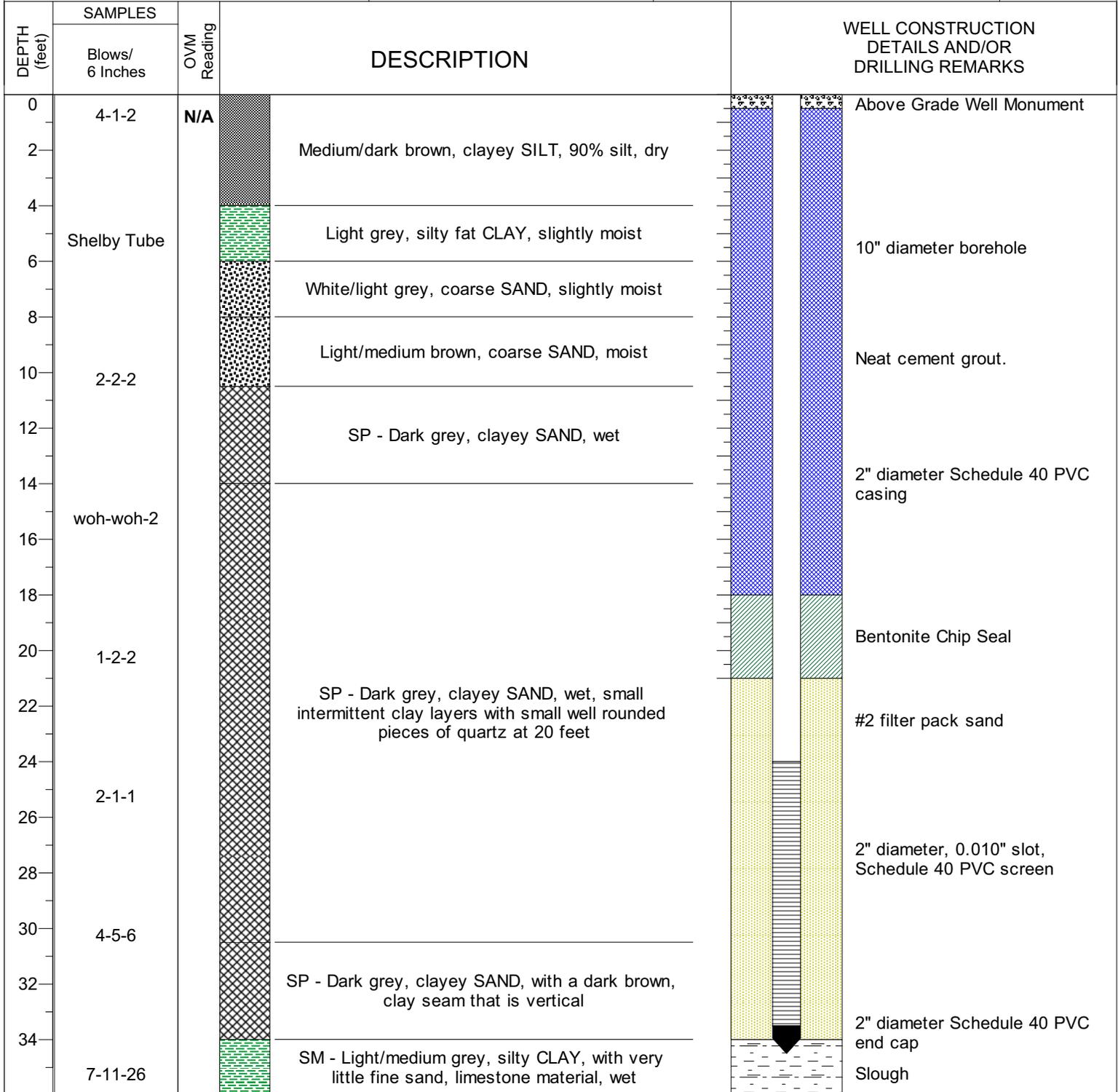
PROJECT: Proposed Maysville C&D Landfill		OWB-5	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/24/11	DATE FINISHED: 8/24/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 19	SCREEN INTERVAL (ft.): 9-19
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 15.05	FIRST: 15.00 COMPL.: 15.00 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES		DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Blows/6 Inches	OVM Reading		
0				Above Grade Well Monument
1	4-5-5	N/A	Dark grey, silty fine SAND, dry	10" diameter borehole Neat cement grout.
2				
3			Light grey, silty CLAY (mostly clay), slightly moist	2" diameter Schedule 40 PVC casing
4				
5	3-4-4		SM - Light grey/light brown, silty coarse SAND, slightly moist	Bentonite Chip Seal
6				
7			SM - Light grey/medium brown, silty coarse SAND, slightly moist	#2 filter pack sand
8				
9				
10	1-1-1		SM - Light brown, fine clayey SAND, moist	2" diameter, 0.010" slot, Schedule 40 PVC screen
11				
12				
13				
14				
15	1-1-1		SM - Black, clayey coarse SAND, wet, small intermittent clay lenses and small well rounded pieces of quartz	2" diameter Schedule 40 PVC end cap
16				
17				
18				
19			SM - Black, clayey SAND, wet, small well rounded quartz pieces	
20	woh-woh-2			Slough
21				

PROJECT: Proposed Maysville C&D Landfill		OWB-6	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/24/11	DATE FINISHED: 8/24/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.70	FIRST: 13.70 COMPL.: 13.78 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES		OVM Reading	DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
	Blows/6 Inches					
0						Above Grade Well Monument
1	3-3-3		N/A			
2				Medium grey, fine sandy SILT, dry		10" diameter borehole Neat cement grout.
3						
4						2" diameter Schedule 40 PVC casing
5	2-1-3			Light grey, silty CLAY, slightly moist		
6						
7						Bentonite Chip Seal
8						
9						#2 filter pack sand
10	3-2-3			SP - Black, silty coarse SAND, with a few well rounded pieces of quartz		
11						
12						
13						
14						
15	2-8-9			SP-SM - Light/medium grey, silty coarse SAND, with some shell material, wet		2" diameter, 0.010" slot, Schedule 40 PVC screen
16						
17						
18						
19				SP - Dark grey, fine sandy SILT with a small amount of clay, wet		2" diameter Schedule 40 PVC end cap
20	woh-woh-6					
21				Light grey, shell material, SAND with some gravel		Slough

PROJECT: Proposed Maysville C&D Landfill		OWB-7	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/23/11	DATE FINISHED: 8/24/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 34	SCREEN INTERVAL (ft.): 24-34
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 15.55	FIRST: 14.85 COMPL. 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



PROJECT: Proposed Maysville C&D Landfill		OWB-8	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/23/11	DATE FINISHED: 8/23/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 15.05	FIRST: 14.97 COMPL. 2" CASING: Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES		DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Blows/6 Inches	OVM Reading		
0				Above Grade Well Monument
1	4-5-6	N/A	Light/medium brown, clayey SILT, dry,	10" diameter borehole Neat cement grout.
2				2" diameter Schedule 40 PVC casing
3				
4				
5	2-3-4		Light grey, silty CLAY, slightly moist	Bentonite Chip Seal
6				
7				
8				
9			Light/medium brown, silty CLAY, moist	#2 filter pack sand
10	3-4-6			
11				
12			SM - Medium brown, SAND, wet	
13				
14				
15	1-1-2		SM - Black, clayey coarse SAND, very wet	2" diameter, 0.010" slot, Schedule 40 PVC screen
16				
17				
18				
19			SM - Black, clayey coarse SAND, very wet, smaller amount of clay than above	2" diameter Schedule 40 PVC end cap
20	woh-woh-woh			Slough
21				

PROJECT: Proposed Maysville C&D Landfill		OWB-9	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/23/11	DATE FINISHED: 8/23/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 15	SCREEN INTERVAL (ft.): 5-15
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.89	FIRST: 13.10 COMPL.: 13.10 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES	OVM Reading	DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Blows/6 Inches			
0				Above Grade Well Monument
1	3-3-3	N/A		Neat cement grout.
2			Light/medium grey, clayey SILT, dry,	Bentonite Chip Seal
3				
4				#2 filter pack sand
5	2-2-2		Light/medium grey, silty CLAY, slightly moist	
6				
7				
8			Medium grey, silty CLAY, slightly moist, very tight	
9				
10	2-1-2		SM - Light brown, SAND, very moist, loose	2" diameter, 0.010" slot, Schedule 40 PVC screen
11				
12				
13			SM - Black, medium/coarse SAND, wet	
14				
15	woh-woh-woh			2" diameter Schedule 40 PVC end cap
16				Slough

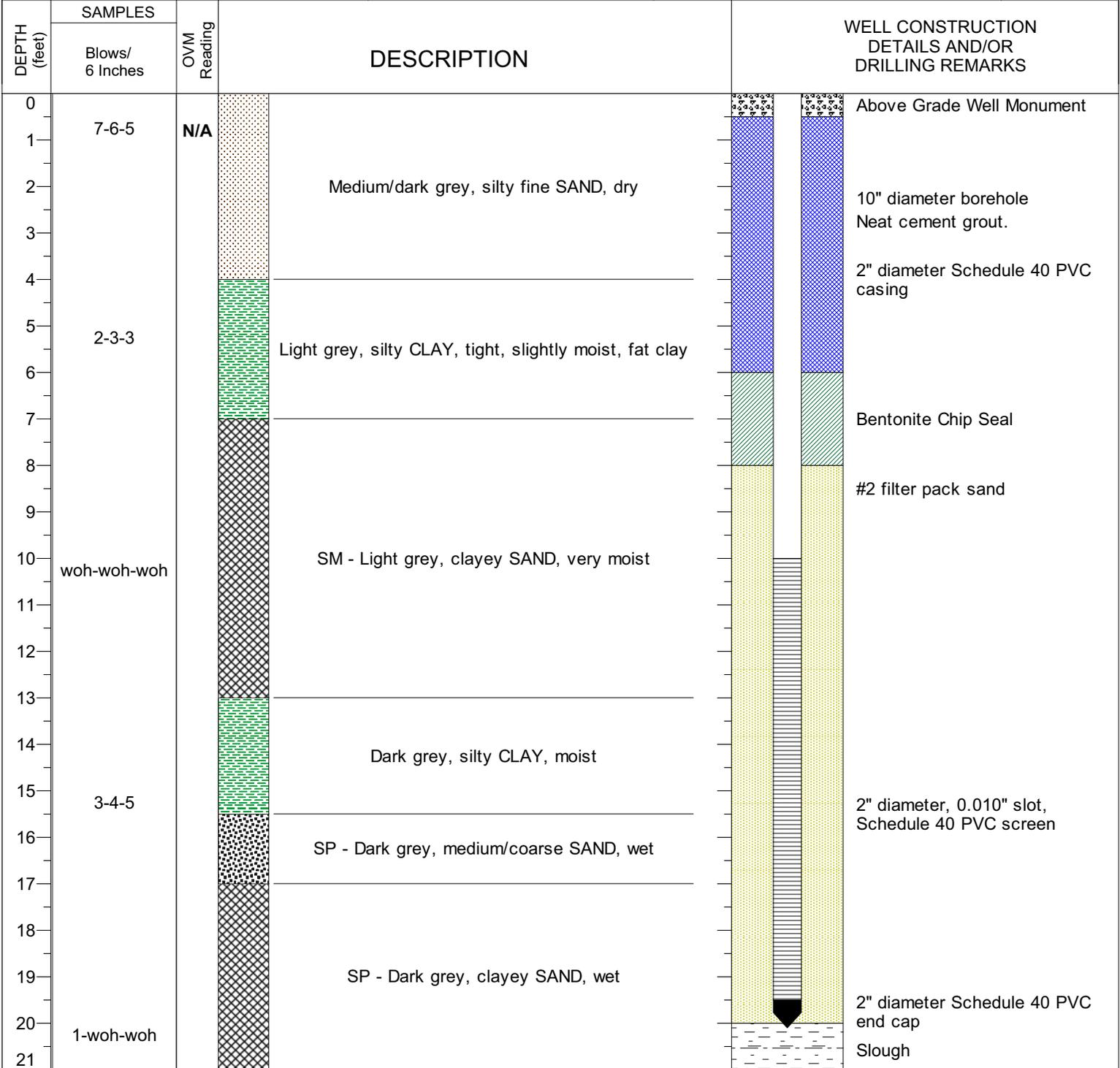
PROJECT: Proposed Maysville C&D Landfill		OWB-10	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/22/11	DATE FINISHED: 8/23/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.68	FIRST: 13.70 COMPL. 13.70 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES		DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Blows/6 Inches	OVM Reading		
0	N/A	N/A		Above Grade Well Monument
1			Dark grey/black, silty CLAY, dry	
2				10" diameter borehole Neat cement grout.
3				
4				2" diameter Schedule 40 PVC casing
5	9-5-4		Light/medium brown, SILT with some rock fragments, dry	
6				
7				Bentonite Chip Seal
8			SM - Light grey, silty medium SAND, very moist	
9				#2 filter pack sand
10	10-7-4		SM - Dark tan, coarse SAND, wet	
11				
12				
13				
14				
15	2-1-1		SM - Black, medium/coarse SAND, wet	
16				2" diameter, 0.010" slot, Schedule 40 PVC screen
17				
18				
19				
20	wor-woh-2			2" diameter Schedule 40 PVC end cap
21				Slough

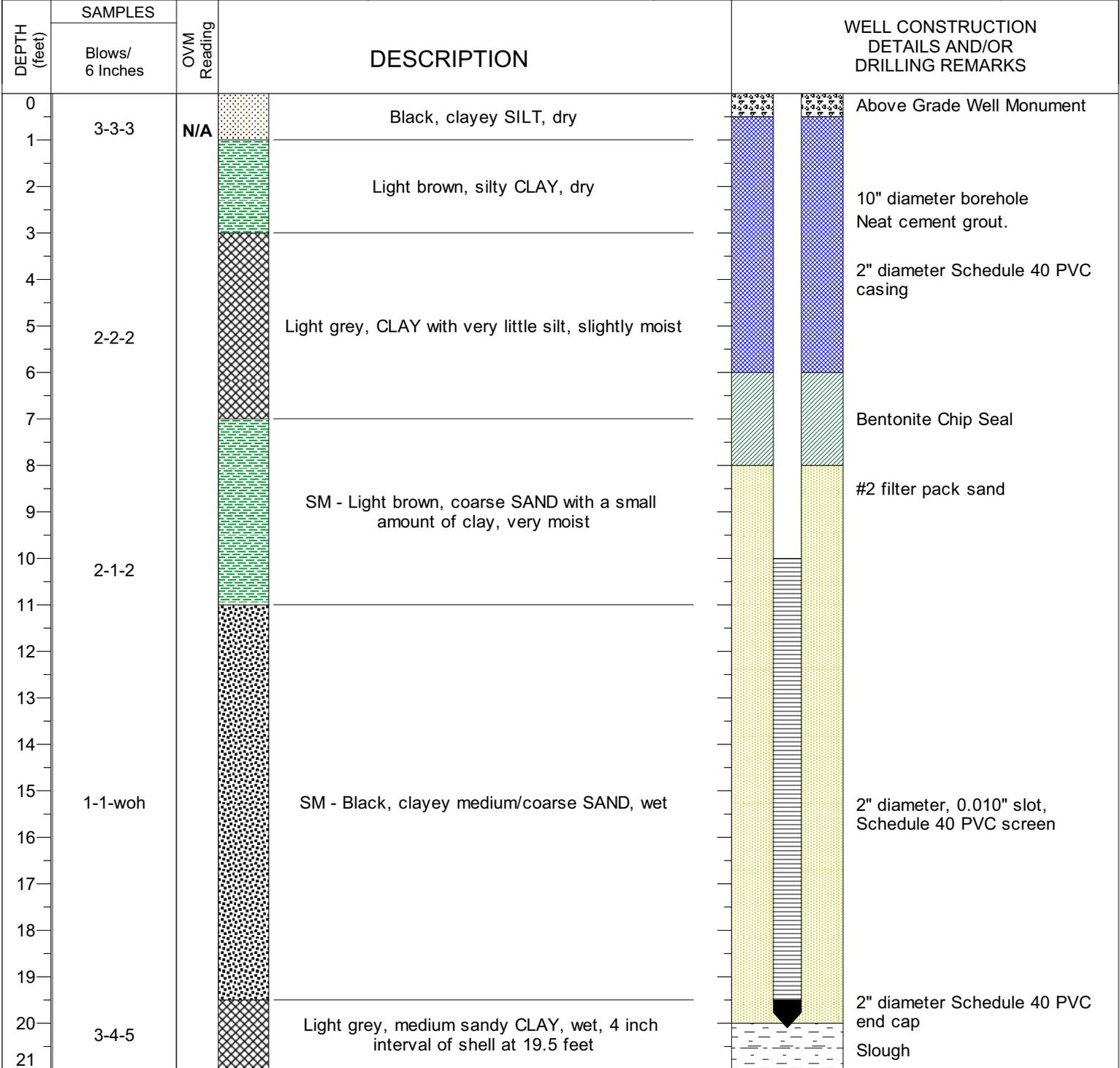
PROJECT: Proposed Maysville C&D Landfill		OWB-11	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/23/11	DATE FINISHED: 8/23/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 15	SCREEN INTERVAL (ft.): 5-15
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 13.62	FIRST: 13.65 COMPL. 13.65 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402

DEPTH (feet)	SAMPLES	OVM Reading	DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
	Blows/ 6 Inches			
0				Above Grade Well Monument
1	5-6-8	N/A		Neat cement grout.
2			Medium/dark grey, silty SAND, hard, dry	Bentonite Chip Seal
3				
4				
5	2-3-3		Black, clayey SILT with some fine sand, slightly moist	#2 filter pack sand
6				
7				
8				
9			SM - Light/medium grey, silty SAND, moist	
10	2-1-1		SM - Light brown, coarse SAND, moist, loose	2" diameter, 0.010" slot, Schedule 40 PVC screen
11				
12				
13			SM - Black, medium/coarse SAND, wet	
14				
15	wor-woh-2			2" diameter Schedule 40 PVC end cap
16				Slough

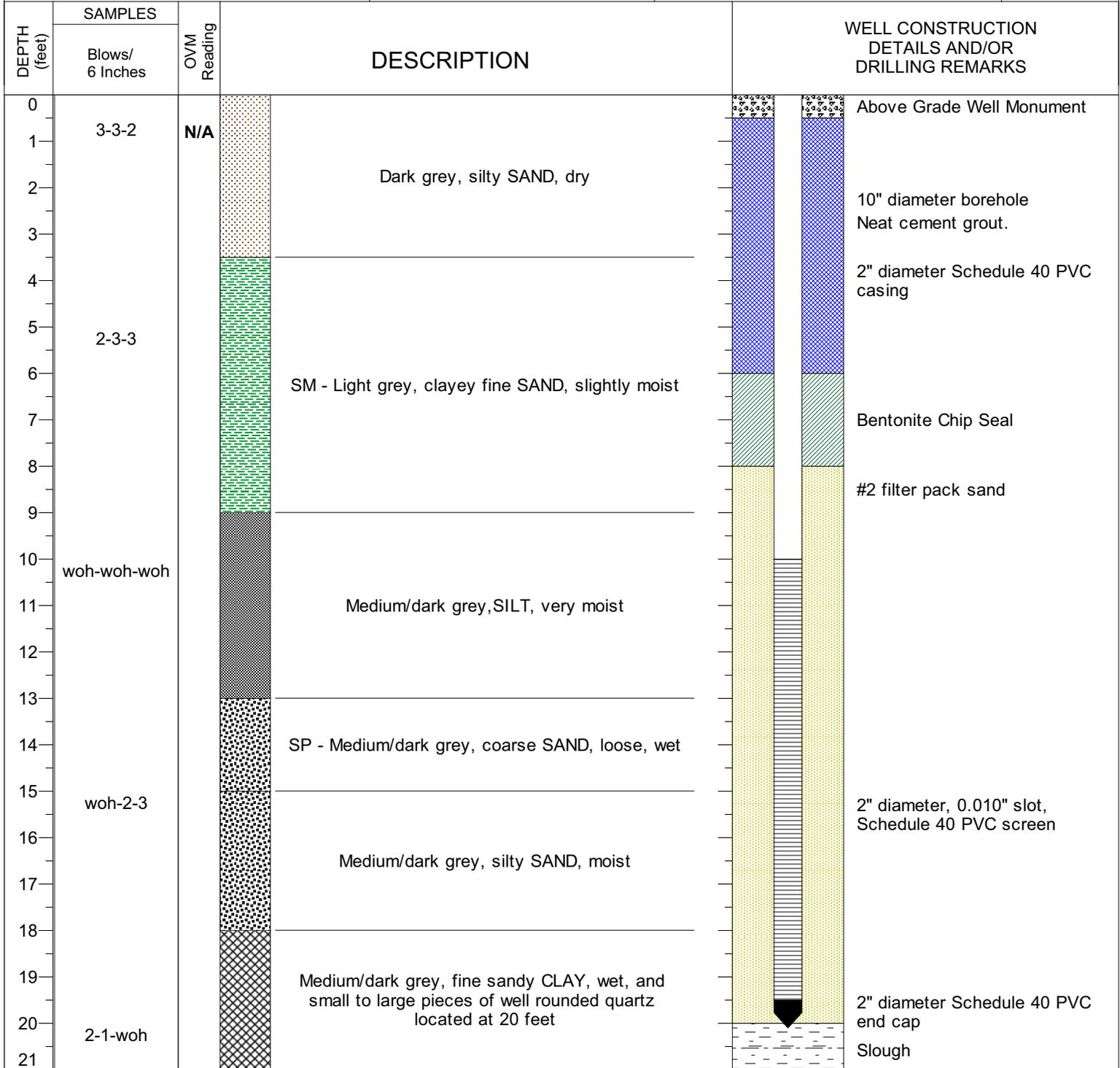
PROJECT: Proposed Maysville C&D Landfill		OWB-12	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/23/11	DATE FINISHED: 8/23/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 16.25	FIRST: 15.13 COMPL. 2" CASING: Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



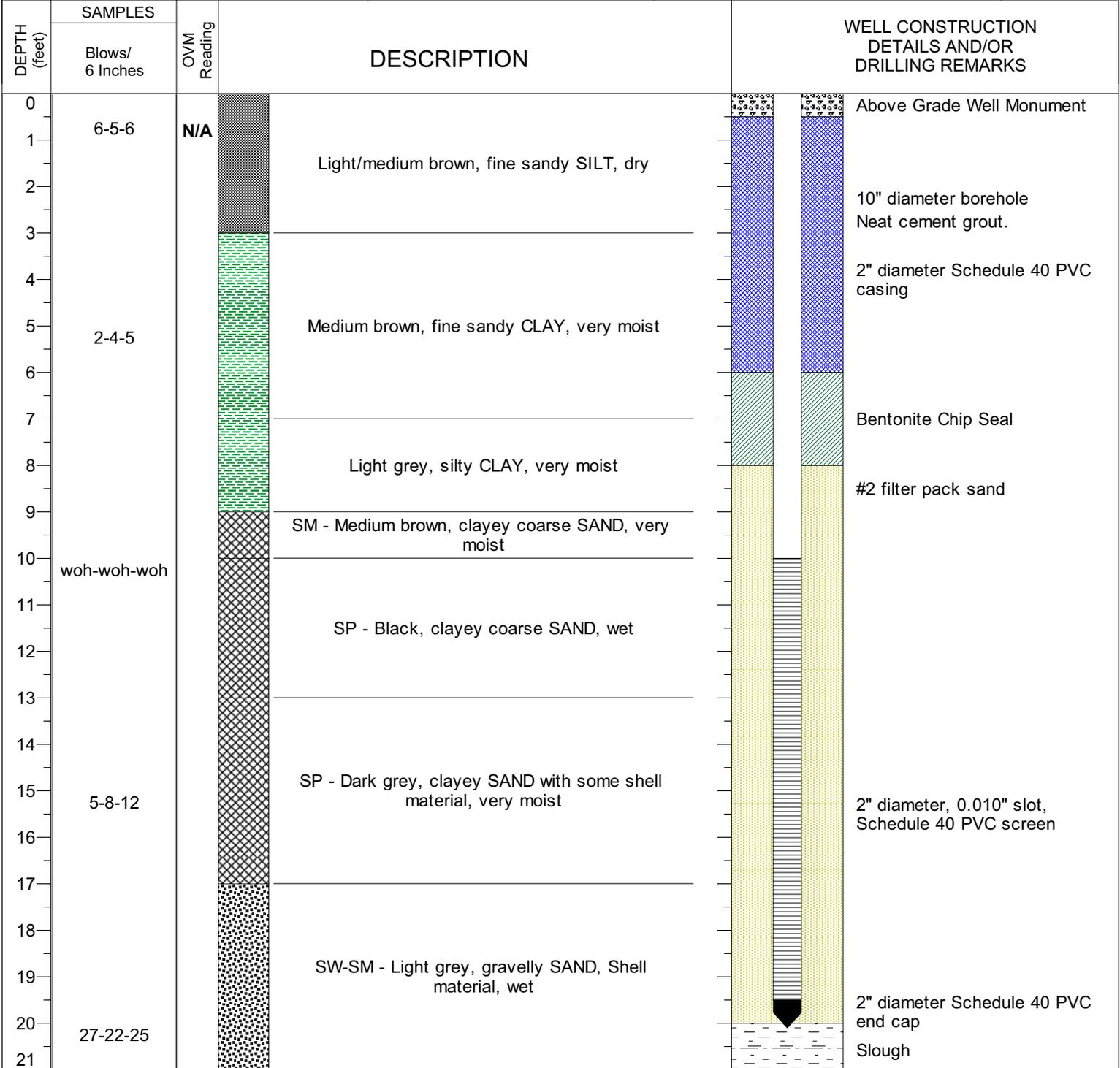
PROJECT: Proposed Maysville C&D Landfill		OWB-13	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/24/11	DATE FINISHED: 8/24/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 15.15	FIRST: 15.34 COMPL. 15.34 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



PROJECT: Proposed Maysville C&D Landfill		OWB-14	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/23/11	DATE FINISHED: 8/23/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 14.40	FIRST: 14.09 COMPL. 14.09 CASING: 2"Sch. 40 PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



PROJECT: Proposed Maysville C&D Landfill		OWB-15	
BORING LOCATION: Proposed Maysville C&D Landfill		GROUND SURFACE ELEVATION AND DATUM: TBD	
DRILLING CONTRACTOR: Geologic Exploration		DATE STARTED: 8/24/11	DATE FINISHED: 8/24/11
DRILLING METHOD: Hollow-stem auger		TOTAL DEPTH (ft.): 20	SCREEN INTERVAL (ft.): 10-20
DRILLING EQUIPMENT: Diedrich D-120 Truck Rig		DEPTH TO WATER: 14.56	FIRST: 14.61 COMPL. 14.61 CASING: 2" Sch.40PVC
SAMPLING METHOD: Split Spoon		LOGGED BY: Chris Means	
HAMMER WEIGHT: 142 Lbs.	DROP: 32"	DRILLER: Mike McConahey	REG. NO. 2402



Well Construction Records



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-1

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____
 DATE DRILLED 08/25/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____

LATITUDE _____ ° _____ ' _____ " DMS OR _____ DD
 LONGITUDE _____ ° _____ ' _____ " DMS OR _____ DD

Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

() _____
 Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET
 b. DOES WELL REPLACE EXISTING WELL? YES NO
 c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top <u>0.0</u> Bottom <u>10.0</u> Ft.	<u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____	_____	_____
Top _____ Bottom _____ Ft.	_____	_____	_____

8. GROUT: Depth	Material	Method
Top <u>0.0</u> Bottom <u>5.0</u> Ft.	<u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

9. SCREEN: Depth	Diameter	Slot Size	Material
Top <u>10.0</u> Bottom <u>20.0</u> Ft.	<u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth	Size	Material
Top <u>8.0</u> Bottom <u>20.0</u> Ft.	<u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

11. DRILLING LOG	Formation Description
Top _____ Bottom <u>0.0 / 1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
Top <u>1.0 / 10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
Top <u>10.0 / 15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
Top <u>15.0 / 20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
Top _____ Bottom _____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b Rev. 2/09
 NC DENR/DWM/SWS
 DIN 16560 Page 125 of 312



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) OBW-2

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use)

DATE DRILLED 08/25/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other

LATITUDE _____ " DMS OR _____ DD

LONGITUDE _____ " DMS OR _____ DD

Latitude/longitude source: GPS Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A

Facility Name

Facility ID# (if applicable)

WHITE OAK RIVER ROAD

Street Address

MAYSVILLE

NC

28555

City or Town

State

Zip Code

GREEN RECYCLING SOLUTIONS, LLC

Contact Name

166 CENTER STREET

Mailing Address

JACKSONVILLE

NC

28546

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: 11.0 FT.

(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top _____ Bottom _____ Top _____ Bottom _____

Top _____ Bottom _____ Top _____ Bottom _____

Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth Diameter Thickness/Weight Material

Top 0.0 Bottom 10.0 Ft. 2 INCH SCH 40 PVC

Top _____ Bottom _____ Ft. _____ _____

Top _____ Bottom _____ Ft. _____ _____

8. GROUT: Depth Material Method

Top 0.0 Bottom 5.0 Ft. PORTLAND BENTONITE SLURRY

Top _____ Bottom _____ Ft. _____ _____

Top _____ Bottom _____ Ft. _____ _____

9. SCREEN: Depth Diameter Slot Size Material

Top 10.0 Bottom 20.0 Ft. 2.0 in. .010 in. PVC

Top _____ Bottom _____ Ft. _____ in. _____ in. _____

Top _____ Bottom _____ Ft. _____ in. _____ in. _____

10. SAND/GRAVEL PACK:

Depth Size Material

Top 8.0 Bottom 20.0 Ft. 20-40 FINE SILICA SAND

Top _____ Bottom _____ Ft. _____ _____

Top _____ Bottom _____ Ft. _____ _____

11. DRILLING LOG

Top Bottom

Formation Description

0.0 / 1.0

WOOD/WEEDS/TOPSOIL

1.0 / 10.0

TAN/WHITE SILTY CLAY

10.0 / 15.0

BLACK SILTY SAND/SHELL

15.0 / 20.0

GRAY/GREEN CLAY SILT SAND/SHELL

12. REMARKS:

BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR Mike McConahey DATE 08/29/11

MIKE MCCONAHEY
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

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NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-3

3. WELL USE (Check One Box) Monitoring Municipal/Public
 Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____
 DATE DRILLED 08/25/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES
 TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____
 LATITUDE ° ' " DMS OR _____ DD
 LONGITUDE ° ' " DMS OR _____ DD
 Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

() _____
 Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET
 b. DOES WELL REPLACE EXISTING WELL? YES NO
 c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth		Diameter	Thickness/ Weight	Material
Top <u>0.0</u>	Bottom <u>10.0</u>	Ft. <u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____	_____	_____
Top _____	Bottom _____	Ft. _____	_____	_____

8. GROUT: Depth		Material	Method
Top <u>0.0</u>	Bottom <u>5.0</u>	Ft. <u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

9. SCREEN: Depth		Diameter	Slot Size	Material
Top <u>10.0</u>	Bottom <u>20.0</u>	Ft. <u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____ in.	_____ in.	_____
Top _____	Bottom _____	Ft. _____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth		Size	Material
Top <u>8.0</u>	Bottom <u>20.0</u>	Ft. <u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

11. DRILLING LOG		Formation Description
Top	Bottom	
<u>0.0</u>	<u>1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
<u>1.0</u>	<u>10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
<u>10.0</u>	<u>15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
<u>15.0</u>	<u>20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC 28625

City or Town

State Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) OBW-4

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use)

DATE DRILLED 08/25/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other

LATITUDE ° ' " DMS OR ° ' " DD

LONGITUDE ° ' " DMS OR ° ' " DD

Latitude/longitude source: GPS Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A

Facility Name

Facility ID# (if applicable)

WHITE OAK RIVER ROAD

Street Address

MAYSVILLE

NC 28555

City or Town

State Zip Code

GREEN RECYCLING SOLUTIONS, LLC

Contact Name

166 CENTER STREET

Mailing Address

JACKSONVILLE

NC 28546

City or Town

State Zip Code

() 872-7686

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: 11.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING:	Depth	Diameter	Thickness/Weight	Material
Top	<u>0.0</u>	Bottom <u>10.0</u>	Ft. <u>2 INCH</u>	<u>SCH 40 PVC</u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>

8. GROUT:	Depth	Material	Method
Top	<u>0.0</u>	Bottom <u>5.0</u>	Ft. <u>PORTLAND BENTONITE</u> <u>SLURRY</u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u> <u> </u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u> <u> </u>

9. SCREEN:	Depth	Diameter	Slot Size	Material
Top	<u>10.0</u>	Bottom <u>20.0</u>	Ft. <u>2.0 in.</u>	<u>.010 in. PVC</u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>

10. SAND/GRAVEL PACK:	Depth	Size	Material
Top	<u>8.0</u>	Bottom <u>20.0</u>	Ft. <u>20-40</u> <u>FINE SILICA SAND</u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u> <u> </u>
Top	<u> </u>	Bottom <u> </u>	Ft. <u> </u> <u> </u>

11. DRILLING LOG	Top	Bottom	Formation Description
	<u>0.0</u>	<u>1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
	<u>1.0</u>	<u>10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
	<u>10.0</u>	<u>15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
	<u>15.0</u>	<u>20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>

12. REMARKS:

BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C . WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b Rev. 2/09

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NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual Name)
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-5

3. WELL USE (Check One Box) Monitoring Municipal/Public
 Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____
 DATE DRILLED 08/24/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
 CITY: MAYSVILLE COUNTY JONES
 TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____
 LATITUDE : _____ " DMS OR _____ DD
 LONGITUDE _____ " DMS OR _____ DD
 Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

() _____
 Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET
 b. DOES WELL REPLACE EXISTING WELL? YES NO
 c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth		Diameter	Thickness/Weight	Material
Top <u>0.0</u>	Bottom <u>10.0</u>	Ft. <u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____	_____	_____
Top _____	Bottom _____	Ft. _____	_____	_____

8. GROUT: Depth		Material	Method
Top <u>0.0</u>	Bottom <u>5.0</u>	Ft. <u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

9. SCREEN: Depth		Diameter	Slot Size	Material
Top <u>10.0</u>	Bottom <u>20.0</u>	Ft. <u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____ in.	_____ in.	_____
Top _____	Bottom _____	Ft. _____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth		Size	Material
Top <u>8.0</u>	Bottom <u>20.0</u>	Ft. <u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

11. DRILLING LOG		Formation Description
Top	Bottom	
<u>0.0</u>	<u>1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
<u>1.0</u>	<u>10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
<u>10.0</u>	<u>15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
<u>15.0</u>	<u>20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

MIKE MCCONAHEY 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code
 (704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-6

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____
 DATE DRILLED 08/24/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)
 CITY: MAYSVILLE COUNTY JONES
 TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____
 LATITUDE _____ " DMS OR _____ DD
 LONGITUDE _____ " DMS OR _____ DD
 Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

() _____
 Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET
 b. DOES WELL REPLACE EXISTING WELL? YES NO
 c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top <u>0.0</u> Bottom <u>10.0</u> Ft.	<u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____	_____	_____
Top _____ Bottom _____ Ft.	_____	_____	_____

8. GROUT: Depth	Material	Method
Top <u>0.0</u> Bottom <u>5.0</u> Ft.	<u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

9. SCREEN: Depth	Diameter	Slot Size	Material
Top <u>10.0</u> Bottom <u>20.0</u> Ft.	<u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth	Size	Material
Top <u>8.0</u> Bottom <u>20.0</u> Ft.	<u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

11. DRILLING LOG	Formation Description
Top _____ Bottom _____	_____
<u>0.0 / 1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
<u>1.0 / 10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
<u>10.0 / 15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
<u>15.0 / 20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) OBW-7

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use)

DATE DRILLED 08/23/11 - 08/24/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other

LATITUDE ° ' " DMS OR DD

LONGITUDE ° ' " DMS OR DD

Latitude/longitude source: GPS Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A

Facility Name

Facility ID# (if applicable)

WHITE OAK RIVER ROAD

Street Address

MAYSVILLE

NC

28555

City or Town

State

Zip Code

GREEN RECYCLING SOLUTIONS, LLC

Contact Name

166 CENTER STREET

Mailing Address

JACKSONVILLE

NC

28546

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 34.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: 11.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING: Depth Diameter Thickness/Weight Material

Top 0.0 Bottom 24.0 Ft. 2 INCH SCH 40 PVC

Top Bottom Ft.

Top Bottom Ft.

8. GROUT: Depth Material Method

Top 0.0 Bottom 19.0 Ft. PORTLAND BENTONITE SLURRY

Top Bottom Ft.

Top Bottom Ft.

9. SCREEN: Depth Diameter Slot Size Material

Top 24.0 Bottom 34.0 Ft. 2.0 in. .010 in. PVC

Top Bottom Ft. in. in.

Top Bottom Ft. in. in.

10. SAND/GRAVEL PACK:

Depth Size Material

Top 22.0 Bottom 34.0 Ft. 20-40 FINE SILICA SAND

Top Bottom Ft.

Top Bottom Ft.

11. DRILLING LOG

Top Bottom Formation Description

0.0 / 1.0 WOOD/WEEDS/TOPSOIL

1.0 / 10.0 TAN/WHITE SILTY CLAY

10.0 / 15.0 BLACK SILTY SAND/SHELL

15.0 / 27.0 GRAY/GREEN/TAN/WHITE CLAY SILT SAND/SHELL

27.0 / 34.0 GREEN/WHITE SANDY SILT

12. REMARKS:

BENTONITE SEAL FROM 19.0 TO 22.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER

MIKE MCCONAHEY 08/29/11
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b
Rev. 2/09
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DIN 16560 Page 131 of 312



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-8

3. WELL USE (Check One Box) Monitoring Municipal/Public
 Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____
 DATE DRILLED 08/23/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES
 TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____
 LATITUDE _____ ° ' " DMS OR _____ DD
 LONGITUDE _____ ° ' " DMS OR _____ DD
 Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

() _____
 Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET
 b. DOES WELL REPLACE EXISTING WELL? YES NO
 c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top <u>0.0</u> Bottom <u>10.0</u> Ft.	<u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____	_____	_____
Top _____ Bottom _____ Ft.	_____	_____	_____

8. GROUT: Depth	Material	Method
Top <u>0.0</u> Bottom <u>5.0</u> Ft.	<u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

9. SCREEN: Depth	Diameter	Slot Size	Material
Top <u>10.0</u> Bottom <u>20.0</u> Ft.	<u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth	Size	Material
Top <u>8.0</u> Bottom <u>20.0</u> Ft.	<u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

11. DRILLING LOG	Formation Description
Top _____ Bottom _____	_____
<u>0.0 / 1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
<u>1.0 / 10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
<u>10.0 / 15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
<u>15.0 / 20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

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1. WELL CONTRACTOR:

MIKE MCCONAHEY

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A

OTHER ASSOCIATED PERMIT#(if applicable)

SITE WELL ID #(if applicable) OBW-9

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use)

DATE DRILLED 08/23/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other

LATITUDE ° ' " DMS OR DD

LONGITUDE ° ' " DMS OR DD

Latitude/longitude source: GPS Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL

N/A

Facility Name

Facility ID# (if applicable)

WHITE OAK RIVER ROAD

Street Address

MAYSVILLE

NC

28555

City or Town

State

Zip Code

GREEN RECYCLING SOLUTIONS, LLC

Contact Name

166 CENTER STREET

Mailing Address

JACKSONVILLE

NC

28546

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 15.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: 11.0 FT.

(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top Bottom Top Bottom

Top Bottom Top Bottom

Top Bottom Top Bottom

7. CASING: Depth		Diameter	Thickness/Weight	Material
Top <u>0.0</u>	Bottom <u>5.0</u>	Ft. <u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>	<u> </u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>	<u> </u>

8. GROUT: Depth		Material	Method
Top <u>0.0</u>	Bottom <u>1.0</u>	Ft. <u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>

9. SCREEN: Depth		Diameter	Slot Size	Material
Top <u>5.0</u>	Bottom <u>15.0</u>	Ft. <u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> in.</u>	<u> in.</u>	<u> </u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> in.</u>	<u> in.</u>	<u> </u>

10. SAND/GRAVEL PACK: Depth		Size	Material
Top <u>3.0</u>	Bottom <u>15.0</u>	Ft. <u>20-40</u>	<u>FINE SILICA SAND</u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>
Top <u> </u>	Bottom <u> </u>	Ft. <u> </u>	<u> </u>

11. DRILLING LOG

Top Bottom

Formation Description

0.0 / 1.0

WOOD/WEEDS/TOPSOIL

1.0 / 10.0

TAN/WHITE SILTY CLAY

10.0 / 15.0

BLACK SILTY SAND/SHELL

12. REMARKS:

BENTONITE SEAL FROM 1.0 TO 3.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CERTIFIED WELL CONTRACTOR

08/29/11

DATE

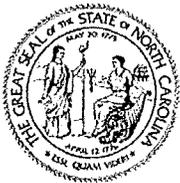
MIKE MCCONAHEY

PRINTED NAME OF PERSON CONSTRUCTING THE WELL

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North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
Well Contractor Company Name
176 COMMERCE BLVD
Street Address
STATESVILLE NC 28625
City or Town State Zip Code

(704) 872-7686
Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
OTHER ASSOCIATED PERMIT#(if applicable) _____
SITE WELL ID #(if applicable) OBW-10

3. WELL USE (Check One Box) Monitoring Municipal/Public
Industrial/Commercial Agricultural Recovery Injection
Irrigation Other (list use) _____
DATE DRILLED 08/23/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES
TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____

LATITUDE _____ ° _____ ' _____ " DMS OR _____ DD
LONGITUDE _____ ° _____ ' _____ " DMS OR _____ DD

Latitude/longitude source: GPS Topographic map
(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
Street Address
MAYSVILLE NC 28555
City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
Contact Name
166 CENTER STREET
Mailing Address
JACKSONVILLE NC 28546
City or Town State Zip Code

() _____
Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET
b. DOES WELL REPLACE EXISTING WELL? YES NO
c. WATER LEVEL Below Top of Casing: 11.0 FT.
(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
Top _____ Bottom _____ Top _____ Bottom _____
Top _____ Bottom _____ Top _____ Bottom _____
Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth		Diameter	Thickness/Weight	Material
Top <u>0.0</u>	Bottom <u>10.0</u>	Ft. <u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____	_____	_____
Top _____	Bottom _____	Ft. _____	_____	_____

8. GROUT: Depth		Material	Method
Top <u>0.0</u>	Bottom <u>5.0</u>	Ft. <u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

9. SCREEN: Depth		Diameter	Slot Size	Material
Top <u>10.0</u>	Bottom <u>20.0</u>	Ft. <u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____	Bottom _____	Ft. _____	_____	_____
Top _____	Bottom _____	Ft. _____	_____	_____

10. SAND/GRAVEL PACK: Depth		Size	Material
Top <u>8.0</u>	Bottom <u>20.0</u>	Ft. <u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____	Bottom _____	Ft. _____	_____
Top _____	Bottom _____	Ft. _____	_____

11. DRILLING LOG		Formation Description
Top <u>0.0</u>	Bottom <u>1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
Top <u>1.0</u>	Bottom <u>10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
Top <u>10.0</u>	Bottom <u>15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
Top <u>15.0</u>	Bottom <u>20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE
MIKE MCCONAHEY
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-1611, Phone : (919) 807-6300



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-11

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use) _____

DATE DRILLED 08/23/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other _____

LATITUDE _____ " DMS OR _____ DD

LONGITUDE _____ " DMS OR _____ DD

Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)

WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code

GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

(_____) _____
 Area code Phone number

6. WELL DETAILS:

- a. TOTAL DEPTH: 15.0 FEET
- b. DOES WELL REPLACE EXISTING WELL? YES NO
- c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top <u>0.0</u> Bottom <u>5.0</u> Ft.	<u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____	_____	_____
Top _____ Bottom _____ Ft.	_____	_____	_____

8. GROUT: Depth	Material	Method
Top <u>0.0</u> Bottom <u>1.0</u> Ft.	<u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

9. SCREEN: Depth	Diameter	Slot Size	Material
Top <u>5.0</u> Bottom <u>15.0</u> Ft.	<u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth	Size	Material
Top <u>3.0</u> Bottom <u>15.0</u> Ft.	<u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

11. DRILLING LOG	Formation Description
Top _____ Bottom _____	_____
<u>0.0 / 1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
<u>1.0 / 10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
<u>10.0 / 15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____

12. REMARKS:
BENTONITE SEAL FROM 1.0 TO 3.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL

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GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-12

3. WELL USE (Check One Box) Monitoring Municipal/Public
 Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____
 DATE DRILLED 08/23/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other _____

LATITUDE . ____ ° ____ ' ____ " DMS OR ____ DD

LONGITUDE ____ ° ____ ' ____ " DMS OR ____ DD

Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)

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 Street Address

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GREEN RECYCLING SOLUTIONS, LLC
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166 CENTER STREET
 Mailing Address

JACKSONVILLE NC 28546
 City or Town State Zip Code

()
 Area code Phone number

6. WELL DETAILS:

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c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top _____ Bottom _____ Top _____ Bottom _____

Top _____ Bottom _____ Top _____ Bottom _____

Top _____ Bottom _____ Top _____ Bottom _____

7. CASING:	Depth	Diameter	Thickness/ Weight	Material
Top	<u>0.0</u>	Bottom <u>10.0</u> Ft.	<u>2 INCH</u>	<u>SCH 40 PVC</u>
Top	_____	Bottom _____ Ft.	_____	_____
Top	_____	Bottom _____ Ft.	_____	_____

8. GROUT:	Depth	Material	Method
Top	<u>0.0</u>	Bottom <u>5.0</u> Ft.	<u>PORTLAND BENTONITE SLURRY</u>
Top	_____	Bottom _____ Ft.	_____
Top	_____	Bottom _____ Ft.	_____

9. SCREEN:	Depth	Diameter	Slot Size	Material
Top	<u>10.0</u>	Bottom <u>20.0</u> Ft.	<u>2.0 in. .010 in.</u>	<u>PVC</u>
Top	_____	Bottom _____ Ft.	_____ in. _____ in.	_____
Top	_____	Bottom _____ Ft.	_____ in. _____ in.	_____

10. SAND/GRAVEL PACK:	Depth	Size	Material
Top	<u>8.0</u>	Bottom <u>20.0</u> Ft.	<u>20-40 FINE SILICA SAND</u>
Top	_____	Bottom _____ Ft.	_____
Top	_____	Bottom _____ Ft.	_____

11. DRILLING LOG	Top	Bottom	Formation Description
	<u>0.0</u>	<u>1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
	<u>1.0</u>	<u>10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
	<u>10.0</u>	<u>15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
	<u>15.0</u>	<u>20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

MIKE MCCONAHEY 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-1611, Phone : (919) 807-6300

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MIKE MCCONAHEY

Well Contractor (Individual) Name

GEOLOGIC EXPLORATION, INC

Well Contractor Company Name

176 COMMERCE BLVD

Street Address

STATESVILLE

NC

28625

City or Town

State

Zip Code

(704) 872-7686

Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A

OTHER ASSOCIATED PERMIT#(if applicable) _____

SITE WELL ID #(if applicable) OBW-13

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection

Irrigation Other (list use) _____

DATE DRILLED 08/24/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555

(Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)

Slope Valley Flat Ridge Other _____

LATITUDE . ____ ° ____ ' ____ " DMS OR ____ DD

LONGITUDE ____ ° ____ ' ____ " DMS OR ____ DD

Latitude/longitude source: GPS Topographic map

(location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A

Facility Name

Facility ID# (if applicable)

WHITE OAK RIVER ROAD

Street Address

MAYSVILLE

NC

28555

City or Town

State

Zip Code

GREEN RECYCLING SOLUTIONS, LLC

Contact Name

166 CENTER STREET

Mailing Address

JACKSONVILLE

NC

28546

City or Town

State

Zip Code

()

Area code Phone number

6. WELL DETAILS:

a. TOTAL DEPTH: 20.0 FEET

b. DOES WELL REPLACE EXISTING WELL? YES NO

c. WATER LEVEL Below Top of Casing: 11.0 FT.

(Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*

*Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):

Top _____ Bottom _____ Top _____ Bottom _____

Top _____ Bottom _____ Top _____ Bottom _____

Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth Diameter Thickness/Weight Material

Top 0.0 Bottom 10.0 Ft. 2 INCH SCH 40 PVC

Top _____ Bottom _____ Ft. _____ _____ _____

Top _____ Bottom _____ Ft. _____ _____ _____

8. GROUT: Depth Material Method

Top 0.0 Bottom 5.0 Ft. PORTLAND BENTONITE SLURRY

Top _____ Bottom _____ Ft. _____ _____ _____

Top _____ Bottom _____ Ft. _____ _____ _____

9. SCREEN: Depth Diameter Slot Size Material

Top 10.0 Bottom 20.0 Ft. 2.0 in. .010 in. PVC

Top _____ Bottom _____ Ft. _____ in. _____ in. _____

Top _____ Bottom _____ Ft. _____ in. _____ in. _____

10. SAND/GRAVEL PACK:

Depth Size Material

Top 8.0 Bottom 20.0 Ft. 20-40 FINE SILICA SAND

Top _____ Bottom _____ Ft. _____ _____ _____

Top _____ Bottom _____ Ft. _____ _____ _____

11. DRILLING LOG

Top Bottom Formation Description

0.0 / 1.0 WOOD/WEEDS/TOPSOIL

1.0 / 10.0 TAN/WHITE SILTY CLAY

10.0 / 15.0 BLACK SILTY SAND/SHELL

15.0 / 20.0 GRAY/GREEN CLAY SILT SAND/SHELL

_____/_____/_____

_____/_____/_____

_____/_____/_____

_____/_____/_____

_____/_____/_____

_____/_____/_____

_____/_____/_____

12. REMARKS:

BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

Mike McConahey 08/29/11
SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Form GW-1b Rev. 2/09

NC DENR/DWM/SWS DIN 16560 Page 137 of 312



NON RESIDENTIAL WELL CONSTRUCTION RECORD

North Carolina Department of Environment and Natural Resources- Division of Water Quality

WELL CONTRACTOR CERTIFICATION # 2402

1. WELL CONTRACTOR:

MIKE MCCONAHEY
 Well Contractor (Individual) Name
GEOLOGIC EXPLORATION, INC
 Well Contractor Company Name
176 COMMERCE BLVD
 Street Address
STATESVILLE NC 28625
 City or Town State Zip Code

(704) 872-7686
 Area code Phone number

2. WELL INFORMATION:

WELL CONSTRUCTION PERMIT# N/A
 OTHER ASSOCIATED PERMIT#(if applicable) _____
 SITE WELL ID #(if applicable) OBW-14

3. WELL USE (Check One Box) Monitoring Municipal/Public

Industrial/Commercial Agricultural Recovery Injection
 Irrigation Other (list use) _____

DATE DRILLED 08/24/11

4. WELL LOCATION:

WHITE OAK RIVER ROAD 28555
 (Street Name, Numbers, Community, Subdivision, Lot No., Parcel, Zip Code)

CITY: MAYSVILLE COUNTY JONES

TOPOGRAPHIC / LAND SETTING: (check appropriate box)
 Slope Valley Flat Ridge Other _____

LATITUDE _____ " DMS OR _____ DD
 LONGITUDE _____ " DMS OR _____ DD

Latitude/longitude source: GPS Topographic map
 (location of well must be shown on a USGS topo map and attached to this form if not using GPS)

5. FACILITY (Name of the business where the well is located.)

PROPOSED C&D LANDFILL N/A
 Facility Name Facility ID# (if applicable)
WHITE OAK RIVER ROAD
 Street Address
MAYSVILLE NC 28555
 City or Town State Zip Code
GREEN RECYCLING SOLUTIONS, LLC
 Contact Name
166 CENTER STREET
 Mailing Address
JACKSONVILLE NC 28546
 City or Town State Zip Code

() _____
 Area code Phone number

6. WELL DETAILS:

- a. TOTAL DEPTH: 20.0 FEET
- b. DOES WELL REPLACE EXISTING WELL? YES NO
- c. WATER LEVEL Below Top of Casing: 11.0 FT.
 (Use "+" if Above Top of Casing)

d. TOP OF CASING IS 2.5 FT. Above Land Surface*
 *Top of casing terminated at/or below land surface may require a variance in accordance with 15A NCAC 2C .0118.

e. YIELD (gpm): N/A METHOD OF TEST N/A

f. DISINFECTION: Type N/A Amount N/A

g. WATER ZONES (depth):
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____
 Top _____ Bottom _____ Top _____ Bottom _____

7. CASING: Depth	Diameter	Thickness/Weight	Material
Top <u>0.0</u> Bottom <u>10.0</u> Ft.	<u>2 INCH</u>	<u>SCH 40</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____	_____	_____
Top _____ Bottom _____ Ft.	_____	_____	_____

8. GROUT: Depth	Material	Method
Top <u>0.0</u> Bottom <u>5.0</u> Ft.	<u>PORTLAND BENTONITE</u>	<u>SLURRY</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

9. SCREEN: Depth	Diameter	Slot Size	Material
Top <u>10.0</u> Bottom <u>20.0</u> Ft.	<u>2.0 in.</u>	<u>.010 in.</u>	<u>PVC</u>
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____
Top _____ Bottom _____ Ft.	_____ in.	_____ in.	_____

10. SAND/GRAVEL PACK: Depth	Size	Material
Top <u>8.0</u> Bottom <u>20.0</u> Ft.	<u>20-40</u>	<u>FINE SILICA SAND</u>
Top _____ Bottom _____ Ft.	_____	_____
Top _____ Bottom _____ Ft.	_____	_____

11. DRILLING LOG	Formation Description
Top _____ Bottom _____	_____
<u>0.0 / 1.0</u>	<u>WOOD/WEEDS/TOPSOIL</u>
<u>1.0 / 10.0</u>	<u>TAN/WHITE SILTY CLAY</u>
<u>10.0 / 15.0</u>	<u>BLACK SILTY SAND/SHELL</u>
<u>15.0 / 20.0</u>	<u>GRAY/GREEN CLAY SILT SAND/SHELL</u>
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____

12. REMARKS:
BENTONITE SEAL FROM 5.0 TO 8.0 FEET

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

MIKE MCCONAHEY 08/29/11
 SIGNATURE OF CERTIFIED WELL CONTRACTOR DATE

MIKE MCCONAHEY
 PRINTED NAME OF PERSON CONSTRUCTING THE WELL

Submit within 30 days of completion to: Division of Water Quality - Information Processing, 1617 Mail Service Center, Raleigh, NC 27699-161, Phone : (919) 807-6300

Appendix D

Soil Test Results

Grain Size Analysis Testing



September 30, 2011

ERM NC, P.C.
800 Corporate Center Drive
Suite 200
Charlotte, North Carolina 28226

Attention: Mr. Dave Wasiela, PE

Reference: **SUMMARY OF LABORATORY TESTING SERVICES**
Maysville C&D Landfill
Maysville, North Carolina
ESP Project No. E4-XH01.302 (Report #2)

Dear Dave:

ESP Associates, P.A. (ESP) is providing laboratory testing services for the referenced project. Eight (8) bag samples were delivered to ESP's laboratory by you on September 1, 2011. ESP personnel performed Grain Size Distribution Analysis (ASTM D422) on the referenced samples. The results of the Grain Size Distribution tests performed are attached.

ESP appreciates the opportunity to assist you during this phase of the project. If you should have any questions concerning this report, or if we may be of further assistance, please contact us.

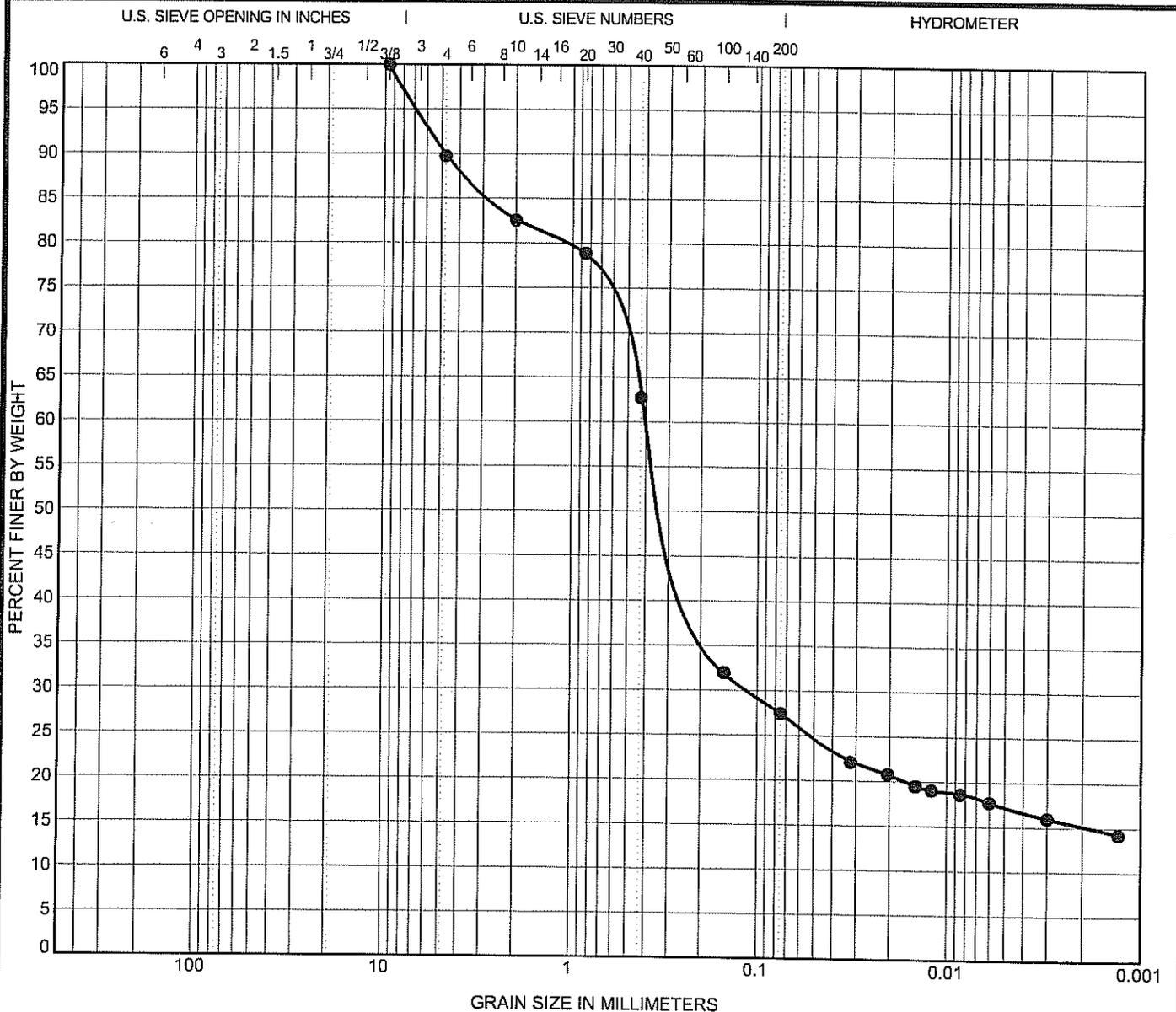
Sincerely,

ESP Associates, P.A.


Marty J. Smith, PE
Department Manager

MJS/mb

Attachments: Grain Size Distribution (S-3 through S-10)



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					LL	PL	PI	Cc	Cu
● S-4 OWB-5 (9.5'-11')										

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● S-4	9.5	0.388	0.111		10.3	62.3	12.3	15.1

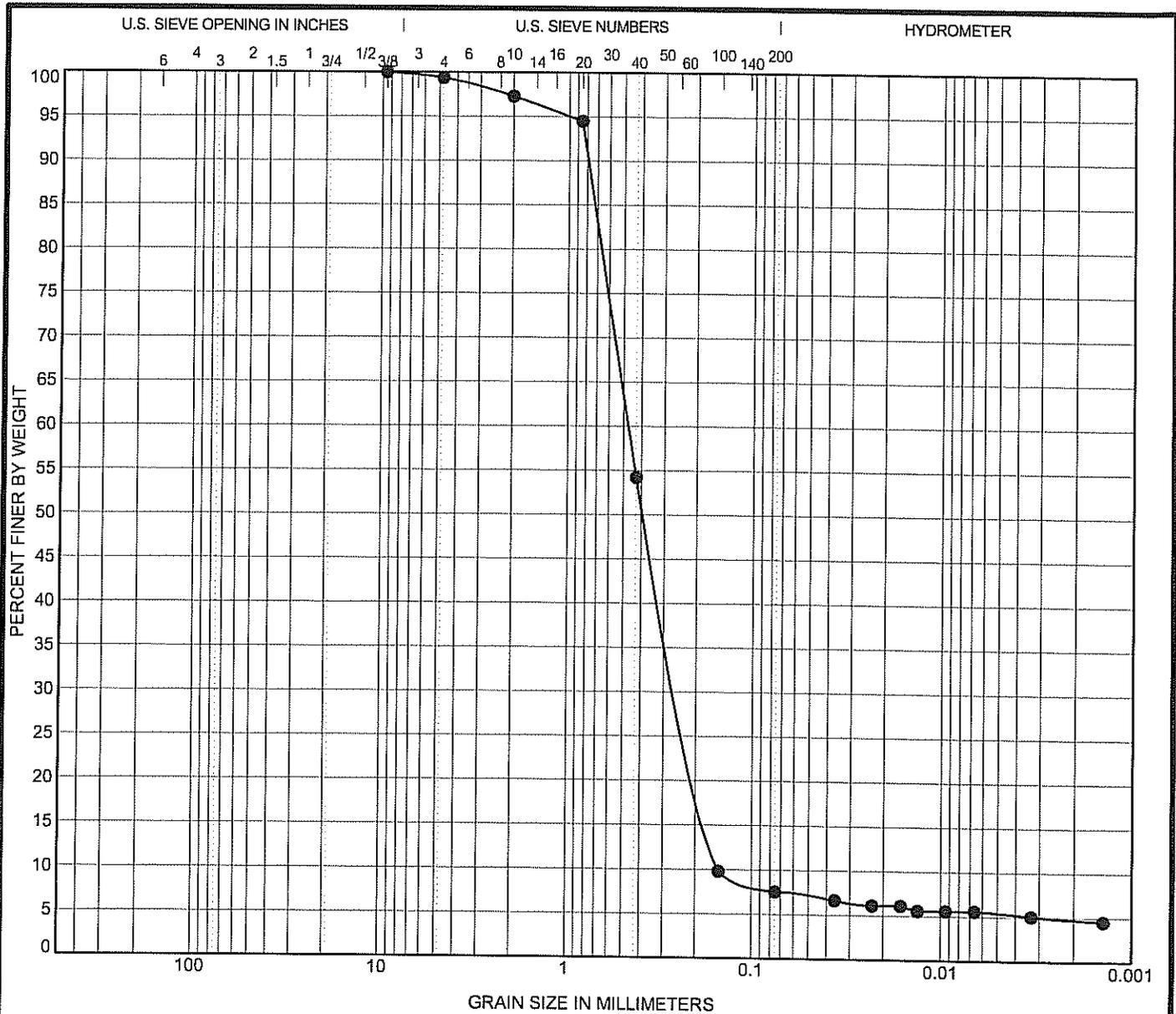


3475 Lakemont Boulevard
 Fort Mill, South Carolina
 Telephone: 803.802.2440
 Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
 Location: Mayesville, North Carolina
 Number: XH01.302

ESP GRAIN SIZE XH01.302.GPJ LOG-LAB.GDT 9/28/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
S-5					0.82	3.12
OWB-6 (14.5'-16')						

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
S-5	9.5	0.469	0.241	0.151	0.6	91.8	2.8	4.8

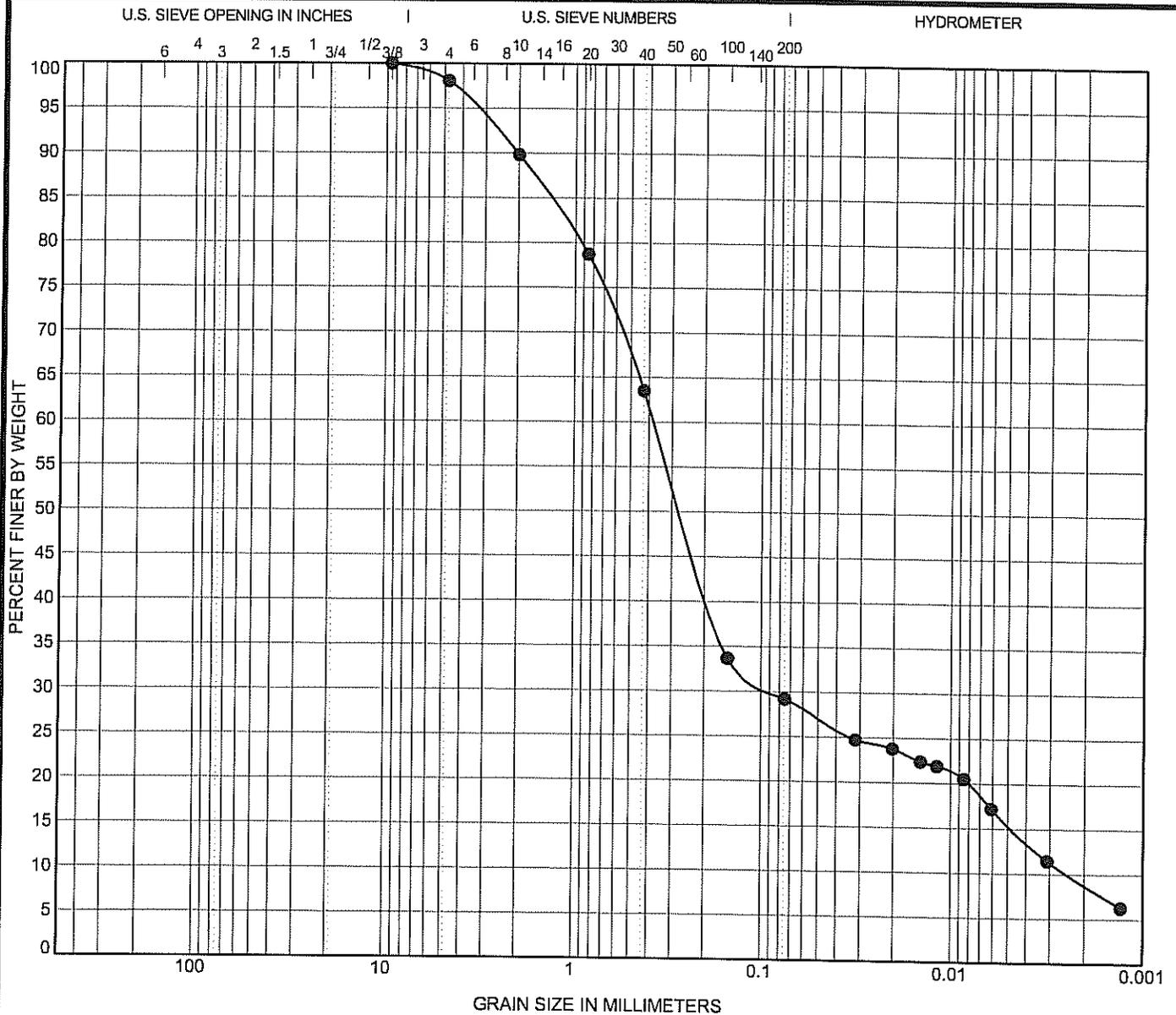


3475 Lakemont Boulevard
 Fort Mill, South Carolina
 Telephone: 803.802.2440
 Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
 Location: Mayesville, North Carolina
 Number: XH01.302

ESP_GRAIN SIZE_XH01.302.GPJ LOG-LAB.GDT 9/28/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● S-6 OWB-7 (34.5'-36')					7.90	155.52

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● S-6	9.5	0.376	0.085	0.002	1.9	68.9	20.3	8.9

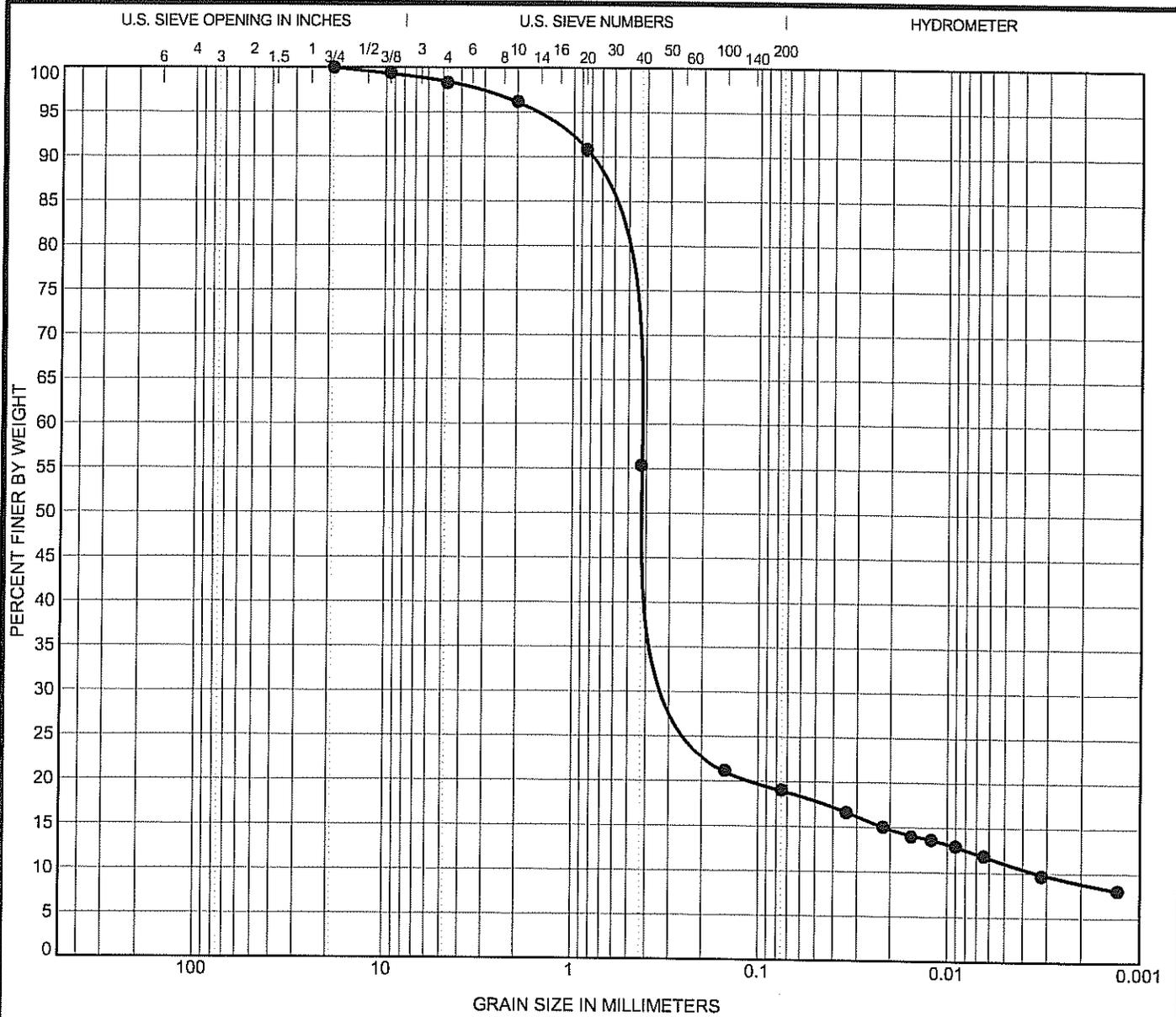


3475 Lakemont Boulevard
Fort Mill, South Carolina
Telephone: 803.802.2440
Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
Location: Mayesville, North Carolina
Number: XH01.302

ESP GRAIN SIZE XH01.302.GPJ LOG-LAB.GDT 9/27/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● S-7 OWB-9 (14.5'-16')					23.41	131.68

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● S-7	19	0.465	0.196	0.004	1.7	79.2	10.2	8.9

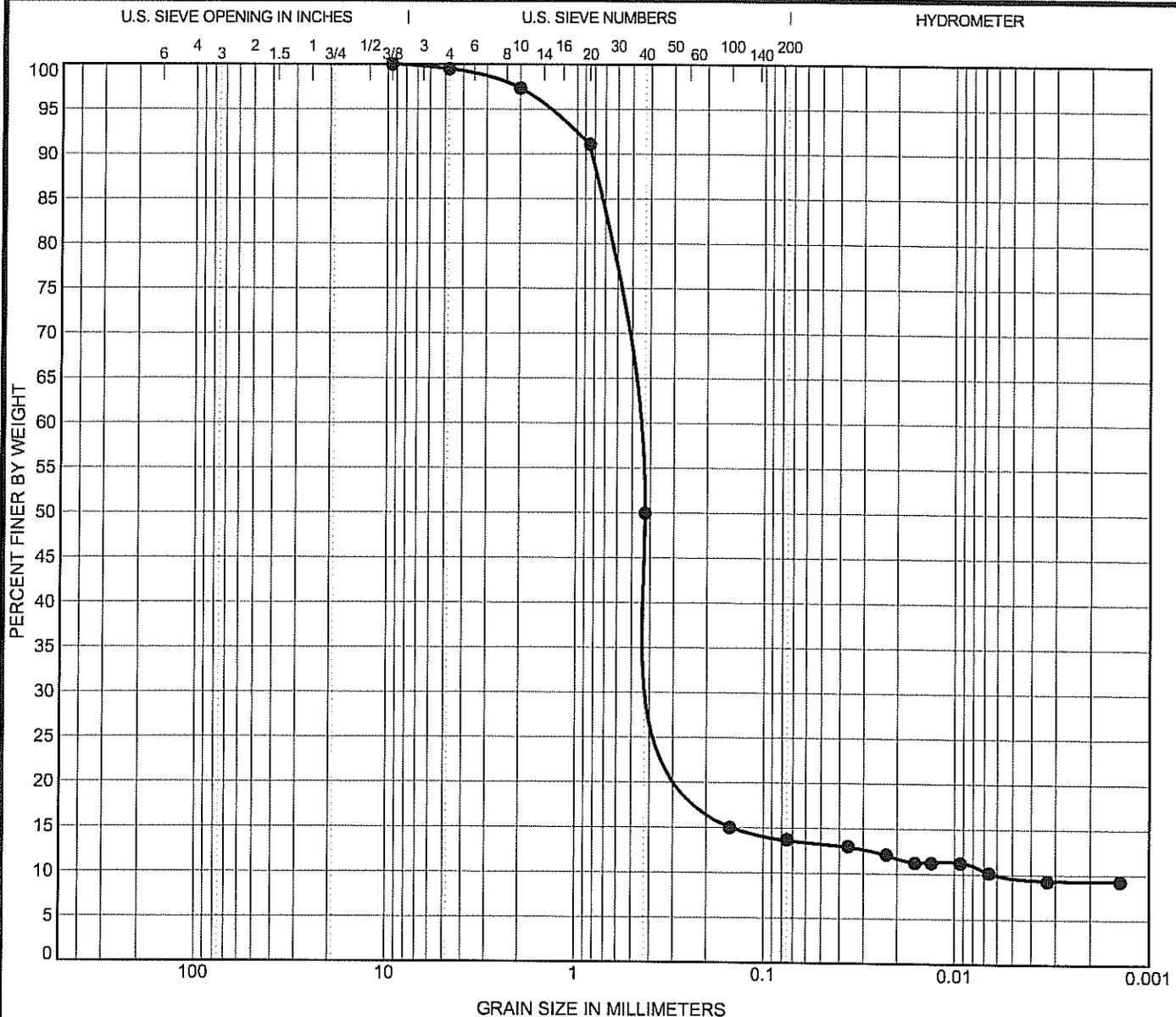


3475 Lakemont Boulevard
Fort Mill, South Carolina
Telephone: 803.802.2440
Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
Location: Mayesville, North Carolina
Number: XH01.302

ESP GRAIN SIZE XH01.302.GPJ LOG-LAB.GDT 9/26/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification	LL	PL	PI	Cc	Cu
● S-8 OWB-11 (14.5'-16')					18.90	87.11

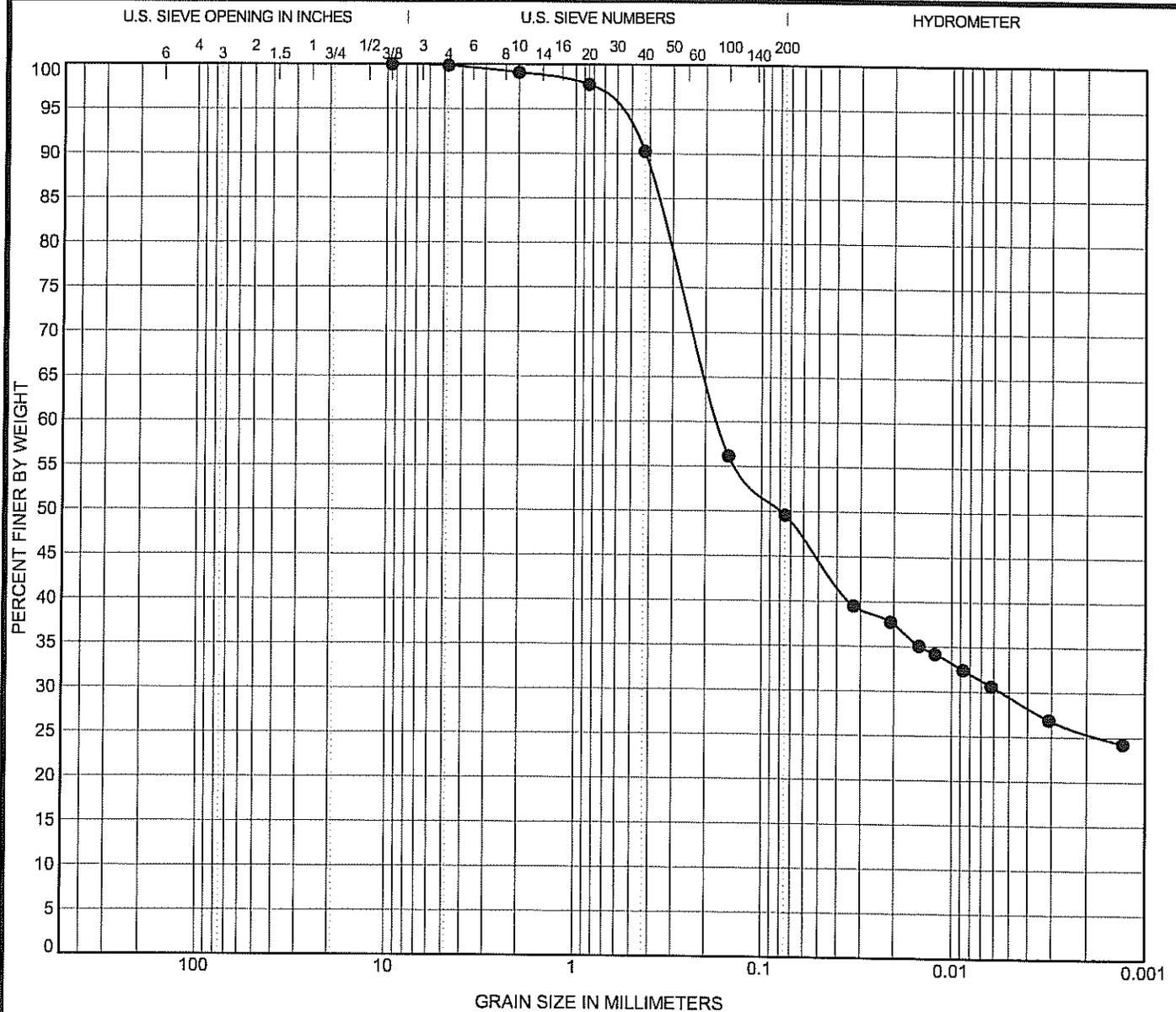
Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● S-8	9.5	0.503	0.234	0.006	0.5	85.8	4.4	9.3



3475 Lakemont Boulevard
Fort Mill, South Carolina
Telephone: 803.802.2440
Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
Location: Mayesville, North Carolina
Number: XH01.302



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					LL	PL	PI	Cc	Cu
● S-9 OWB-14 (9.5'-11')										

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● S-9	9.5	0.169	0.005		0.1	50.3	24.0	25.6

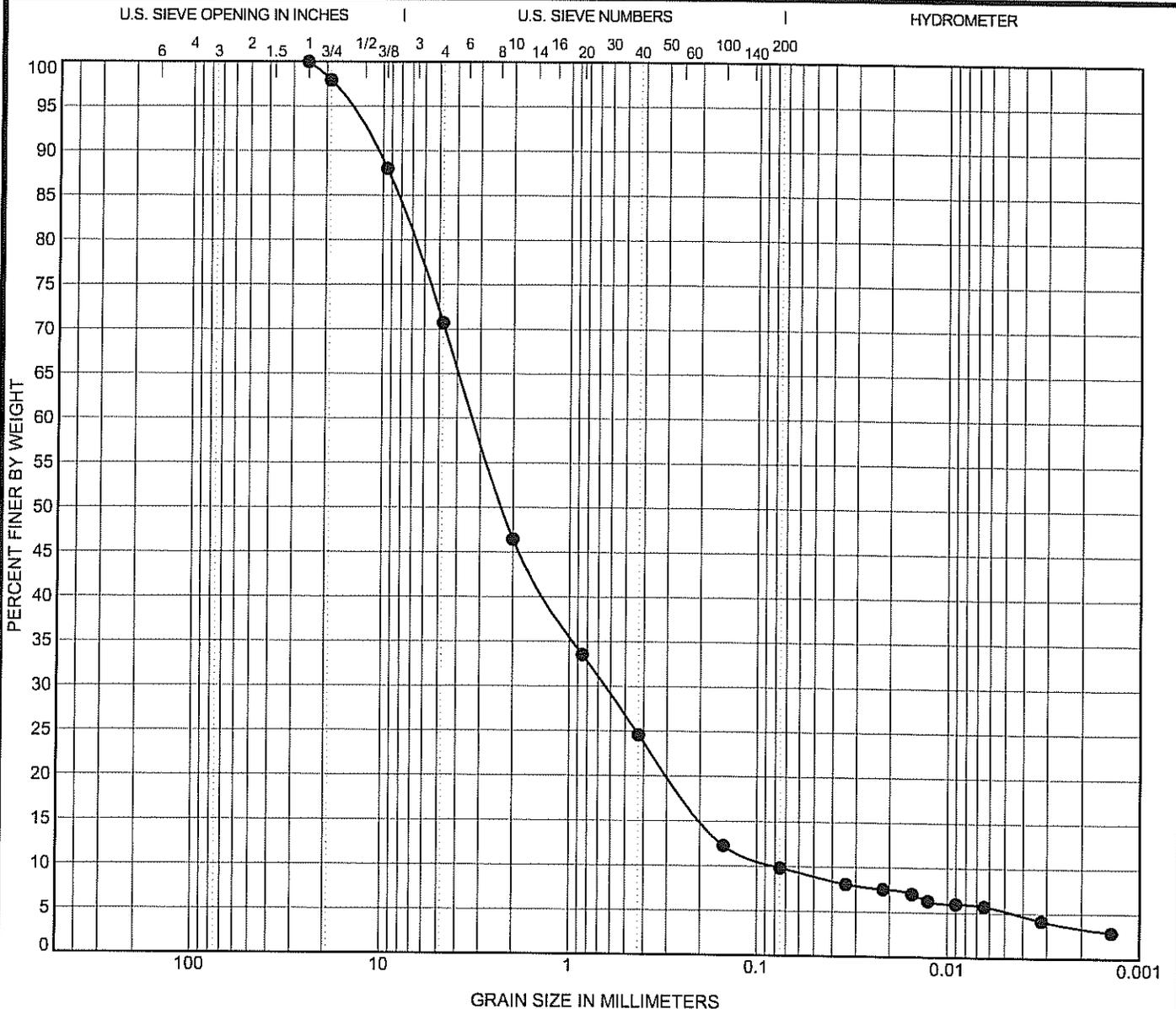


3475 Lakemont Boulevard
Fort Mill, South Carolina
Telephone: 803.802.2440
Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
Location: Mayesville, North Carolina
Number: XH01.302

ESP GRAIN SIZE XH01.302.GPJ LOG-LAB.GDT 9/26/11



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Classification					LL	PL	PI	Cc	Cu
● S-10 OWB-15 (19.5'-21')									1.64	41.28

Specimen Identification	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● S-10	25	3.242	0.646	0.079	29.3	60.9	6.4	3.4



3475 Lakemont Boulevard
 Fort Mill, South Carolina
 Telephone: 803.802.2440
 Fax: 803.802.2515

GRAIN SIZE DISTRIBUTION

Project: Mayesville C&D Landfill
 Location: Mayesville, North Carolina
 Number: XH01.302

Laboratory Permeability Testing



September 16, 2011

ERM NC, P.C.
 800 Corporate Center Drive
 Suite 200
 Charlotte, North Carolina 28226

Attention: Mr. Dave Wasiela, PE

Reference: **SUMMARY OF LABORATORY TESTING SERVICES**
 Maysville C&D Landfill
 Maysville, North Carolina
 ESP Project No. E4-XH01.302

Dear Dave:

ESP Associates, P.A. (ESP) has provided laboratory testing services for the referenced project. This letter summarizes our laboratory testing services, as requested by you.

LABORATORY TESTING

Two (2) undisturbed samples were delivered to ESP’s laboratory by you on September 1, 2011. The referenced samples were extruded by ESP personnel and select portions of the samples were selected for hydraulic conductivity testing (permeability testing). The results of the permeability tests performed are summarized in the table below and are attached for reference.

Sample ID	Sample Description (visual)	Coefficient of Permeability, k (cm/sec)
OWB-5 (2 to 4 feet)	Orange and Dark Gray Fine Sandy Clayey SILT with rootlets	2.8×10^{-4}
OWB-7 (4 to 6 feet)	Orange and Gray Silty CLAY	2.8×10^{-6}

NOTE: During sample extrusion, small seams were observed within Sample OWB-5.

ESP appreciates the opportunity to assist you during this phase of the project. If you should have any questions concerning this report, or if we may be of further assistance, please contact us.

Sincerely,

ESP Associates, P.A.



David C. Pelfrey, PE
Project Manager



Brian F. Welch, PE
Division Manager

DCP/BFW/mb

Attachments: Permeability Test Results (OWB-5 and OWB-7)



(sample diameter adjusted for strain from removal)

Project No:	XH01.302	Project Name:	9/12/2011
Lab No:	3619	Tech:	T Summers
Sample No:	S-2	Mayesville C&D Landfill	

General Sample Information

Sample Type:	Undisturbed
Liquid Limit:	N/A
Plastic Limit:	N/A
Plasticity Index:	N/A
Percent Fines:	N/A
Specific Gravity:	2.65 (assumed)

Sample Description:
Orangeish Gray Silty CLAY
OWB-7 (4 to 6 feet)

Initial Specimen Data

Sample Length, L (in)	3.240
Sample Diameter (in)	2.799
Sample Area (in ²)	6.1546
Sample Volume (ft ³)	0.0115
Weight Sample (g)	637.69
Tare Weight (g)	50.19
Wet sample + tare (g)	208.85
Dry sample + tare (g)	187.91
Moisture content (%)	15.2
Wet density (pcf)	121.8
Dry density (pcf)	105.7
Saturation (%)	71.5

Final Specimen Data

Sample Length, L (in)	3.261
Sample Diameter (in)	2.880
Sample Area (in ²)	6.5144
Sample Volume (ft ³)	0.0123
Weight Sample (g)	663.14
Tare Weight (g)	80.12
Wet sample + tare (g)	741.53
Dry sample + tare (g)	593.35
Moisture content (%)	28.9
Wet density (pcf)	118.9
Dry density (pcf)	92.3
Saturation (%)	96.6

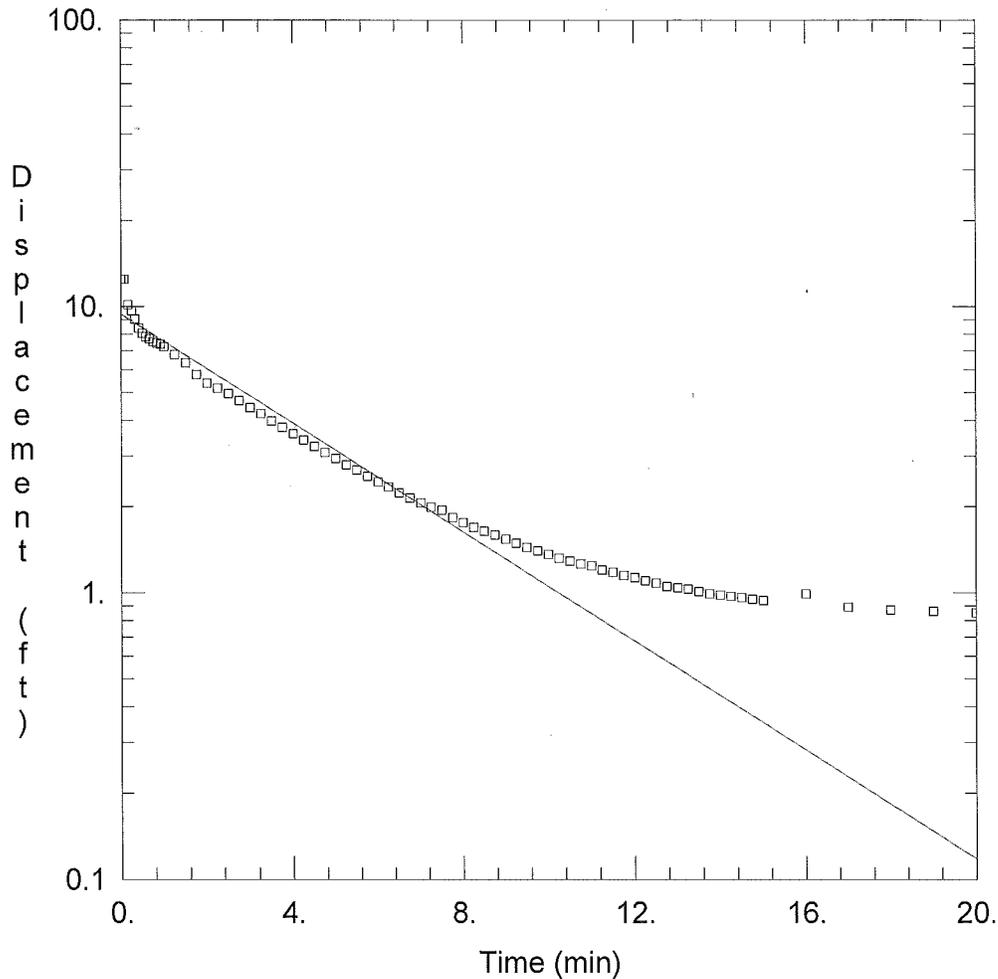
Test Parameters

Cell Pressure (psi)	73.0
Back Pressure (psi)	70.0
Eff. Consol. Stress (psi)	3.0
Permeant Liquid = De-aired water	

Notes: 1 mL = 1 cm³

Test Time (sec)	Inflow Burette (Top)			Outflow Burette (Base)			Temp, °C	Cumulative Inflow (cm ³)	Cumulative Outflow (cm ³)	Ratio Out/In	Head at T ₁ , (cm)	Head at T ₂ , (cm)	Gradient, I = h/L	Temperature Correction, R _T	k (cm/s)
	Pressure (psi)	Initial Burette Reading, mL	Final Burette Reading, mL	Pressure (psi)	Initial Burette Reading, mL	Final Burette Reading, mL									
372	71.5	0.36	1.26	70.0	10.00	9.20	22.0	0.90	0.80	0.89	153.662	145.162	18.039	0.96	2.89E-06
262	71.5	1.26	1.84	70.0	9.20	8.64	22.0	0.58	0.56	0.97	145.162	139.462	17.181	0.96	2.89E-06
300	71.5	1.84	2.46	70.0	8.64	8.04	22.0	0.62	0.60	0.97	139.462	133.362	16.469	0.96	2.82E-06
268	71.5	2.46	3.00	70.0	8.04	7.50	22.0	0.54	0.54	1.00	133.362	127.962	15.775	0.96	2.92E-06
308	71.5	3.00	3.60	70.0	7.50	6.94	22.0	0.60	0.56	0.93	127.962	122.162	15.099	0.96	2.85E-06
291	71.5	3.60	4.10	70.0	6.94	6.40	22.0	0.50	0.54	1.08	122.162	116.962	14.435	0.96	2.83E-06
301	71.5	4.10	4.62	70.0	6.40	5.90	22.0	0.52	0.50	0.96	116.962	111.862	13.813	0.96	2.80E-06
299	71.5	4.62	5.10	70.0	5.90	5.42	22.0	0.48	0.48	1.00	111.862	107.062	13.215	0.96	2.77E-06
674	71.5	5.10	6.06	70.0	5.42	4.46	22.0	0.96	0.96	1.00	107.062	97.462	12.346	0.96	2.64E-06
Comments:															
Average k = 2.80E-06															

Field Permeability Testing



OWB-14

Data Set: T:\...\OWB-14 (EH).agt

Date: 10/17/11

Time: 10:16:53

PROJECT INFORMATION

Company: ERM

Client: Morton Trucking

Project: 0140408

Location: Maysville, NC

Test Well: OWB-14

Test Date: 9-8-2011

AQUIFER DATA

Saturated Thickness: 28.14 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OWB-14)

Initial Displacement: 12.44 ft

Static Water Column Height: 6.86 ft

Total Well Penetration Depth: 13.14 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 8.906E-5 cm/sec

y0 = 9.397 ft

Data Set: T:\Projects A to MMorton Trucking\Maysville\Site Suitability Study\Hydrogeologic Study\Monitor Well D
 Title: OWB-14
 Date: 10/17/11
 Time: 10:20:18

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking
 Project: 0140408
 Location: Maysville, NC
 Test Date: 9-8-2011
 Test Well: OWB-14

AQUIFER DATA

Saturated Thickness: 28.14 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : OWB-14

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 12.44 ft
 Static Water Column Height: 6.86 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.33 ft
 Well Skin Radius: 0.33 ft
 Screen Length: 10. ft
 Total Well Penetration Depth: 13.14 ft

No. of Observations: 73

Time (min)	Observation Data		Displacement (ft)
	Displacement (ft)	Time (min)	
0.08	12.44	7.5	1.94
0.17	10.14	7.75	1.83
0.25	9.67	8.	1.76
0.33	9.04	8.25	1.69
0.42	8.4	8.5	1.64
0.5	8.06	8.75	1.59
0.58	7.84	9.	1.54
0.66	7.72	9.25	1.49
0.75	7.54	9.5	1.44
0.83	7.45	9.75	1.4
0.92	7.39	10.	1.36
1.	7.24	10.25	1.32
1.25	6.79	10.5	1.29
1.5	6.35	10.75	1.26
1.75	5.77	11.	1.24
2.	5.39	11.25	1.2
2.25	5.17	11.5	1.18
2.5	4.96	11.75	1.15
2.75	4.68	12.	1.13
3.	4.43	12.25	1.1
3.25	4.22	12.5	1.08
3.5	3.98	12.75	1.05
3.75	3.78	13.	1.04
4.	3.59	13.25	1.03
4.25	3.41	13.5	1.01
4.5	3.24	13.75	0.99
4.75	3.09	14.	0.98
5.	2.94	14.25	0.97
5.25	2.79	14.5	0.96
5.5	2.68	14.75	0.95

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
5.75	2.55	15.	0.94
6.	2.44	16.	0.99
6.25	2.34	17.	0.89
6.5	2.23	18.	0.87
6.75	2.14	19.	0.86
7.	2.06	20.	0.85
7.25	1.99		

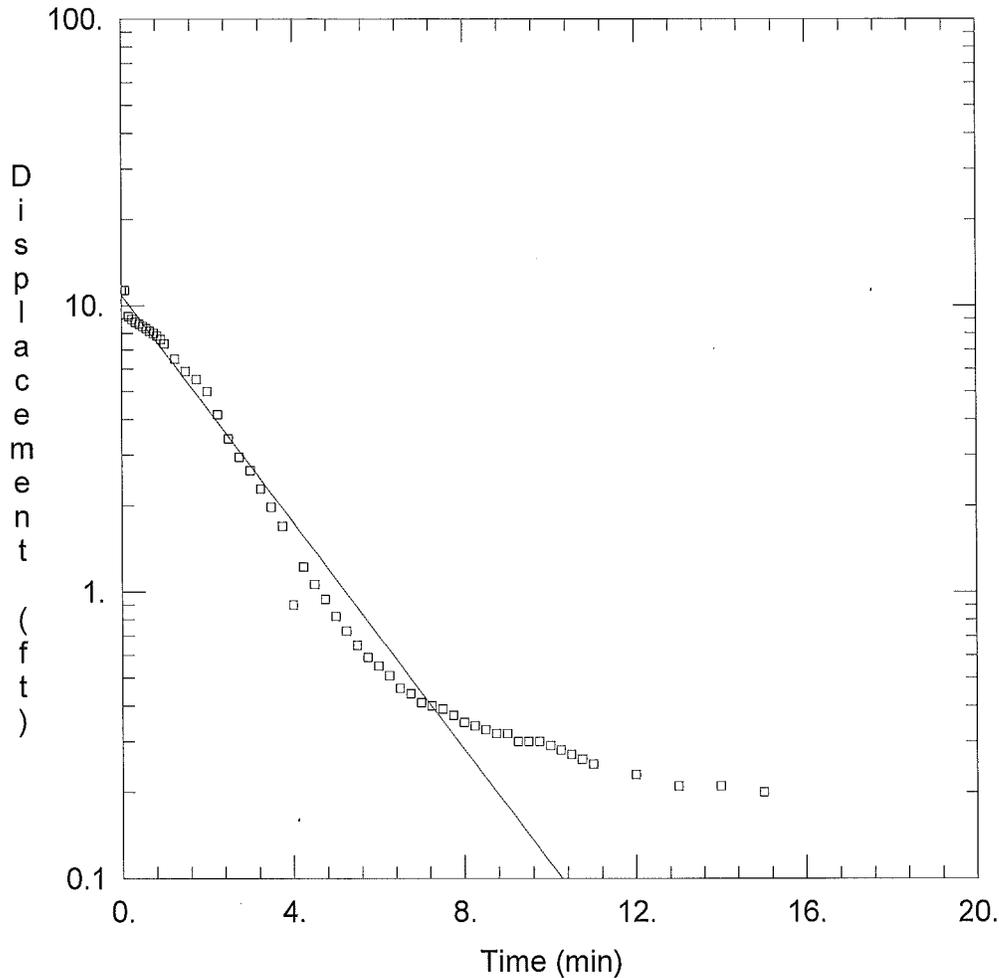
SOLUTION

Aquifer Model: Unconfined
 Solution Method: Bouwer-Rice
 Shape Factor: 2.327

VISUAL ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	8.906E-5	cm/sec
y0	9.397	ft



OWB-15

Data Set: T:\...\OWB-15 (EH).aqt

Date: 10/17/11

Time: 10:17:02

PROJECT INFORMATION

Company: ERM

Client: Morton Trucking

Project: 0140408

Location: Maysville, NC

Test Well: OWB-15

Test Date: 9-8-2011

AQUIFER DATA

Saturated Thickness: 27.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OWB-15)

Initial Displacement: 11.3 ft

Static Water Column Height: 7.4 ft

Total Well Penetration Depth: 12.6 ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

K = 0.0002722 cm/sec

y0 = 10.85 ft

Data Set: T:\Projects A to MMorton Trucking\Maysville\Site Suitability Study\Hydrogeologic Study\Monitor Well D
 Title: OWB-15
 Date: 10/17/11
 Time: 10:16:11

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking
 Project: 0140408
 Location: Maysville, NC
 Test Date: 9-8-2011
 Test Well: OWB-15

AQUIFER DATA

Saturated Thickness: 27.6 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : OWB-15

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 11.3 ft
 Static Water Column Height: 7.4 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.33 ft
 Well Skin Radius: 0.33 ft
 Screen Length: 10. ft
 Total Well Penetration Depth: 12.6 ft

No. of Observations: 56

Time (min)	Observation Data		Displacement (ft)
	Displacement (ft)	Time (min)	
0.08	11.3	5.25	0.73
0.17	9.15	5.5	0.65
0.25	8.94	5.75	0.59
0.33	8.75	6.	0.55
0.42	8.6	6.25	0.51
0.5	8.45	6.5	0.46
0.58	8.3	6.75	0.44
0.66	8.14	7.	0.41
0.75	7.99	7.25	0.4
0.83	7.83	7.5	0.39
0.92	7.61	7.75	0.37
1.	7.35	8.	0.35
1.25	6.5	8.25	0.34
1.5	5.88	8.5	0.33
1.75	5.52	8.75	0.32
2.	5.	9.	0.32
2.25	4.15	9.25	0.3
2.5	3.42	9.5	0.3
2.75	2.95	9.75	0.3
3.	2.65	10.	0.29
3.25	2.28	10.25	0.28
3.5	1.97	10.5	0.27
3.75	1.69	10.75	0.26
4.	0.9	11.	0.25
4.25	1.22	12.	0.23
4.5	1.06	13.	0.21
4.75	0.94	14.	0.21
5.	0.82	15.	0.2

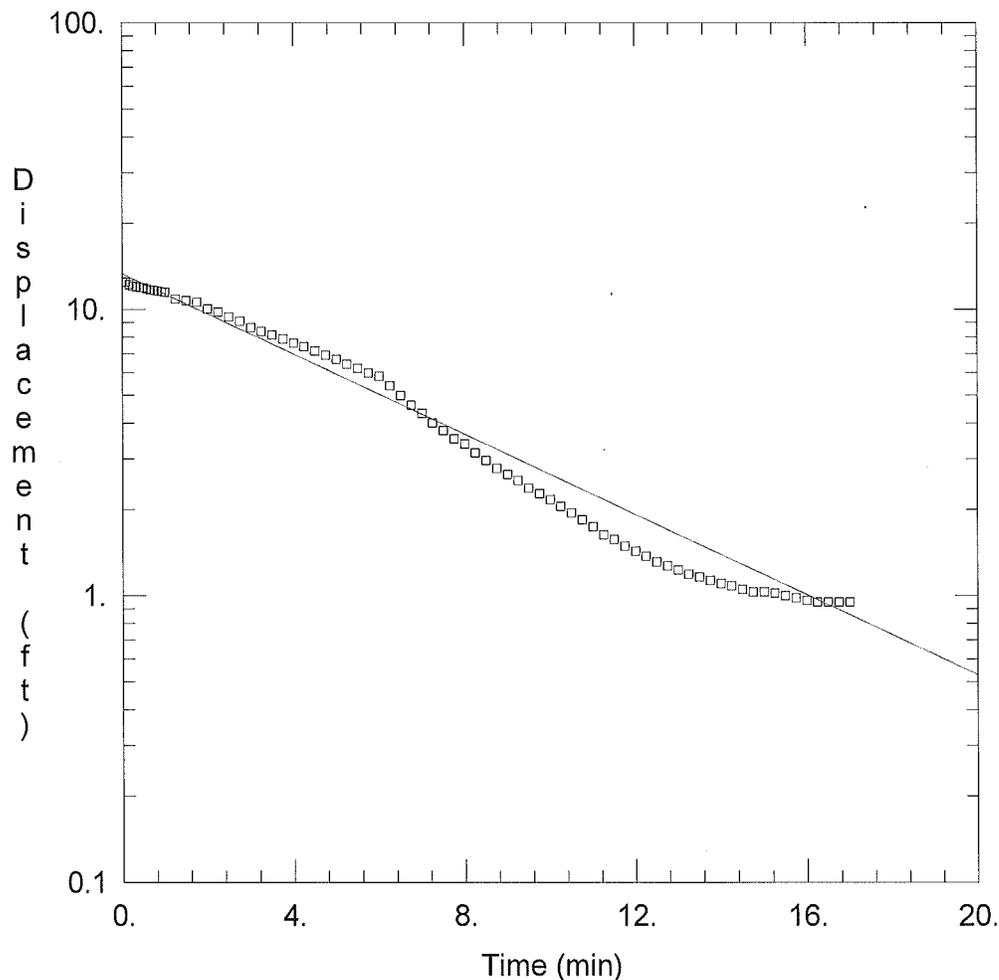
SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
Shape Factor: 3.412

VISUAL ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.0002722	cm/sec
y0	10.85	ft



OWB-12

Data Set: T:\...\OWB-12 (EH).aqt

Date: 10/17/11

Time: 10:15:47

PROJECT INFORMATION

Company: ERM

Client: Morton Trucking

Project: 0140408

Location: Maysville, NC

Test Well: OWB-12

Test Date: 9-8-2011

AQUIFER DATA

Saturated Thickness: 26.93 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OWB-12)

Initial Displacement: 12.45 ft

Static Water Column Height: 8.07 ft

Total Well Penetration Depth: 20. ft

Screen Length: 10. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

K = 9.619E-5 cm/sec

y0 = 13.3 ft

Data Set: T:\Projects A to MMorton Trucking\Maysville\Site Suitability Study\Hydrogeologic Study\Monitor Well D
 Title: OWB-12
 Date: 10/17/11
 Time: 10:16:01

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking
 Project: 0140408
 Location: Maysville, NC
 Test Date: 9-8-2011
 Test Well: OWB-12

AQUIFER DATA

Saturated Thickness: 26.93 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : OWB-12

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 12.45 ft
 Static Water Column Height: 8.07 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.33 ft
 Well Skin Radius: 0.33 ft
 Screen Length: 10. ft
 Total Well Penetration Depth: 20. ft

No. of Observations: 76

Observation Data			
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.08	12.45	7.75	3.53
0.17	12.18	8.	3.38
0.25	12.03	8.25	3.15
0.33	11.97	8.5	2.96
0.42	11.93	8.75	2.78
0.5	11.87	9.	2.65
0.58	11.78	9.25	2.52
0.66	11.68	9.5	2.37
0.75	11.63	9.75	2.27
0.83	11.58	10.	2.16
0.92	11.53	10.25	2.05
1.	11.48	10.5	1.94
1.25	10.87	10.75	1.84
1.5	10.74	11.	1.74
1.75	10.58	11.25	1.63
2.	10.03	11.5	1.57
2.25	9.79	11.75	1.49
2.5	9.41	12.	1.43
2.75	9.09	12.25	1.37
3.	8.63	12.5	1.31
3.25	8.37	12.75	1.27
3.5	8.13	13.	1.23
3.75	7.88	13.25	1.19
4.	7.62	13.5	1.16
4.25	7.41	13.75	1.13
4.5	7.14	14.	1.1
4.75	6.91	14.25	1.08
5.	6.69	14.5	1.05
5.25	6.43	14.75	1.03
5.5	6.22	15.	1.03

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
5.75	5.98	15.25	1.02
6.	5.84	15.5	1.
6.25	5.41	15.75	0.98
6.5	4.99	16.	0.96
6.75	4.62	16.25	0.95
7.	4.33	16.5	0.95
7.25	4.01	16.75	0.95
7.5	3.77	17.	0.95

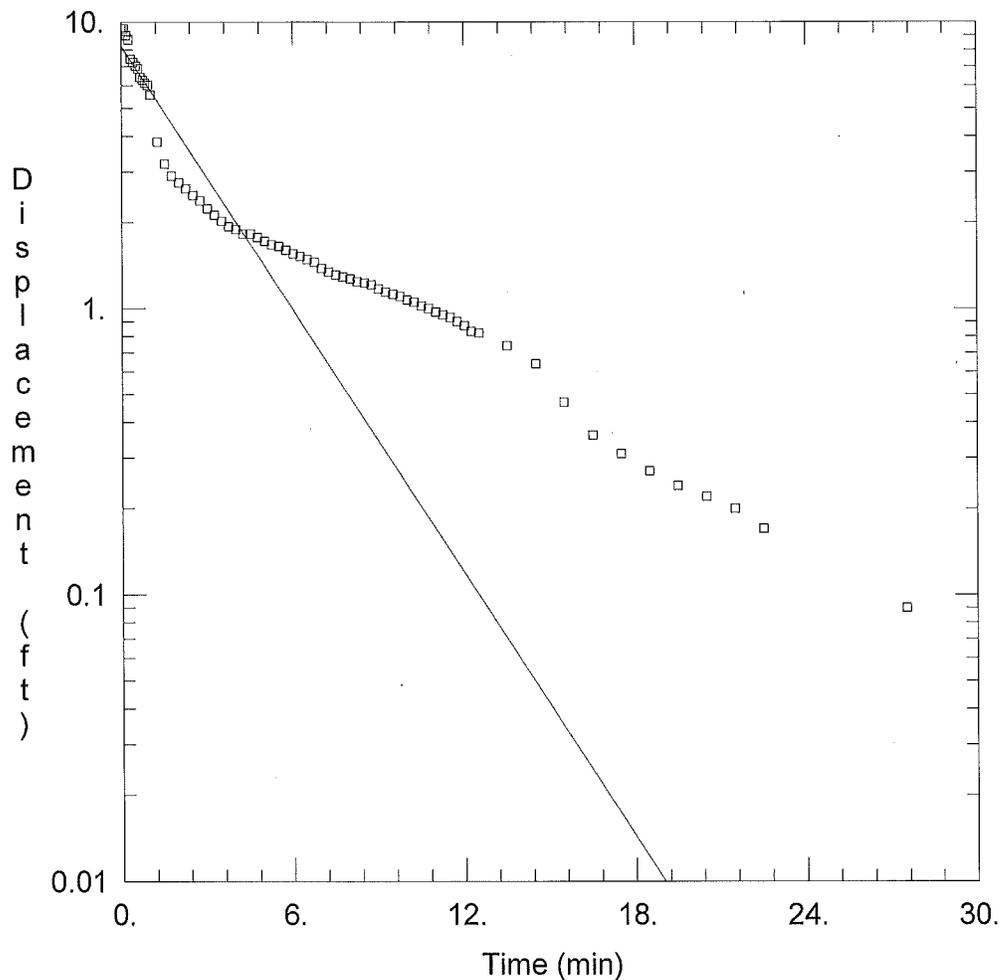
SOLUTION

Aquifer Model: Unconfined
 Solution Method: Hvorslev
 Shape Factor: 3.412

VISUAL ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	9.619E-5	cm/sec
y0	13.3	ft



OWB-9

Data Set: T:\...\OWB-9 (EH).aqt

Date: 10/17/11

Time: 10:16:41

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking
 Project: 0140408
 Location: Maysville, NC
 Test Well: OWB-9
 Test Date: 9-8-2011

AQUIFER DATA

Saturated Thickness: 29.42 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OWB-9)

Initial Displacement: 9.46 ft
 Total Well Penetration Depth: 9.46 ft
 Casing Radius: 0.083 ft

Static Water Column Height: 5.58 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Hvorslev

K = 0.0002107 cm/sec

y0 = 8.224 ft

Data Set: T:\Projects A to M\Morton Trucking\Maysville\Site Suitability Study\Hydrogeologic Study\Monitor Well D
 Title: OWB-9
 Date: 10/17/11
 Time: 10:15:39

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking
 Project: 0140408
 Location: Maysville, NC
 Test Date: 9-8-2011
 Test Well: OWB-9

AQUIFER DATA

Saturated Thickness: 29.42 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : OWB-9

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 9.46 ft
 Static Water Column Height: 5.58 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.33 ft
 Well Skin Radius: 0.33 ft
 Screen Length: 10. ft
 Total Well Penetration Depth: 9.46 ft

No. of Observations: 69

Observation Data			
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.08	9.46	7.	1.38
0.17	8.98	7.25	1.34
0.25	8.65	7.5	1.31
0.33	7.42	7.75	1.29
0.42	7.23	8.	1.27
0.5	7.02	8.25	1.24
0.58	6.87	8.5	1.23
0.66	6.42	8.75	1.21
0.75	6.27	9.	1.17
0.83	6.12	9.25	1.14
0.92	6.02	9.5	1.12
1.	5.57	9.75	1.1
1.25	3.82	10.	1.07
1.5	3.2	10.25	1.05
1.75	2.9	10.5	1.02
2.	2.75	10.75	1.
2.25	2.62	11.	0.97
2.5	2.48	11.25	0.95
2.75	2.38	11.5	0.93
3.	2.23	11.75	0.9
3.25	2.12	12.	0.87
3.5	2.02	12.25	0.83
3.75	1.93	12.5	0.82
4.	1.89	13.5	0.74
4.25	1.82	14.5	0.64
4.5	1.82	15.5	0.47
4.75	1.77	16.5	0.36
5.	1.72	17.5	0.31
5.25	1.67	18.5	0.27
5.5	1.65	19.5	0.24

<u>Time (min)</u>	<u>Displacement (ft)</u>	<u>Time (min)</u>	<u>Displacement (ft)</u>
5.75	1.6	20.5	0.22
6.	1.55	21.5	0.2
6.25	1.52	22.5	0.17
6.5	1.48	27.5	0.09
6.75	1.45		

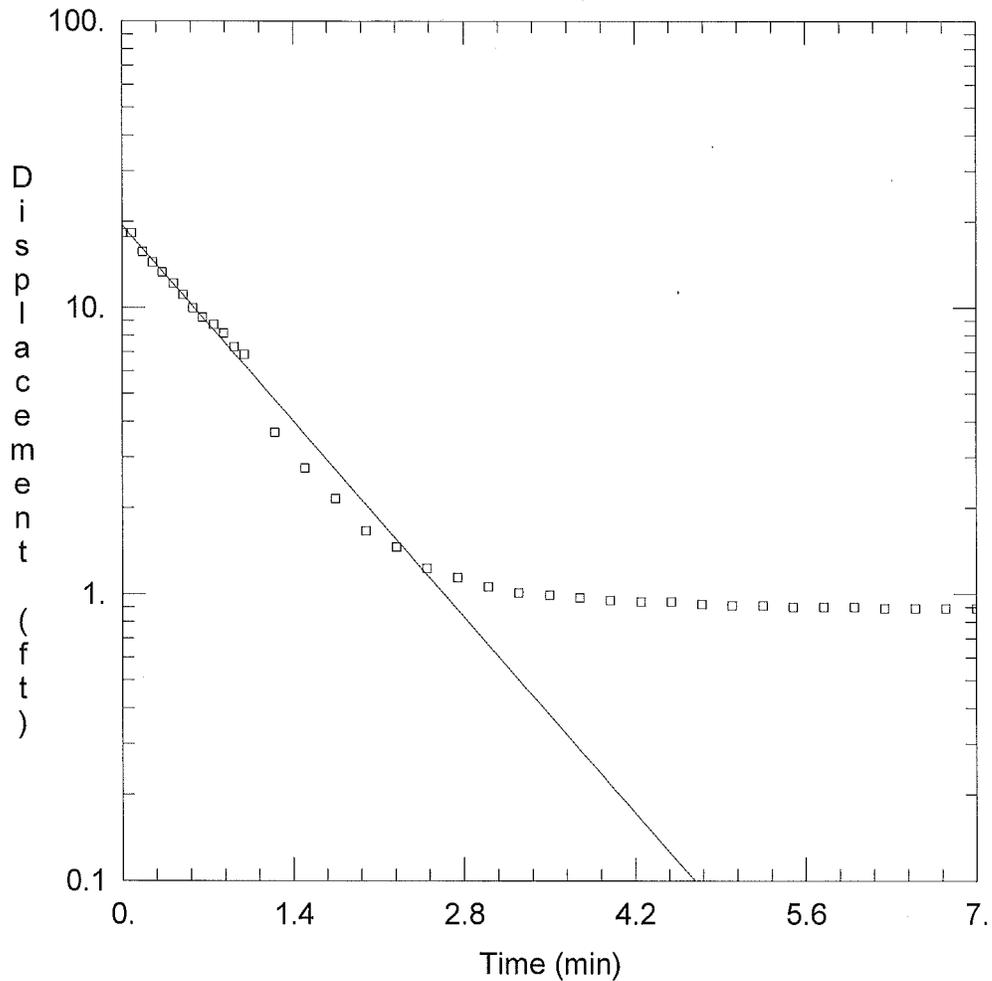
SOLUTION

Aquifer Model: Unconfined
 Solution Method: Hvorslev
 Shape Factor: 3.412

VISUAL ESTIMATION RESULTS

Estimated Parameters

<u>Parameter</u>	<u>Estimate</u>	
K	0.0002107	cm/sec
y0	8.224	ft



OWB-7

Data Set: T:\...\OWB-7 (EH).aqt
 Date: 10/17/11

Time: 10:16:31

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking Maysville
 Project: 0140408
 Location: Maysville, NC
 Test Well: OWB-7
 Test Date: 9-8-2011

AQUIFER DATA

Saturated Thickness: 27.31 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OWB 7)

Initial Displacement: 18.24 ft Static Water Column Height: 7.69 ft
 Total Well Penetration Depth: 26.31 ft Screen Length: 10. ft
 Casing Radius: 0.083 ft Wellbore Radius: 0.33 ft

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
 K = 0.0006708 cm/sec y0 = 19.43 ft

Data Set: T:\Projects A to MMorton Trucking\Maysville\Site Suitability Study\Hydrogeologic Study\Monitor Well D
 Title: OWB-7
 Date: 10/17/11
 Time: 10:15:26

PROJECT INFORMATION

Company: ERM
 Client: Morton Trucking Maysville
 Project: 0140408
 Location: Maysville, NC
 Test Date: 9-8-2011
 Test Well: OWB-7

AQUIFER DATA

Saturated Thickness: 27.31 ft
 Anisotropy Ratio (Kz/Kr): 1.

SLUG TEST WELL DATA

Test Well: : OWB 7

X Location: 0. ft
 Y Location: 0. ft

Initial Displacement: 18.24 ft
 Static Water Column Height: 7.69 ft
 Casing Radius: 0.083 ft
 Wellbore Radius: 0.33 ft
 Well Skin Radius: 0.33 ft
 Screen Length: 10. ft
 Total Well Penetration Depth: 26.31 ft

No. of Observations: 36

Observation Data			
Time (min)	Displacement (ft)	Time (min)	Displacement (ft)
0.08	18.24	2.75	1.14
0.17	15.67	3.	1.06
0.25	14.41	3.25	1.01
0.33	13.29	3.5	0.99
0.42	12.16	3.75	0.97
0.5	11.1	4.	0.95
0.58	9.96	4.25	0.94
0.66	9.26	4.5	0.94
0.75	8.71	4.75	0.92
0.83	8.14	5.	0.91
0.92	7.29	5.25	0.91
1.	6.86	5.5	0.9
1.25	3.66	5.75	0.9
1.5	2.75	6.	0.9
1.75	2.15	6.25	0.89
2.	1.66	6.5	0.89
2.25	1.46	6.75	0.89
2.5	1.23	7.	0.89

SOLUTION

Aquifer Model: Unconfined
 Solution Method: Hvorslev
 Shape Factor: 3.412

VISUAL ESTIMATION RESULTS

Estimated Parameters

Parameter	Estimate
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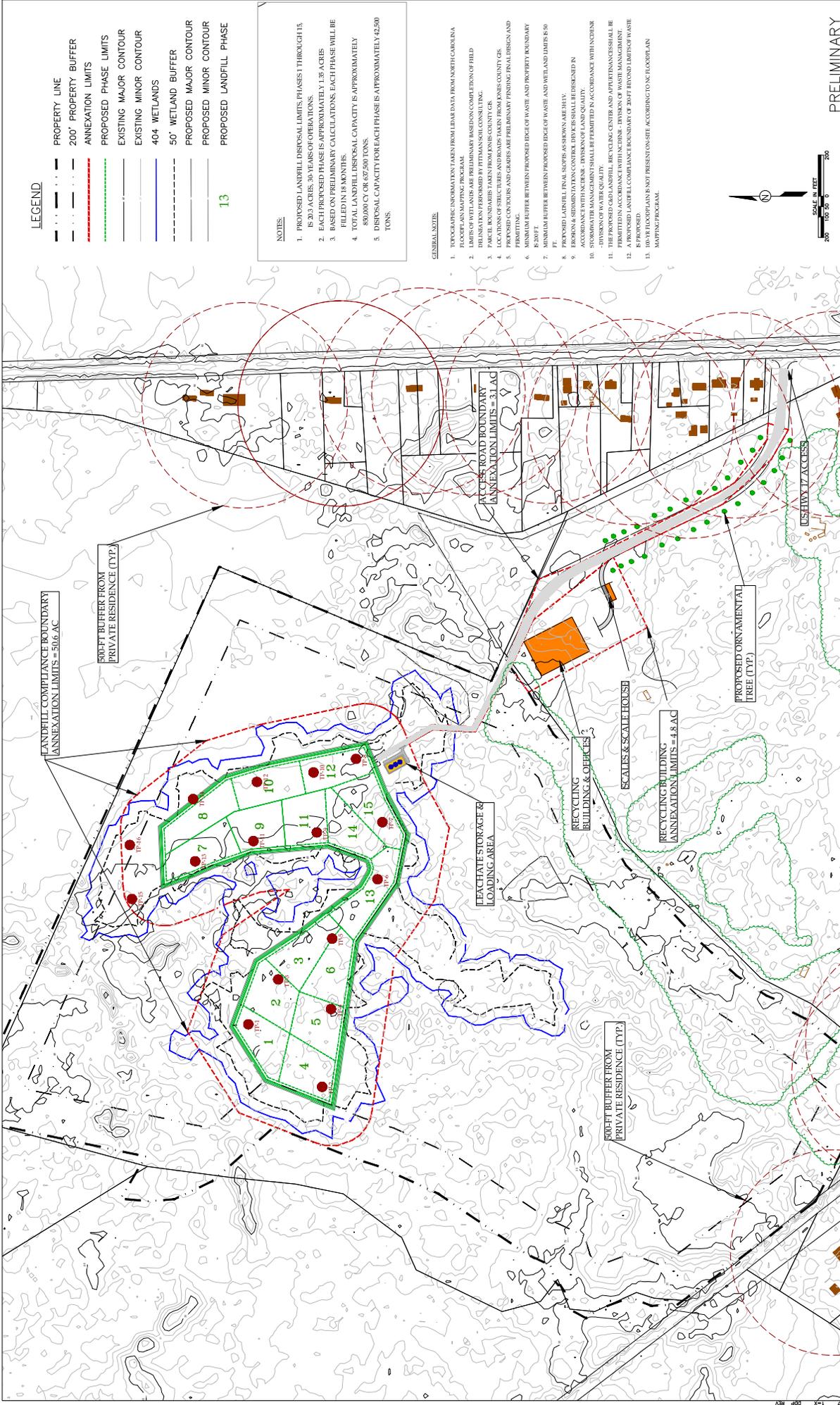
Morton Trucking C& D Landfill Maysville
 Slug Test Data Summary

Test Wells

Input Parameters	OWB-7			OWB-9			OWB-12			OWB-14			OWB-15		
	Time/Min	Displacement	Initial Displacement												
Well	34	21.67	21.67	20	9.05	9.05	20	11.66	11.66	20	12.67	12.67	20	12.24	12.24
Well Depth (ft)	0	21.67	21.67	0	9.05	9.05	0	11.66	11.66	0	12.67	12.67	0	12.24	12.24
Effective Well Radius (ft)	0.08	17.24	17.24	0.08	8.46	8.46	0.08	11.45	11.45	0.08	11.44	11.44	0.08	11.30	11.30
Casing Radius (ft)	0.17	14.67	14.67	0.17	7.98	7.98	0.17	11.18	11.18	0.17	9.14	9.14	0.17	9.15	9.15
Screen Length (ft)	0.25	13.41	13.41	0.25	7.65	7.65	0.25	11.03	11.03	0.25	8.67	8.67	0.25	8.94	8.94
Aquifer Thickness (ft)	0.33	12.29	12.29	0.33	6.42	6.42	0.33	10.97	10.97	0.33	8.04	8.04	0.33	8.75	8.75
Depth to top of Screen (ft)	0.42	11.16	11.16	0.42	6.23	6.23	0.42	10.93	10.93	0.42	7.40	7.40	0.42	8.60	8.60
Initial DTW (ft)	0.5	10.10	10.10	0.5	6.02	6.02	0.5	10.87	10.87	0.5	7.06	7.06	0.5	8.45	8.45
	0.58	8.96	8.96	0.58	5.87	5.87	0.58	10.78	10.78	0.58	6.84	6.84	0.58	8.30	8.30
	0.66	8.26	8.26	0.66	5.42	5.42	0.66	10.68	10.68	0.66	6.72	6.72	0.66	8.14	8.14
	0.75	7.71	7.71	0.75	5.27	5.27	0.75	10.63	10.63	0.75	6.54	6.54	0.75	7.99	7.99
	0.83	7.14	7.14	0.83	5.12	5.12	0.83	10.58	10.58	0.83	6.45	6.45	0.83	7.83	7.83
	0.92	6.29	6.29	0.92	5.02	5.02	0.92	10.53	10.53	0.92	6.39	6.39	0.92	7.61	7.61
	1	5.86	5.86	1	4.57	4.57	1	10.48	10.48	1	6.24	6.24	1	7.35	7.35
	1.25	2.66	2.66	1.25	2.82	2.82	1.25	9.87	9.87	1.25	5.79	5.79	1.25	6.50	6.50
	1.5	1.75	1.75	1.5	2.20	2.20	1.5	9.74	9.74	1.5	5.35	5.35	1.5	5.88	5.88
	1.75	1.15	1.15	1.75	1.90	1.90	1.75	9.58	9.58	1.75	4.77	4.77	1.75	5.52	5.52
	2	0.66	0.66	2	1.75	1.75	2	9.03	9.03	2	4.39	4.39	2	5.00	5.00
	2.25	0.46	0.46	2.25	1.62	1.62	2.25	8.79	8.79	2.25	4.17	4.17	2.25	4.15	4.15
	2.5	0.23	0.23	2.5	1.48	1.48	2.5	8.41	8.41	2.5	3.96	3.96	2.5	3.42	3.42
	2.75	0.14	0.14	2.75	1.38	1.38	2.75	8.09	8.09	2.75	3.68	3.68	2.75	2.95	2.95
	3	0.06	0.06	3	1.23	1.23	3	7.63	7.63	3	3.43	3.43	3	2.65	2.65
	3.25	0.01	0.01	3.25	1.12	1.12	3.25	7.37	7.37	3.25	3.22	3.22	3.25	2.28	2.28
	3.5	-0.01	-0.01	3.5	1.02	1.02	3.5	7.13	7.13	3.5	2.98	2.98	3.5	1.97	1.97
	3.75	-0.03	-0.03	3.75	0.93	0.93	3.75	6.88	6.88	3.75	2.78	2.78	3.75	1.69	1.69
	4	-0.05	-0.05	4	0.89	0.89	4	6.62	6.62	4	2.59	2.59	4	0.90	0.90
	4.25	-0.06	-0.06	4.25	0.82	0.82	4.25	6.41	6.41	4.25	2.41	2.41	4.25	1.22	1.22
	4.5	-0.06	-0.06	4.5	0.82	0.82	4.5	6.14	6.14	4.5	2.24	2.24	4.5	1.06	1.06
	4.75	-0.08	-0.08	4.75	0.77	0.77	4.75	5.91	5.91	4.75	2.09	2.09	4.75	0.94	0.94
	5	-0.09	-0.09	5	0.72	0.72	5	5.69	5.69	5	1.94	1.94	5	0.82	0.82
	5.25	-0.09	-0.09	5.25	0.67	0.67	5.25	5.43	5.43	5.25	1.79	1.79	5.25	0.73	0.73
	5.5	-0.10	-0.10	5.5	0.65	0.65	5.5	5.22	5.22	5.5	1.68	1.68	5.5	0.65	0.65
	5.75	-0.10	-0.10	5.75	0.60	0.60	5.75	4.98	4.98	5.75	1.55	1.55	5.75	0.59	0.59
	6	-0.10	-0.10	6	0.55	0.55	6	4.84	4.84	6	1.44	1.44	6	0.55	0.55
	6.25	-0.11	-0.11	6.25	0.52	0.52	6.25	4.41	4.41	6.25	1.34	1.34	6.25	0.51	0.51
	6.5	-0.11	-0.11	6.5	0.48	0.48	6.5	3.99	3.99	6.5	1.23	1.23	6.5	0.46	0.46
Observations															

Appendix E

Preliminary Subsurface Test Pits



LEGEND

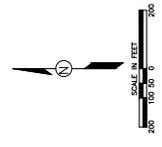
- PROPERTY LINE
- 200' PROPERTY BUFFER
- ANNEXATION LIMITS
- PROPOSED PHASE LIMITS
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 404 WETLANDS
- 50' WETLAND BUFFER
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 13 PROPOSED LANDFILL PHASE

NOTES:

1. PROPOSED LANDFILL DISPOSAL LIMITS, PHASES 1 THROUGH 15, IS 20.5 ACRES, 30 YEARS OF OPERATIONS.
2. EACH PROPOSED PHASE IS APPROXIMATELY 1.36 ACRES
3. BASED ON PRELIMINARY CALCULATIONS, EACH PHASE WILL BE FILLED IN 18 MONTHS.
4. TOTAL LANDFILL DISPOSAL CAPACITY IS APPROXIMATELY 85000 CY OR 67,500 TONS.
5. DISPOSAL CAPACITY FOR EACH PHASE IS APPROXIMATELY 42,500 TONS.

GENERAL NOTES:

1. TOPICAL INFORMATION TAKEN FROM LEAD DATA FROM NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM.
2. LIMITS OF WETLANDS ARE PRELIMINARY BASED ON COMPLETION OF FIELD DELINEATION PERFORMED BY FITTMAN SOIL CONSULTING.
3. PARCEL BOUNDARIES TAKEN FROM DEEDS FROM JOHNES COUNTY GIS.
4. LOCATIONS OF STRUCTURES AND ROADWAYS TAKEN FROM JOHNES COUNTY GIS.
5. UTILITIES AND CATCHES ARE PRELIMINARY FROM LOCAL UTILITY AND PERMITS.
6. MINIMUM BUFFER BETWEEN PROPOSED EDGE OF WASTE AND PROPERTY BOUNDARY IS 200 FT.
7. MINIMUM BUFFER BETWEEN PROPOSED EDGE OF WASTE AND WETLAND LIMITS IS 50 FT.
8. PROPOSED LANDFILL PHASES AS SHOWN ARE 15 PHASES.
9. EROSION & SEDIMENTATION CONTROL DEVICES SHALL BE DESIGNED IN ACCORDANCE WITH NC DEPT. OF ENVIRONMENT & NATURAL RESOURCES DIVISION OF WATER QUALITY.
10. STORMWATER MANAGEMENT SHALL BE PERMITTED IN ACCORDANCE WITH NC DEPT. OF ENVIRONMENT & NATURAL RESOURCES DIVISION OF WATER QUALITY.
11. THE PROPOSED LANDFILL RECYCLING CENTER AND OFFICE BUILDING SHALL BE CONSTRUCTED WITHIN THE PROPOSED PHASE 13.
12. A PROPOSED LANDFILL COMPLIANCE BOUNDARY OF 200 FT BEYOND LIMITS OF WASTE IS PROPOSED.
13. 100-YR FLOODPLAIN IS NOT PRESENT ON SITE ACCORDING TO NC FLOODPLAIN MAPPING PROGRAM.



PRELIMINARY
 TEST PIT LOCATION PLAN
 MAYSVILLE C&D LANDFILL
 NUMBER: 1
 DATE: 2/14/11
 DRAWN BY: D. WASELA
 CHECKED BY: D. WASELA
 SCALE: AS SHOWN
 SHEET OF 16

NO.	DATE	APPR.	REV.

PROJECT NUMBER: 2/14/11
 PROJECT MANAGER: D. WASELA
 PROJECT LOCATION: MAYSVILLE, NC
 PROJECT NUMBER: 01202858
 DATE: 2/14/11
 DRAWN BY: D. WASELA
 CHECKED BY: D. WASELA
 SCALE: AS SHOWN
 SHEET OF 16

REVISION

NO.	DATE	APPR.	REV.

ERM NC, INC.
 800 Corporate Center Drive, Suite 200
 Cary, NC 27513
 (919) 441-5455

MAYSVILLE C&D RECYCLING CENTER
 MAYSVILLE, NORTH CAROLINA
 ERM NC, INC.
 800 Corporate Center Drive, Suite 200
 Cary, NC 27513
 (919) 441-5455

**MAYSVILLE C&D LANDFILL
PRELIMINARY SUBSURFACE TEST PITS
MARCH 25, 2011**

*Test pits were performed and recorded by Pittman Soil Consulting on 3/25/11
by Mr. Haywood Pittman, NC Licensed Soil Scientist
Test pits remained open for a 24-hour period to record depth to ground water*

Test Pit #	Elevation (MSL)	Depth to Ground Water (ft)	Ground Water Elevation (MSL)
TP-1	39.8	4.3	35.5
TP-2	37.2	4.5	32.7
TP-3	39.4	4.6	34.8
TP-4	38.2	4.1	34.1
TP-5	39.8	6.2	33.6
TP-6	39.2	4.7	34.5
TP-7	38.1	4.4	33.7
TP-8	40.0	4.1	35.9
TP-9	40.0	4.3	35.7
TP-10	39.2	3.8	35.4
TP-11	40.0	4.5	35.5
TP-12	39.1	3.8	35.3
TP-13	40.0	5.7	34.3
TP-14	39.4	5.2	34.2
TP-15	40.1	4.6	35.5
TP-16	38.8	5.7	33.1

NOTES: *Elevations of test pits are taken from LIDAR topographic information from NC Floodplain Mapping Program.
Measured depth to ground water is relative to existing ground surface*

Pittman Soil Consulting

1073-1 Gregory Fork Road
Richlands, NC 28574
Phone (910)324-2892
Fax (910) 324-6162
pittmansoil@yahoo.com

March 24, 2011

James Maides
166 Center Street
Jacksonville, NC 28540

Ref: C & D Landfill Maysville

Dear Mr. Maides,

On March 25, 2011 excavation pits were dug in the proposed cells of the C & D Landfill, located off White Oak River Road in Maysville, NC. The purpose of this was to determine the water table in the cells.

The pits were allowed to equalize for a period of 24 hours prior to evaluation. The evaluation results are as follows:

- TP 1- Rains soil 52" Cell 1
- TP-2-Rains soil 54" Cell 4
- TP 3-Goldsboro soil 55" Cell 2
- TP 4-Rains soil 49" Cell 5
- TP 5-Rains soil 74" Cell 3 & 6
- TP 6-Rains soil 56" Cell 13
- TP 7-Rains soil 53" Cell 15
- TP 8-Rains soil 49" Cell 12
- TP 9-Rains soil 52" Cell 11
- TP 10-Rains soil 46" Cell 12
- TP 11-Rains soil 54" Cell 9
- TP 12-Rains soil 46" Cell 10
- TP 13-Goldsboro soil 68" Cell 7

TP 14-Rains soil 62" Cell 8

TP 15-Rains soil 55"

TP 16-Goldsboro soil 68"

If you have any questions please feel free to contact me at 910-330-2784. Thank You.

Sincerely,



R. Haywood Pittman II
NC Licensed Soil Scientist



Appendix F

Stratigraphic Cross-Sections

Appendix G

Water Level Records

Proposed Maysville C&D Landfill
Water Table Elevations

Well OWB-#	Top of PVC Elevation (MSL)	Groundwater Level Elevations															
		T.O.B.		24-Hr.			8/26/11			9/6/11			9/9/11			10/10/11	
		Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.	Depth (ft)	Elev.
OWB-1	42.03	13.55	28.48	13.92	28.11	13.92	28.11	7.21	34.82	6.82	35.21	7.80	34.23				
OWB-2	40.89	13.62	27.27	13.62	27.27	13.62	27.27	6.33	34.56	5.86	35.03	7.02	33.87				
OWB-3	40.32	12.75	27.57	12.79	27.53	12.79	27.53	5.79	34.53	5.38	34.94	6.54	33.78				
OWB-4	41.68	13.93	27.75	13.86	27.82	13.86	27.82	6.89	34.79	6.53	35.15	7.68	34.00				
OWB-5	42.29	15.05	27.24	15.00	27.29	14.30	27.99	7.52	34.77	7.36	34.93	8.22	34.07				
OWB-6	42.18	13.70	28.48	13.78	28.40	13.82	28.36	7.31	34.87	6.94	35.24	7.91	34.27				
OWB-7	42.77	15.55	27.22	14.85	27.92	14.75	28.02	7.69	35.08	7.17	35.60	8.58	34.19				
OWB-8	42.83	15.05	27.78	14.97	27.86	14.99	27.84	7.93	34.90	7.62	35.21	8.68	34.15				
OWB-9	41.29	13.89	27.40	13.10	28.19	13.11	28.18	5.58	35.71	5.30	35.99	5.22	36.07				
OWB-10	42.40	13.68	28.72	13.70	28.70	13.70	28.70	6.68	35.72	5.71	36.69	7.15	35.25				
OWB-11	43.41	13.62	29.79	13.65	29.76	13.64	29.77	6.93	36.48	6.38	37.03	7.61	35.80				
OWB-12	43.22	16.25	26.97	15.13	28.09	15.15	28.07	8.07	35.15	7.76	35.46	8.40	34.82				
OWB-13	44.19	15.15	29.04	15.34	28.85	15.37	28.82	8.51	35.68	8.23	35.96	9.27	34.92				
OWB-14	42.49	14.40	28.09	14.09	28.40	14.06	28.43	6.86	35.63	6.57	35.92	7.65	34.84				
OWB-15	43.21	14.61	28.60	14.56	28.65	14.65	28.56	7.40	35.81	7.23	35.98	8.59	34.62				

Appendix H

Groundwater Contour / Potentiometric
Map

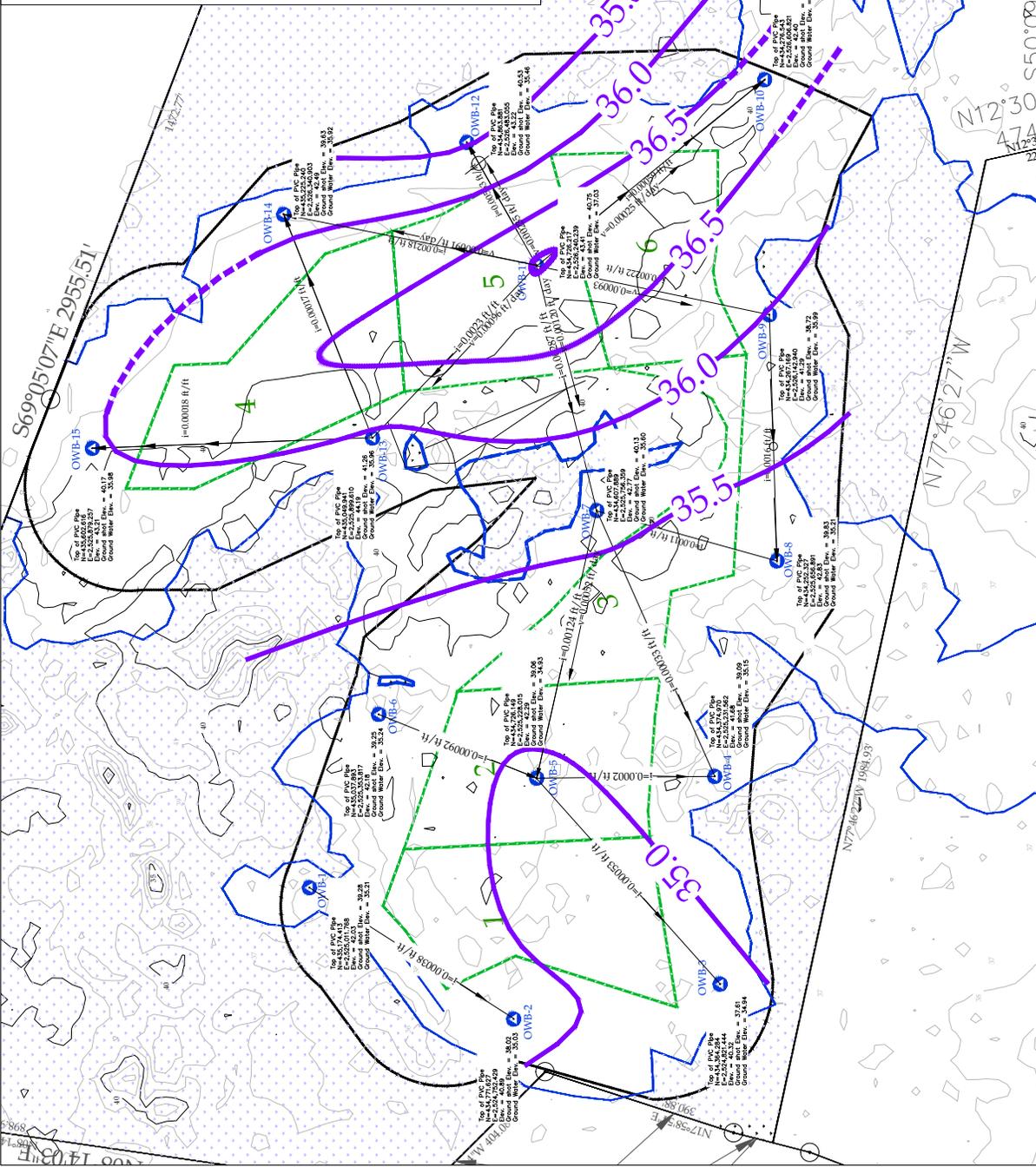
**MAYSVILLE C&D LANDFILL
HYDROLOGIC OBSERVATION WELL DATA
OCTOBER 8, 2011**

Well locations using data supplied by Partner or Association

Well ID	Ground Station	Top of PVC	Well Screen	Screened Interval	NC State Meter	NC State Filter
Well ID	Ground Station	Top of PVC	Well Screen	Screened Interval	NC State Meter	NC State Filter
OWB-1	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-2	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-3	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-4	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-5	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-6	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-7	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-8	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-9	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-10	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-11	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-12	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-13	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-14	4729.53	36.52	4729.53	36.52	300.00	40150145
OWB-15	4729.53	36.52	4729.53	36.52	300.00	40150145

Water Table Elevations - Through 11:22:11

Well ID	Top of PVC	Well Screen	Screened Interval	NC State Meter	NC State Filter
OWB-1	4729.53	36.52	4729.53	36.52	300.00
OWB-2	4729.53	36.52	4729.53	36.52	300.00
OWB-3	4729.53	36.52	4729.53	36.52	300.00
OWB-4	4729.53	36.52	4729.53	36.52	300.00
OWB-5	4729.53	36.52	4729.53	36.52	300.00
OWB-6	4729.53	36.52	4729.53	36.52	300.00
OWB-7	4729.53	36.52	4729.53	36.52	300.00
OWB-8	4729.53	36.52	4729.53	36.52	300.00
OWB-9	4729.53	36.52	4729.53	36.52	300.00
OWB-10	4729.53	36.52	4729.53	36.52	300.00
OWB-11	4729.53	36.52	4729.53	36.52	300.00
OWB-12	4729.53	36.52	4729.53	36.52	300.00
OWB-13	4729.53	36.52	4729.53	36.52	300.00
OWB-14	4729.53	36.52	4729.53	36.52	300.00
OWB-15	4729.53	36.52	4729.53	36.52	300.00



- LEGEND**
- EXISTING CONTOUR (1-FT INTERVAL)
 - ACOE APPROVED WETLAND LIMITS
 - LANDFILL LIMITS AND PHASE BOUNDARIES
 - WELL LOCATION
 - GROUNDWATER ELEVATION CONTOUR
 - i = GROUNDWATER GRADIENT
 - v = GROUNDWATER VELOCITY



NO. DATE	APPR.	NO. DATE	APPR.	NO. DATE	APPR.
REVISION			REVISION		
DESIGN ENGINEER OWW			DESIGN ENGINEER OWW		
CHECK ENGINEER OWW			CHECK ENGINEER OWW		
PROJECT MANAGER OWW			PROJECT MANAGER OWW		
GREENA RECYCLING SOLUTIONS LLC			MAYSVILLE, NC		
MAYSVILLE C&D LANDFILL			ERMA INC.		
SCALE 1"=100'			DATE DECEMBER 2011		
PROJECT NO. 0140408			PROJECT NO. 0140408		
GROUNDWATER POTENTIOMETRIC MAP			DRAWING NO. 1		
SHEET 1 OF 1			REV. NO.		

Appendix IV

FEMA Flood Insurance Rate Map
Map # 3720542200K, Panel 5422

Appendix V

Wetland Boundaries

- Approved ACOE 404 Jurisdictional Delineation
- Franchise Facility Plan

Approved ACOE 404 Jurisdictional Delineation

U.S. ARMY CORPS OF ENGINEERS
WILMINGTON DISTRICT

Action Id. 201102223 County: Jones U.S.G.S. Quad: Maysville

NOTIFICATION OF JURISDICTIONAL DETERMINATION

Property Owner/Agent: Green Co Land, LLC
Address: Attn: James Malides
166 Center Street
Jacksonville, North Carolina 28546
Telephone No.: 910-938-5900

Property description: 112.8 Nearest Town Maysville
Size (acres) White Oak River
Nearest Waterway White Oak River
USGS HUC 03030001 Coordinates N 34.930753 W -77.245794
Location description The project area evaluated contains 109.35 acres and is located on the north site of NCSR
1116, northwest of Maysville, Jones County, North Carolina. PIN 542354781100.

Indicate Which of the Following Apply:

A. Preliminary Determination

- Based on preliminary information, there may be wetlands on the above described property. We strongly suggest you have this property inspected to determine the extent of Department of the Army (DA) jurisdiction. To be considered final, a jurisdictional determination must be verified by the Corps. This preliminary determination is not an appealable action under the Regulatory Program Administrative Appeal Process (Reference 33 CFR Part 331).

B. Approved Determination

- There are Navigable Waters of the United States within the above described property subject to the permit requirements of Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are wetlands on the above described project area subject to the permit requirements of Section 404 of the Clean Water Act (CWA)(33 USC § 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
 - We strongly suggest you have the wetlands on your property delineated. Due to the size of your property and/or our present workload, the Corps may not be able to accomplish this wetland delineation in a timely manner. For a more timely delineation, you may wish to obtain a consultant. To be considered final, any delineation must be verified by the Corps.
 - The wetland on your property have been delineated and the delineation has been verified by the Corps. We strongly suggest you have this delineation surveyed. Upon completion, this survey should be reviewed and verified by the Corps. Once verified, this survey will provide an accurate depiction of all areas subject to CWA jurisdiction on your property which, provided there is no change in the law or our published regulations, may be relied upon for a period not to exceed five years.
- The wetlands have been delineated and surveyed and are accurately depicted on the plat signed by the Corps Regulatory Official identified below on 11/30/2011. Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- There are no waters of the U.S., to include wetlands, present on the above described property which are subject to the permit requirements of Section 404 of the Clean Water Act (33 USC 1344). Unless there is a change in the law or our published regulations, this determination may be relied upon for a period not to exceed five years from the date of this notification.
- The property is located in one of the 20 Coastal Counties subject to regulation under the Coastal Area Management Act (CAMAA). You should contact the Division of Coastal Management in Washington, NC, at (252) 946-6481 to determine their requirements.

Action ID: _____

Placement of dredged or fill material within waters of the US and/or wetlands without a Department of the Army permit may constitute a violation of Section 301 of the Clean Water Act (33 USC § 1311). If you have any questions regarding this determination and/or the Corps regulatory program, please contact William Wescott at 910-251-4629.

C. Basis For Determination

The subject area exhibits the three parameters identified in the Regional Supplement to the 1987 Corps of Engineers Wetlands Delineation Manual and are adjacent to tributaries to the White Oak River.

D. Remarks

The project area contains 51.9 acres of uplands, 56.12 acres of jurisdictional wetlands and 1.29 acres of non-jurisdictional wetlands. Approximately 3.5 acres of the parcel have not been evaluated for wetlands.

E. Attention USDA Program Participants

This delineation/determination has been conducted to identify the limits of Corps' Clean Water Act jurisdiction for the particular site identified in this request. The delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985. If you or your tenant are USDA Program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service, prior to starting work.

F. Appeals Information (This information applies only to approved jurisdictional determinations as indicated in B. above)

This correspondence constitutes an approved jurisdictional determination for the above described site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and request for appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the following address:

District Engineer, Wilmington Regulatory Division
Attn: William Wescott, Project Manager,
Washington Regulatory Field Office
Post Office Box 1000
Washington, North Carolina 27889

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR part 331.5, and that it has been received by the District Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by 1/29/2012.

It is not necessary to submit an RFA form to the District Office if you do not object to the determination in this correspondence.

Corps Regulatory Official: William Wescott, P.U.S.

Date 11/30/2011

Expiration Date 11/30/2016

The Wilmington District is committed to providing the highest level of support to the public. To help us ensure we continue to do so, please complete the Customer Satisfaction Survey located at our website at <http://regulatory.usace.survey.com/> to complete the survey online.

Copy furnished:
Pittman Soil Consulting

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

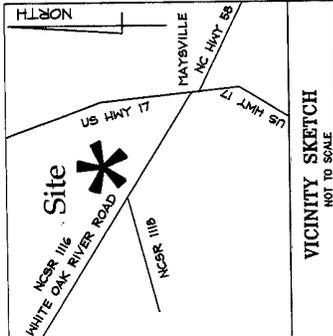
Applicant: M&M Land Development, Inc.	File Number: 201102223	Date: 11/30/2011
Attached is: Approved Jurisdictional Determination		
INITIAL PROFFERED PERMIT (Standard Permit or Letter of permission)	See Section below	
PROFFERED PERMIT (Standard Permit or Letter of permission)	A	
PERMIT DENIAL	B	
APPROVED JURISDICTIONAL DETERMINATION	C	
PRELIMINARY JURISDICTIONAL DETERMINATION	D	
	E	

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at http://www.usace.army.mil/CECW/Pages/reg_materials.aspx or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.
- ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
 - OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT:** You may accept or appeal the permit
- ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
 - APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.
- ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
 - APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

<p>SECTION II - REQUEST FOR APPEAL, or OBJECTIONS TO AN INITIAL PROFFERED PERMIT REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)</p>			
<p>ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.</p>			
<p>POINT OF CONTACT FOR QUESTIONS OR INFORMATION:</p> <table border="1"> <tr> <td> <p>If you have questions regarding this decision and/or the appeal process you may contact: U.S. Army Corps of Engineers Attn: William Westcott Post Office Box 1000 Washington, North Carolina 27889</p> </td> <td> <p>If you only have questions regarding the appeal process you may also contact: Jason Steele Administrative Appeals Review Officer 60 Forsyth Street, SW (Room 9M10) Atlanta, GA 30303-8801 404-562-5137</p> </td> </tr> </table>		<p>If you have questions regarding this decision and/or the appeal process you may contact: U.S. Army Corps of Engineers Attn: William Westcott Post Office Box 1000 Washington, North Carolina 27889</p>	<p>If you only have questions regarding the appeal process you may also contact: Jason Steele Administrative Appeals Review Officer 60 Forsyth Street, SW (Room 9M10) Atlanta, GA 30303-8801 404-562-5137</p>
<p>If you have questions regarding this decision and/or the appeal process you may contact: U.S. Army Corps of Engineers Attn: William Westcott Post Office Box 1000 Washington, North Carolina 27889</p>	<p>If you only have questions regarding the appeal process you may also contact: Jason Steele Administrative Appeals Review Officer 60 Forsyth Street, SW (Room 9M10) Atlanta, GA 30303-8801 404-562-5137</p>		
<p>RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.</p>			
<p>Signature of appellant or agent.</p>	<p>Date: _____ Telephone number: _____</p>		



Legend:

Ac. - Acreage

C - Centerline

ΔCP - Control Point

D.B. - Deed Book

○ISF - Iron Stake Found

M.B. - Map Book

Pg. - Page

CP#3 (199)

N 435,024.12

E 2,525,020.16

CP#9 (199)

N 434,247.87

E 2,526,557.72

CP#29 (199)

N 434,515.15

E 2,524,956.79

CP#30 (199)

N 434,566.28

E 2,525,771.82

Meyerhaeuser Co.

D.B. 159, Pg. 157

D.B. 110, Pg. 249

ISF

N 435,159.36

E 2,527,351.57

GPS Grid North

NAD 83, 2007 Adjustment

Legend:

Ac. - Acreage

C - Centerline

ΔCP - Control Point

D.B. - Deed Book

○ISF - Iron Stake Found

M.B. - Map Book

Pg. - Page

CP#3 (199)

N 435,024.12

E 2,525,020.16

CP#9 (199)

N 434,247.87

E 2,526,557.72

CP#29 (199)

N 434,515.15

E 2,524,956.79

CP#30 (199)

N 434,566.28

E 2,525,771.82

VICINITY SKETCH

NOT TO SCALE

Site

WHITE OAK RIVER ROAD

US HWY 17

US HWY 58

MAYSVILLE

NC HWY 58

Professional Seal:

NORTH CAROLINA PROFESSIONAL LAND SURVEYORS

SEAL

L-2884

EDWIN N. FOLEY

Edwin N. Foley, certify that this 404 Wetlands Survey Map was prepared under my supervision from a survey in April, 2011 using conventional survey methods; that this map is true and correct to the best of my knowledge and belief, and was not prepared for recordation, conveyance or sales.

Edwin N. Foley

Edwin N. Foley, P.L.S. L-2884

Notes:

- All distances are horizontal ground, U.S. survey feet.
- All acreages calculated by coordinates.
- No Register of Deed search done by or furnished to surveyor regarding Deed or Covenant Restrictions.
- The GPS portion of the boundary/control work was performed to third order, Class 1, FCC specifications, the coordinates were obtained by Real Time Kinematic Differential GPS Observations using Trimble Survey Grade 5800 GPS Unit, NCGS RTK Network Adjustments to NC Grid NAD '83, 2007 Adjustments.
- Boundary data taken from survey by Parker & Associates, Inc. dated March, 2011.

This certifies that this copy of the plat identifies all areas of wetlands regulated pursuant to Section 404 of the Clean Water Act as determined by the undersigned on this date. Unless there is change in the law or our published regulations, this determination of Section 404 jurisdiction may be relied upon for a period not to exceed five years from this date. This determination was made utilizing the 1987 Corps of Engineers Wetland Delineation Manual. *Edwin N. Foley*

Regulatory Official: *Edwin N. Foley*

Title: *Professional Land Surveyor*

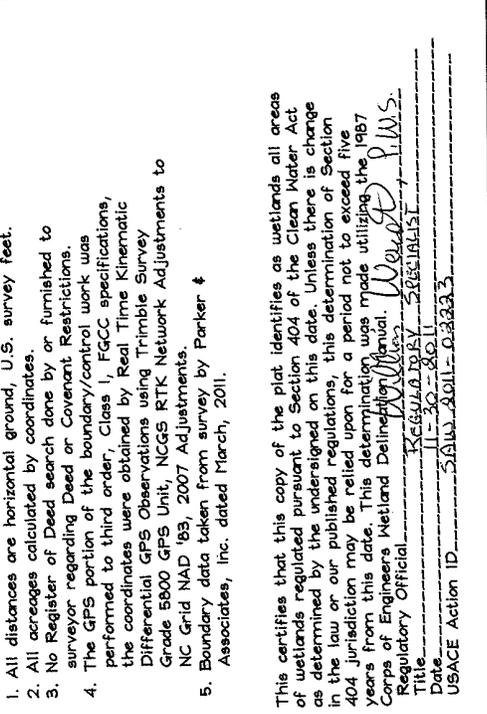
Date: *11-30-2011*

USACE Action ID: *SAW-2011-03333*

Edwin N. Foley, certify that this 404 Wetlands Survey Map was prepared under my supervision from a survey in April, 2011 using conventional survey methods; that this map is true and correct to the best of my knowledge and belief, and was not prepared for recordation, conveyance or sales.

Edwin N. Foley

Edwin N. Foley, P.L.S. L-2884



Sheet 7 of 8

Wetlands 20.42± Ac.

Sheet 8 of 8

Wetlands 0.05± Ac.

Overall 109.35 Ac.

Sheet 4 of 8

Wetlands 0.02± Ac.

Sheet 5 of 8

Wetlands 1.24± Ac.

Sheet 6 of 8

Wetlands 4.83± Ac.

Wetlands 26.83± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 1.24± Ac.

Wetlands 0.02± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 26.83± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 1.24± Ac.

Wetlands 0.02± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 26.83± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 1.24± Ac.

Wetlands 0.02± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 26.83± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands 1.24± Ac.

Wetlands 0.02± Ac.

Wetlands 4.02± Ac.

Wetlands 4.83± Ac.

Wetlands Map - Sheet 1 of 8

Parker & Associates, Inc.

Consulting Engineers - Land Surveyors - Land Planners

P.O. Box 976 - 28841-0976

306 New Bridge Street - 28840

Jacksonville, North Carolina

Phone (910) 455-2414 - Fax (910) 455-3441

Firm License Number: F-0108

Date: 06/23/11

Scale: 1"=400'

Field book: N/A

Disk Name: CAD-wetlands.dwg

Drawn: JLL

Owner:

Jones County C&D Landfill M&M Land Development, Inc.

166 Center Street

Jacksonville, North Carolina 28546

(910) 938-5900

Project:

Jones County C&D Landfill M&M Land Development, Inc.

Jones Co., North Carolina

Rev. 11/28/11 JLL - Adjusted Project Limit Line.

PRINTED 11-29-11 09A

PARKER & ASSOCIATES INC

CONSULTING ENGINEERS LAND SURVEYORS LAND PLANNERS

P.O. BOX 976 JACKSONVILLE NC 28541-0976

Wetlands Line A

Pnt	Northing	Easting	Desc
89	435386.62	2526166.98	A60
90	435388.62	2526128.26	A61
91	435443.21	2526150.28	A62
92	435455.79	2526174.73	A63
93	435515.30	2526173.67	A64
94	435515.30	2526162.96	A65
95	435571.95	2526160.03	A66
96	435571.95	2526129.81	A67
97	435577.52	2526209.88	A68
98	435634.69	2526045.34	A70

Wetlands Line B

Pnt	Northing	Easting	Desc
191	434006.54	2526575.67	B1
192	434044.09	2526568.75	B2
193	434064.28	2526534.43	B3
194	434053.88	2526468.83	B4
195	434099.43	2526440.52	B5
196	434126.98	2526418.47	B6
197	434127.98	2526378.12	B7
198	434144.23	2526314.98	B8
199	434189.83	2526288.53	B9
200	434241.87	2526292.02	B10
201	434276.02	2526290.54	B11
202	434294.39	2526257.19	B12
203	434291.82	2526229.24	B13
204	434261.41	2526183.11	B14
205	434261.41	2526150.26	B15
206	434234.77	2526098.86	B16
207	434193.76	2526058.74	B17
208	434163.27	2526026.92	B18
209	434154.28	2525994.19	B19
210	434204.64	2525944.52	B20
211	434242.04	2525898.06	B21
212	434301.41	2525839.24	B22
213	434211.41	2525798.64	B23
214	434193.32	2525727.44	B24
215	434179.32	2525727.44	B25
216	434124.98	2525730.53	B30
217	434092.76	2525730.53	B31
218	434027.61	2525746.45	B32
219	433996.34	2525709.25	B33
220	433966.92	2525681.18	B34
221	433948.70	2525677.57	B35
222	433931.43	2525638.29	B36
223	433919.75	2525602.30	B37
224	433893.17	2525579.98	B38
225	433910.51	2525553.22	B39
226	433837.80	2525519.44	B40
227	433819.71	2525491.03	B41
228	433834.61	2525458.60	B42
229	433879.58	2525478.75	B43
230	433850.60	2525479.22	B44
231	433813.78	2525498.08	B45
232	433813.78	2525459.02	B46
233	433738.95	2525533.83	B47
234	433697.82	2525516.92	B48
235	433620.60	2525200.60	A59

Wetlands Line C

Pnt	Northing	Easting	Desc
203	434942.25	2525847.71	C1
204	434962.34	2525836.90	C2
205	434984.36	2525840.79	C3
206	434982.26	2525870.93	C4
207	434970.78	2525905.42	C6
208	434955.36	2525889.19	C7

Wetlands Line M

Pnt	Northing	Easting	Desc
388	433976.11	2525578.34	M1
389	433954.27	2525531.68	M2
390	433946.73	2525604.43	M3
391	433941.05	2526464.43	M4
392	433922.47	2526440.49	M5
393	433903.34	2526445.21	M6
394	433876.03	2526422.15	M8
395	433891.22	2526399.48	M9
396	433871.84	2526387.39	M10
397	433887.93	2526368.46	M11
398	433879.57	2526349.53	M13
399	433857.03	2526342.65	M13
400	433837.82	2526349.48	M14
401	433816.63	2526363.00	M15
402	433816.63	2526380.29	M16
403	433787.89	2526375.73	M17
404	433752.42	2526361.89	M18
405	433735.05	2526441.52	M20
406	433729.54	2526457.46	M21
407	433719.38	2526469.70	M22

Wetlands Line N

Pnt	Northing	Easting	Desc
387	433884.09	2526611.72	N1
388	433972.28	2526641.26	N2
389	433962.88	2526652.87	N3
390	433949.57	2526672.69	N4
391	433940.31	2526698.97	N5
392	433902.63	2526723.51	N6
393	433885.00	2526749.69	N7
394	433885.00	2526788.79	N8
395	433868.52	2526815.15	N10
396	433856.57	2526850.26	N11

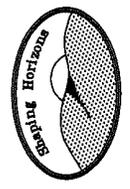
Wetlands Line R

Pnt	Northing	Easting	Desc
616	434832.44	2525663.15	R1
617	434876.06	2525682.49	R2
618	434902.51	2525668.90	R3
619	434887.96	2525638.52	R4
620	434822.04	2525616.29	R5
621	434753.09	2525657.75	R6
622	434740.69	2525694.54	R8
623	434747.09	2525694.54	R8
624	434710.45	2525715.40	R9
625	434660.77	2525724.35	R10
626	434642.94	2525764.69	R11
627	434638.13	2525837.95	R12
628	434580.13	2525837.95	R13
629	434523.83	2525838.93	R14
630	434469.15	2525854.37	R15
631	434439.42	2525890.40	R16
632	434471.75	2525882.75	R17
633	434513.48	2525873.17	R18
634	434560.88	2525937.04	R19
635	434574.92	2525937.04	R20
636	434591.61	2525952.22	R21
637	434613.54	2525919.03	R22
638	434611.08	2525890.60	R23
639	434646.08	2525860.03	R24
640	434677.38	2525854.58	R25
641	434698.39	2525881.52	R26
642	434728.63	2525863.30	R27
643	434816.40	2525853.38	R28
644	434859.21	2525834.10	R30
645	434884.89	2525834.10	R30
646	434875.35	2525805.61	R31
647	434844.49	2525764.73	R32
648	434828.33	2525720.88	R33



Wetlands Map - Sheet 2 of 8

Parker & Associates, Inc.
 Consulting Engineers - Land Surveyors - Land Planners
 P.O. Box 976 - 28541-0976
 306 New Bridge Street - 28540
 Jacksonville, North Carolina
 Phone (910) 465-2414 - Fax (910) 465-3441
 Firm License Number: P-0108



NC DENR/DWM/SWS
 DIN 16560 Page 196 of 312

Date: 06/23/11
 Scale: Not to Scale
 Field book: N/A
 File Name: C&D-wetlands.dwg
 Disk Name: ACAD
 Drawn: JJJ

Owner:
M&M Land Development, Inc.
 166 Center Street
 Jacksonville, North Carolina 28546
 (910) 458-5900

Project:
Jones County C&D Landfill
 Jones Co., North Carolina
 Rev. 11/28/11 JJJ - Adjusted Project Limit Line.

Wetlands Line T

Pnt	Northing	Easting	Desc
473	433991.70	2525274.99	T1
474	433959.39	2525305.63	T2
475	433975.78	252323.41	T3
476	434023.23	2525327.19	T4
477	434054.88	2525319.64	T5
478	434084.47	2525339.03	T6
479	434110.95	2525357.10	T7
480	434136.29	2525357.29	T8
481	434163.53	2525385.98	T9
482	434176.37	2525418.01	T10
483	434215.35	2525444.32	T11
484	434268.54	2525469.34	T12
485	434303.44	2525513.97	T13
486	434336.58	2525515.80	T14
487	434371.76	2525519.68	T15
488	434389.33	2525527.18	T16
489	434384.37	2525502.48	T17
490	434369.80	2525480.89	T18
491	434355.85	2525446.43	T19
492	434348.78	2525402.75	T20
493	434362.35	2525398.81	T21
494	434372.30	2525376.92	T22
495	434410.35	2525340.27	T23
496	434390.55	2525307.83	T24
497	434351.46	2525289.13	T25
498	434297.85	2525335.04	T26
499	434270.91	2525359.44	T27
500	434242.38	2525370.47	T28
501	434208.96	2525377.63	T29
502	434181.02	2525338.31	T30
503	434174.79	2525303.27	T31
504	434217.40	2525255.60	T32
505	434254.83	2525242.21	T33
506	434280.15	2525231.52	T34
507	434312.44	2525216.50	T35
508	434361.57	2525185.02	T36
509	434399.46	2525169.04	T37
510	434423.48	2525163.42	T38
511	434419.68	2525132.10	T39
512	434419.14	2525114.38	T40
513	434381.26	2525094.72	T41
514	434327.59	2525043.50	T42
515			T43

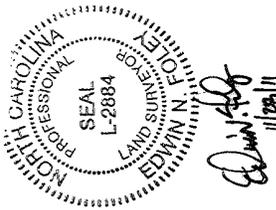
Wetlands Line X

Pnt	Northing	Easting	Desc
114	435734.15	2525482.56	X1
115	435702.91	2525501.85	X2
116	435680.86	2525497.01	X3
117	435641.35	2525493.23	X4
118	435598.02	2525505.88	X5
119	435547.66	2525518.42	X6
120	435502.96	2525501.30	X7
121	435456.03	2525530.65	X8
122	435442.61	2525562.93	X9
123	435459.70	2525600.84	X10
124	435437.99	2525626.21	X11
125	435419.21	2525662.36	X12
126	435419.21	2525701.28	X13
127	435374.56	2525718.55	X14
128	435358.20	2525683.84	X15
129	435327.07	2525675.60	X16
130	435302.80	2525695.44	X17
131	435275.64	2525717.73	X18
132	435247.86	2525748.96	X19
133	435235.08	2525774.54	X20
134	435212.03	2525793.25	X21
135	435173.24	2525818.77	X22
136	435141.24	2525831.00	X23
137	435107.33	2525823.40	X24
138	435078.54	2525814.28	X25
139	435045.82	2525792.00	X26
140	435036.97	2525782.72	X27
141	435047.09	2525765.24	X28
142	435072.44	2525762.43	X29
143	435087.51	2525753.54	X30
144	435103.09	2525722.19	X31
145	435089.10	2525685.63	X32
146	435083.21	2525660.13	X33
147	435068.81	2525642.12	X34
148	435079.92	2525608.17	X35
149	435086.24	2525582.05	X36
150	435096.24	2525557.02	X37
151	435101.45	2525523.90	X38
152	435120.26	2525491.82	X39
153	435086.17	2525468.00	X40
154	435057.68	2525436.29	X41
155	435062.12	2525396.55	X42
156	435092.57	2525389.64	X43
157	435098.56	2525364.91	X44
158	435121.04	2525361.73	X45
159	435142.00	2525350.55	X46
160	435169.24	2525336.34	X47
161	435193.45	2525316.83	X48
162	435224.95	2525280.77	X49
163	435247.78	2525247.73	X50
164	435226.46	2525216.49	X51
165	435188.79	2525208.73	X52
166	435163.51	2525183.65	X53
167	435133.85	2525151.46	X54
168	435132.32	2525117.58	X55
169	435137.97	2525082.37	X56
170	435105.98	2525075.75	X57
171	435089.08	2525054.04	X58
172	435120.55	2525027.21	X59

Pnt	Northing	Easting	Desc
304	435149.23	2525046.36	X60
305	435178.83	2525066.29	X61
306	435225.82	2525058.83	X62
307	435253.44	2525032.56	X63
308	435301.16	2525055.95	X64

Wetlands Line Y

Pnt	Northing	Easting	Desc
Y1	435037.90	2525413.20	Y1
Y2	435034.63	2525427.49	Y2
Y3	434994.90	2525427.99	Y3
Y4	434969.36	2525417.71	Y4
Y5	434969.70	2525410.72	Y5
Y6	435002.22	2525417.17	Y6
Y7	435022.16	2525412.65	Y7



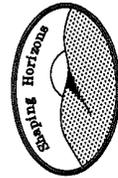
Wetlands Map - Sheet 3 of 8

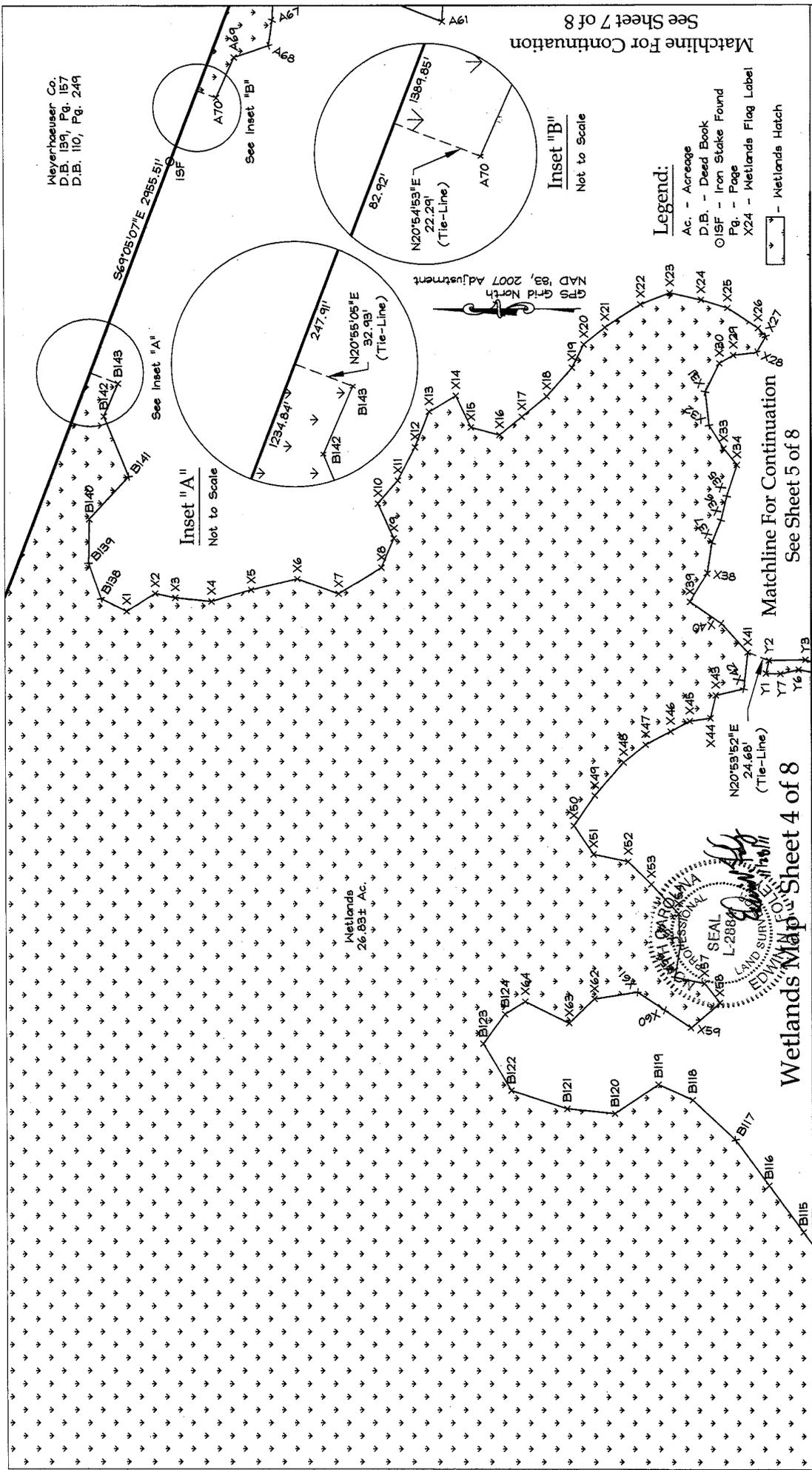
Project:
Jones County C&D Landfill
 Jones Co., North Carolina
 Rev. 11/28/11 JLL - Adjusted Project Limit Line.

Owner:
M&M Land Development, Inc.
 166 Center Street
 Jacksonville, North Carolina 28546
 (910) 988-5900

Date: 06/23/11
Scale: Not to Scale
Field book: N/A
File Name: C4D-wetlands.dwg
Disk Name: ACAD
Drawn: JLL

Parker & Associates, Inc.
 Consulting Engineers - Land Planners
 P.O. Box 978 - 28541-0978
 306 New Bridge Street - 28540
 Jacksonville, North Carolina
 Phone (910) 456-2414 - Fax (910) 456-3441
 Firm License Number: P-0108





Meyerhoeuser Co.
D.B. 139, Pg. 157
D.B. 110, Pg. 249

See Inset "A"

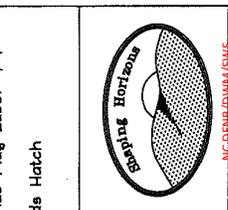
Inset "A"
Not to Scale

See Inset "B"

Inset "B"
Not to Scale

Legend:

- Ac. - Acreage
- D.B. - Deed Book
- ISF - Iron Stake Found
- Pg. - Page
- X24 - Wetlands Flag Label
- ▭ - Wetlands Hatch



Matchline For Continuation
See Sheet 5 of 8

Matchline For Continuation
See Sheet 7 of 8

Wetlands Map for Sheet 4 of 8



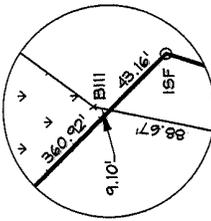
<p>Project: Jones County C&D Landfill Jones Co., North Carolina Rev. 11/28/11 JJJ - Adjusted Project Limit Line.</p>	<p>Owner: M&M Land Development, Inc. 166 Center Street Jacksonville, North Carolina 28546 (910) 438-5400</p>	<p>Date: 06/23/11 Scale: 1"=100' Field book: N/A File Name: C&D-wetlands.dwg Disk Name: ACAD Draught: JJJ</p>	<p>Parker & Associates, Inc. Consulting Engineers - Land Surveyors - Land Planners P.O. Box 978 28541-0978 308 New Bridge Street - 28540 Jacksonville, North Carolina Phone (910) 455-2414 - Fax (910) 455-3441 Firm License Number: F-0108</p>
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Matchline For Continuation
See Sheet 4 of 8

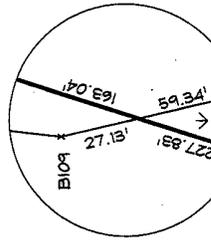
Wetlands
0.02± Ac.

Wetlands
0.05± Ac.

Wetlands
26.83± Ac.



Inset "C"
Not to Scale



Inset "D"
Not to Scale

- Legend:**
- Ac. - Acreage
 - D.B. - Deed Book
 - OISF - Iron Stake Found
 - Pg. - Page
 - RS - Wetlands Flag Label
 - Wetlands Hatch

GND 89, 2007 Adjustment
GND 89
GND North

Wetlands
0.02± Ac.

Wetlands
1.24± Ac.

Wetlands
4.83± Ac.

Wetlands
0.05± Ac.

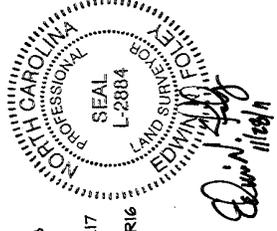
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0.02± Ac.

Wetlands
0.02± Ac.

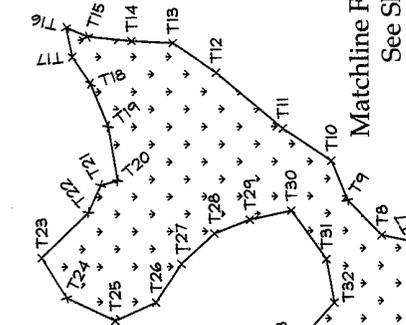
Wetlands
0.05± Ac.

Wetlands
0.02± Ac.

Matchline For Continuation
See Sheet X of X



Edwin M. Jolley
11/28/11



Matchline For Continuation
See Sheet 6 of 8

Woodrow Loasiter
Plat Cabinet "B"
Slide 334, Pg. 3
D.B. 318, Pg. 981

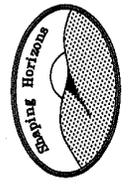
Wetlands Map - Sheet 5 of 8

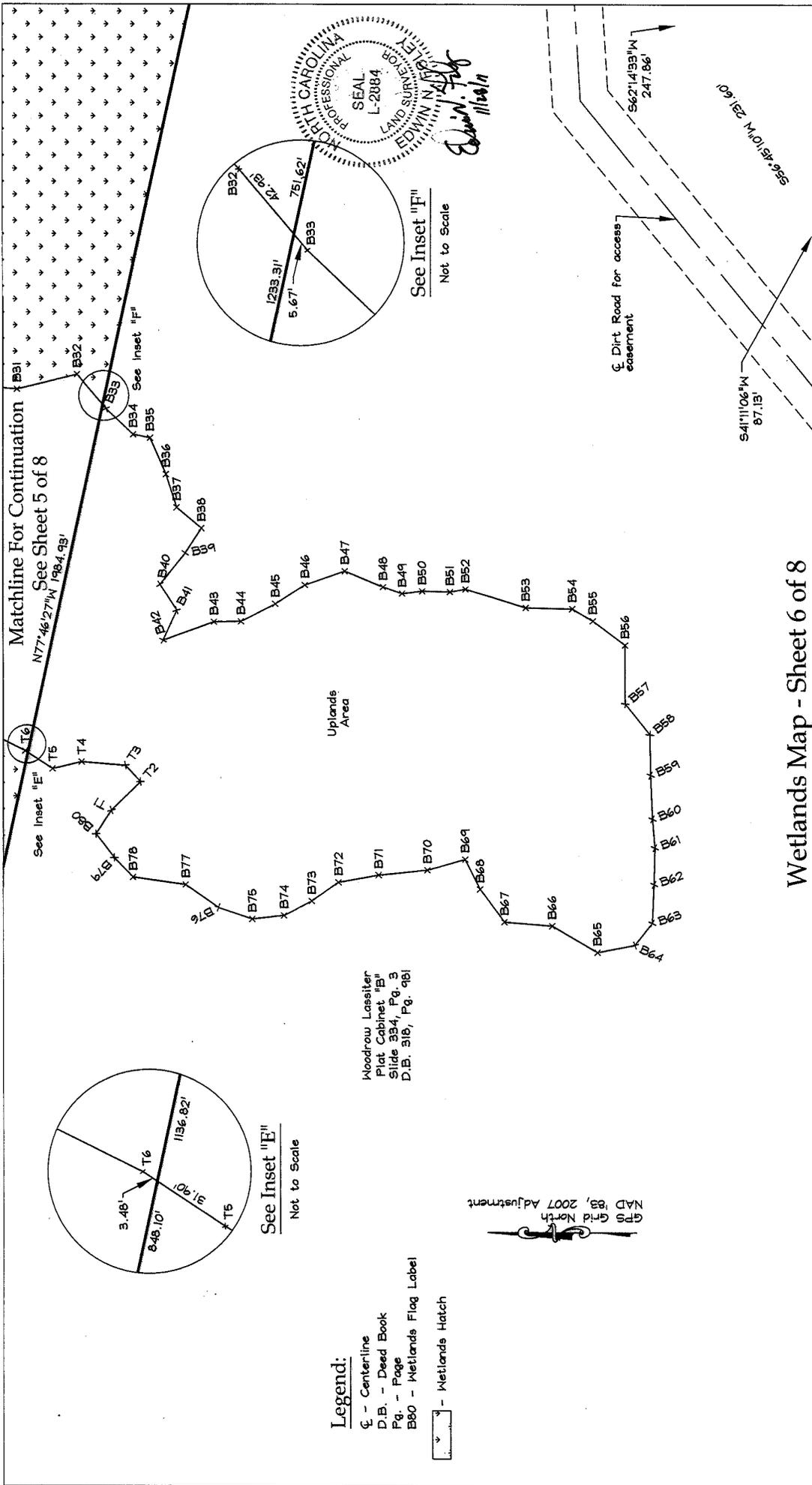
Date: 06/23/11
Scale: 1"=100'
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File Name: C&D-wetlands.dwg
Disk Name: ACAD
Drawn: JJJ

Owners:
M&M Land Development, Inc.
166 Center Street
Jacksonville, North Carolina 28546
(910) 988-5900

Project:
Jones County C&D Landfill
Jones Co., North Carolina
Rev. 11/28/11 JJJ - Adjusted Project Limit Line.

Parker & Associates, Inc.
Consulting Engineers - Land Surveyors - Land Planners
P.O. Box 878 - 28541-0878
308 New Bridge Street - 28540
Jacksonville, North Carolina
Phone (910) 455-2414 - Fax (910) 455-3441
Firm License Number: P-0108





<p>Project: Jones County C&D Landfill</p> <p>Jones Co., North Carolina</p> <p>Rev. 11/28/11 JLL - Adjusted Project Limit Line.</p>	<p>Owners: M&M Land Development, Inc. 166 Center Street Jacksonville, North Carolina 28546 (910) 938-5900</p>	<p>Date: 06/25/11 Scale: 1"=100' Field book: N/A File Name: C&D-wetlands.dwg Disk Name: ACAD Drawn: JLL</p>	<p>Parker & Associates, Inc. Consulting Engineers - Land Surveyors - Land Planners P.O. Box 978 - 28541-0978 306 New Bridge Street - 28540 Jacksonville, North Carolina Phone (910) 456-2414 - Fax (910) 456-3441 Firm License Number: F-0108</p>
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Wetlands Map - Sheet 6 of 8

NAD 83, 2007 Adjustment

GPO Grid North

Not to Scale

See Inset "E"

See Inset "F"

Not to Scale

Dirt Road for access easement

Upslands Area

Matchline For Continuation See Sheet 5 of 8

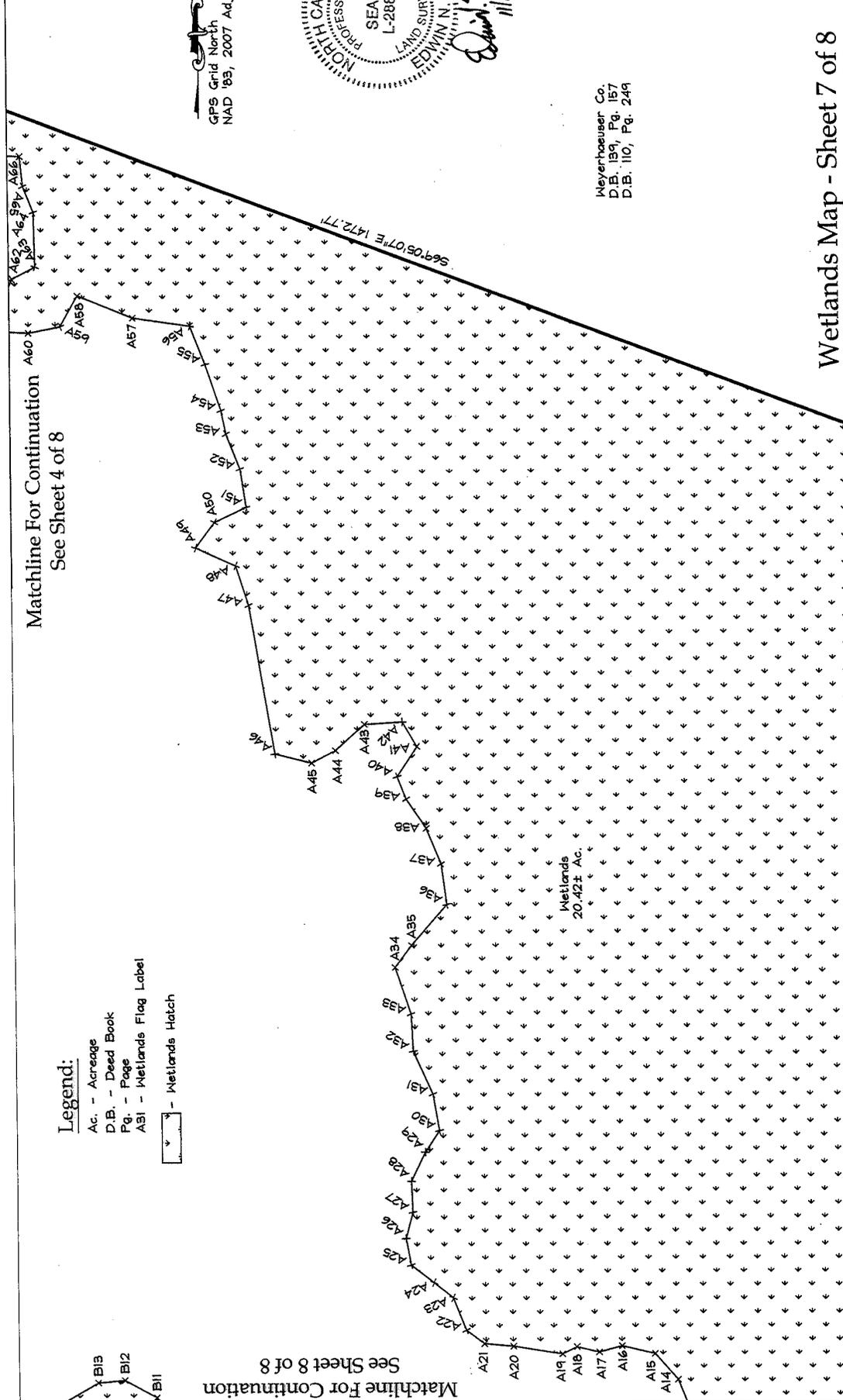
Woodrow Lassiter
Plat Cabinet "B"
Slide 334, Pg. 3
D.B. 316, Pg. 981

Legend:
 ☐ - Centerline
 D.B. - Deed Book
 Pg. - Page
 B90 - Wetlands Flag Label
 ▨ - Wetlands Hatch

Professional Seal:
 NORTH CAROLINA
 PROFESSIONAL
 SEAL
 L-28884
 LAND SURVEYOR
 EDWIN N. PARKER
 11/28/11

Sealing Horizontal

L:\Land Projects 3\C&D Landfill Boundary-Control\dwg\C&D-wetlands.dwg, 11/28/2011 3:07:14 PM, ELB
 NC PERMITS\DWG\JWS
 DIN 16560 Page 200 of 312



Legend:
 Ac. - Acreage
 D.B. - Deed Book
 Pg. - Page
 A31 - Wetlands Flag Label
 v - Wetlands Hatch

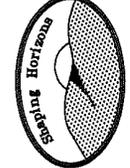
GPS Grid North
 NAD '83, 2007 Adjustment



Meyerhoeuser Co.
 D.B. 159, Pg. 157
 D.B. 110, Pg. 249

Wetlands Map - Sheet 7 of 8

Parker & Associates, Inc.
 Consulting Engineers - Land Surveyors - Land Planners
 P.O. Box 876 - 28541-0876
 306 New Bridge Street - 28540
 Jacksonville, North Carolina
 Phone (910) 455-2414 - Fax (910) 455-3441
 Firm License Number: F-0108



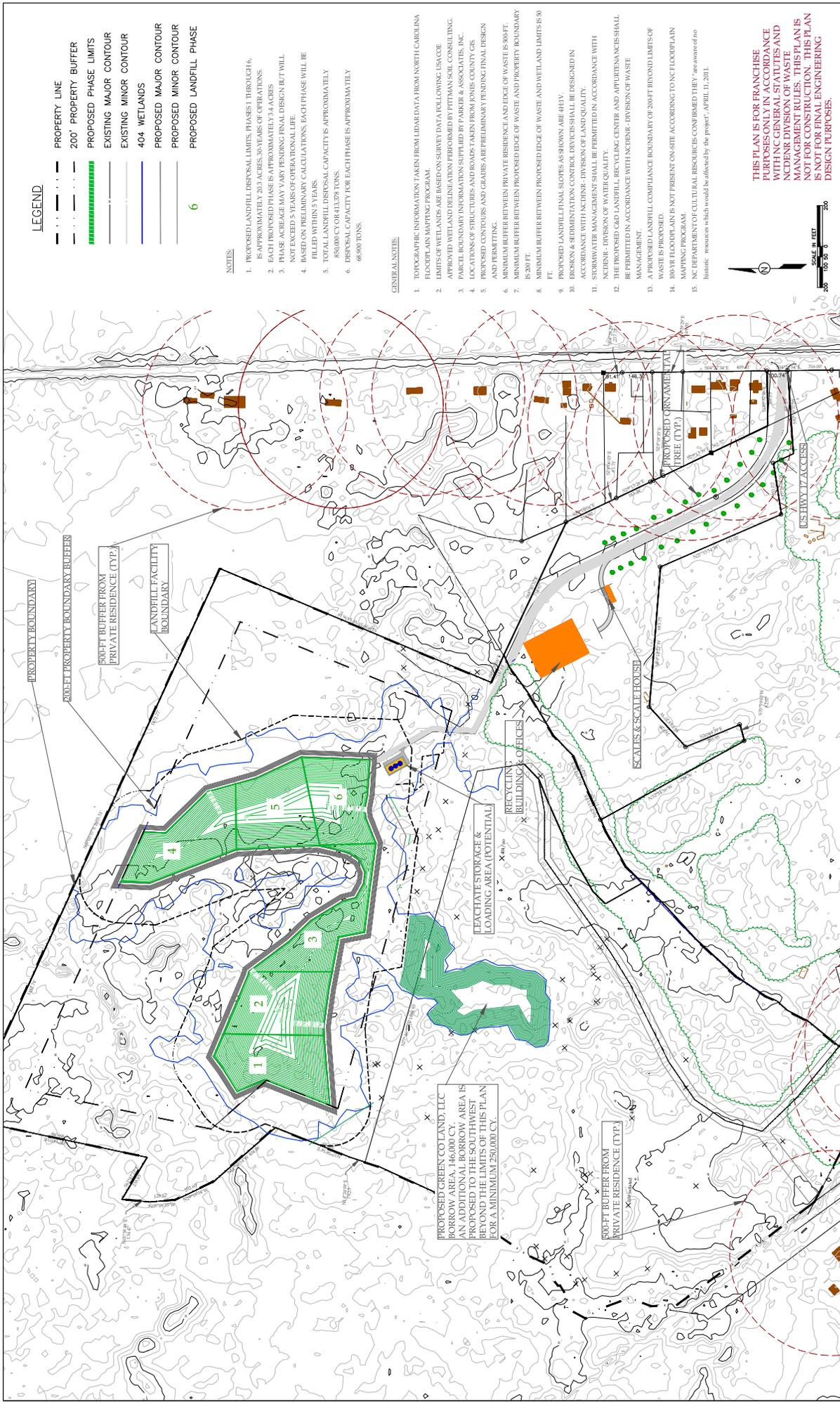
NC DENR/DWM/SWS
 DIN 16560 Page 201 of 312

Date: 06/29/11
 Scale: 1"=100'
 Field book: N/A
 File Name: C&D-wetlands.dwg
 Disk Name: ACAD
 Drawn: J.JL

Owners:
 M&M Land Development, Inc.
 166 Center Street
 Jacksonville, North Carolina 28546
 (910) 938-5900

Project:
 Jones County C&D Landfill
 Jones Co., North Carolina
 Rev. 11/28/11 J.JL - Adjusted Project Limit Line.

Franchise Facility Plan



LEGEND

- — — — — PROPERTY LINE
- — — — — 200' PROPERTY BUFFER
- — — — — PROPOSED PHASE LIMITS
- — — — — EXISTING MAJOR CONTOUR
- — — — — EXISTING MINOR CONTOUR
- — — — — 404 WETLANDS
- — — — — PROPOSED MAJOR CONTOUR
- — — — — PROPOSED MINOR CONTOUR
- — — — — PROPOSED LANDFILL PHASE

NOTES:

1. PROPOSED LANDFILL DISPOSAL LIMITS, PHASES 1 THROUGH 6, IS APPROXIMATELY 20.3 ACRES, 30-YEARS OF OPERATIONS.
2. EACH PROPOSED PHASE IS APPROXIMATELY 3.4 ACRES.
3. PHASE AREA MAY VARY PENDING FINAL DESIGN BUT WILL NOT EXCEED 5-YEARS OF OPERATIONAL LIFE.
4. BASED ON PRELIMINARY CALCULATIONS, EACH PHASE WILL BE FILLED WITHIN 5 YEARS.
5. TOTAL LANDFILL DISPOSAL CAPACITY IS APPROXIMATELY 850,000 CY OR 413,379 TONS.
6. DISPOSAL CAPACITY FOR EACH PHASE IS APPROXIMATELY 68,000 TONS.

GENERAL NOTES:

1. TOPOGRAPHIC INFORMATION TAKEN FROM LIDAR DATA FROM NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM.
2. LIMITS OF WETLANDS ARE BASED ON SURVEY DATA FOLLOWING USACE APPROVED WETLAND DELINEATION PERFORMED BY PITTMAN SOIL CONSULTING.
3. PARCEL BOUNDARY INFORMATION SUPPLIED BY PARKER & ASSOCIATES, INC.
4. LOCATIONS OF STRUCTURES AND ROADS TAKEN FROM JONES COUNTY GIS.
5. PROPOSED CONTOURS AND GRADES ARE PRELIMINARY PENDING FINAL DESIGN AND PERMITTING.
6. MINIMUM BUFFER BETWEEN PRIVATE RESIDENCE AND EDGE OF WASTE IS 300 FT.
7. MINIMUM BUFFER BETWEEN PROPOSED EDGE OF WASTE AND PROPERTY BOUNDARY IS 200 FT.
8. MINIMUM BUFFER BETWEEN PROPOSED EDGE OF WASTE AND WETLAND LIMITS IS 90 FT.
9. PROPOSED LANDFILL FINAL SLOPES AS SHOWN ARE 4H:1V.
10. EROSION & SEDIMENTATION CONTROL DEVICES SHALL BE DESIGNED IN ACCORDANCE WITH NCDENR - DIVISION OF LAND QUALITY.
11. STORMWATER MANAGEMENT SHALL BE PERMITTED IN ACCORDANCE WITH NCDENR - DIVISION OF WATER QUALITY.
12. THE PROPOSED C&D LANDFILL, RECYCLING CENTER AND APURTEMANACS SHALL BE PERMITTED IN ACCORDANCE WITH NCDENR - DIVISION OF WASTE MANAGEMENT.
13. A PROPOSED LANDFILL COMPLIANCE BOUNDARY OF 200-FT BEYOND LIMITS OF WASTE IS PROPOSED.
14. 100-YR FLOODPLAIN IS NOT PRESENT ON-SITE ACCORDING TO NCFLOODPLAIN MAPPING PROGRAM.
15. NC DEPARTMENT OF CULTURAL RESOURCES CONFIRMED THEY ARE AWARE OF NO Historic resources which would be affected by the project, APRIL 11, 2011.

THIS PLAN IS FOR FRANCHISE PURPOSES ONLY. IT DOES NOT CONSTITUTE A CONTRACT WITH NCDENR UNDER ANY STATUTES AND NCDENR DIVISION OF WASTE MANAGEMENT RULES. THIS PLAN IS NOT FOR CONSTRUCTION. THIS PLAN IS NOT FOR FINAL ENGINEERING DESIGN PURPOSES.

NO. DATE APPR.		NO. DATE APPR.		REGION		REGION		MAYSVILLE C&D RECYCLING CENTER & C&D LANDFILL		MAYSVILLE, NC		NOT FOR CONSTRUCTION		FACILITY PLAN		DRAWING NO. 1			
DESIGN ENGINEER				PROJECT MANAGER				DESIGNER				DATE				REV. NO.			
PROJECT NO. 01-04-008				SCALE AS SHOWN				DATE MAY 27, 2011				SHEET 1 OF 1							
PROJECT NO. 01-04-008				SCALE AS SHOWN				DATE MAY 27, 2011				SHEET 1 OF 1							

Appendix VI

Cultural Resources and
State Nature and Historic Preserves

*ERM Letter to Deputy State Historic Preservation Officer,
March 24, 2011*

ERM NC, Inc.

8000 Corporate Center Drive
Suite 200
Charlotte, NC 28226
(704) 541-8345
(704) 541-8416 (fax)

March 24, 2011

State of North Carolina
Deputy State Historic Preservation Officer
4617 Mail Service Center
Raleigh NC 27699-4617



Ms. Renee Gledhill-Earley, *Environmental Review Coordinator*

Subject: Proposed C&D Recycling Center & Landfill Site
Preliminary Studies
US Hwy 17, Jones County, North Carolina

Dear Ms. Gledhill-Earley:

In accordance with NCDENR, Division of Waste Management Rule NCAC 13B .0536 (c)(7) and (8), a new Construction & Demolition Debris (C&D) Landfill must not damage or destroy a property of archeological or historic significance or have an adverse impact on State nature or historic preserve locations. We have begun preliminary siting studies for a proposed C&D Recycling Facility and Landfill in Jones County, North Carolina located between US Highway 17 and White Oak River Road approximately 1 mile north of Maysville. This property is currently in the process to be annexed into the Maysville jurisdictional limits. A site location plan identifying the two land parcels along with proposed areas of land development activities is attached for reference. We are requesting correspondence from your office to confirm the absence of significant areas that would be impacted or specific needs for further investigations based on identifiable areas within the project site. An electronic version of this letter and attachments is being sent to your attention via e-mail as well for easier reference.

If you should have any questions or require additional assistance during your review, you may reach me at (704) 541-8345 or via e-mail at dave.wasiela@erm.com. Thank you in advance for your time and I look forward to hearing from you.

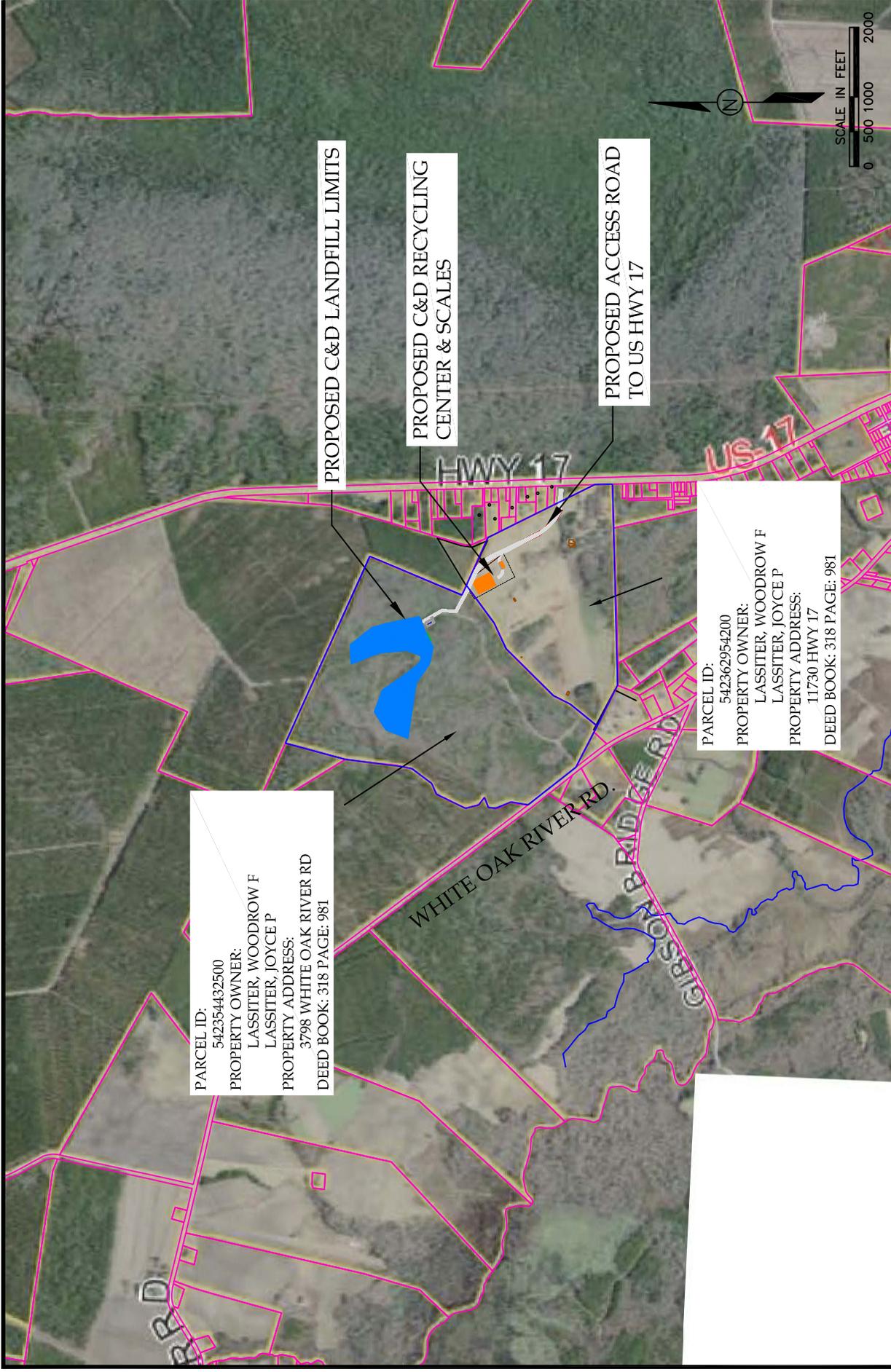
Sincerely,

A handwritten signature in black ink, appearing to read 'D. Wasiele'.

David W. Wasiele, P.E.
Senior Project Engineer

Cc: Mr. James Maides – Green Recycling, LLC

Attch: Site Location Plan



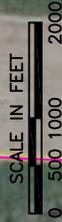
PARCEL ID:
542354432500
PROPERTY OWNER:
LASSITER, WOODROW F
LASSITER, JOYCE P
PROPERTY ADDRESS:
3798 WHITE OAK RIVER RD
DEED BOOK: 318 PAGE: 981

PROPOSED C&D LANDFILL LIMITS

PROPOSED C&D RECYCLING
CENTER & SCALES

PROPOSED ACCESS ROAD
TO US HWY 17

PARCEL ID:
542362954200
PROPERTY OWNER:
LASSITER, WOODROW F
LASSITER, JOYCE P
PROPERTY ADDRESS:
11730 HWY 17
DEED BOOK: 318 PAGE: 981



SITE LOCATION MAP
PROPOSED MAYSVILLE C&D RECYCLING CENTER
GREEN RECYCLING, LLC
MAYSVILLE, NORTH CAROLINA

FIGURE

1

*Letter from Deputy State Historic Preservation Officer, Renee
Gledhill-Earley, April 11, 2011*



**North Carolina Department of Cultural Resources
State Historic Preservation Office**

Claudia Brown, Acting Administrator

Beverly Eaves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

April 11, 2011

David Wasiela
ERM NC, Inc.
800 Corporate Center Drive
Suite 200
Charlotte, NC 28226

Re: Maysville C&D Recycling Center & Landfill, US 17, Maysville, Jones County, ER 11-0456

Dear Mr. Wasiela:

Thank you for your email of March 25, 2011, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,

Renee Gledhill-Earley

for Claudia Brown

Appendix VII

NC DENR Division of Water Quality
2010 Environmental Sensitivity Map
Jones County

Appendix VIII

Endangered and Threatened Species

ERM Letter to US Fish & Wildlife Service, Raleigh Ecological Services Field Office, March 24, 2011

March 24, 2011

US Fish & Wildlife Service
Raleigh Ecological Services Field Office
P.O. Box 33726
Raleigh NC 27636-3726

Mr. Pete Benjamin

Subject: Proposed C&D Recycling Center & Landfill Site
Preliminary Studies
US Hwy 17, Jones County, North Carolina



Dear Mr. Benjamin:

In accordance with NCDENR, Division of Waste Management Rule NCAC 13B .0536 (c)(10), a new Construction & Demolition Debris (C&D) Landfill must not jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat protected under the Federal Endangered Species Act of 1973. We have begun preliminary siting studies for a proposed C&D Recycling Facility and Landfill in Jones County, North Carolina located between US Highway 17 and White Oak River Road approximately 1 mile north of Maysville. This property is currently in the process to be annexed into the Maysville jurisdictional limits. A site location plan identifying the two land parcels along with proposed areas of land development activities is attached for reference. We are requesting correspondence from your office to confirm the probable absence of threatened or endangered species, habitats that would be impacted or specific needs for further investigations based on identifiable species or habitats within the project site area. An electronic version of this letter and attachments is being sent to your attention via e-mail as well for easier reference.

If you should have any questions or require additional assistance during your review, you may reach me at (704) 541-8345 or via e-mail at dave.wasiela@erm.com. Thank you in advance for your time and I look forward to hearing from you.

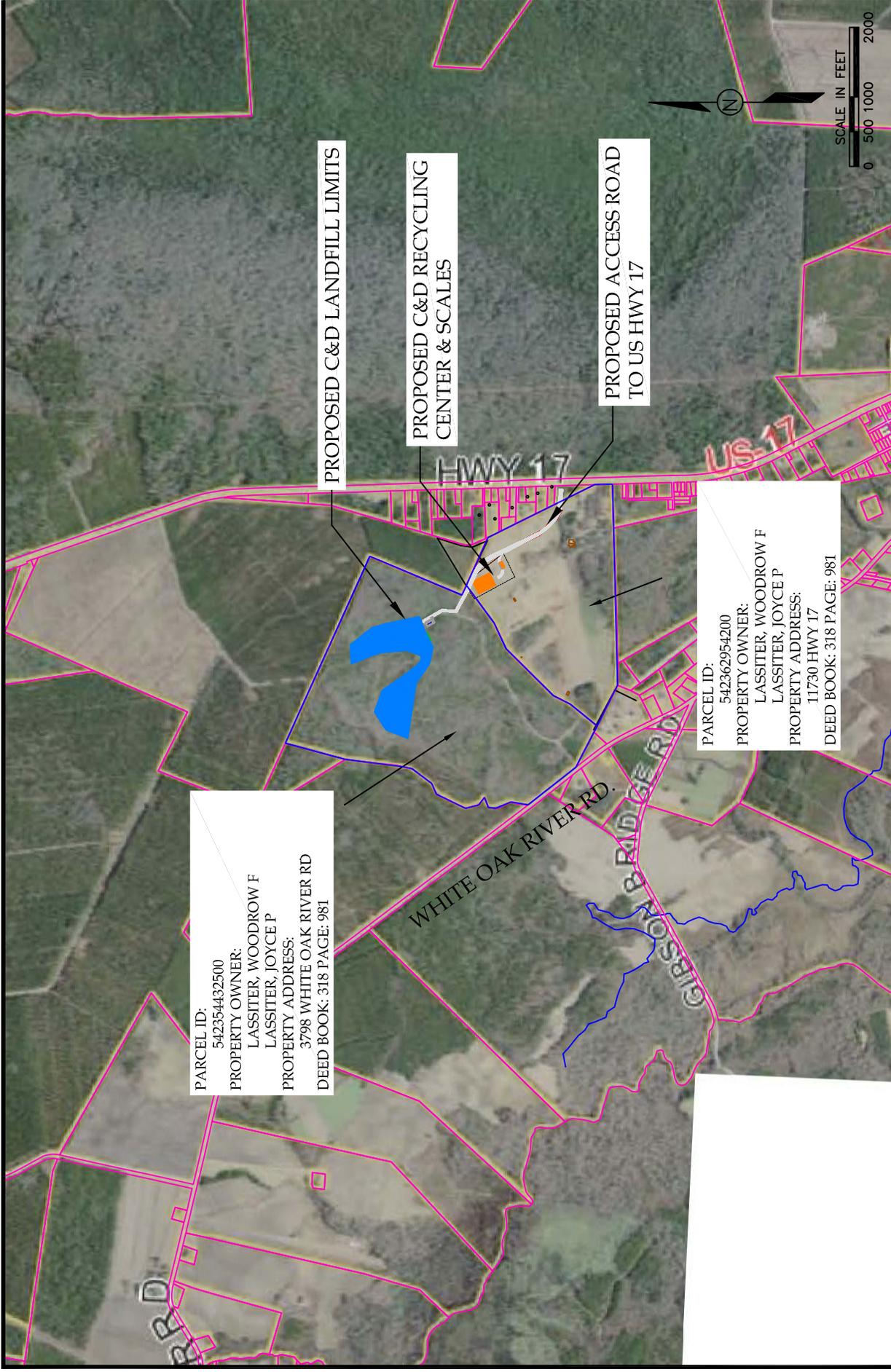
Sincerely,

A handwritten signature in black ink that reads "D. Wasiele". The signature is written in a cursive, flowing style.

David W. Wasiele, P.E.
Senior Project Engineer

Cc: Mr. James Maides – Green Recycling, LLC

Attch: Site Location Plan
Preliminary Site Reconnaissance



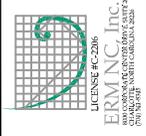
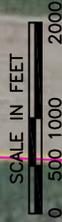
PARCEL ID:
542354432500
PROPERTY OWNER:
LASSITER, WOODROW F
LASSITER, JOYCE P
PROPERTY ADDRESS:
3798 WHITE OAK RIVER RD
DEED BOOK: 318 PAGE: 981

PROPOSED C&D LANDFILL LIMITS

PROPOSED C&D RECYCLING
CENTER & SCALES

PROPOSED ACCESS ROAD
TO US HWY 17

PARCEL ID:
542362954200
PROPERTY OWNER:
LASSITER, WOODROW F
LASSITER, JOYCE P
PROPERTY ADDRESS:
11730 HWY 17
DEED BOOK: 318 PAGE: 981



SITE LOCATION MAP
PROPOSED MAYSVILLE C&D RECYCLING CENTER
GREEN RECYCLING, LLC
MAYSVILLE, NORTH CAROLINA

FIGURE

1

***Preliminary Site Reconnaissance – Proposed Maysville, NC Site
Endangered and Threatened Species***

Based on a review of the current listings of Endangered and Threatened Species for Jones County, North Carolina (copy attached), two species of concern beyond the Bald Eagle exist within the County; the Red-cockaded woodpecker and American alligator. Based on our reconnaissance while at the proposed Maysville site the following is noted:

Bald Eagle

The Bald Eagle was not physically observed during our previous site visits. The site is not located near a large body of water (river, lake or tidal area) that typically supports Bald Eagle habitat.

American Alligator

The proposed Maysville site does not contain supporting habitat; primarily ponds, lakes, swamps, etc. to support the American alligator.

Red-Cockaded Woodpecker

The red-cockaded woodpecker was not observed during our previous site visits. Current site conditions contain young growth pines along with young growth hardwoods (appears to have been timbered within the last 10 years) lacking the large old pines typically needed to support the red-cockaded woodpecker habitat. The site is bordered to the north by a large tract of Weyerhaeuser property that may contain more suitable habitat.

The following is taken from the “Recovery Plan for the Red-Cockaded Woodpecker (*Picoides borealis*), Second Revision, Approved April 11, 1985, US Fish & Wildlife Service”:

HABITAT REQUIREMENTS AND LIMITING FACTORS

Red-cockaded woodpeckers require open pine woodlands and savannahs with

large old pines for nesting and roosting habitat (clusters). Large old pines are required as cavity trees because the cavities are excavated completely within inactive heartwood, so that the cavity interior remains free from resin that can entrap the birds. Also, old pines are preferred as cavity trees, because of the higher incidence of the heartwood decay that greatly facilitates cavity excavation. Cavity trees must be in open stands with little or no hardwood midstory and few or no overstory hardwoods.

Hardwood encroachment resulting from fire suppression is a well-known cause of cluster abandonment. Redcockaded woodpeckers also require abundant foraging habitat. Suitable foraging habitat consists of mature pines with an open canopy, low densities of small pines, little or no

hardwood or pine midstory, few or no overstory hardwoods, and abundant native bunchgrass and forb groundcovers.

Endangered Species, Threatened Species, Federal Species of Concern, and Candidate Species, Jones County, North Carolina



Updated: 09-22-2010

Common Name	Scientific name	Federal Record Status Status	
--------------------	------------------------	-------------------------------------	--

Vertebrate:

American alligator	<i>Alligator mississippiensis</i>	T (S/A)	Current
American eel	<i>Anguilla rostrata</i>	FSC	Current
Bachman's sparrow	<i>Aimophila aestivalis</i>	FSC	Current
Black-throated green warbler	<i>Dendroica virens waynei</i>	FSC	Current
Carolina crawfish frog	<i>Rana capito capito</i>	FSC	Historic
Carolina madtom	<i>Noturus furiosus</i>	FSC	Current
Red-cockaded woodpecker	<i>Picoides borealis</i>	E	Current
Southern hognose snake	<i>Heterodon simus</i>	FSC	Obscure

Invertebrate:

Vascular Plant:

Carolina bogmint	<i>Macbridea caroliniana</i>	FSC	Obscure
Godfrey's sandwort	<i>Minuartia godfreyi</i>	FSC	Historic
Spring-flowering goldenrod	<i>Solidago verna</i>	FSC	Current
Venus' fly-trap	<i>Dionaea muscipula</i>	FSC	Historic
Wagner's spleenwort	<i>Asplenium heteroresiliens</i>	FSC	Current
a quillwort	<i>Isoetes microvela</i>	FSC	Current

Nonvascular Plant:

Lichen:

Definitions of Federal Status Codes:

E = endangered. A taxon "in danger of extinction throughout all or a significant portion of its range."

T = threatened. A taxon "likely to become endangered within the foreseeable future throughout all or a significant portion of its range."

C = candidate. A taxon under consideration for official listing for which there is sufficient information to support listing. (Formerly "C1" candidate species.)

BGPA =Bald and Golden Eagle Protection Act. See below.

FSC = federal species of concern. A species under consideration for listing, for which there is insufficient information to support listing at this time. These species may or may not be listed in the future, and many of these species were formerly recognized as "C2" candidate species.

T(S/A) = threatened due to similarity of appearance. A taxon that is threatened due to similarity of appearance with another listed species and is listed for its protection. Taxa listed as T(S/A) are not biologically endangered or threatened and are not subject to Section 7 consultation. See below.

EXP = experimental population. A taxon listed as experimental (either essential or nonessential). Experimental, nonessential populations of endangered species (e.g., red wolf) are treated as threatened species on public land, for consultation purposes, and as species proposed for listing on private land.

P = proposed. Taxa proposed for official listing as endangered or threatened will be noted as "PE" or "PT", respectively.

Bald and Golden Eagle Protection Act (BGPA):

In the July 9, 2007 Federal Register(72:37346-37372), the bald eagle was declared recovered, and removed (de-listed) from the Federal List of Threatened and Endangered wildlife. This delisting took effect August 8,2007. After delisting, the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d) becomes the primary law protecting bald eagles. The Eagle Act prohibits take of bald and golden eagles and provides a statutory definition of "take" that includes "disturb". The USFWS has developed National Bald Eagle Management Guidelines to provide guidance to land managers, landowners, and others as to how to avoid disturbing bald eagles. For mor information, visit <http://www.fws.gov/migratorybirds/baldeagle.htm>

Threatened due to similarity of appearance(T(S/A)):

In the November 4, 1997 Federal Register (55822-55825), the northern population of the bog turtle (from New York south to Maryland) was listed as T (threatened), and the southern population (from Virginia south to Georgia) was listed as T(S/A) (threatened due to similarity of appearance). The T(S/A) designation bans the collection and interstate and international commercial trade of bog turtles from the southern population. The T(S/A) designation has no effect on land management activities by private landowners in North Carolina, part of the southern population of the species. In addition to its official status as T(S/A), the U.S. Fish and Wildlife Service considers the southern population of the bog turtle as a Federal species of concern due to habitat loss.

Definitions of Record Status:

Current - the species has been observed in the county within the last 50 years.

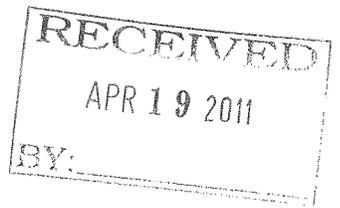
Historic - the species was last observed in the county more than 50 years ago.

Obscure - the date and/or location of observation is uncertain.

Incidental/migrant - the species was observed outside of its normal range or habitat.

Probable/potential - the species is considered likely to occur in this county based on the proximity of known records (in adjacent counties), the presence of potentially suitable habitat, or both.

Letter from US Fish & Wildlife Service, Raleigh Ecological Services Field Office, April 12, 2011



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726

April 12, 2011

David Wasiela
ERM NC, Inc.
8000 Corporate Center Drive, Suite 200
Charlotte, NC 28226

Re: Proposed C&D Recycling Center & Landfill Site.

Dear Mr. Wasiela:

This letter is to inform you that a list of all federally-protected endangered and threatened species with known occurrences in North Carolina is now available on the U.S. Fish and Wildlife Service's (Service) web page at <http://www.fws.gov/raleigh>. Therefore, if you have projects that occur within the Raleigh Field Office's area of responsibility (see attached county list), you no longer need to contact the Raleigh Field Office for a list of federally-protected species.

Our web page contains a complete and frequently updated list of all endangered and threatened species protected by the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act), and a list of federal species of concern¹ that are known to occur in each county in North Carolina.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation and can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes.

¹ The term "federal species of concern" refers to those species which the Service believes might be in need of concentrated conservation actions. Federal species of concern receive no legal protection and their designation does not necessarily imply that the species will eventually be proposed for listing as a federally endangered or threatened species. However, we recommend that all practicable measures be taken to avoid or minimize adverse impacts to federal species of concern.

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

With regard to the above-referenced project, we offer the following remarks. Our comments are submitted pursuant to, and in accordance with, provisions of the Endangered Species Act.

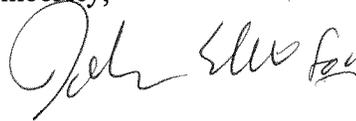
Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites. We believe that the requirements of section 7(a)(2) of the Act have been satisfied for your project. Please remember that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

However, the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.

The North Carolina Wildlife Resources Commission has developed a Guidance Memorandum (a copy can be found on our website at (<http://www.fws.gov/raleigh>) to address and mitigate secondary and cumulative impacts to aquatic and terrestrial wildlife resources and water quality. We recommend that you consider this document in the development of your projects and in completing an initiation package for consultation (if necessary).

We hope you find our web page useful and informative and that following the process described above will reduce the time required, and eliminate the need, for general correspondence for species' lists. If you have any questions or comments, please contact John Ellis of this office at (919) 856-4520 ext. 26.

Sincerely,

A handwritten signature in black ink, appearing to read "Pete Benjamin". The signature is fluid and cursive, with the first name "Pete" being more prominent than the last name "Benjamin".

Pete Benjamin
Field Supervisor

List of Counties in the Service's Raleigh Field Office Area of Responsibility

Alamance	Perquimans
Beaufort	Person
Bertie	Pitt
Bladen	Randolph
Brunswick	Richmond
Camden	Robeson
Carteret	Rockingham
Caswell	Sampson
Chatham	Scotland
Chowan	Tyrrell
Columbus	Vance
Craven	Wake
Cumberland	Warren
Currituck	Washington
Dare	Wayne
Duplin	Wilson
Durham	
Edgecombe	
Franklin	
Gates	
Granville	
Greene	
Guilford	
Halifax	
Harnett	
Hertford	
Hoke	
Hyde	
Johnston	
Jones	
Lee	
Lenoir	
Martin	
Montgomery	
Moore	
Nash	
New Hanover	
Northampton	
Onslow	
Orange	
Pamlico	
Pasquotank	
Pender	

Appendix IX

Local Government Approvals

*Town of Maysville, Zoning / Subdivision Text Amendment
Application, November 3, 2010*

THE TOWN OF MAYSVILLE

ZONING / SUBDIVISION TEXT AMENDMENT APPLICATION

BEFORE THE TOWN COMMISSIONERS

I/we, the undersigned, do hereby make application and petition the Maysville Town Board of Commissioners to amend the Zoning Ordinance or Subdivision Regulations of the Town of Maysville. In support of this application, the following facts are shown:

1. Applicant(s): **Parker & Associates, Inc.**

Address: **306 New Bridge Street; Jacksonville, NC 28540**

2. Text amendment being sought (attach additional sheets if necessary):

Add construction and demolition (C and D) landfill and/or recycling facility as a permitted use in the Industrial (I-1) zoning district.

3. In support of this text amendment application, discuss one of the following: a. how the requested amendment would promote the health, safety, morals, or general welfare of the community, or b. how circumstances (land use, development, environmental conditions, community facilities, etc.) have changed since the ordinance was adopted (attach additional sheets if necessary).

The current zoning ordinance did not anticipate the proposed use being probable and did not include it in the list of permitted uses. This amendment would advance the ordinance to support current needs.

John W. Parker, President

Name of Applicant



Signature of Applicant

11/3/2010

Date

Advertisement for Town of Maysville, Public Hearing

- Fresh Sweet Corn
- Blueberries
- New Potatoes • Squash
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Notice of Public Hearings
Maysville Town Board of Commissioners

The Maysville Town Board of Commissioners will hold public hearings during its regular July 7, 2011 meeting that will begin at 7:00 p.m. at Maysville Town Hall, 404 Main Street, to receive public comments on the question of (1) voluntary non-contiguous annexation pursuant to G.S. 160A-58.1 filed by Woodrow and Joyce Lassiter, 6800 New Bern Highway, Maysville, NC 28555; (2) I-1 Industrial Zoning; and (3) a Conditional Use Permit Application to operate a C&D Landfill and Recycling Center as summarized below.

1. A public hearing, pursuant to Section 160A-58.1 of the North Carolina General Statutes of North Carolina, to receive comments on a petition for voluntary non-contiguous (satellite) annexation filed on May 18, 2011 by Woodrow and Joyce Lassiter, 6800 New Bern Highway, Maysville, NC 28555 of a 58.2 acre, more or less, area located on the West side of US Highway 17 about 1.04 miles North of the intersection with White Oak River Road, NCSR 1118. The annexation area being a portion of that property recorded in Deed Book 318, Page 981, and Deed Book 44, Page 377, and Plat Cabinet "A", Slide 119-A, and Plat Cabinet "B", Slide 334, Page 3 of the Jones County Registry. The petition and complete metes and bounds description and survey map prepared by Parker & Associates, Inc. is available for viewing at the office of the Town Clerk.

2. A public hearing to receive comments on establishing I-1 Industrial Zoning on the 58.2 acres; more or less, of property proposed for non-contiguous annexation. The area being a portion of that property recorded in Deed Book 318, Page 981, and Deed Book 44, Page 377, and Plat Cabinet "A", Slide 119-A, and Plat Cabinet "B", Slide 334, Page 3 of the Jones County Registry. The zoning application, including map, is available for viewing at the office of the Town Clerk, James E. Maldes, 166 Center St. Jacksonville, NC 28546, filed the application. The property is owned by Woodrow and Joyce Lassiter, 6800 New Bern Highway, Maysville, NC 28555.

3. A public hearing to receive testimony on a Conditional Use Permit application filed by James E. Maldes, 166 Center Street, Jacksonville, NC 28546 to operate a C&D Landfill and Recycling Center on a 58.2-acre area proposed for annexation and I-1 Industrial Zoning. The property is located at US 17 North and further identified as portions of parcels 5423-62-9542-00 and 5423-54-4325-00 in the Jones County Tax Office. The property is owned by Woodrow and Joyce Lassiter, 6800 New Bern Highway, Maysville, NC 28555. The application, including the applicant's proposed conditions of the Franchise Agreement and Facility Plan, is on file in the office of the Town Clerk. Quasi-judicial proceedings apply in conduct of this hearing. All those wishing to speak are asked to sign up at the call of the hearing and to be

9/16
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*Minutes of Meeting
Town of Maysville Board of Commissioners
Public Hearing, July 7, 2011*

**Town of Maysville
Board of Commissioners
Regular Meeting
Thursday, July 7, 2011 at 7:00 PM**

Present were Mayor James D. Harper, Commissioners Dan Ryan, Janet G. Baker, Bobby Flowers, David Chapman and Schumata Brown. Also present were Interim Town Manager Tom Hogg, Town Clerk Dale Gurganus-McCullough, Town Attorney Beth Faleris, and Assistant Town Clerk Lisa Stolar.

Others present were: see attendance sheet.

MEETING CALLED TO ORDER by Mayor James Harper at 7:00 PM

INVOCATION was pronounced by Commissioner Janet G. Baker

PLEDGE OF ALLEGIENCE by all in attendance.

MAYOR'S REMARKS

Mayor Harper thanked the citizens in attendance for coming to the meeting. He reminded that a comment period would be held at a proper time and asked everyone to remember that professionalism is paramount. He asked that all cell phones either be turned off or placed on vibrate.

MINUTES

Ms. Faleris made the following corrections to the June 2, 2011 regular meeting minutes. Rather than "The Planning Board would then have a separate public hearing" under the section "Conditional Use Application from Green Recycling Solution, Inc. the corrected statement reads "The Board of Commissioners sitting as the Zoning Board of Adjustment would then have a separate public hearing".

Commissioner Brown motioned that the June 2, 2011 regular meeting minutes be accepted with the proposed changes and Commissioner Baker seconded. Motion passed unanimously.

On the June 13, 2011 minutes for special meeting and workshop, Ms. Faleris corrected the date of the budget workshop from June 16 to June 21.

Commissioner Baker made a motion to accept the June 13, 2011 special meeting and workshop minutes with the corrections and Commissioner Baker seconded.

Motion carried by unanimous vote.

Commissioner Baker made a motion to accept the June 16, 2011 workshop minutes as presented. Commissioner Brown seconded and motion carried unanimously.

Commissioner Ryan would like to see not only the voting results for each motion but would also like the minutes to reflect which Commissioners cast opposing votes.

Commissioner Ryan made a motion to accept the June 21, 2011 special meeting minutes with the change of who cast dissenting votes. Commissioner Baker seconded. Motion carried unanimously.

ADOPTION OF AGENDA

Interim Town Manager Tom Hogg requested that three items be added to the agenda. The items included (1) a water and sewer resolution (2) the minutes from the June 30, 2011 special meeting and (3) a closed session following the regular meeting to discuss personnel issues.

Commissioner Baker made a motion to amend the agenda to include the three additions. Commissioner Brown seconded. Motion carried unanimously.

Commissioner Baker made a motion to accept the amended agenda with Commissioner Brown seconding. Motion carried unanimously.

On the June 30, 2011 special meeting minutes, Ms. Faleris noted that the time for adjournment of the meeting was recorded as 5:30 instead of the correct time of 5:40.

Commissioner Brown made a motion to accept the June 30, 2011 special meeting minutes with corrections and Commissioner Baker seconded. Motion carried unanimously.

Commissioner Baker made a motion to go into a public hearing. Commissioner Brown seconded and motion carried unanimously.

PUBLIC HEARING ON ANNEXATION PETITION BY WOODROW AND JOYCE LASSITER, I-1 INDUSTRIAL ZONING APPLICATION BY JAMES E MAIDES AND GREEN RECYCLING SOLUTIONS LLC'S FRANCHISE ORDINANCE

Commissioner Flowers recused himself from all discussion on the annexation petition, zone ordinance and franchise ordinance.

Mr. James Maides addressed the Board concerning the operation of a construction and demolition debris recycling and landfill facility known as Green Recycling Solutions, LLC. Town Planner Bob Clark and retired Planning Board Chairman Wayne Sayland

presented the report and recommendations of the Planning Board. In considering annexation, the Board saw that the location is remote from the town itself, and that any future annexation connected to the location would have to go through the petition process. The area was not zoned so a public meeting of the Planning Board was held on June 27, 2011. The Planning Board had to consider the potential uses for the area if it became zoned. They also had to consider what is in the area. This area is a remote location surrounded by woodland and forest with only a small portion being connected to Highway 17 and some homes. The traffic impact was another consideration. The Planning Board found the traffic situation consistent with local plans. The Planning Board voted to recommend approval of the conditional use permit, subject to the property being annexed, zoned I-1 Industrial District, and with conditions with a vote of 3-0 with one member abstaining. *(The report outlining the Planning Board recommendations and conditions is attached.)*

Commissioner Baker made a motion to exit the public hearing with Commissioner Brown seconding. Motion carried unanimously with Commissioner Flowers recused.

The regular meeting resumed at 7:29 p.m.

Commissioner Ryan made a motion to adopt an ordinance to extend the corporate limits of the Town of Maysville, North Carolina. Commissioner Baker seconded the motion and motion carried unanimously with Commissioner Flowers recused. *(Copy of Ordinance No. 2011-003 is attached hereto.)*

Commissioner Ryan made a motion to adopt an ordinance to amend the official zoning map of the Town of Maysville to apply I-1 industrial zoning to 58.2+- acres of annexed property located on the west side of U.S. Highway 17, approximately 1.4 miles north of Old White Oak River Road with Commissioner Baker seconding. Motion carried unanimously with Commissioner Flowers recused. *(Copy of Ordinance No. 2011-004 is attached hereto.)*

Commissioner Ryan made a motion to leave the regular Board session to go into a Quasi-Judicial Hearing on James E. Maides conditional use permit application with Commissioner Baker seconding. Motion carried unanimously with Commissioner Flowers recused.

The meeting moved into the Quasi-Judicial Hearing at 7:31 p.m.

QUASI-JUDICIAL HEARING ON JAMES E MAIDES CONDITIONAL USE PERMIT APPLICATION

Town Attorney Beth Faleris explained to the Board that the Quasi-Judicial hearing on the conditional use permit would have those witnesses providing information on the business in question sworn in as in a court of law. In the absence of a Zoning Board of Adjustment, the Board of Commissioners would serve as "Judge" over the proceedings.

The Attorney for James E Maides/Green Recycling Solutions LLC was Mr. Keith Johnson, who directed questions to the witnesses. Witnesses sworn in were John Parker of Parker and Associates of Jacksonville, NC, an engineering and consulting firm; Dave Wasella, a registered professional engineer from Charlotte, NC who will be the Sr. engineer for the recycling center and Richard Howard of Metal Tech Systems, a designer of solid waste recycling center facilities.

The witnesses gave the definition and workings of a C&D Landfill and Recycling Center. C&D stands for construction and demolition and deals only with that waste that is connected to the construction and/or demolition of a structure. No household waste will be taken into the facility. It would include vegetative yard debris. All waste will be delivered to the recycling center first. There the waste will be spread and inspected to identify and take out inappropriate waste to be delivered to the correct facility. The screening device is semi-automatic and the recovery rate for recycled materials is from 60-93%. There are very few of these unique facilities where landfill and recycling are performed at the same location within the state of North Carolina. Those existing facilities include Raleigh, Concord and Winston-Salem. These landfills serve as waste reduction projects. The facilities do not impact wetlands, endangered species or historical areas. The landfill will be at least four feet above the water table. Layered waste ten to twelve feet high would be covered with soil. Rain water is collected and tested to determine if treatment is necessary. A two hundred feet undisturbed buffer will be developed. No clear cutting of the area surrounding the facility will be done. Upon performing traffic analysis and review, it was determined that no further improvements should be made other than the proposed turn lanes on Highway 17 from either direction. The noise from the equipment meets OSHA regulations, although a noise decibel level could not be given. There have been no major catastrophes from the operations of these facilities. Evidence presented during these proceedings included Exhibit #1: the Site Map: showing the feet above sea level, that existing surrounding trees are above the proposed height and that the distance from the facility to the nearest home is 1,777 feet; Exhibit #2: a digital map showing the dimensions of the facility and location of the wooded area showing vegetation that will serve as a buffer; Exhibit #3: a Traffic Analysis and Review conducted by Ramey Kemp & Associates and Exhibit #4, the franchise agreement. Mr. Johnson made a motion to have the Board accept Exhibits 1-4.

Commissioner Ryan made a motion to accept Exhibits 1-4 with Commissioner Baker seconding. Motion passed unanimously with Commissioner Flowers recused.

After the evidence was presented, **Commissioner Ryan made a motion to close the evidentiary phase of the hearing with Commissioner Brown seconding. Motion carried unanimously with Commissioner Flowers recused.**

Ms. Faleris explained the state requirements considering the general findings for conditional use.

#1. Commissioner Ryan made a motion to find that the use will not materially endanger the public health or safety, if located where proposed and developed according to the plan submitted and approved. Commissioner Brown seconded and the motion passed unanimously with Commissioner Flowers recused.

#2. Commissioner Ryan made a motion to find that the applicant has met all the requirements and specifications of the Town of Maysville Zoning Ordinance regarding Conditional Use Permits within an I-1 Zoning Classification. Commissioner Brown seconded and motion passed unanimously with Commissioner Flowers recused.

#3. Commissioner Ryan made a motion that the use will not substantially injure the value of adjoining or abutting property, or that the use is a public necessity. Commissioner Brown seconded and motion passed unanimously with Commissioner Flowers recused.

#4. Commissioner Ryan made a motion that in granting the Conditional Use Permit, the use will be in conformity with the general plans for the development of the Town of Maysville. Commissioner Brown seconded and motion passed unanimously with Commissioner Flowers recused.

#5. Commissioner Ryan made a motion that the proposed use will not constitute a nuisance or hazard because of the number of persons who will attend or use such facility, vehicular movement, noise, waste or fume generation, drainage, type of physical activity or hazardous-by-products or other materials on site. Commissioner Brown seconded and motion passed unanimously with Commissioner Flowers recused.

#6. Commissioner Ryan made the motion that the proposed use will not be adversely affected by the existing uses. Commissioner Brown seconded and motion passed unanimously with Commissioner Flowers recused.

#7. Commissioner Ryan made a motion that the proposed use will be placed on a lot of sufficient size to satisfy the space requirements of said use. Commissioner Brown seconded and motion passed unanimously with Commissioner Flowers recused.

Commissioner Ryan made a motion to accept the conditional use permit application for James E. Maides. Commissioner Baker seconded and motion carried by unanimous vote.

Commissioner Ryan made a motion to move from the Quasi-Judicial phase of the meeting back to a regular meeting. Commissioner Baker seconded and motion passed unanimously.

SECOND READING OF THE FRANCHISE ORDINANCE FOR GREEN RECYCLING

SOLUTIONS, INC.

Town Attorney Beth Faleris presented the second reading of the Franchise Ordinance for Green Recycling Solutions, Inc.

Commissioner Ryan made a motion to adopt an ordinance granting a franchise for operation of a construction and demolition debris recycling and landfill facility to Green Recycling Solutions, LLC. Commissioner Baker seconded and motion passed unanimously with Commissioner Flowers recused. (Copy of Ordinance No. 2011-005 is attached hereto)

NEW BUSINESS

Appoint Planning Board Members

The current Planning Board members are Wayne Sayland, Daniel Murphy, Alexander Rhodes, Crafton Yancey, Jr., Jeffrey Morris and Connie Maides. Mr. Sayland is not seeking another term; Mr. Murphy's term is expiring and he needs to be reappointed; Mr. Rhodes is rumored to be moving; Mr. Yancey, Jr. has become a regular member whose term expires July, 2013; and Ms. Maides is resigning before her term is set to expire in July, 2012. Only one application had been received from Mr. Albert Bracey. The Board needs to reappoint Mr. Murphy, and appoint possibly two new and one alternate member.

Commissioner Ryan made a motion to reappoint Mr. Murphy to the Planning Board with Commissioner Brown seconding. Motion carried unanimously.

Commissioner Ryan made a motion to accept the application of Mr. Albert Bracey and appoint him to the Planning Board. Commissioner Brown seconded and motion carried unanimously.

Commissioner Ryan made a motion to extend the application period for Planning Board members till the next meeting to be held on July 21, 2011. Commissioner Brown seconded and the motion passed unanimously.

Request to declare 1990 Ford F-100 truck as surplus property

Commissioner Brown made a motion to declare the 1990 Ford F-100 truck as surplus property. Commissioner Chapman seconded and motion passed unanimously.

Water & Sewer Resolution

Mr. Hogg explained that the resolution is required for a wastewater grant.

Commissioner Ryan made a motion to adopt a water & sewer rate resolution with

Commissioner Brown seconding. Motion carried by unanimous vote. *(A copy of the resolution No. 2011-005 is attached hereto.)*

OLD BUSINESS

Update on NCSTEP Program

Commissioner Ryan reported that the Maysville NCSTEP program's next meeting will be held on Tuesday, July 12, 2011 from 6:30 through 8:30 p.m. at Maysville Elementary School. At that time the group will consider strategies that will make an impact on the project.

Update on Golden Leaf Foundation

Commissioner Brown informed the Board that fourteen proposals were submitted to the Golden Leaf Foundation from Jones County and that seven were chosen to be funded. Maysville had two proposals submitted but neither was chosen to receive the Foundation funds

POLICE COMMISSIONER'S REPORT

Chief Baugus presented a copy of his monthly report to each Commissioner. The report gave information on upcoming training officers will be attending. The Police Department has purchased a patrol vehicle from the Bridgeton Police Department with funds from asset seizures from drug trafficking. The department is continuing to work with other agencies on crime issues and is continuing with the Community Oriented Policy. On June 27, 2011 the department partnered with the state Highway Patrol and conducted a child's safety seat check point. Nineteen seats were given out and instructions given on how to properly fasten the seats and when to replace them.

MAINTENANCE REPORT/WATER SEWER REPORT

Commissioner Baker deferred to Interim Town Manager Hogg. Mr. Hogg reported that one wastewater blower was down leaving three to carry the load. These three were running well at this time. He is concerned that there are currently no guard rails or covers around open pits at the sewer plant. Mr. Hogg suggested that OSHA be called for a free inspection. The town would then have eighteen months to correct any issues discovered during the inspection. He also stated that a dumpster is needed at the same location for solid wastes. Addressing the I and I issue, he believes that continued smoke tests and inspections after rainy periods with follow-up repairs could make the current capacity sufficient for future expansion.

STREETS REPORT

Commissioner Chapman reported that stop signs are down near the school and at the corner behind town hall. He has had a request from a citizen for a speed bump on First

Street. Some pot holes have been filled. Commissioner Chapman stated that the trash issues on Second and Fourth Streets are better but still need attention.

ENVIRONMENT/BEAUTIFICATION REPORT

Commissioners Flowers reported that yards of the month for June included Jason Hawley of 606 Maple Avenue, Jonna Myers of 312 Mattocks Avenue, and Dianna Hawkins of 300 Mattocks Avenue. July's first yard of the month goes to Linda Ward of 706 Maple Avenue. Commissioner Flowers would like to see several ditch projects completed in the new fiscal year. He hopes that welcome signs on Highway 17 can either stay where they are or be relocated to other areas and the sign on Highway 58 that was taken down be relocated later.

RECREATION REPORT

Commissioner Brown reported that the July Fourth festivities conducted at Frost Park were awesome! He informed those attending that adult softball teams have been organized and games are currently being played at the park on Sunday afternoons.

PUBLIC COMMENT

Ms. Elaine White (801 B Street)

Ms. White stated that she had been complaining about ditches on her street and water up to her back door since 2006. She has been promised action during that time but the problem has not been addressed up until now.

Ms. Lois Simpson (115 White Oak River Road)

Ms. Simpson began by thanking town employees for their hard work and dedication. She is discouraged about the direction of the town and feels that the poor citizens will have to pay for the landfill/recycling center. Ms. Simpson believes that citations will be issued from this facility in the future.

Mr. Wayne Sayland (703 Mattocks Avenue)

Mr. Sayland is concerned about safety issues on his street. Trees are covering both the speed limit sign and the stop sign on Mattocks Avenue. Mr. Sayland has retired from the Planning Board and has attended his final meeting. He hopes that developers will not be allowed to change all the rules governing the town's zoning, annexation and franchise ordinances. Mr. Sayland would like for the town to enforce rules that concern clean-up and care for vacant properties.

Mr. Alan Ziemba (707 Seventh Street)

Mr. Ziemba had in his possession a copy of a work order from the water/sewer

department dated from back in May, 2011. He is concerned about water in his yard that has crossed the street. He feels that the ditches are sloped the wrong way and would like the problem to be addressed.

Fire Chief Michael Jordan

Chief Jordan had previously turned in a list of fire hydrants in town that needed attention and had marked the hydrants with the more serious problems. He asked about the status of the list. Interim Town Manager Tom Hogg replied that the list had not been addressed but he would see that it received immediate attention and that a report on the status of the list would be given at the regular meeting of the Board in August. Chief Jordan also inquired about the transfer of a vehicle from the Police Department to the Fire Department. He was told that further action would need to be taken by the Board before the transfer could be completed.

Commissioner Ryan made a motion for the Board to address the transfer of the car from the Police Department to the Fire Department at the workshop/special meeting to be held on July 21, 2011. Commissioner Brown seconded the motion and the motion carried by unanimous decision.

This concluded the public comment session.

Commissioner Ryan motioned that the regular meeting go into closed session to discuss personnel issues. Commissioner Brown seconded and the motion passed by unanimous vote. The regular meeting ended at 9:25 p.m.

As the closed session came to an end at 9:48, ***Commissioner Ryan motioned that the meeting go back into regular session. Commissioner Brown seconded and the motion passed unanimously.***

Commissioner Baker then moved that the meeting adjourn with Commissioner Brown seconding. Motion passed unanimously.

The meeting adjourned at 9:48 p.m.

These minutes were prepared by

Assistant Town Clerk, Lisa Stolar

*Executed Franchise and Host Agreement between Town of
Maysville and Green Recycling Solutions LLC
July 7, 2011*

**THE TOWN OF MAYSVILLE
AND
GREEN RECYCLING SOLUTIONS LLC**

**FRANCHISE AND HOST AGREEMENT
FOR
CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING
AND LANDFILL FACILITY**

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**FRANCHISE AND HOST AGREEMENT
FOR
CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING
AND LANDFILL FACILITY**

This **FRANCHISE AND HOST AGREEMENT FOR A CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING AND LANDFILL FACILITY** (the "Agreement") is made and entered into on this the 7th day of July, 2011, by and between **GREEN RECYCLING SOLUTIONS LLC** (the "Company"), and **THE TOWN OF MAYSVILLE**, a North Carolina municipal corporation subdivision of the State of North Carolina (the "Town"), as governed by the **TOWN OF MAYSVILLE BOARD OF COMMISSIONERS** (the "Board").

Recitals

WHEREAS, pursuant to N.C.G.S. §130A-294 (Solid Waste Management Program); §160A-76 (Franchises); §160A-174 (General Ordinance-Making Power); §160A-194 (Regulating and Licensing Businesses, Trades, etc.); and §160A-319 (Utility Franchises); the Town of Maysville has the authority to contract for, and a limited authority to regulate the storage, collection, transportation, use, disposal, and other disposition of solid wastes, including, but not limited to, Construction and Demolition debris, Inert Debris, Land Clearing Debris, and Yard Waste, within its boundaries; and

WHEREAS, the Town has the specific authority pursuant to N.C.G.S. §160A-319 to grant franchises for construction and operation of solid waste collection and disposal systems and facilities within its municipal corporate limits; and

WHEREAS, on December 2, 2010, the Town Board adopted a Franchise Ordinance for Construction Debris Landfills, by which any person desiring to construct

and operate a Construction and Demolition Landfill in the Town's corporate limits must first obtain a franchise for the operation from the Town; and

WHEREAS, the Company has applied for such a franchise for a construction and demolition debris recycling and landfill facility on the Site, and submitted all requisite materials in support of that application; and which application was conditionally granted by the Town Board upon the second reading of the Franchise Ordinance on December 2, 2010.

WHEREAS, the Company has shown that it has the financial capability to construct and operate the Facilities described in this Agreement; and

WHEREAS, in light of the Host Fees that will be paid to the Town, the waste recycling that will be conducted at the Facilities, and the disposal services that will be provided to the Town and its residents pursuant to this Agreement, the Town Board finds it is in the Town's best interest for the Company to be granted the requested franchise and operate its facilities at the site, subject to the terms of this Agreement, which shall protect the public health, welfare and safety of the Town's residents; and

WHEREAS, by granting such a franchise, the Town desires to grant the approval to Company required for the permitting by the North Carolina Department of Environment and Natural Resources (hereinafter "DENR") for the operation of a Construction and Demolition Recycling and Landfill Facility at the Site; and

WHEREAS, pursuant to N.C. Gen. Stat. § 130A-294, the Town Board of Commissioners held a public hearing regarding this franchise on July 7, 2011, and an ordinance for granting the requested franchise pursuant to the terms of this Agreement

has been read and approved at two regular meetings of the Town Board of Commissioners.

AGREEMENT

NOW THEREFORE, in consideration of the above premises, and for other good and valuable consideration, which the parties acknowledge is sufficient consideration, the parties, intending to be legally bound, agree as follows:

ARTICLE I

Definitions

1.01 For the purpose of this Agreement, the following words or phrases shall have the meanings ascribed thereto in this section unless the context indicates differently, and capitalized terms used herein without definition shall have the respective meanings ascribed thereto by relevant portions of Article 9 of Chapter 130A of the North Carolina General Statutes and rules promulgated pursuant thereto by DENR governing Solid Waste management.

To the extent that any definitions which are specifically set out herein conflict with the definitions as set out in Article 9 of Chapter 130A of the North Carolina General Statutes and rules promulgated pursuant thereto by DENR governing Solid Waste management, the definitions in Article 9 of Chapter 130A shall control.

“Acceptable Waste” - Waste which under the terms and conditions of hereof may be accepted, handled, recycled, and/or disposed at the Site, consisting of Construction and Demolition Waste or Debris, Inert Debris, Land Clearing Debris, and Yard Waste. Neither the Company nor the Town shall, without the written consent of the other party, amend the definition of “Acceptable Waste”.

“Agreement” - This Agreement as the same may be hereafter amended, supplemented or renewed.

“Board” - The Town of Maysville Board of Commissioners, as governing body of The Town of Maysville, North Carolina, and any successor to such function.

“CERCLA” - The Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.

“Company” - (as defined in the first paragraph above) or any successor entity.

“Construction or “Demolition Waste or Debris” - Solid waste resulting solely from construction, remodeling, repair, or demolitions operations on pavement, building or other structures, but does not include Inert Debris, Land Clearing Debris or Yard Debris.

“DENR” - The North Carolina Department of Environment and Natural Resources or any agents, boards or authorities appointed thereby for the purpose of regulating solid waste disposal or the permitting, construction, operation or closure of a Construction and Demolition Recycling and Landfill Facility.

“Environmental Laws” - All laws, regulations, rules, rulings, orders, decrees, notices, ordinances, resolutions, injunctions, demand letters or other authority (including without limitation CERCLA) of the United States of America or the State of North Carolina with respect to pollution, waste disposal, the protection of human health or the environment, or any substance which might create a hazard to public health and safety.

“Excluded Waste” - Any waste not listed in the definition of Acceptable Waste herein, and specifically including: all household waste, municipal solid waste, automobiles,

infectious waste such as biomedical waste, hospital waste, or other wastes which do not pass federal and state regulations for treatment of infectious waste prior to disposal, volatile, highly flammable, explosive waste material, or any other waste excluded by any applicable federal, state law or regulations or excluded by any of the terms and conditions of any permits, licenses or approvals obtained with respect to the operation of the Facilities, including any waste which is or contains Hazardous Waste (as defined by relevant portions of Article 9 of Chapter 130A of the North Carolina General Statutes and rules promulgated pursuant thereto by DENR) or radioactive materials.

“Facility” or “Facilities” - The Site and all improvements and fixtures at any time thereto, located on or used in connection with waste disposal operations conducted on the Site, which now or hereafter comprise, or are used or have the present capacity for future use in connection with, the acceptance, handling and recycling and/or disposal of Acceptable Waste and all appurtenances, rights, and privileges, at any time relating thereto; provided, however, this definition of Facilities specifically excludes personal property, as at any time determined under North Carolina law (including without limitation computers, software, telephone and other communication systems).

“Franchise Ordinance” – the Franchise Ordinance for Construction Debris Landfills enacted by the Town Board on December 2, 2010.

“Governmental Authority” - Any federal, state, county, municipal or other government, domestic or foreign, and any agency, authority, department, commission, bureau, board, court or other instrumentality thereof, having jurisdiction with respect to

the matter referenced in the provision wherein the term "Governmental Authority" appears.

"Hauler" - Any Person who collects or transports Acceptable Waste to the Site.

"Hazardous Substances" - As defined in CERCLA §101(14) and applicable regulations thereunder.

"Hazardous Waste" - solid waste which is defined as "Hazardous Waste" in the North Carolina Hazardous Waste and Minimization Act as the same may hereafter be amended, and regulations promulgated thereunder, and the Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq., as the same may hereafter be amended, and regulations promulgated thereunder.

"Inert Debris" - solid waste which consists solely of material that is virtually inert and that is likely to retain its physical and chemical structure under expected conditions of disposal.

"Land Clearing Debris" - solid waste which is generated solely from land-clearing activities.

"Landfill" - A facility for disposal of Construction and Demolition Waste or Debris, Inert Debris, and Land Clearing Debris, in a manner in accordance with the rules concerning Construction and Demolition Landfills adopted by the State of North Carolina and the Town of Maysville or any appropriate federal agency.

"Nearby Roads" - The stretch of Highway 17 starting one mile north of the drive into the Facilities and to the bridge over White Oak River coming into the Town to the south of the Facilities, the portion of White Oak River Road from the current Town

2.02 Host Fees.

- (a) The Company will pay to the Town a fee per ton (the "Host Fee Rate") for all Acceptable Waste that is accepted at the Site, except for any Acceptable Waste that is generated by the Town (and accepted at the Site pursuant to the provisions in paragraph 2.03 of this Agreement). The initial Host Fee Rate shall be \$2.00 per ton, and is based upon an assumption that the Gate Fees will initially be \$37 per ton. Thus, the initial Host Fee Rate will constitute 5.41% of the initial Gate Fees. The Host Fee Rate shall remain \$2.00 as long as the average Gate Fees is \$37 or less per ton, as measured over any quarter of the calendar year. If the average Gate Fees, as measured over any quarter of the calendar year, is more than \$37, then the Host Fee Rate shall be 5.41% of the average Gate Fees for that quarter. (For example, if the average Gate Fees for a quarter is \$40, then the Host Fee Rate would be \$2.16 per ton for that quarter.)
- (b) The Host Fees shall be paid quarterly, within thirty (30) days after the end of each calendar quarter (e.g., by April 30th for the 1st quarter of the calendar year) during which Acceptable Waste has been accepted at the Facilities. The payment shall be accompanied by a statement showing: (i) the total volume of waste accepted during the quarter, (ii) what the Gate Fees were through the quarter, and (iii) a computation of the average Gate Fees for the quarter.

2.03 **Reduced Tipping Fees for Town.**

- (a) The Company shall charge the Town \$2.00 per ton to accept, recycle and/or properly dispose of up to 120 tons per year of Acceptable Waste that is generated by the Town at any property owned or operated by the Town, and that is delivered to the Site by the Town or a Hauler under contract with the Town that is approved of in advance by the Company. The Company's customary Gate Fees in effect at the time shall apply to any such Acceptable Waste accepted at the Site that exceeds 120 tons per year.
- (b) These charges are intended to defray the current \$2.00 per ton state-collected landfill tax on solid waste. Accordingly, if the amount of that tax changes during the term of this Agreement, these per ton charges to the Town will also change so that they are always equivalent to the amount of that state-collected tax.

ARTICLE III

Representations and Warranties

3.01 **Representations and Warranties of Town.** The Town represents and warrants as follows:

- (a) The Town is (and will continue to be throughout the term hereof) validly existing as a municipal corporation in good standing under the laws of the State of North Carolina.
- (b) The Town has full power and authority to enter into this Agreement and to fully perform all of its duties and obligations hereunder pursuant to Chapter 160A, Article 16, Part 1, of the North Carolina General Statutes.

The Board has duly authorized the execution and delivery of this Agreement and Town's performance of all of its duties and obligations contained herein, and this Agreement constitutes a valid and legally binding obligation of the Town, enforceable in accordance with its terms, except to the extent that the enforceability thereof may hereafter be limited by judicial or other appropriate regulatory decree or order.

- (c) There is no action, suit, or proceeding pending or, to the best of Town's knowledge and belief, threatened against or affecting the Town, at law or in equity or before or by and federal, state, municipal, or other governmental department, commission, Board, bureau, agency or instrumentality wherein any decision, ruling or finding would adversely affect the transactions contemplated herein.
- (d) The Site has been properly annexed into the Town's corporate limits, and solid waste recycling and disposal are permissible uses on the Site pursuant to the Town's zoning ordinance.

3.02 **Representations and Warranties of the Company**. The Company represents and warrants as follows:

- (a) The Company has been duly incorporated and is (and will continue to be throughout the term hereof) validly existing in good standing under the laws of the State of North Carolina.
- (b) The Company has all requisite corporate power and authority to enter into and fully perform this Agreement. The Company's execution and delivery of this Agreement and the Company's performance of all of its

duties and obligations contained herein have been duly authorized by all necessary corporate action on the part of the Company and this Agreement constitutes a valid binding obligation of the Company, enforceable against the Company in accordance with its terms, except to the extent that the enforceability thereof may hereafter be limited by the exercise of judicial or other appropriate regulatory decree or order.

- (c) There is no action, suit or proceeding pending or, to the best knowledge and belief of the Company, threatened against or affecting the Company at law or in equity or before or by any federal, state, municipal, or other governmental department, commission, Board, bureau, agency or instrumentality wherein any decision, ruling or finding would adversely affect the transactions contemplated herein.
- (d) The Company in its negotiations with the Town and in all respects in regard to this Agreement has made no statements or representations which contain any untrue statement of a material fact or omits or fails to state a material fact necessary in order to make a statement in connection with this Agreement not misleading.

3.03 **Assurances**. Prior to any construction at the Site being implemented, the Company shall post all financial assurance mechanisms, as required by DENR, in order to secure the full and faithful performance of all of the Company's obligations under its permits for the Site, including any post-closure management and monitoring of the Site, with a copy of all such documents being provided to the Town.

ARTICLE IV

Grant of Franchise

4.01 No Expenditure of Funds by Town. The Company covenants and agrees that no term, provision or condition of this Agreement, and no other written or oral agreement or understanding of any nature whatsoever, shall operate, be construed, or interpreted as creating a pledge of the faith and credit of the Town within the meaning of any constitutional debt limitation. No provision of this Agreement shall be construed or interpreted as delegating governmental powers nor as a donation or a lending of the credit of the Town within the meaning of the state constitution. This Agreement shall not directly, indirectly or contingently obligate the Town to make any payments beyond those appropriated in the Town's sole discretion for any fiscal year in which this Agreement shall be in effect. No provision of this Agreement shall be construed to pledge or to create a lien on any class or source of the Town's moneys, nor shall any provision of the Agreement restrict to any extent prohibited by law, any action or right of action on the part of any future Town governing body. To the extent of any conflict between this section and any other provision of this Agreement, this section shall take priority.

4.02 Franchise.

- (a) The Town hereby grants to the Company during the term set forth below in Section 4.03 a franchise, privilege and right to operate the Facilities necessary, to accept, manage, recycle and/or dispose of Acceptable Waste on the Site, solely at the Company's expense, subject to operating permit approval from DENR, and the provision of this Agreement.

- (b) During the term of this Agreement, the Town will not grant to any other person any right, privilege or franchise to accept, recycle and/or disposal of Acceptable Wastes. The Town reserves the right and privilege, at its sole discretion, to exercise itself or grant to any other Person any rights, privileges or franchises with respect to any other solid waste collection services in or about the Town.

4.03 **Term of Franchise.** The term of the franchise shall begin when the Company has received the necessary operating approvals from DENR and is ready to commence accepting Acceptable Waste at the Site, which shall be memorialized by a letter from the Company to the Town. The franchise shall remain in full force and effect for a period of 30 years from that date.

4.04 **Service Area and Population to Be Served.**

- (a) The Service Area for the Facilities shall be Jones County and all adjoining counties to Jones County. All Persons residing or operating within the Service Area shall be served by the Facilities. Waste received from any other area shall require prior Town approval.
- (b) In the event the Company's permitted Service Area is reduced, altered or enlarged by proper procedure in accord with applicable law, whether by DENR, EPA, or other regulatory or Governmental Authority besides the Town, or by a Court of competent jurisdiction, then, in such event, the term Service Area as used in this Agreement shall be redefined to such reduced, altered or enlarged area. In the event DENR alters or amends its regulation concerning Service Area permits, or in the event such

regulation is found to be unenforceable or unconstitutional by a Court of competent jurisdiction, and all appeals from said Court related to said regulation have been exhausted, then, in either of such events, the term Service Area as used in this Agreement shall be redefined in accord with such Court's finding. Acceptance of waste from outside of the Service Area, including any waste trans-shipped or transferred from a location outside of the Service Area, through a location in the Service Area, shall constitute an Event of Default under this Agreement, in accordance with Article VIII hereof. The Company will take all reasonable steps to assure that this type of trans-shipment or transfer does not occur.

4.05 **Disposal Volumes and Projected Useful Life of Landfill.** The total volume of Acceptable Waste that can be accepted at the Landfill during the term of this Agreement shall not exceed 413,378 tons and the daily peak volume shall not exceed 200 tons. The projected useful life of the Landfill is 30 years.

ARTICLE V

Facility Plan

5.01 **Facility Plan.** The Construction and Demolition Debris Recycling and Landfill Facility Plan (the "Facility Plan"), and all attachments thereto, prepared by ERM NC, Inc., dated May 27, 2011, a copy of which is attached as Exhibit B, is incorporated by reference into this Agreement. The Facility Plan includes all of the items for such a plan prescribed by Section 3 of the Franchise Ordinance.

ARTICLE VI

Operation of the Facilities

6.01 General.

- (a) The Company will make regular inspections on a reasonable schedule of a sampling of trucks to assure that only Acceptable Waste is disposed of at the Site.
- (b) The Company shall maintain a reliable electronic scale at the Facilities for measuring the waste accepted. The Company shall measure the quantities of Acceptable Waste delivered to the Facilities for acceptance, handling or disposal by scale ton based on weight slips for each load weighed. Such weight slips shall show the gross weight of the truck, including that of the Acceptable Waste, the tare weight of the truck, and the net weight of the Acceptable Waste. Weight slip and minimum load slips obtained when the Acceptable Waste is received and weighed at the Facilities shall be used as the basis of payment. All weight tickets and summaries of same shall be maintained at the Facilities and shall be available for inspection by the Town upon request.
- (c) The Company shall determine and prominently display at the Facilities the standard rates, fees and charges for accepting, handling and disposing of Acceptable Waste at the Facilities (although the Company reserves the right to charge alternative fees, such as a volume discount in limited circumstances or a surcharge for an unusual load) and the dates and hours of operation of the Facilities. The daily hours of operation during which the Company will accept and dispose of

Acceptable Waste shall be from 7:00 a.m. to 6:00 p.m. on Monday through Friday of each week, and from 7:00 a.m. to 6:00 p.m. on Saturday, excluding official holidays, which shall include New Year's Day, Independence Day, Thanksgiving Day and Christmas Day, unless otherwise mutually agreed to from time to time between the Company and the Town. No operations shall be allowed on Sundays, except under emergency conditions.

- (d) The Town makes no representation to the Company or to any individual, corporation or any Federal or State agency or regulators and accepts no responsibility for the design, construction or operation of the Facilities. The Company is solely responsible for all matters regarding the operation of Facilities at the Site.

6.02 **Management Personnel.**

- (a) The Company shall employ, maintain and assign qualified managerial personnel at the Site who have suitable technical, engineering and environmental training, education and experience which is appropriate and as may be required to assure the safe, proper and efficient maintenance and operation of the Facilities.
- (b) The Company shall file with the Town the names, addresses and telephone numbers of its managerial personnel who can be contacted at any time, and shall be authorized and equipped to respond to reasonable requests of the Town.

6.03 **Litter and Dust Control.**

- (a) The Company shall reasonably maintain and keep free of litter and other foreign materials all areas within the Facilities. The Company shall use all reasonable efforts to maintain the Facilities, adjacent properties of the Company and the rights-of-ways of roads leading into and out of the Facilities in a clean, vector-free, and sanitary condition, in accordance with best management practices in the industry with respect to Construction and Demolition Waste Facilities, and in compliance with DENR regulations, and shall promptly redress and abate any public nuisance as adjudicated by a court of competent jurisdiction created by the Facilities. The Company shall inspect the rights-of-ways of all roads leading into and out of the Facilities on a weekly basis and collect and dispose of all litter on such roads. The Company shall require that all trucks bringing Construction and Demolition Waste to the Facilities for disposal be contained or covered, or have their load secured, as might be appropriate, while on the site. After an initial period wherein warning shall be posted, any uncovered or unsecured loads will incur a surcharge based on a graduated scale that reflects the number of violations incurred by the Hauler.
- (b) The Company shall furnish, maintain and use such dust control equipment as may be reasonable and necessary to protect employees, the public and adjacent properties and to minimize the creation of dust at the Facilities.

- (c) The Company shall use all reasonable measures to contain windblown waste, such as paper and other light debris, and shall collect and properly dispose of all windblown waste within compliance of DENR regulations.
- (d) To the extent that the Company fails to keep the Nearby Roads reasonably free of litter and debris due to operations from the Site the Town may issue a written request to the Company to clean up the affected portions of NC Highway 17.

6.04 **Signs and Traffic.** The Company shall provide and maintain at the Site signs displaying rules applicable to the Facilities in a clean and readable condition. The Company shall also provide and maintain signs at the Facilities and leading into and out of the Facilities on public roads for the convenience of operators of vehicles using the Facilities to ensure safe and efficient traffic flow.

6.05 **Equipment for the Company.** The Company will furnish, at its expense, all labor, tools, equipment and power for Acceptable Waste disposal operations at the Facilities. The Company shall operate the Facilities for the disposal of Acceptable Waste according to generally accepted landfill standards for the operation of a Construction and Demolition Debris Recycling Landfill Facility under the supervision of qualified Construction and Demolition Debris Recycling Landfill Facility personnel.

6.06 **Compliance.** The Company agrees that, in the operation of the Facilities, it will comply, in all material respects, with any and all federal and state laws applicable to the Company concerning the operation of the Facilities for the disposal of Construction

and Demolition Waste, subject to the Company's right to contest in good faith the interpretation, application and enforcement of any such laws.

6.07 **Maintain Permits.** The Company will maintain all permits issued in its name and required to operate the Facilities.

6.08 **Inspection of Waste.** Town's personnel may visually inspect any Acceptable Waste at the gate or at the working face of the applicable cell before any vehicle is allowed to leave the Site. In the event that the Town or the Company detects any Excluded Waste, the party delivering such waste shall be responsible for its removal and all cost associated with its improper delivery and removal. The Company shall have the right to refuse to accept any Acceptable Waste delivered by parties who have knowingly or have repeatedly violated or attempted to violate operating rules. The Company shall refer to the proper authorities any Person who appears to be acting in violation of any law, rule or regulation. The Company or Town may request from the driver of each vehicle entering the Facilities a description of the Acceptable Waste contained by the vehicle in order to ascertain whether any Excluded Waste is contained by the vehicle. Any Excluded Waste which may escape initial screening and is deposited at the Facilities shall be removed immediately by the driver of the vehicle, or by the Company, with the cost of removal charged to the Hauler or owner of the vehicle involved. Nothing in this Agreement shall be construed as prohibiting the Company from taking appropriate action to bar any Person or vehicle owner who has delivered Excluded Waste to the Facilities.

6.09 **Application of Cover Material.** All Acceptable Waste shall be compacted and covered after it is deposited at the working face or required under the operating

permit(s) issued by DENR. Cover material shall be applied as required by applicable regulations, and permit terms and conditions, reasonably necessary to avoid health and environmental problems.

6.10 **Records**. The Company shall create and maintain weight tickets, records, and other documentation of the dates, types, weights and sources of Acceptable Waste disposed of at the Site. This documentation shall include information as to whether any Acceptable Waste received was generated within or outside of the Town. The Company shall devise and use a recordkeeping procedure that is compatible with this Agreement and which will allow for a reasonable audit by the Town, at the Town's expense, and maintain such records in accordance with generally accepted accounting principles for the term of this Agreement.

ARTICLE VII

Indemnity

7.01 **Indemnity by the Company**. Company agrees to indemnify and hold harmless the Town, its parent, affiliates, subsidiaries, successors and assigns, members of the Town Board, and Town employees (all hereinafter in this Article referred to collectively as the "Town") in respect of any and all losses incurred by the Town in connection with each and all of the following:

- (1) any breach of any material representation or obligation of Company contained herein; and
- (2) any loss directly related to the construction and operation of the Facilities, including but not limited to any loss arising from or related to any hauling, disposal or release of Excluded Waste or Hazardous Substances or Wastes.

- (b) The covenants of indemnity by the Company contained in this Section with respect to any event or occurrence arising on or before termination (for any reason) of this Agreement shall survive termination of this Agreement, and shall remain in full force and effect until post-closure is completed and approved by DENR.

7.02 **Indemnity by the Town.** Town agrees to indemnify and hold harmless Company, its parent, affiliates, subsidiaries, successors and assigns in respect of any and all losses incurred by Company as a result of any breach of any material representation or obligation of Town contained herein.

ARTICLE VIII

Covenants of the Company

8.01 **Compliance with Environmental Laws.**

- (a) The Company shall in all material respects comply with all Environmental Laws and all other applicable laws, rules and regulations applicable to the Facilities of any state or federal Governmental Authority presently having recognized and established jurisdiction with respect thereto, and shall maintain in full force and effect all required approvals, authorizations, franchises, licenses and permits necessary for the Facilities, and pay all costs and expenses in connection with the foregoing.
- (b) The Company shall not knowingly permit any other Person to bring any Hazardous Wastes onto the Site and shall (1) if any release of Hazardous Substances or disposal of Hazardous Wastes occurs on the Site, take the following actions to the extent deemed necessary or

advisable in the Company's reasonable discretion or so ordered by a court of competent jurisdiction: (i) immediately remove or properly dispose of the same in accordance with applicable Environmental Laws; (ii) cause the Site and the operations conducted thereon (including all operations conducted thereon by other persons) to comply with all Environmental Laws; (iii) undertake any and all preventive, investigatory and remedial action (including emergency response, removal, clean up, containment and other remedial action) that is (A) required by any applicable Environmental Law or (B) necessary to prevent or minimize any property damage (including damage to any of the Site), personal injury, or harm to the environment, or the threat of any such damage or injury, by releases of or exposure to Hazardous Substances in connection with the Site or the operations on the Site; (2) promptly give notice to the Town in writing if the Company should become aware of (i) any spill, release or disposal of any Hazardous Substances, or imminent threat thereof, at the Site, in connection with the operations on the Site, (ii) any violation of Environmental Laws regarding the Site or operations on the Site, (iii) any disposal of Hazardous Waste at the Site, and (iv) any investigation, claim or threatened claim under any Environmental Law, or any notice of violation under any Environmental Law, involving the Company or the Site; and (3) deliver to the Town, at the Town's request, copies of any and all documents in the Company's possession or to which the Company has access relating to Hazardous Substances,

Hazardous Wastes, or Environmental Laws and the Site, and the operations on the Site, including without limitation laboratory analyses, Site assessments or studies, environmental audit reports and other environmental studies and reports.

- (c) If the Town at any time reasonably believes that the Company, and/or its agents or employees, is not materially complying with all applicable Environmental Laws or the requirements hereof regarding the same, or that a release of Hazardous Substances has occurred on or under the Site, the Town may, at its cost and expense, cause an environmental audit or Site assessment to be made with respect to the matters of concern to the Town. If it is determined by this environmental audit or Site assessment that the Company has been in material compliance with all applicable environmental laws and regulations, the Town shall not be reimbursed for these costs. If it is determined that the Company is not in material compliance with one or more environmental laws or regulations, the Company shall reimburse the Town for such costs within ten (10) business days from the date the Town serves on the Company a demand for such reimbursement. In no event shall the cost of such audits for which the Company is responsible exceed one thousand dollars (\$1000) per audit.
- (d) The Company shall furnish a bond or other financial assurances as may be required by the State of North Carolina in the permitting process in such amount, terms and conditions as will be acceptable to the State of

North Carolina. The State of North Carolina shall be the sole determining governmental agency as to the sufficiency of the bond or other financial assurances. The Town shall be provided with a copy of any such bond or other financial assurance.

8.02 **Provisions of Annual Financial Records and Operating Data with Respect to the Facilities, and Audit.**

- (a) The Company shall furnish to the Town, within ninety (90) days after the end of the calendar year, operating reports with respect to the Facilities, including the amount of Acceptable Waste received at the Facilities and the areas from which wastes are received. The annual report submitted to DENR will be sufficient to meet this requirement.
- (b) The Company shall also furnish to the Town, forthwith upon request thereby, all other information reasonably requested by the Town with respect to verification of compliance by the Company with this Agreement within thirty (30) days.
- (c) The Company shall furnish to the Town, upon request, copies of all test and monitoring results, regulatory inspection reports, volume reports, waste certifications, regulatory correspondence, as-built drawings, and other documents pertinent to monitoring the operation of the Facilities or to providing to regulatory authorities any reports or information required to be submitted by the Town.
- (d) **Audit.** The Town shall also be entitled on an annual basis, and upon reasonable advance written notice of at least two (2) weeks to the

Company, to audit, at the Town's expense, the Company's records directly relating to the types and volume of Acceptable Waste being disposed of at the Site. Such audit, however, shall not interfere with any operations of the Facilities.

8.03 **Insurance.**

- (a) For and during the period in which the Facilities are open for operation, the Company will procure and continuously maintain in effect the following insurance, in generally recognized responsible insurance companies, qualified under the laws of North Carolina to assume the respective risks undertaken, and shall pay as the same become due all premiums with respect thereto:
 - (1) Commercial General Liability insurance, with bodily injury and property damage coverage provided with a combined single limit of \$5,000,000 per occurrence and \$5,000,000 aggregate.
 - (2) Commercial automobile liability insurance providing bodily injury and property damage liability on an accident basis. The policy shall protect the Company against all liability arising out of the use of automotive vehicles, both private, passenger, and commercial, regardless of whether such vehicles shall be owned by the Company, owned by others, or hired. Limits of liability for commercial automobile liability insurance shall be \$1,000,000 per accident with \$1,000,000 aggregate.

- (b) The Company will not amend or cancel any such policy without having provided 30 days prior written notice to the Town.
- (c) Upon reasonable request by the Town, the Company shall furnish to the Town certificates evidencing compliance with this Section.

8.04 **Inspection.** The Company shall permit the Town's designated personnel or agents to enter upon, examine and inspect the Facilities during all operating business hours. Other Town representatives, and guests of the Town may visit the Site and inspect the Facilities upon twenty-four (24) hours advance notice to the Company. The Company shall have the right to prior approval before any such guest enters the Site. All visitors shall be required to comply with any health and safety measures required by the Company, and may be asked to sign an appropriate waiver of liability and agreement to comply with such measures. The Company shall maintain and make available upon request by the Town documentation concerning any inspections by any Governmental Authority. The Town shall not, in the exercise of its rights hereunder, interfere with the operation of the Facilities, which is the sole responsibility of the Company.

8.05 **No Discrimination.** The Company shall not discriminate against any person because of race, sex, age, creed, color, religion or national origin.

8.06 **Closure and Post-Closure of the Facilities.** The Company shall be obligated to provide for, at the Company's sole cost and expense, the closure and the post-closure maintenance of the Facilities in compliance with applicable state and federal laws and regulations as then in effect after the Company shall have ceased accepting waste at the Facilities, including the State requirements for financial assurance. Upon

cessation of operation of the Facilities and commencement of post-closure of the Facilities, the Company shall give written notice of intent to commence post-closure of the Facilities and, if and when requested by the Town, submit any plans required by law for the closure and post-closure maintenance program to the Town and shall include therewith the provision for payment of all costs of closure, post-closure maintenance, and any remedial action required with respect thereto. The Company shall provide copies of all certifications of closure or post-closure as received.

8.07 **Assurances**. Prior to beginning Acceptable Waste disposal operations at the Site, the Company shall post any financial assurance mechanisms required by DENR.

ARTICLE IX

Events of Default, Remedies

9.01 **Events of Default for Company**.

(a) **Material Default.** Any one or more of the following shall constitute an event of default (an "Event of Default"), if the same has not been fully cured and corrected within either thirty (30) days after written notification from the Town specifying such Event of Default and requesting that it be cured and corrected, or the time specified by DENR in any Notice of Violation or other notice arising from the same events or conditions, whichever is greater:

- (1) **Covenant Default or Misrepresentation.** Failure by the Company to observe and perform any material covenant, agreement or warranty under this Agreement.
- (2) **Events of Bankruptcy.** The dissolution or liquidation of the Company or the filing by the Company of a voluntary petition in

bankruptcy, or failure by the Company promptly to lift any execution, garnishment or attachment of such consequence as will impair operations of the Company, the seeking of or consenting to or acquiescing by the Company in the appointment of a receiver of all or substantially all property thereof or of the Facilities, the initiation of any state insolvency proceedings, or the adjudication of the Company as a bankrupt, or any assignment by the Company for the benefit of creditors thereof, or the entry by the Company into an agreement of composition with creditors, or if a petition or answer is filed by the Company proposing the adjudication of the Company as a bankrupt or debt readjustment under any present or future federal bankruptcy code or any similar federal or state law in any court, or if any such petition or answer is filed by any other person and such petition or answer shall not be stayed or dismissed within ninety (90) days.

- (b) **Extension of a Cure Period.** If, due to the nature of the Event of Default, more time than what is allowed under paragraph 9.01(a) of this Agreement is required for the Company to correct the default, and the Town determines the Company to be involved in a good faith effort to correct the default in a timely manner, the Town, in its sole discretion, may by vote of the Board choose to extend the time period allowed for correction of the default. In the case of bankruptcy, there shall be no extension of the cure period.

9.02 **Remedies**. In addition to the remedies set forth in other sections, upon the occurrence of any Event of Default the Town may take any one or more of the following actions and remedies, which shall be cumulative and not exclusive:

- (a) Terminate this Agreement as of any date which the Town may select, provided said date is at least thirty (30) days after the applicable cure period;
- (b) Cure the breach or default at the expense of the Company;
- (c) Have recourse to any other right or remedy to which the Town may be entitled by law or at equity, including, but not limited to, the right for all damage or loss suffered as a result of such termination.

9.03 **Waiver**. The waiver of any breach of this Agreement by the Town shall not constitute a continuing waiver or a waiver of any subsequent breach, either of the same or another provision of this Agreement. Any default on the part of the Company shall be construed as continuous, and the Town may exercise every right and power under the Agreement at any time during the continuance of such default, or upon the occurrence of any subsequent default. The delay or omission by the Town to exercise any right or power provided by this Agreement shall not constitute a waiver of such right or power, or acquiescence in any default on the part of the Company.

9.04 **Remedies of the Company**. In the event the Town fails to observe or perform any covenant or agreement under this Agreement, the Company shall have all rights and remedies available at law or equity therefor, and the Company shall provide to the Town all rights to written notice and opportunity to cure said failure.

9.05 **Force Majeure**. Notwithstanding any other provision in this Agreement, the parties shall have no liability concerning the terms related to the performance of the present Agreement in case of delay, failure to perform or frustration of Agreement caused by the occurrence of one or more force majeure events. The party claiming such force majeure circumstances must notify the other party about such circumstances no later than five (5) business days from the occurrence of the force majeure event pursuant to Section 9.03 of this Agreement. Within ten (10) business days from the occurrence of the force majeure event the informing party must submit confirmation in written form about the event. In case the above confirmations are not received in accordance with the above requirements and terms, the party cannot be relieved from liabilities. Identically and based on the same terms, the party, referring to force majeure, must notify the other party about the termination of the event. The term for execution of the Agreement obligations is extended by the time period of existence of the force majeure event, preventing the performance of the Agreement. In case of a force majeure event, existing more than ninety (90) days, the other party can terminate the Agreement, partially or completely. The Party shall be relieved of any and all liability in the event of any force majeure event. A force majeure event shall be any condition beyond either party's control. These events shall include, but not be limited to: weather, acts of God, riots, civil commotion, embargoes, wars, hostilities, disturbances, unsettled international conditions, and any strike, work stoppage, slow down, lock-out or any other labor-related dispute involving or affecting the party's duties and obligations pursuant to the Agreement. The Company will take

all necessary management steps to reduce or eliminate any lost days of operation due to labor-related disputes as described above.

ARTICLE X

Provisions of General Application

10.01 Not a Joint Venture. The Town is not for any purpose a partner or joint venture of the Company in the permitting, construction or operation of the Facilities. The Town's issuance of a franchise to the Company and entry in this Agreement shall not imply any responsibility or liability for the Facilities or the Site for the Town. Neither the Town nor the Company has any authority to assume or create any obligation or responsibility whatsoever, express or implied, on behalf of or in the name of the other or to bind the other in any manner.

10.02 Town Powers. The Company agrees that nothing contained herein shall operate or be construed to deny, abrogate, limit or restrict the lawful exercise by the Town of any power or authority under the constitution and laws of the State of North Carolina as at any time in effect.

10.03 No Prior Agreements. Except for applicable federal, state and local laws, ordinances and regulations, the parties shall look solely to this Agreement for definition and determination of all their respective rights, liabilities, obligations and responsibilities relating to the Facilities and the Site and the matters herein contained and for this Agreement to completely and fully supersede any other agreement, communication or understanding, whether written or oral, among the Town and the Company or any affiliates of any thereof, relating to the Site and the Facilities and the respective rights and obligations of the Town and the Company with respect thereto.

10.06 **Successors and Assigns.** Whenever in this Agreement any party hereto is referenced, such reference shall be deemed to include the successors and assigns of such party, and all covenants, promises and agreements by or on behalf of the Company which are contained in this Agreement shall bind the respective successors and assigns of the Company and shall inure to the benefit of the successors and assigns of the Town.

10.07 **Governing Law.** This Agreement and any other documents executed in connection herewith or related hereto shall be construed in accordance with and governed by the laws of the State of North Carolina.

10.08 **Modification, Amendments, Notice.** No modification, amendment or waiver of any provision of this Agreement and no consent to any departure by the Company therefrom shall be effective unless the same shall be in writing and signed by the Town and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given.

10.09 **Severability.** Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof or thereof or affecting the validity or enforceability of such provision in any other jurisdiction.

10.10 **Dispute Resolution.** Any dispute between the parties regarding their respective rights and obligations under this Agreement that they are unable to resolve among themselves shall be resolved in binding arbitration, before a single arbitrator,

pursuant to the rules of the American Arbitration Association, or any other arbitration rules mutually agreed to by the parties.

10.11 **Counterparts**. This Agreement may be executed in two counterparts, each of which shall constitute an original, but when taken together shall constitute but one agreement.

10.12 **Jurisdiction, Service**. The Company hereby consents to the exclusive jurisdiction of any Jones County state court or any federal court located within the State of North Carolina. Nothing herein shall limit the rights of the parties to have access to the federal courts of the Eastern District of North Carolina if jurisdiction of such courts is otherwise proper. To the extent permitted by applicable law, the Company waives any objection to venue of any action instituted hereunder.

10.13 **Article and Section Titles**. The article and section titles contained in this Agreement are and shall be without substantive meaning or content of any kind whatsoever and are not a part of the Agreement between the parties hereto.

10.14 **Conditional Performance**. The Town specifically agrees that the Company's obligations hereunder are wholly conditional upon: (i) receiving all necessary and desirable permits for the Facilities in final and unappealable form; and (ii) the consummation of all transactions pursuant to which the Company will acquire fee simple title to the Site.

10.15 **Exhibits**. Exhibits A-B are attached hereto and are incorporated herein and made a part hereof by reference.

IN WITNESS WHEREOF, the Town and the Company have each caused this Agreement to be executed in its name and on its behalf by officers thereof duly authorized on this the 7th day of July, 2011.

Town:

THE TOWN OF MAYSVILLE, NORTH CAROLINA

[SEAL]

By: James D. Harper
as Mayor of the Town of Maysville Town Board
of Commissioners

Attest:

Dale Angus-McCulloch
Clerk, Town Board of Commissioners

This Agreement has been preaudited in the manner required by the Local Government Budget and Fiscal Control Act.

By: Dale Angus-McCulloch
Finance Officer, The Town of Maysville

Company:

GREEN RECYCLING SOLUTIONS LLC

[SEAL]

By: James E. Maides
Mr. James Maides, Managing Member

EXHIBIT A TO FRANCHISE AND HOST AGREEMENT

LEGAL DESCRIPTION OF SITE

PARKER & ASSOCIATES, INC.
Consulting Engineers - Land Surveyors - Land Planners

306 New Bridge Street - P.O. Box 976
Jacksonville, North Carolina 28541-0976
Phone (910) 455-2414 - Fax (910) 455-3441
Firm License Number F-0108



ANNEXATION DESCRIPTION
May 18, 2011

M & M Land Development, Inc.
Tract on US Highway 17 North, Jones County C & D Landfill
White Oak Township, Jones County, NC

A certain tract of land on the West side of US Highway 17 about 1.4 miles North of the Intersection with White Oak River Road, NCSR 1118, and being more particularly described as follows:

Commencing at an iron pipe found on the Western Right-of-Way Line of US Highway 17, said Iron being the Northeastern corner of the Woodrow Lassiter property as recorded in Deed Book 44, Page 377 and recorded in Plat Cabinet "A," Slide 119-A; thence with said Right-of-Way Line, South 04 degrees 26 minutes 54 seconds East, 29.50 feet to a point, the TRUE POINT OF BEGINNING; THENCE from said point of beginning and continuing with said Right-of-Way Line, South 04 degrees 26 minutes 54 seconds East, 60.0 feet to a point; thence leaving said Right-of-Way Line, South 85 degrees 32 minutes 26 seconds West, 218.28 feet to a point; thence along the arc of a curve having a radius of 454.52 feet and curving to the Right, 517.39 feet (Chord North 61 degrees 50 minutes 56 seconds West, 489.90 feet) to a point; thence North 29 degrees 14 minutes 19 seconds West, 649.27 feet to a point; thence South 60 degrees 29 minutes 21 seconds West, 386.08 feet to a point; thence North 32 degrees 20 minutes 10 seconds West, 657.69 feet to an iron stake found on the Southern Line of the Woodrow Lassiter property as recorded in Plat Cabinet "B," Slide 334, Page 3, said Southern Line being the Old Buck Savannah Road as shown on said map; thence with said Southern Line, North 50 degrees 09 minutes 31 seconds East, 123.60 feet to a point; thence leaving said Line, North 74 degrees 56 minutes 43 seconds West, 124.47 feet to a point; thence along the arc of a curve having a radius of 323.0 feet and curving to the Right, 394.32 feet (Chord North 39 degrees 58 minutes 19 seconds West, 370.28 feet) to a point; thence North 04 degrees 59 minutes 56 seconds West, 34.33 feet to a point; thence along the arc of a curve having a radius of 297.0 feet and curving to the Left, 105.03 feet (Chord North 15 degrees 07 minutes 48

M&M Land Development, Inc.
Tract on U.S. Highway 17 North, Jones County C & D Landfill
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seconds West, 104.49 feet) to a point; thence North 25 degrees 15 minutes 40 seconds West, 24.49 feet to a point; thence South 90 degrees 00 minutes 00 seconds West, 311.73 feet to a point; thence South 64 degrees 41 minutes 49 seconds West, 136.53 feet to a point; thence North 86 degrees 54 minutes 23 seconds West, 249.06 feet to a point; thence North 86 degrees 21 minutes 09 seconds West, 294.62 feet to a point; thence North 56 degrees 41 minutes 06 seconds West, 276.84 feet to a point; thence North 85 degrees 47 minutes 15 seconds West, 165.72 feet to a point; thence South 85 degrees 08 minutes 26 seconds West, 37.28 feet to a point; thence South 81 degrees 20 minutes 59 seconds West, 324.75 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 407.12 feet (Chord North 40 degrees 20 minutes 04 seconds West, 340.38 feet) to a point on the Western boundary of the aforementioned Woodrow Lassiter property; thence with said Western Line, North 17 degrees 58 minutes 54 seconds East, 204.69 feet to an iron stake found; thence leaving said Line, North 17 degrees 58 minutes 54 seconds East, 52.34 feet to a point; thence North 22 degrees 14 minutes 49 seconds East, 78.27 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 265.52 feet (Chord North 15 degrees 47 minutes 09 seconds East, 246.45 feet) to a point; thence North 53 degrees 49 minutes 08 seconds East, 96.80 feet to a point; thence North 48 degrees 52 minutes 55 seconds East, 84.45 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 211.37 feet (Chord North 79 degrees 09 minutes 31 seconds East, 201.67 feet) to a point; thence South 70 degrees 33 minutes 52 seconds East, 412.60 feet to a point; thence South 78 degrees 17 minutes 26 seconds East, 76.90 feet to a point; thence South 40 degrees 28 minutes 14 seconds East, 295.97 feet to a point; thence South 47 degrees 11 minutes 05 seconds East, 166.17 feet to a point; thence North 06 degrees 42 minutes 34 seconds West, 206.06 feet to a point; thence North 24 degrees 47 minutes 57 seconds West, 468.34 feet to a point; thence North 00 degrees 00 minutes 00 seconds West, 179.77 feet to a point; thence along the arc of a curve having a radius of 200.0 feet and curving to the Right, 387.17 feet (Chord North 55 degrees 27 minutes 27

M&M Land Development, Inc.
Tract on U.S. Highway 17 North, Jones County C&D Landfill
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May 18, 2011
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seconds East, 329.48 feet) to a point on the Northern Line of the aforementioned Lassiter property; thence with said Line, South 69 degrees 05 minutes 07 seconds East, 111.93 feet to an iron stake found; thence South 69 degrees 05 minutes 07 seconds East, 148.98 feet to a point; thence leaving said Line and along the arc of a curve having a radius of 200.0 feet and curving to the Right, 241.15 feet (Chord South 34 degrees 32 minutes 33 seconds East, 226.81 feet) to a point; thence South 00 degrees 00 minutes 00 seconds West, 20.02 feet to a point; thence South 48 degrees 06 minutes 29 seconds East, 251.52 feet to a point; thence South 19 degrees 32 minutes 12 seconds East, 276.38 feet to a point; thence South 28 degrees 47 minutes 13 seconds East, 278.17 feet to a point; thence South 01 degrees 25 minutes 00 seconds East 378.58 feet to a point; thence South 02 degrees 09 minutes 56 seconds West, 88.73 feet to a point; thence South 43 degrees 30 minutes 46 seconds West, 146.39 feet to a point; thence South 25 degrees 15 minutes 40 seconds East, 23.40 feet to a point; thence along the arc of a curve having a radius of 323.0 feet and curving to the Right, 114.23 feet (Chord South 15 degrees 07 minutes 48 seconds East, 113.63 feet) to a point; thence South 04 degrees 59 minutes 56 seconds East, 34.33 feet to a point; thence along the arc of a curve having a radius of 297.0 feet and curving to the Left, 362.58 feet (Chord South 39 degrees 58 minutes 19 seconds East, 340.48 feet) to a point; thence South 74 degrees 56 minutes 43 seconds East, 142.74 feet to a point on the aforementioned Southern Line of the Lassiter property; thence with said Southern Line, North 50 degrees 09 minutes 31 seconds East, 2.21 feet to an iron stake found; thence North 61 degrees 42 minutes 34 seconds East, 14.85 feet to a point; thence leaving said Line, South 74 degrees 56 minutes 43 seconds East, 280.56 feet to a point; thence along the arc of a curve having a radius of 335.0 feet and curving to the Right, 267.24 feet (Chord South 52 degrees 05 minutes 31 seconds East, 260.21 feet) to a point; thence South 29 degrees 14 minutes 19 seconds East, 895.80 feet to a point; thence along the arc of a curve having a radius of 389.50 feet and curving to the Left, 443.37 feet (Chord South 61 degrees 50 minutes 56 seconds East, 419.82 feet) to a point; thence North 85 degrees 32 minutes 26 seconds East, 232.51 feet to the point and place of beginning.

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The described annexation area contains 58.2 acres, more or less, and being a portion of that property as recorded in Deed Book 318, Page 981, and Deed Book 44, Page 377, and Plat Cabinet "A," Slide 119-A, and Plat Cabinet "B," Slide 334, Page 3. All courses are referenced to GPS Grid North, NAD '83, 2007 adjustment. This description being prepared by Parker & Associates, Inc. from survey and computed information and an electronic overlay of Design Plans furnished by ERM NC, PC is for annexation and rezoning purposes only.


Edwin N. Foley, P.L.S., L-2884



ENF/avk
c:/Forms/LandDescriptions/M&MLandDevelopment_C&DLandfill(5.17.11)

EXHIBIT B TO FRANCHISE AND HOST AGREEMENT
FACILITY PLAN

CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING AND LANDFILL FACILITY PLAN AND REPORT

Prepared for:

Division of Solid Waste, NC Dept. of Environment and Natural
Resources
Town of Maysville

Prepared by:

ERM NC, Inc.
8000 Corporate Center Drive
Suite 200
Charlotte, North Carolina 28226

On behalf of:

Green Recycling Solutions LLC
Maysville, North Carolina

Regulatory Authorities:

North Carolina General Statutes – G.S. 130-294
NCDENR Division of Waste Management Rules 15ANCAC 13B .0536 & .0537
Maysville Franchise Ordinance for Construction Debris Landfills

May 27, 2011

I. Introduction

Green Recycling Solutions LLC ("Green Recycling") proposes to construct and operate a construction and demolition debris recycling and disposal facility on a 58 acre site, on Highway 17 near White Oak River Road, in Jones County. Green Recycling is petitioning to have the property annexed into the Town of Maysville, and has applied for the requisite conditional use permit and franchise from Maysville. The site location is shown on the property annexation boundary survey prepared by Parker & Associates, Inc. and attached with this report.

The facility would receive waste from within the limits of Jones County and surrounding counties including Craven, Carteret, Onslow, Duplin and Lenoir. Only waste that is initially received and processed at the recycling center will be disposed of in the proposed C&D Landfill. Per the requirements of 15 NCAC 13B.0537 and Maysville's Franchise Ordinance for Construction Debris Landfills, this Facility Plan focuses on the proposed landfill.

II. Facility Drawings (Rule 13B .0537(d)(1)(A-F))

A site plan (the facility plan) prepared by ERM NC, Inc. is attached with this report in accordance with NCDENR – Division of Waste Management Rule 15A NCAC .0537(d)(1)(A-F). In accordance with rule requirements, that plan illustrates aerial limits of landfill units and buffer requirements. The plan includes limits of grading and proposed borrow areas located on-site. As required, the plan illustrates the proposed final contours at 2-ft intervals reaching a maximum elevation of 88.0 feet above mean seal level utilizing 4H:1V slopes during landfilling operations. The plan was developed utilizing topographic data supplied by the North Carolina Flood Plain Mapping Program (2005) and available for public use. The property annexation boundary survey shown on the plan was performed by Parker & Associates, Inc. A copy of the sealed survey and legal description is attached for reference.

The plan also includes locations for the proposed recycling facility and site access to US Highway 17. A potential leachate storage area is shown adjacent to the proposed C&D Landfill if deemed necessary during the permitting process. Scales and scale house are shown at the recycling center.

As shown on the plan, there are six, 5-year phases of development and use of the landfill, for a total operational life of 30 years.

Floodplains do not encroach on lands within the proposed site property boundary according to the FEMA NC FIRM Panel 5422 dated November 3, 2005. Cultural resources will not be impacted by development of the C&D Landfill as confirmed by NC Department of Cultural Resources letter dated April 11, 2011 (copy attached).

Wetlands located on site will not be impacted by development of the proposed C&D landfill. A wetland delineation was performed by Pittman Soil Consulting, confirmed by United States Army Corp of Engineers and surveyed by Parker & Associates, Inc. as shown on the Facility Plan.

Additionally, US Fish & Wildlife confirmed that project development will not impact endangered or threatened species or their habitat (letter dated April 12, 2011 – attached).

III. Facility Report (Rule 13B .0537(e)(1)(A-E))

The proposed C&D Landfill will receive waste as defined by North Carolina Department of Environment and Natural Resources (NCDENR), Division of Waste Management as Construction & Demolition Debris, Yard Waste and Land Clearing & Inert Debris only. All waste received at the facility will first be processed at the recycling center where it will be determined if it can be recycled. Waste will be thoroughly inspected by processing through a tipping floor and sorting lines at the recycling center. This will greatly reduce the potential for unacceptable waste reaching the landfill. (The desired recycling recovery rates are discussed below.) Any acceptable waste that is not recycled will be transported from the recycling center for deposit in the landfill. Unacceptable waste, i.e., any waste the facility is not permitted to accept, will be identified at the recycling center and either returned to the hauler delivering the waste or transported to and disposed of at a permitted facility followed by invoicing the hauler for permitted disposal.

The facility will serve the population, businesses, municipalities and industry within the counties of Jones, Craven, Carteret, Onslow, Duplin and Lenoir.

The C&D Landfill will be operated utilizing a bulldozer for spreading waste in manageable lifts and equipment for delivering cover soils; either a pan excavator or combination of trackhoe and dump truck. If permitted by NCDENR, the C&D

Landfill will utilize a tarp system to reduce the amount of cover soils placed in the landfill.

IV. Facility Report – Landfill Capacity (Rule 13B .0537(e)(2)(A-B))

As noted, the proposed C&D Landfill is anticipated to have an operational life of 30 years operating 6, 5-year phases. A "Preliminary Facility Capacity & Assumptions" is attached with this report for reference. As illustrated in this attachment, the anticipated annual waste stream arriving at the facility is 300 tons per day and reaches a maximum of 575 tons per day for years 24 through 30. As the facility begins operation an anticipated recycling/recovery rate of 63% is utilized based on facility start up. The recycling rate steadily increases to a maximum of 87% of waste received at year 9 and continues through year 30. Therefore, as the waste received increases the efficiency of recycling and recovering materials increases. This study is based on results seen at similar facilities in operation in Florida utilizing the same equipment and recycling facility plan. (The anticipated waste received at the facility is based upon current disposal rates of C&D waste by the larger construction and contracting companies in the proposed service area.)

Based on the results of our analysis, the maximum waste anticipated to be received at the C&D landfill will be 31,635 tons per year. With an operating year consisting of 285 days, this tonnage equates to an average of 111 tons per day. The proposed waste stream is anticipated to be less in the years following initial start-up of the recycling facility. Refer to the "Preliminary Facility Capacity & Assumptions" attachment for detailed information concerning anticipated waste stream.

The proposed C&D landfill as shown on the site plan has a gross capacity of 831,516 cubic yards. Given the recycling component of the operation, waste material delivered to the landfill will lack heavier constituents such as metals, concrete and wood. As a result, the density of waste will be less than typically seen at C&D landfills. Therefore, we have assumed an in-place waste density for this facility of approximately 0.5 tons per cubic yard. This rate also includes the use of soil cover during operations at a rate of 7.9 percent.

Based on our study included in the "Preliminary Facility Capacity & Assumptions", the landfill will require 318,614 cubic yards of clean fill soils to provide for construction of landfill Phases, cover soils and final cover soil. Construction of the C&D landfill will require 58,806 cubic yards of low

permeable soil for permitting requirements concerning a base liner system. These soils are present on site within the proposed landfill footprint based on preliminary test pits performed under the supervision of Pittman Soil Scientists (copy attached). Depth to ground water is included in the test pit logs and indicate that a 4-ft vertical separation from groundwater and minimum post settlement landfill floor grade of 2 percent may be achieved with minimal site grading.

Borrow soils are available from on-site and adjacent properties owned by Green Co Land, LLC. Additionally, non-select cover soil will be available to the C&D landfill from the recycling facility process.

V. Facility Report – Special Engineering Features (Rule .0537(e)(3)(A-D))

The plan includes an area designated for leachate storage tanks that would utilize a pump and haul operation for delivery to a permitted waste water treatment plant. This area is shown as “potential” on the plan, and will be dependent upon final design and the State permitting process. By design, the facility will minimize leachate generation by constructing small Cells within each Phase that shall be approximately one acre in size. Each Phase will contain three of these Cells. Once a new Cell is constructed, approximately every 18 months, the first waste lift may be quickly placed across the Cell floor and above the surrounding 6-ft perimeter berm height to promote runoff and reduce leachate generation.

There will be a low permeable barrier across the floor of the proposed C&D landfill. According to the attached test pit reports performed by Pittman Soil Scientists, low permeable soils are in place within the footprint of the proposed landfill (Raines) and could be left in place or reworked to provide a low permeable barrier. These soils will require additional laboratory testing during the permitting process to verify adequacy. Based on the outcome of these studies, an alternative base liner equivalent may be selected if necessary.

The recycling center is a special engineering feature. By virtue of that center, the process of waste presentation and inspection at that center as described above, unacceptable waste may be more readily identified, minimizing the chances of it being deposited in the landfill.

Once the landfill operating capacity is reached, a low permeable cap will be installed across the entire waste disposal limits. The cap will be designed to meet

or exceed the minimum requirements per NCDENR regulations at the time of permitting the landfill. For the purpose of this report, a landfill cap including a 40-mil linear low density polyethylene liner is proposed. Timing of cap installation will be determined during the permitting process.

The C&D landfill facility will include ground water and landfill gas monitoring well networks to meet or exceed the NCDENR regulations at the time of permitting. The number of wells and depths of wells will be determined based on the design hydrogeologic study performed during permitting.

Typical operations of the C&D Landfill will include the following (all items will need approval from NCDENR following review of an operations plan):

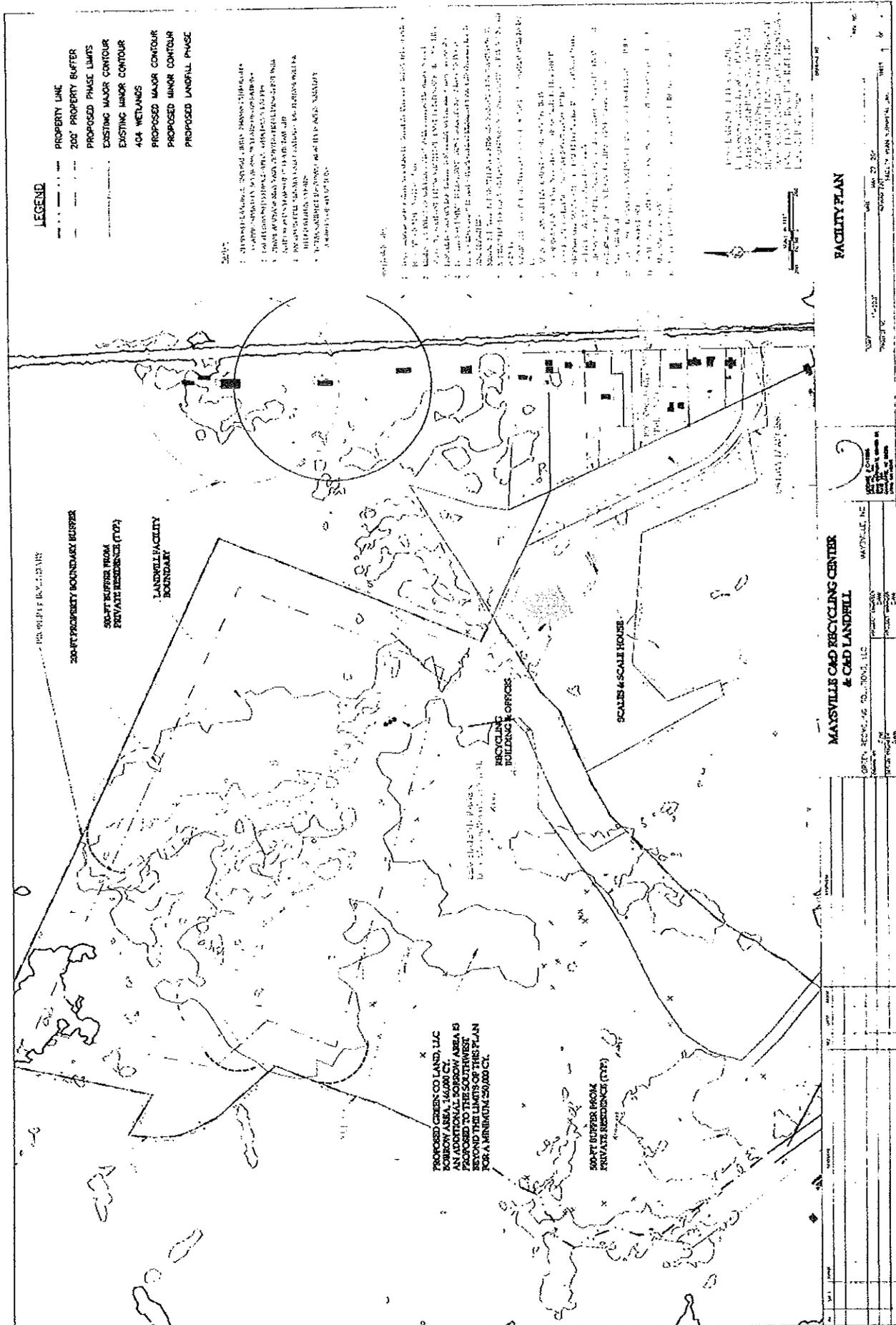
- Acceptance of waste solely from the Green Recycling Solutions LLC recycling facility where waste is weighed and recorded at facility's scales.
- Equipment operators will direct hauler where to place load within the operational landfill Cell.
- The delivered waste will be spread evenly in lifts not to exceed 8 feet in vertical height and visually inspected by the equipment operator for unacceptable waste.
- Waste shall be covered with a minimum six-inch thick soil layer weekly at a minimum frequency provided the working face does not exceed 1/3 of an acre requiring cover placement sooner.
- A tarp system may be considered on a routine basis to reduce the amount of cover soils placed in the landfill.

ATTACHMENTS

List of Attachments

Facility Plan
Legal Description of Facility Property
Sealed Survey Plat for Facility Property Boundary
Letter from NC Department of Cultural Resources
Letter from US Fish & Wildlife
Preliminary Facility Capacity and Assumptions
Test Pits Performed by Pittman Soil Scientists

Facility Plan



LEGEND

- PROPERTY LINE
- 200' PROPERTY BUFFER
- PROPOSED PHASE LIMITS
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- 404 WETLANDS
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED LANDFILL PHASE

NOTES:

1. ALL PROPOSED CONTOURS ARE BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.
2. THE PROPOSED MAJOR CONTOUR IS BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.
3. THE PROPOSED MINOR CONTOUR IS BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.
4. THE PROPOSED LANDFILL PHASE IS BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.
5. THE PROPOSED MAJOR CONTOUR IS BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.
6. THE PROPOSED MINOR CONTOUR IS BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.
7. THE PROPOSED LANDFILL PHASE IS BASED ON THE 200' BUFFER FROM PRIVATE RESIDENCES.

PROPERTY LINE

200' PROPERTY BUFFER

PROPOSED PHASE LIMITS

EXISTING MAJOR CONTOUR

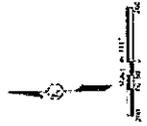
EXISTING MINOR CONTOUR

404 WETLANDS

PROPOSED MAJOR CONTOUR

PROPOSED MINOR CONTOUR

PROPOSED LANDFILL PHASE



FACILITY PLAN

PROJECT NAME	MAXVILLE, NC
CLIENT	OPTIC RECYCLING SOLUTIONS, LLC
DATE	NOVEMBER 2014
SCALE	AS SHOWN
DESIGNER	WATKINS, INC.
PROJECT NO.	14-001
DATE	NOVEMBER 2014

MAXVILLE C&D RECYCLING CENTER & C&D LANDFILL

PROPOSED BORROW AREA FOR A MINIMUM 50-FOOT BUFFER FROM PRIVATE RESIDENCES (TOP)

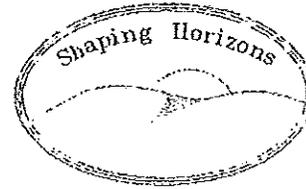
50-FOOT BUFFER FROM PRIVATE RESIDENCES (TOP)

Legal Description of Facility Property

PARKER & ASSOCIATES, INC.

Consulting Engineers - Land Surveyors - Land Planners

306 New Bridge Street - P.O. Box 976
Jacksonville, North Carolina 28541-0976
Phone (910) 455-2414 - Fax (910) 455-3441
Firm License Number F-0108



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White Oak Township, Jones County, NC

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seconds East, 329.48 feet) to a point on the Northern Line of the aforementioned Lassiter property; thence with said Line, South 69 degrees 05 minutes 07 seconds East, 111.93 feet to an iron stake found; thence South 69 degrees 05 minutes 07 seconds East, 148.98 feet to a point; thence leaving said Line and along the arc of a curve having a radius of 200.0 feet and curving to the Right, 241.15 feet (Chord South 34 degrees 32 minutes 33 seconds East, 226.81 feet) to a point; thence South 00 degrees 00 minutes 00 seconds West, 20.02 feet to a point; thence South 48 degrees 06 minutes 29 seconds East, 251.52 feet to a point; thence South 19 degrees 32 minutes 12 seconds East, 276.38 feet to a point; thence South 28 degrees 47 minutes 13 seconds East, 278.17 feet to a point; thence South 01 degrees 25 minutes 00 seconds East 378.58 feet to a point; thence South 02 degrees 09 minutes 56 seconds West, 88.73 feet to a point; thence South 43 degrees 30 minutes 46 seconds West, 146.39 feet to a point; thence South 25 degrees 15 minutes 40 seconds East, 23.40 feet to a point; thence along the arc of a curve having a radius of 323.0 feet and curving to the Right, 114.23 feet (Chord South 15 degrees 07 minutes 48 seconds East, 113.63 feet) to a point; thence South 04 degrees 59 minutes 56 seconds East, 34.33 feet to a point; thence along the arc of a curve having a radius of 297.0 feet and curving to the Left, 362.58 feet (Chord South 39 degrees 58 minutes 19 seconds East, 340.48 feet) to a point; thence South 74 degrees 56 minutes 43 seconds East, 142.74 feet to a point on the aforementioned Southern Line of the Lassiter property; thence with said Southern Line, North 50 degrees 09 minutes 31 seconds East, 2.21 feet to an iron stake found; thence North 61 degrees 42 minutes 34 seconds East, 14.85 feet to a point; thence leaving said Line, South 74 degrees 56 minutes 43 seconds East, 280.58 feet to a point; thence along the arc of a curve having a radius of 335.0 feet and curving to the Right, 267.24 feet (Chord South 52 degrees 05 minutes 31 seconds East, 260.21 feet) to a point; thence South 29 degrees 14 minutes 19 seconds East, 895.80 feet to a point; thence along the arc of a curve having a radius of 389.50 feet and curving to the Left, 443.37 feet (Chord South 61 degrees 50 minutes 56 seconds East, 419.82 feet) to a point; thence North 85 degrees 32 minutes 26 seconds East, 232.51 feet to the point and place of beginning.

M&M Land Development, Inc.
Tract on U.S. Highway 17 North, Jones County C& D Landfill
Annexation Description
May 18, 2011
Page 4

The described annexation area contains 58.2 acres, more or less, and being a portion of that property as recorded in Deed Book 318, Page 981, and Deed Book 44, Page 377, and Plat Cabinet "A," Slide 119-A, and Plat Cabinet "B," Slide 334, Page 3. All courses are referenced to GPS Grid North, NAD '83, 2007 adjustment. This description being prepared by Parker & Associates, Inc. from survey and computed information and an electronic overlay of Design Plans furnished by ERM NC, PC is for annexation and rezoning purposes only.


Edwin N. Foley, P.L.S., L-2884

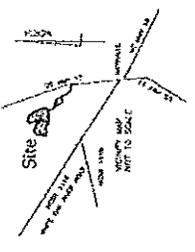


ENF/avk

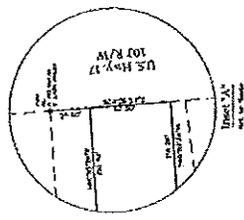
c1/Foms/LandDescriptions/M&MLandDevelopment_C&DLandfill(5.17.11)

Sealed Survey Plat for Facility Boundary

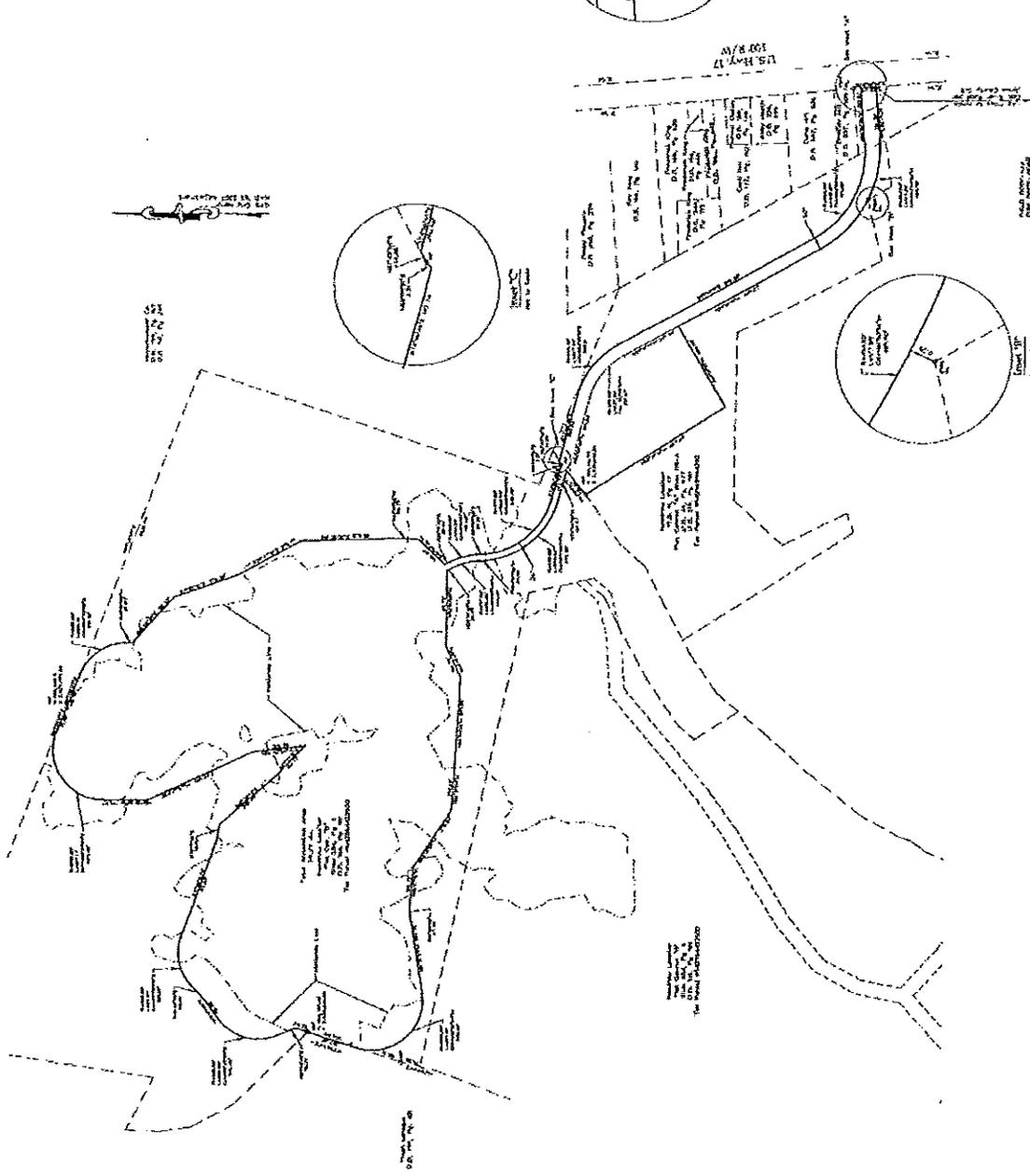
LEGEND
 1. 200' Buffer Zone
 2. 100' Buffer Zone
 3. 50' Buffer Zone
 4. 25' Buffer Zone
 5. 10' Buffer Zone
 6. 5' Buffer Zone



NOTE:
 1. This map was prepared by the applicant and is not a final map.
 2. The applicant warrants that the information provided is true and correct to the best of their knowledge.
 3. The applicant warrants that the information provided is not misleading or deceptive.
 4. The applicant warrants that the information provided is not in violation of any applicable laws or regulations.
 5. The applicant warrants that the information provided is not in violation of any applicable contracts or agreements.
 6. The applicant warrants that the information provided is not in violation of any applicable public policy.
 7. The applicant warrants that the information provided is not in violation of any applicable common law.
 8. The applicant warrants that the information provided is not in violation of any applicable equity.
 9. The applicant warrants that the information provided is not in violation of any applicable statute.
 10. The applicant warrants that the information provided is not in violation of any applicable regulation.



ANNEXATION AND ZONING MAP
Jones County C&D Landfill
 M&M Land Development, Inc.
 10000 Highway 17, Suite 100
 Jones County, NC 28580
 DATE: 05/16/11
 SCALE: 1"=200'
PATRICIA K. ABERNATHY, P.E.
 Consulting Engineer
 10000 Highway 17, Suite 100
 Jones County, NC 28580
 License No. 10000



Letter from NC Department of Cultural Resources



North Carolina Department of Cultural Resources
State Historic Preservation Office
Claudia Brown, Acting Administrator

Beverly Faves Perdue, Governor
Linda A. Carlisle, Secretary
Jeffrey J. Crow, Deputy Secretary

Office of Archives and History
Division of Historical Resources
David Brook, Director

April 11, 2011

David Wasielea
ERM NC, Inc.
800 Corporate Center Drive
Suite 200
Charlotte, NC 28226

Re: Maysville C&D Recycling Center & Landfill, US 17, Maysville, Jones County, ER 11-0456

Dear Mr. Wasielea:

Thank you for your email of March 25, 2011, concerning the above project.

We have conducted a review of the project and are aware of no historic resources which would be affected by the project. Therefore, we have no comment on the project as proposed.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919-807-6579. In all future communication concerning this project, please cite the above-referenced tracking number.

Sincerely,

Renee Gledhill-Earley

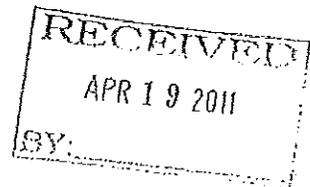
for Claudia Brown

Letter from US Fish & Wildlife



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Raleigh Field Office
Post Office Box 33726
Raleigh, North Carolina 27636-3726



April 12, 2011

David Wasiela
ERM NC, Inc.
8000 Corporate Center Drive, Suite 200
Charlotte, NC 28226

Re: Proposed C&D Recycling Center & Landfill Site.

Dear Mr. Wasiela:

This letter is to inform you that a list of all federally-protected endangered and threatened species with known occurrences in North Carolina is now available on the U.S. Fish and Wildlife Service's (Service) web page at <http://www.fws.gov/raleigh>. Therefore, if you have projects that occur within the Raleigh Field Office's area of responsibility (see attached county list), you no longer need to contact the Raleigh Field Office for a list of federally-protected species.

Our web page contains a complete and frequently updated list of all endangered and threatened species protected by the provisions of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) (Act), and a list of federal species of concern¹ that are known to occur in each county in North Carolina.

Section 7 of the Act requires that all federal agencies (or their designated non-federal representative), in consultation with the Service, insure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. A biological assessment or evaluation may be prepared to fulfill that requirement and in determining whether additional consultation with the Service is necessary. In addition to the federally-protected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation can be found on our web page at <http://www.fws.gov/raleigh>. Please check the web site often for updated information or changes.

¹ The term "federal species of concern" refers to those species which the Service believes might be in need of concentrated conservation actions. Federal species of concern receive no legal protection and their designation does not necessarily imply that the species will eventually be proposed for listing as a federally endangered or threatened species. However, we recommend that all practicable measures be taken to avoid or minimize adverse impacts to federal species of concern.

If your project contains suitable habitat for any of the federally-listed species known to be present within the county where your project occurs, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence (unless an Environmental Impact Statement is prepared). However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

With regard to the above-referenced project, we offer the following remarks. Our comments are submitted pursuant to, and in accordance with, provisions of the Endangered Species Act.

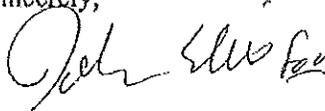
Based on the information provided and other information available, it appears that the proposed action is not likely to adversely affect any federally-listed endangered or threatened species, their formally designated critical habitat, or species currently proposed for listing under the Act at these sites. We believe that the requirements of section 7(a)(2) of the Act have been satisfied for your project. Please remember that obligations under section 7 consultation must be reconsidered if: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or, (3) a new species is listed or critical habitat determined that may be affected by the identified action.

However, the Service is concerned about the potential impacts the proposed action might have on aquatic species. Aquatic resources are highly susceptible to sedimentation. Therefore, we recommend that all practicable measures be taken to avoid adverse impacts to aquatic species, including implementing directional boring methods and stringent sediment and erosion control measures. An erosion and sedimentation control plan should be submitted to and approved by the North Carolina Division of Land Resources, Land Quality Section prior to construction. Erosion and sedimentation controls should be installed and maintained between the construction site and any nearby down-gradient surface waters. In addition, we recommend maintaining natural, vegetated buffers on all streams and creeks adjacent to the project site.

The North Carolina Wildlife Resources Commission has developed a Guidance Memorandum (a copy can be found on our website at (<http://www.fws.gov/raleigh>) to address and mitigate secondary and cumulative impacts to aquatic and terrestrial wildlife resources and water quality. We recommend that you consider this document in the development of your projects and in completing an initiation package for consultation (if necessary).

We hope you find our web page useful and informative and that following the process described above will reduce the time required, and eliminate the need, for general correspondence for species' lists. If you have any questions or comments, please contact John Ellis of this office at (919) 856-4520 ext. 26.

Sincerely,

A handwritten signature in black ink, appearing to read "John Ellis". The signature is written in a cursive style with a large initial "J" and a distinct "E".

Pete Benjamin
Field Supervisor

List of Counties in the Service's Raleigh Field Office Area of Responsibility

Alamance	Perquimans
Beaufort	Person
Bertie	Pitt
Bladen	Randolph
Brunswick	Richmond
Camden	Robeson
Carteret	Rockingham
Caswell	Sampson
Chatham	Scotland
Chowan	Tyrrell
Columbus	Vance
Craven	Wake
Cumberland	Warren
Currituck	Washington
Dare	Wayne
Duplin	Wilson
Durham	
Edgecombe	
Franklin	
Gates	
Granville	
Greene	
Guilford	
Halifax	
Harnett	
Hertford	
Hoke	
Hyde	
Johnston	
Jones	
Lee	
Lenoir	
Martin	
Montgomery	
Moore	
Nash	
New Hanover	
Northampton	
Onslow	
Orange	
Pamlico	
Pasquotank	
Pender	

Preliminary Facility Capacity and Assumptions

Proposed Maysville C&D Recovery Facility & C&D Landfill
Green Recycling Solutions, LLC

Preliminary Facility Sizing

Year	Avg. Daily C&D Waste (Tons)	Total C&D Waste Received (Tons)	Percentage of C&D Waste Recovered	C&D Waste to Landfill (Tons)	C&D Landfill Airspace Required (CY)	Operational Phase	Structural Fill	Construction and Operational Soils Needed (CY)				
								Compacted Soil Liner	Operational Cover	Weekly Cover	Final Cover	
1	300	83,500	0.63	31,635	42,180	Phase 1, Cell 1	5,445	3,267	4,356	3,326	4,574	
2	310	88,350	0.68	28,272	37,696	Phase 1, Cell 2	5,445	3,267	4,356	3,326	4,574	
3	325	92,625	0.70	27,788	37,050	Phase 1, Cell 3	5,445	3,267	4,356	3,326	4,574	
4	350	99,750	0.72	27,930	37,240	Phase 2, Cell 1	5,445	3,267	4,356	3,326	4,574	
5	400	114,000	0.85	17,100	22,800	Phase 2, Cell 2	5,445	3,267	4,356	3,326	4,574	
6	450	128,250	0.85	19,238	25,650	Phase 2, Cell 3	5,445	3,267	4,356	3,326	4,574	
7	475	135,375	0.87	17,599	23,465	Phase 3, Cell 1	5,445	3,267	4,356	3,326	4,574	
8	475	135,375	0.87	17,599	23,465	Phase 3, Cell 2	5,445	3,267	4,356	3,326	4,574	
9	500	142,500	0.87	18,525	24,700	Phase 3, Cell 3	5,445	3,267	4,356	3,326	4,574	
10	500	142,500	0.87	18,525	24,700	Phase 4, Cell 1	5,445	3,267	4,356	3,326	4,574	
11	525	149,625	0.87	19,451	25,935	Phase 4, Cell 2	5,445	3,267	4,356	3,326	4,574	
12	525	149,625	0.87	19,451	25,935	Phase 4, Cell 3	5,445	3,267	4,356	3,326	4,574	
13	530	156,750	0.87	20,578	27,170	Phase 5, Cell 1	5,445	3,267	4,356	3,326	4,574	
14	530	156,750	0.87	20,578	27,170	Phase 5, Cell 2	5,445	3,267	4,356	3,326	4,574	
15	550	163,875	0.87	21,304	28,405	Phase 5, Cell 3	5,445	3,267	4,356	3,326	4,574	
16	575	163,875	0.87	21,304	28,405	Phase 6, Cell 1	5,445	3,267	4,356	3,326	4,574	
17	575	163,875	0.87	21,304	28,405	Phase 6, Cell 2	5,445	3,267	4,356	3,326	4,574	
18	575	163,875	0.87	21,304	28,405	Phase 6, Cell 3	5,445	3,267	4,356	3,326	4,574	
19	575	163,875	0.87	21,304	28,405	TOTALS	98,010	58,806	78,408	59,868	82,328	
20	580	156,750	0.87	20,578	27,170							
21	580	156,750	0.87	20,578	27,170							
22	550	156,750	0.87	20,578	27,170							
23	550	156,750	0.87	20,578	27,170							
24	575	163,875	0.87	21,304	28,405							
25	575	163,875	0.87	21,304	28,405							
26	575	163,875	0.87	21,304	28,405							
27	575	163,875	0.87	21,304	28,405							
28	575	163,875	0.87	21,304	28,405							
29	575	163,875	0.87	21,304	28,405							
30	575	163,875	0.87	21,304	28,405							
TOTALS		4,199,475		413,378	831,516							

Total Non-Select Structural Fill / Cover Soils Required (CY) = 318,614
 Total Compacted Soil Liner Soils Required (CY) = 58,806
 Size Near Site Borrow Pit for 366,407 CY
 Available Within Landfill Footprint, leave in place or re-work

Test Pits Performed by Pittman Soil Scientists

Pittman Soil Consulting

1073-1 Gregory Fork Road
Raleigh, NC 28574
Phone (910) 324-2592
Fax (910) 324-6162
pittmansoil@yahoo.com

March 24, 2011

James Maides
166 Center Street
Jacksonville, NC 28540

Ref: C & D Landfill Maysville

Dear Mr. Maides,

On March 25, 2011 excavation pits were dug in the proposed cells of the C & D Landfill, located off White Oak River Road in Maysville, NC. The purpose of this was to determine the water table in the cells.

The pits were allowed to equalize for a period of 24 hours prior to evaluation. The evaluation results are as follows:

- TP 1-Rains soil 52" Cell 1
- TP-2-Rains soil 54" Cell 4
- TP 3-Goldsboro soil 55" Cell 2
- TP 4-Rains soil 49" Cell 5
- TP 5-Rains soil 74" Cell 3 & 6
- TP 6-Rains soil 56" Cell 13
- TP 7-Rains soil 53" Cell 15
- TP 8-Rains soil 49" Cell 12
- TP 9-Rains soil 52" Cell 11
- TP 10-Rains soil 46" Cell 12
- TP 11-Rains soil 54" Cell 9
- TP 12-Rains soil 46" Cell 10
- TP 13-Goldsboro soil 68" Cell 7

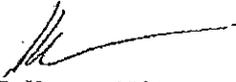
TP 14-Rains soil 62" Cell 8

TP 15-Rains soil 55"

TP 16-Goldsboro soil 68"

If you have any questions please feel free to contact me at 910-330-2784. Thank You.

Sincerely,


R. Haywood Pittman II
NC Licensed Soil Scientist

