

NORTH CAROLINA

AGREEMENT

BUNCOMBE COUNTY

THIS CONTRACT made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between **BUNCOMBE COUNTY**, a political subdivision of the State of North Carolina (hereinafter referred to as “County”) and **SCS ENGINEERS, PC**, a foreign professional corporation, organized under the laws of the State of Virginia (also known as Stearns, Conrad & Schmidt, Consulting Engineers, Inc.; hereinafter referred to as “SCS,” or “Contractor,” and collectively, sometimes, hereinafter referred to as the “Parties.”

WITNESSETH:

WHEREAS, the Solid Waste Department requires the services of a professional engineering firm for consulting, engineering, and environmental monitoring programs; and

WHEREAS, County is authorized to construct, acquire, improve, maintain, and operate Its Solid Waste Management Facilities in the County; and

WHEREAS, pursuant to N.C. Gen. Stat. § 143-64.31, Buncombe County, through its Solid Waste Department, solicited qualifications for comprehensive consulting, engineering, and environmental monitoring programs in the a Request for Qualifications (RFQ) Attached hereto and Incorporated herein as Exhibit A; and

WHEREAS, Contractor responded to County’s RFQ, which response is attached hereto and Incorporated herein as Exhibit B; and

WHEREAS, County has selected Contractor to provide the professional services in support of County’s needs and requirements; and

WHEREAS, Contractor, for the consideration hereinafter fully set out, hereby agrees with County as follows:

1. Scope of Services. County does retain Contractor, and Contractor shall furnish professional services required of Contractor as outlined in this Agreement, Exhibit A (County’s RFQ), Exhibit B (Contractors Response to County’s RFQ), which will be assigned pursuant to Task Orders (said documents hereinafter collectively referred to as the “Contract Documents”). Whenever services are required of Contractor, detailed scopes of services and associated compensation shall be set forth in Task Orders following the form attached hereto and Incorporated herein as Exhibit C. Each Task Order will be executed by County and Contractor prior to initiation of services.

Contract Documents shall have priority as follows:

- i. This Agreement

- ii. Tasks Orders
  - iii. County's RFQ
  - iv. The Contractor's Response to the County's RFQ
2. Time of Performance. This Contract shall be in effective upon execution. The initial five (5) year term may be extended up to two (2) additional one (1) year terms beyond the initial five (5) year term upon written concurrence of County and Contractor. For each Task Order, Contractor shall commence work upon Notice to Proceed by County. Contractor shall complete all work on the project within the time established in each Task Order from said Notice.
3. Payment. County hereby agrees to pay to Contractor for the full and faithful performance of this Contract based on Contractor's Fee Schedule, attached hereto as Exhibit D and incorporated herein by reference, and based on each individual Task Order. When requesting Payment, Contractor shall submit itemized invoices pertaining to all applicable work completed during the given time-frame, which ties said work to the scope of work with the appropriate Task Order. Said itemized invoices shall include costs associated with Subcontractors and materials, and/or material providers, and shall have attached thereto any and all invoices from the same. Payment for each Task Order is contingent upon County inspection and acceptance of all work. Any proposed adjustments to the fee schedule shall be limited to no more than one adjustment per year and shall be based upon the U.S. Department of Labor Bureau of Labor Statistics Consumer Price Index for All Urban Customers (CPI-U), U.S. City Average, for the twelve (12) month period ending in the most recent month of October. The maximum fee schedule adjustment shall be 3.0% for any single year within the Contract period. Fee schedule adjustments shall not be automatic and will require submission of a rate adjustment request by Contractor to County for approval. Rate adjustment requests must be submitted to the County a minimum of thirty (30) days prior to the requested effective date.
4. Extra Services. County and Contractor shall negotiate and agree upon the value of any extra services prior to the issuance of a County Change Order or Renewal/Amendment (CRA) form covering said extra services. Such Change Order or CRA shall set forth the corresponding adjustment, if any, to the Contract Price and Contract Time.
5. Indemnity. The Contractor agrees to indemnify and hold harmless the County and any of its officers, agents and employees, from any claims arising out of any act or omission of the Contractor to the extent of Contractor's negligence in connection with the performance of this contract. Contractor agrees to indemnify and hold harmless County, its officers, agents, and employees from any and all claims, demands, costs and expenses, including reasonable attorney's fees, to the extent of Contractor's negligence arising from this Contract or from any breach or default on the part of Contractor in the performance of any part of this Contract, or from any other act or negligence of Contractor for which Contractor is legally liable, its

officers, agents, servants, employees, or subcontractors unless caused by the acts of County or its agents for which County or its agents are legally liable. In case of any action, suit, or proceeding brought against County, its officers, agents, or employees by reason of any such claim, upon notice from County, Contractor agrees and covenants to defend such action, suit, or proceeding by counsel reasonably satisfactorily to County. Contractor's obligation and responsibility under this section shall survive the termination of this Contract.

6. Independent Contractor. The parties hereto mutually agree that Contractor Is an Independent contractor and not an agent of County. Contractor shall not be entitled to any County employment benefits, including, but not limited to, vacation, sick leave, insurance, worker's compensation, nor pension and/or retirement benefits.

7. Minimum Scope and Limits of Insurance

7.1. Insurance. Contractor agrees their insurance policies shall be endorsed evidencing the minimum insurance coverage and limits set forth below prior to the County's signing of this Agreement. The insurance coverage and limits set forth below shall be deemed minimum coverage limits and shall not be construed in any way as a limitation on Contractor's duty to carry adequate insurance. All policies of insurance shall be primary insurance and non-contributory with respect to all other available sources. The minimum insurance coverage which the Contractor shall procure and maintain at its sole cost and expense during the term of the Agreement is as follows:

7.1.1. Worker's Compensation. Coverage at the statutory limits in compliance with applicable State and Federal laws. Contractor shall ensure that any subcontractors also have workers compensation coverage at the statutory limits.

7.1.2. Employer's Liability. Coverage with minimum limits of \$1,000,000 each employee accident and \$1,000,000 each employee disease.

7.1.3. Commercial General Liability. Insurance covering all operations performed by the Contractor with a minimum limit of \$1,000,000 per occurrence with a 2,000,000 aggregate. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations or Contractual Liability. Buncombe County shall be named as an additional insured under the policy.

7.1.4. Professional Liability. Insurance covering the Contractor for acts, errors, or omissions in performance of the Agreement with a minimum limit of \$1,000,000 per claim with a \$2,000,000 aggregate. The policy shall remain in effect two (2) years following

expiration or termination of this Agreement and shall provide for a retroactive date no later than the inception date of this Agreement.

7.1.5. Business Automobile Liability. Insurance covering all owned, non-owned, and hired vehicles used in performance of this Agreement. The minimum combined single limit per occurrence shall be \$1,000,000 and shall include uninsured/underinsured motorist coverage per N.C. Gen. Stat. § 20-279.21.

7.1.6. Crime policy covering acts of employee dishonesty, forgery or alteration and computer fraud with minimum limit of \$1,000,000 per loss. The policy shall include coverage for all directors, officers, agents and employees of the Contractor.

The bond or policy shall include coverage for extended theft and mysterious disappearance.

The bond or policy shall not contain a condition requiring an arrest and conviction.

7.1.7. Cyber Liability. Providing third party coverage to include security, privacy, regulatory action, event management for all affected persons whose confidential information was compromised or was reasonably likely to have been compromised, cyber extortion, and crisis fund insurance. This policy shall carry a minimum limit of \$1,000,000. If policy is of a claims made type, such coverage shall be for a minimum of two (2) years following expiration or termination of this Agreement and shall provide for a retroactive date no later than the inception date of this Agreement.

7.1.8. Property. Contractor shall not be obligated to maintain property insurance on Contractor's furnishings, fixtures, equipment and personal property. All furnishings, fixtures, equipment, and property of every kind and description of Contractor and of persons claiming by, through, or under Contractor which may be located on County property shall be at the sole risk and hazard of Contractor and no part of loss or damages to such property from whatever cause shall be the responsibility of, charged to, or borne by the County.

7.1.9. Umbrella/Excess Liability. If the underlying liability policy limits are less than those required, Contractor may provide an excess or umbrella policy to meet the required limits of insurance. The excess or umbrella policy shall extend coverage over the underlying liability policy(s) with policy limits less than those required. Any additional insured under any policy of the underlying insurance will automatically be an additional insured under this insurance.

7.2. Additional Insurance Provisions.

- 7.2.1. If the Contractor maintains higher limits than the minimums shown above, the County requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the County.
  - 7.2.2. The Contractor shall provide the County with certificates of insurance on an approved form, evidencing the above amounts. Buncombe County shall be named as additional insureds under the commercial general liability policy. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under the Contract and remain in effect for the duration of the Agreement.
  - 7.2.3. Each insurance policy required above shall state that coverage shall not be canceled, except with written notice to the County, delivered in accordance with the policy provisions. All insurance shall be procured from reputable insurers authorized and qualified to do business in North Carolina with a rating of A- VII or better as determined by A. M. Best Company and shall be in a form acceptable to the County.
  - 7.2.4. Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Buncombe County is an additional insured on insurance required from subcontractors.
  - 7.2.5. Waiver of Subrogation: Contractor hereby grants to County a waiver of any right to subrogation which any insurer of said Contractor may acquire against the County by virtue of payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation.
  - 7.2.6. The limits of coverage under each insurance policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement.
  - 7.2.7. Nothing in this section is intended to affect or abrogate Buncombe County's governmental immunity.
8. Standard of Care. Contractor shall exercise reasonable care and skill as might be expected from similarly situated professionals performing services of the kind

required under this Contract at the time and the place where the services are rendered. The staff of and subcontracted professionals engaged by Contractor shall possess the experience, knowledge and character necessary to qualify them to perform the particular duties to which they are assigned.

9. Default and Termination. If Contractor fails to prosecute the services with such diligence as will insure its completion within the Contract time, or if Contractor breaches any one of the terms and conditions contained in this Contract and fails to cure said breach within five (5) days of County mailing Notice of Default, County may terminate this Contract at the expiration of the fifth day after mailing such Notice of Default.
10. Termination for Convenience. County may terminate this Contract for convenience at any time and without cause upon thirty (30) days prior written notice. Upon receipt of notice, Contractor shall immediately discontinue the services and, if applicable, placing of orders for materials, facilities, and supplies in connection with the performance of this Contract.
11. Non-appropriation. All funds for payment by County under this Contract are subject to the availability of all annual appropriation by the Board of Commissioners. In the event of non-appropriation of funds by the Board of Commissioners for the services provided under the Contract, County will terminate the Contract, without termination charge or liability, on the last day of the then-current fiscal year or when the appropriation made for then-current year for the services/items covered by this Contract is spent, whichever occurs first. If at any time funds are not appropriated for the continuance of this Contract, cancellation shall be accepted by Contractor upon three (3) days prior written notice, but failure to give such notice shall be of no effect and County shall not be obligated under this Contract beyond the date of termination.
12. Subcontracts. The Contractor shall utilize no subcontractors for performing the services to be performed under this Contract without the prior written approval of the County which shall not be unreasonably withheld.
13. Entire Contract. This Contract constitutes the entire understanding of the parties.
14. Binding Effect. This Contract shall be binding upon the parties hereto, and their heirs, successors, executors, administrators and assigns.
15. Severability. If any provision of this Contract is held unenforceable, all remaining provisions of this Contract shall remain in full force and effect.
16. Inclusive Terms. Use of the masculine herein shall include the feminine and neuter, and the singular shall include the plural.

17. **Governing Law.** This Contract shall be governed by the laws of the State of North Carolina and should any claim or dispute arise between the Parties that cannot be resolved amicably, then any action to enforce or interpret its terms shall be brought in the General Court of Justice of Buncombe County, North Carolina which shall have venue and jurisdiction over the subject matter and the Parties. All rights and remedies of County under this Contract shall be cumulative and none shall exclude any other rights or remedies allowed by law or by equity. The Parties hereby agree that this paragraph establishes exclusive and sole venue and jurisdiction for any legal proceeding in Buncombe County, North Carolina.
18. **E-Verify Compliance.** Pursuant to N.C.G.S.143-133.3, Contractor shall fully comply with the U.S. Department of Homeland Security employee legal status E-verify requirements for itself and all its subcontractors. Violation of the provision, unless timely cured, shall constitute a breach of Contract.
19. **Notices.** All notices required hereunder to be sent to either party shall be sent to the following designated addresses, or to such other address or addresses as may hereafter be designated by either party by mailing of written notice of such change of address, by Certified Mail, Return Receipt Requested:

To County:

Buncombe County Solid Waste Director  
81 Panther Branch Rd  
Alexander, NC 28701

To Contractor:

SCS ENGINEERS, PC  
Attn: C. Ed Hilton, Jr. PE, Vice President  
5850 S. Semoran Blvd  
Orlando, FL 32822

20. **Assignability.** The parties hereto mutually agree that this Contract is not transferable and shall not be assigned by either party without the written consent of the other party to this Contract.
21. **Amendments.** This Contract shall not be modified or otherwise amended except in writing signed by the parties.
22. **Non-Discrimination.** Contractor will take affirmative action not to discriminate against any employee or applicant for employment or otherwise illegally deny any person participation in or the benefits of the program which is the subject of this Contract because of race, creed, color, sex, age, disability or national origin. To the extent applicable, Contractor will comply with all provisions of Executive Order

No. 11246, the Civil Rights Acts of 1964 (P.L. 88-352) and 1968 (P.L. 90-284), and all applicable Federal, State and local laws, ordinances, rules, regulations, orders, instructions, designations and other directives promulgated to prohibit discrimination. Violation of this provision, after notice, shall be a material breach of this Contract and may result, at County's option, in a termination or suspension of this Contract in whole or In part.

23. Contract Under Seal. The parties hereto expressly agree to create a contract under seal.

{Signature Pages Follow}



IN WITNESS WHEREOF, the parties have hereunto set their hands and seals,  
the day and year first above written and by authority duly given.

This Instrument has been pre-audited in the  
manner required by the Local Government  
Budget and Fiscal Control Act.

\_\_\_\_\_  
County Finance Officer

ATTEST:

**COUNTY OF BUNCOMBE**

\_\_\_\_\_  
Lamar Joyner, Clerk to the Board

By: \_\_\_\_\_ ( Seal)  
George A. Wood, Interim County Manager

STATE OF NORTH CAROLINA  
COUNTY OF BUNCOMBE

I, \_\_\_\_\_, Notary Public for said County and State, has personal  
knowledge of the identity of Lamar Joyner, and hereby certifies that said Lamar Joyner, Clerk to  
the Board, personally appeared before me this day and acknowledged that he is Clerk to the Board  
of Commissioners of County of Buncombe and that George A. Wood is the Interim County  
Manager of Buncombe County, and that by authority duly given and as the act of the County of  
Buncombe, the foregoing instrument was signed in its name by said Interim County Manager,  
sealed with its official seal, and voluntarily attested to by herself as its Clerk as the act and deed  
of the County of Buncombe, all by authority duly given by its governing body.

Witness my hand and notarial seal, this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My Commission Expires:

**SCS ENGINEERS, PC**

By: \_\_\_\_\_ (Seal)  
(Signature)

\_\_\_\_\_  
(Printed Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Date)

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public of the county and State aforesaid, do hereby certify that \_\_\_\_\_ personally appeared before me this day and voluntarily acknowledged the due execution of the foregoing instrument.

Witness my hand and notarial seal this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

My commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

## EXHIBIT A



Solid Waste Management Department

Request for Qualifications

Solid Waste Consulting, Engineering, and  
Environmental Monitoring Services

Due: June 8, 2018 2:00pm

Send submittals to:

Buncombe County Finance/Procurement Services

200 College Street, Suite 420 Asheville, NC 28801

Attn: Ron Venturella

## **I. INTRODUCTION**

The Buncombe County Solid Waste Management Department, is seeking statements of qualifications from firms capable of providing solid waste management consulting, engineering, and environmental monitoring services in accordance with the North Carolina Solid Waste Management rules, permit requirements, and client needs.

## **II. BACKGROUND**

The Buncombe County Solid Waste Management Department (“Department”) operates a comprehensive solid waste management system. The core components include a Subtitle D compliant municipal solid waste landfill, bioreactor landfill, construction and demolition landfill, landfill gas collection system, landfill gas to energy facility, on-site borrow areas, transfer station, convenience centers (“CC”), household hazardous waste (“HHW”) collection facilities, closed municipal solid waste landfills, as well as recycling programs and educational programs.

## **III. INFORMATION**

The purpose of this Request for Qualifications (“RFQ”) is to qualify a firm to provide solid waste management consulting, engineering, and environmental monitoring services to the Department in the planning and administration of the solid waste management program. It is anticipated that the Department will enter into a contract with a qualified firm for a five (5) year period with the option of up to two (2) one (1) year extensions, with individual tasks assigned and negotiated on “as needed and as requested” basis during the term of the contract. Three general categories of services are identified as:

- 1) General solid waste management consulting services
- 2) Solid waste management engineering services
- 3) Environmental monitoring and reporting services.

Furthermore, the Department may identify specific tasks within those categories for services to be provided by the firm. To be deemed qualified and to contract with the Department, the firm needs to demonstrate qualifications in as many categories and specific tasks (see listing in IV. Scope of Work). However, qualifications in all categories or all tasks in a category are not required.

## **IV. SCOPE OF WORK**

The Department is seeking the services of qualified firms or individuals with extensive knowledge and background in the solid waste management field. These services should potentially include but are not limited to:

### **Solid Waste Management Consulting**

- Comprehensive solid waste management consulting
- Local, State of North Carolina, and Federal regulatory compliance and management
- Program planning and evaluation

- Program management and assistance
- Public meetings and presentations
- Information/communications services
- Budgetary and financial enterprise fund planning, management, and administration

### **Solid Waste Management Engineering**

- Comprehensive solid waste management engineering services including minimum 2 years experience with bioreactor landfills
- Engineering certification of reports, documents, and submissions
- Design services and technical support for solid waste management programs
- Engineering reviews and evaluations
- Project supervision, monitoring, and oversight
- Provide year-end closure/post-closure care certifications

### **Environmental Monitoring**

- Comprehensive environmental consulting
- Landfill gas sampling, monitoring, reporting, and management
- Groundwater sampling, monitoring, reporting, and management
- Surface water sampling, monitoring, reporting, and management
- Leachate sampling, monitoring, reporting, and management
- Hydro geological assessments
- Regulatory reporting and correspondence
- Public meetings and presentations
- Permit compliance consulting

## **V. REQUIREMENTS FOR SUBMISSION AND FORMAT**

The following guidelines must be followed in the preparation and submittal of the applicant's response to this RFQ. Complete responses to each of the following categories are required. All submittals must contain the following information and follow the prescribed format. Failure to comply with the requirements of the RFQ may result in the response being considered non-responsive and rejection of the submission.

### **Format**

Written submittals shall be made on 8 1/2" x 11" paper, side bound with Table of Contents and reference tabs for key sections. The package submitted shall not exceed twenty (20) double sided sheets. Front and back covers, Table of Contents, Appendices and Tab pages are excluded from totals. Please provide two primary points of contact including email addresses. Submittals will be accepted in electronic format by email to Procurement Manager Ron Venturella at [ron.venturella@buncombcounty.org](mailto:ron.venturella@buncombcounty.org). It is the responsibility of the applicant that submittals are received. Receipt of submittals can be verified by calling 828-250-4154.

## **Qualifications of Applicants**

Qualified applicants should demonstrate the project team's overall technical expertise and experience in the solid waste management field, environmental engineering and possess a thorough knowledge of solid waste management rules and regulations. The engineering firm should demonstrate that the firm, specifically the assigned project managers and key personnel, has a thorough understanding of the regulatory requirements affecting the siting, design, permitting, and construction of solid waste management and disposal facilities (including solid waste and Title V permits) within the state of North Carolina and Buncombe County. In addition, the firm and the assigned project managers and key personnel should illustrate their understanding of the various design and construction standards applicable to solid waste management facilities. Such facilities may include but not be limited to: landfill cell construction, bioreactor landfills, stormwater management systems, solid waste transfer stations, solid waste recycling facilities, household hazardous waste collection and storage facilities, scale facilities, and other related facilities. Applicants must be experienced in Local, State of North Carolina, and Federal regulations that may affect any and all aspects of the program and have a sound working relationship with regulators in the respective field(s). Applicants must provide information to demonstrate the firm's experience in the category(s) of services, including experience with other local government agencies.

## **References**

Applicants must provide a list of 5 projects, at least three (3) in NC within the last five (5) years that demonstrate the applicant's skills and capabilities in the category(s) of services. Please include the project name, project location, project term, client contact name, address, current contact and telephone number, and a brief description of the project. Clients listed as references must be for completed work on solid waste management and design projects that are similar to those identified in this solicitation.

## **Project Management**

Applicants must provide a proposed organizational chart for services to be provided to the Department. Include resumes of key professional staff anticipated to work on Department projects. Detailed information on the staff's experience in NC and in the mountain region in the solid waste management field and knowledge of the industry should be included. Also include a description of the type of involvement that individuals on the org chart will perform for the County. Personnel proposed for assignment to the project, including all subconsultants must be identified and their qualifications provided.

Availability of the assigned contract managers and key personnel must be identified. Subcontractors shall be identified and the intended scope of their work detailed.

## **Proposal Submittal**

Submittals will be accepted in electronic format by email to Procurement Manager Ron Venturella at [ron.venturella@buncombecounty.org](mailto:ron.venturella@buncombecounty.org). It is the responsibility of the applicant that submittals are received. Receipt of submittals can be verified by calling 828-250-4154.

If submittals are paper then applicants will submit five (5) copies of qualifications with one (1) electronic copy on CD to:

Buncombe County Finance/Procurement Services  
200 College Street, Suite 420 Asheville, NC 28801  
Attn: Ron Venturella

Proposal responses must be received before **2:00 PM on June 8, 2018**

Late responses, regardless of delivery means, will not be accepted.

## **VI. SELECTION PROCESS**

Buncombe County will use the following selection process. This process is designed to ensure that consultants are selected in a fair and uniform manner, those selected for work are qualified and experienced in the professional services desired, and to ensure that every qualified consultant has the opportunity to be considered for providing professional services to Buncombe County.

The Buncombe County Manager or his/her designee will appoint a Selection Committee to evaluate responses to the Request for Qualifications and determine the most qualified applicants. The RFQ will be posted on the Buncombe County website under "Purchasing". Upon receipt of the packages from respondents, the Selection Committee members will review using a scoring program that has been determined by the committee and is detailed below. Past performance will be scored based on responses from the references submitted by the responder and/or the experience of Buncombe County staff with the particular firm's past performance. Only one reviewer will contact any given reference.

The Selection Committee will use the total point scores to rank the prospective consultants. The Selection Committee will determine a short list of the most highly qualified Engineering Firms based upon the ranking scores. The highest ranking firm will be proposed as the selected firm and authorization will be sought from the Board of County Commissioners for contract award.

If desired, the selection committee may short list the number of qualified firms. The County reserves the discretion to determine the number of firms that will be on the short list. The County may engage in individual discussions with two or more offerors deemed fully qualified, responsible, and suitable on the basis of initial responses and with emphasis on professional competence to provide the required services. Interviews are not anticipated; however, the selection committee may schedule interviews if required in the selection process.

## **VII. EVALUATION SCORE SHEET**

Failure to include requested information in the RFQ response package will result in a score of zero for the section in which the information applies.

**I. Company Experience –****30 Points**

- Company's history & experience in solid waste management and design.
- Overall qualifications of project managers and key personnel
- Overall experience with:
  - Solid waste management regulations
  - Municipal solid waste landfill cell design, bioreactor landfill design and operation (experience at minimum of 2 landfill sites), closure and operation.
  - Solid waste transfer station design and operation.
  - Landfill gas systems design and operation.
  - Landfill gas to energy facility design and operation.
  - Stormwater management systems design and operation.
  - Customer convenience site design and operation.
  - Leachate management system design and operation.
  - Environmental assessment and permitting
  - Company's expertise and experience with community relations.

**II. Project Management:****40 Points**

- Firm staff's experience in North Carolina and Buncombe County.
- Project team organization and "chain of command".
- Data management and project tracking methods.
- Cost and schedule controls.
- Quality assurance procedures.
- Subconsultants

**III. References****30 Points****TOTAL POINTS:****100 Points****VIII. GENERAL COMMENTS**

When responding to this RFQ, please follow all instructions carefully. Please submit proposal contents according to the outline specified and submit documents according to the instructions. Failure to follow these instructions may be considered a non-responsive proposal and may result in immediate elimination from further consideration.



**By submitting a proposal, Vendors acknowledge that:**

The County reserves the right to reject any or all proposals for any reason. The County reserves the right to reconsider any proposal submitted at any phase of the procurement. It also reserves the right to meet with select Vendors at any time to gather additional information.

**Proposals will be received by Buncombe County Government at the time and place noted on the cover page of this document. At that point, Buncombe County will close the receipt of proposals and begin the evaluation process. The only information that will be released will be the names of the respondent(s). No other information will be disclosed, except as required by the evaluation process, until a contract is awarded.**

The County must receive proposals before **2:00p.m. on June 8, 2018**. *The Vendor's name, RFQ number, and proposal closing time and date must be marked clearly on the proposal submission.* The time of receipt shall be determined by the time clock in the Buncombe County Procurement Services office. The County will not be held responsible for the failure of any mail or delivery service to deliver a proposal response prior to the stated proposal due date and time. It is solely the Vendor's responsibility to: (1) ascertain that they have all required and necessary information, documents, and addenda prior to submitting a response; (2) ensure that the response is received at the correct location and time. Late responses, regardless of delivery means, will not be accepted. Proposals received by telephone, telegraph, or facsimile shall not be accepted.

By submission of a response, the Vendor agrees that at the time of submittal it: (1) has no interest (including financial benefit, commission, finder's fee, or any other remuneration) and shall not acquire any interest, either direct or indirect, that would conflict in any manner or degree with the performance of Vendor's services, or (2) will not benefit from an award resulting in a "Conflict of Interest." A "Conflict of Interest" shall include holding or retaining membership or employment on a board, elected office, department, division or bureau, or committee sanctioned by and/or governed by Buncombe County. Vendors shall identify any interests and the individuals involved on separate paper with the response and shall understand that the County, in consultation with legal counsel, may reject their proposal.

The County assumes no responsibility for confidentiality of information offered in a proposal. The RFQ does not intend to elicit proprietary information. However, if proprietary information is submitted as part of the proposal, the information is to be labeled as such. Proposals are not subject to public inspection until after the contract award. Buncombe County reserves the right to share any information submitted in response to this RFQ with any person(s) or firm(s) involved in the review and evaluation process. Proprietary or confidential information must be clearly labeled as such at the time of initial submission and to the extent provided by N.C.G.S. Chapter 132, will not be made available for public inspection. In the event a request for inspection is made under public records law, the Vendor will be notified of the request and may participate in any subsequent civil action to compel disclosure of confidential information.

- Any cost incurred by respondents in preparing or submitting a response to the RFQ shall be the respondent's sole responsibility.
- Any questions regarding the RFQ should be directed to Dane Pedersen, Interim Solid Waste Director via email address [DaneWesleyD.Pedersen@buncombecounty.org](mailto:DaneWesleyD.Pedersen@buncombecounty.org).

- Vendor shall acknowledge within their cover letter the receipt of all Addendums.
- Buncombe County reserves the right to approve all personnel working on Buncombe County projects. Key professional staff may not be removed, reassigned, or replaced without prior approval from Buncombe County.

# Request for Qualifications Solid Waste Consulting, Engineering, and Environmental Monitoring Services

Buncombe County  
Solid Waste Management Department  
Buncombe County Finance/Procurement Services  
200 College Street, Suite 420  
Asheville, North Carolina 28801  
(828) 250-4154

**Solving Your Environmental Challenges is SCS's Primary Mission. Our values are absolute; we believe in:**

- Providing superior client service that meets or exceeds your expectations.
- Practical, value-added solutions. Technical excellence and quality work.
- Holding paramount the safety and health of our clients, the public, and our employees.
- Professionalism and integrity. Being honest, fair, and ethical.

**SCS ENGINEERS, PC**

June 8, 2018 | 2:00 pm

20 Battery Park Avenue  
Suite 505  
Asheville, North Carolina 28801  
(828) 285-8951

June 8, 2018  
File No. 090214218

Mr. Ron Venturella  
Buncombe County Finance/Procurement Services  
200 College Street  
Suite 420  
Asheville, NC 28801

Subject: Request for Qualifications  
Solid Waste Consulting, Engineering, and Environmental Monitoring Services

Dear Mr. Venturella and Selection Committee Members:

Stearns, Conrad, and Schmidt, Consulting Engineers, Inc., dba SCS Engineers, PC (SCS) is a full service solid waste consulting, engineering and contracting firm licensed in North Carolina to practice engineering, geology, and construction. We believe SCS offers Buncombe County the most-qualified firm in the State to address the areas of expertise and practice outlined in your qualification request. We believe our project experience and diverse staff will be able to respond to any solid waste project that occurs in the County.

SCS' long history of successful performance on solid waste related projects in a governmental setting across North Carolina includes Buncombe County and the following clients:

- |                       |                         |                      |
|-----------------------|-------------------------|----------------------|
| • Anson County        | • City of Winston Salem | • New Hanover County |
| • Bertie County       | • Forsyth County        | • Orange County      |
| • Brunswick County    | • Gaston County         | • Pitt County        |
| • Cabarrus County     | • Guilford County       | • Robeson County     |
| • Catawba County      | • Iredell County        | • Sampson County     |
| • Caldwell County     | • Johnston County       | • Union County       |
| • City of Chapel Hill | • Lincoln County        | • Wake County        |
| • City of Charlotte   | • Mecklenburg County    | • Wilson County      |
| • City of Greensboro  | • Montgomery County     |                      |

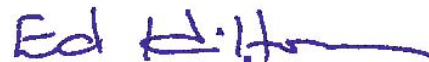
SCS looks forward to expanding our business relationship and partnership with Buncombe County, its staff and supporting your capital improvement and regulatory compliance programs. As per your request, we offer Mr. Ed Hilton and Mr. Steve Lamb as two points of contact. If you have any questions or need further information, please give us a call.

Sincerely,



Steven C. Lamb, PE  
Project Director/Vice President  
SCS Engineers, PC  
(704) 504-3107

CEH/SCL



C. Ed Hilton, Jr., PE  
Project Director/Vice President  
SCS Engineers, PC  
(813) 804-6719



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#### Appendix A – Key Personnel Resumes

## I. COMPANY EXPERIENCE

### I.1 COMPANY'S HISTORY & EXPERIENCE IN SOLID WASTE MANAGEMENT AND DESIGN

SCS has been a partner with Buncombe County since 2005. We have provided groundwater and landfill gas support services to you to ensure you are in compliance with all regulations while assisting in addressing other issues at both the old and new landfills, some of which include contamination in a monitoring well that we were successful in determining and convincing State regulators that the impacts were from landfill gas migration and not from leachate release. The resolution of the issue via this method avoided the potential of a pump and treat process that would have been quite expensive. In the time since 2005 that we have provided services to the County, we have had SCS professionals that have contributed to the success thus far at both landfills as to the groundwater conditions. Because of these efforts, we have increased our understanding of your integrated solid waste program and are prepared to integrate the new landfill into our work assignments on an expanded basis. We have a high level of overall knowledge of your new generation of solid waste leaders based on our years of working with them on previous solid waste programs. These include Dane Pedersen, Kristy Smith, and Steve Hunter. We have also worked with Mike Goodson and Eric Rogers on design and construction of landfill gas protection at the Safety Training Facility and the Sheriff's Firing Range and with Donna Cottrell on solid waste financial issues on almost all projects. **We have 15 current staff members who have direct experience on Buncombe County solid waste projects. This breadth and depth of our staffing experience is a benefit to you since it virtually eliminates the learning curve.**

In 1999, we opened our first North Carolina office in Charlotte to allow us to quickly respond to our solid waste clients' needs. We now have four offices in the Carolinas including our Asheville office that opened in 2007. Since the time of opening our first office, we have completed hundreds of solid waste projects for dozens of public and private clients in North Carolina. Our experience in solid waste management and design includes providing solid waste consulting and engineering services as well as environmental monitoring and reporting. We are currently working at 21 landfills in North Carolina including Buncombe County. Our Carolina practice mirrors our national practice in that we have engineers and scientist professionals, and technicians. In total, we have over 30 staff based in the Carolinas ready to serve you.

SCS is an independent, employee-owned solid waste engineering, construction, and operation and maintenance (O&M) services firm. Founded 48 years ago, SCS has been addressing environmental concerns for our clients prior to the formation of the EPA by President Nixon. The firm has focused on the solid waste, environmental, and site remediation industries and has completed over 10,000 solid waste projects in that time. We know of no other firm that has the experience in solid waste projects as SCS. We have grown to a staff of over 800 consultants, engineers, geologists, scientists,



Stearns, Conrad, and Schmidt,  
Consulting Engineers, Inc.  
dba SCS Engineers PC  
S Corporation

#### **Organization**

Formed in 1970, Incorporated in  
1972 in the Commonwealth of  
Virginia (SCS Engineers PC in  
North Carolina)

#### **FEIN No.**

54-0913440

#### **Licenses**

NC Engineering: NC-1837  
NC Geology: C-444



#### **Ed Hilton, PE, Vice President**

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C 386-679-9324  
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#### **Steven Lamb, PE, Vice President**

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constructors, planners, and technicians with offices located throughout the United States. We specialize in providing solid waste solutions for local government and private industry clients alike, and are recognized worldwide for our work; this recognition is the result of successfully completing thousands of complex and innovative environmental projects.

**Figure 1** demonstrates a general summary of SCS in-house capabilities.

Figure 1. SCS Solid Waste In-house Capabilities

|   |   |   |
|---|---|---|
| Solid Waste Planning and Facilities             | <ul style="list-style-type: none"> <li>▪ Solid Waste Master Planning</li> <li>▪ Integrated Solid Waste Management Plans</li> <li>▪ Institutional Analysis</li> <li>▪ Regulatory Trend Evaluations</li> <li>▪ Operations Assessments</li> <li>▪ Feasibility Studies</li> <li>▪ Technology Evaluations</li> <li>▪ Rate Studies</li> <li>▪ Construction Services</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Waste Reduction and Recycling Programs</li> <li>▪ Waste Stream Characterization</li> <li>▪ Siting Studies</li> <li>▪ Procurement Assistance</li> <li>▪ Public Hearings</li> <li>▪ Public Participation</li> <li>▪ Equipment Specifications</li> <li>▪ Transfer Station and MRF Design</li> </ul>   |
| Landfill Engineering Services                   | <p><b>Design and Permitting</b></p> <ul style="list-style-type: none"> <li>▪ Alternative Liner Demonstrations</li> <li>▪ Alternatives Evaluation</li> <li>▪ Bid Documents</li> <li>▪ Bioreactor Design</li> <li>▪ Capacity Optimization</li> <li>▪ Construction Plans</li> <li>▪ Engineering Services During Construction</li> <li>▪ Feasibility Studies</li> <li>▪ Geotechnical Engineering</li> <li>▪ Stormwater Management</li> <li>▪ Hydrogeology</li> <li>▪ Landfill Designs (all phases)</li> <li>▪ Leachate Collection Systems</li> <li>▪ Liner System Design</li> <li>▪ Permitting, Expansions</li> <li>▪ Permitting, Greenfield Sites</li> <li>▪ Site Investigations</li> <li>▪ Siting Studies</li> </ul> <p><b>LFG Management</b></p> <ul style="list-style-type: none"> <li>▪ Air Quality Permitting</li> <li>▪ Construction</li> <li>▪ Design and Permitting</li> <li>▪ Due Diligence for Financing</li> <li>▪ LFG Control Systems</li> <li>▪ LFG-to-Energy (LFGE)</li> <li>▪ Operation, Maintenance and Monitoring</li> <li>▪ Site Investigations</li> </ul> | <p><b>Operations Program Development</b></p> <ul style="list-style-type: none"> <li>▪ Airspace Management</li> <li>▪ Alternate Daily Cover</li> <li>▪ Alternate Materials Application</li> <li>▪ Hazardous Waste Exclusions</li> <li>▪ Special Waste Management</li> </ul> <p><b>Remediation</b></p> <ul style="list-style-type: none"> <li>▪ LFG Migration</li> <li>▪ Remedial Measures</li> <li>▪ Feasibility Studies</li> <li>▪ Design</li> <li>▪ Construction Management</li> </ul> <p><b>Closure/Post Closure</b></p> <ul style="list-style-type: none"> <li>▪ Planning and Permitting</li> <li>▪ Final Cover Designs</li> <li>▪ Closure Certification Documentation</li> <li>▪ End Use Planning</li> <li>▪ Post Closure Monitoring and Inspection</li> <li>▪ Financial Assurance Reporting</li> <li>▪ Landfill Redevelopment</li> </ul> <p><b>Groundwater Monitoring</b></p> <ul style="list-style-type: none"> <li>▪ Well Installation</li> <li>▪ Monitoring Plan</li> <li>▪ Regulatory Agency Reporting</li> <li>▪ Corrective Action Plans</li> <li>▪ Investigation and Modeling</li> </ul> |
| Compliance Management and Regulatory Compliance | <ul style="list-style-type: none"> <li>▪ Computerized Compliance Tracking Systems</li> <li>▪ Economic Analysis</li> <li>▪ Environmental Compliance Audits</li> <li>▪ Expert Testimony</li> <li>▪ Feasibility Studies</li> <li>▪ Integrated Solid Waste Management Plans</li> <li>▪ Pre-acquisition Due Diligence Reviews</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Public Hearings</li> <li>▪ Public Participation</li> <li>▪ Rate Studies</li> <li>▪ Record Keeping</li> <li>▪ Regulatory Reporting</li> <li>▪ Waste Reduction and Recycling Programs</li> <li>▪ Waste Stream Characterization</li> </ul>  |

## I.2 OVERALL QUALIFICATIONS OF PROJECT MANAGERS AND KEY PERSONNEL

Per your request of having two points of contact, we have developed our team where our team leader will be **C. Ed Hilton, Jr., PE** and his deputy will be **Steven C. Lamb, PE**. Steve and Ed have worked together for 13 years having completed dozens of projects. Steve manages SCS's operations in North Carolina, with offices in Asheville, Charlotte, and Raleigh.



Ed Hilton, Jr., PE

### RELEVANCE

- ✓ 26 Years Buncombe County Experience
- ✓ 45 Years of Experience
- ✓ Familiar with NCDEQ Regulations and Staff
- ✓ Worked on Bioreactor Landfills

Ed designed his first North Carolina landfill in 1977 and began working for New Hanover County in 1980, where he developed their solid waste program. The landfill there opened in 1981 and was the first lined municipal waste landfill in the state more than 10 years ahead of Federal regulations requiring this type of environmental protection. Leachate recirculation was first practiced in that landfill in the 1980s to manage leachate and to expedite waste degradation. Since his departure from New Hanover Ed has continued to provide engineering

services for the County and recently was re-selected to continue doing so for another six-year term.

His first involvement in assisting Buncombe County in addressing solid waste planning was in the late 1980s. During that period of time he participated in two presentations to the Buncombe County Board of Commissioners (Board) concerning the solid waste program that he directed, which included waste-to-energy. In the early 1990s, having returned to the private sector, he was involved in a landfill siting study and presentation of the results of that study to the Board. This effort also included conducting public meetings on the issue. The current active landfill was one of the recommended sites determined from the study. Ed has over 26 years of continuous service providing consulting and engineering assistance to Buncombe County.

Steve is SCS's solid waste leader for the Carolinas. He provides SCS with over 30 years of experience in solid and hazardous waste management, environmental engineering, civil engineering, hydrology and hydraulics, landfill engineering, remedial design, and regulatory compliance. He has completed over 400 solid waste projects including cell designs and landfill gas systems in North Carolina and a bioreactor landfill for the Salt River Landfill in Arizona. Steve has 14 solid waste employees reporting to him in the Carolinas. He is currently the program manager for solid waste professional services contract with Cumberland County, NC and Berkeley County, SC. Steve has worked in North Carolina for over 16 years and is very familiar with NCDEQ regulations and NCDEQ solid waste staff.



Steve Lamb, PE

### RELEVANCE

- ✓ 16 Years in North Carolina
- ✓ 30 Years of Experience
- ✓ Completed Over 400 Solid Waste Projects
- ✓ Familiar with NCDEQ Regulations and Staff
- ✓ Familiar with Buncombe County Landfills



Carlo Lebron, PE

### RELEVANCE

- ✓ 10 Years North Carolina Experience
- ✓ 19 Years of Experience
- ✓ Worked on Bioreactor Landfills
- ✓ Familiar with NCDEQ Regulations

**Carlo Lebron** will be the quality control officer for this contract. Carlo is a North Carolina Professional Engineer who has practiced engineering in NC since 2008. Carlo has worked on bioreactor landfills, transfer stations, and landfill gas projects and has lent assistance to over half a dozen municipalities in the Carolinas with solid waste engineering services.



For the past 23 years, **Albert Glenn's** career has focused in the solid waste field providing engineering and technical services for some of the largest solid waste management facilities in the Southeast of the United States and internationally. All 23 years have been in North Carolina. His experience includes project management, planning, regulatory liaison, federal and state permitting, construction quality assurance (CQA) and quality control, new and closure landfill design, transfer station and convenience center design, development of construction packages, and construction administration for the solid waste industry.



Albert Glenn, PE

#### RELEVANCE

- ✓ 23 Years North Carolina Experience
- ✓ Familiar with Buncombe County
- ✓ Familiar with NCDEQ Regulations and Staff



David Greene, PE

#### RELEVANCE

- ✓ 24 Years of Experience
- ✓ Air Regulatory Assistance at 14 North Carolina Landfills, including Buncombe County
- ✓ Authored Articles on New NSPS rules for MSW Landfills

Based in Asheville, **David Greene** is a project manager with a variety of solid waste related environmental engineering experience focused on air regulation compliance, landfill gas evaluations, and feasibility assessments. His work includes air permitting, landfill gas, financial analysis, landfill due diligence efforts, regulatory development and analysis, compliance planning, greenhouse gas monitoring, emission inventory including emission factor development, and SPCC and SWPPP development. David has authored a

couple of published articles regarding implementation of the new NSPS rules for MSW Landfills.

David joined SCS Engineers in early 2009, and over the past 9 years, has provided air regulatory assistance at 14 landfills in North Carolina, including Buncombe County's closed landfill, four NSPS Subpart XXX sites in the state, and 18 Subpart WWW-subject sites in various states. David has been involved in air permitting activities for LFG-fired engines or turbines at eight sites across multiple states including North Carolina, and has also supervised stack testing for several LFG-fired engines. David assisted Buncombe County in complying with the federal greenhouse gas reporting regulations for the County's closed landfill by developing a data monitoring plan and coordinating with the closed landfill's third party landfill gas energy developer.

**Table 1** provides a quick summary of the experience of our project team members.

Table 1. Capabilities and Experience

|                             | Years' Experience | Education | Buncombe County Projects | Solid Waste Management | Municipal Solid Waste Landfill Cell Design, Bioreactor Landfill Design and Operation, Closure and | Solid Waste Transfer Station Design and Operation | Landfill Gas Systems Design and Operation | Landfill Gas to Energy Facility Design and Operation | Stormwater Management System Design and Operation | Customer Convenience Site Design and Operation | Leachate Management System Design and Operation | Environmental Assessment and Permitting | Community Relations |
|-----------------------------|-------------------|-----------|--------------------------|------------------------|---|---|---|--|---|--|---|---|---------------------|
| <b>Key Personnel</b>        |                   |           |                          |                        |   |   |   |  |   |  |   |   |                     |
| C. Ed Hilton, Jr., PE       | 45                | BS        | ●                        | ●                      | ●   | ●   | ●   |  | ●   | ●  | ●   | ●                                       | ●                   |
| Steve Lamb, PE              | 30                | BS        | ●                        | ●                      | ●   | ●   | ●   | ●  | ●   |  | ●   | ●                                       | ●                   |
| Carlo Lebron, PE            | 19                | BS        |                          | ●                      | ●   | ●   | ●   | ●  | ●   | ●  |   | ●                                       | ●                   |
| Albert Glenn, PE            | 23                | BS        | ●                        | ●                      | ●   | ●   | ●   | ●  | ●   | ●  | ●   | ●                                       | ●                   |
| David Greene, PE            | 24                | MBA       | ●                        | ●                      |   |   | ●   | ●  |   |  | ●   | ●                                       |                     |
| <b>Project Team Members</b> |                   |           |                          |                        |   |   |   |  |   |  |   |   |                     |
| Robert B. Gardner, PE       | 38                | ME        |                          | ●                      | ●   | ●   | ●   | ●  | ●   | ●  | ●   | ●                                       | ●                   |
| Vita Quinn                  | 12                | MBA       |                          |                        |   |   |   |  |   |  |   |   | ●                   |
| James Law, PE               | 33                | ME        |                          | ●                      | ●   | ●   | ●   | ●  |   |  | ●   |   |                     |
| Mike Kalish, PE             | 22                | BS        |                          | ●                      | ●   | ●   | ●   | ●  | ●   | ●  | ●   | ●                                       | ●                   |
| Shane Fischer, PE           | 18                | MS        |                          | ●                      |   | ●   |   |  | ●   | ●  | ●   | ●                                       |                     |
| Ravi Kadambala, PE          | 14                | PhD       | ●                        | ●                      | ●   | ●   | ●   |  | ●   | ●  | ●   | ●                                       |                     |
| Orion Holtey, PE            | 17                | MBA       | ●                        | ●                      | ●   |   | ●   |  | ●   |  | ●   |   |                     |
| Ian Spurlock, PE            | 5                 | BS        | ●                        |                        |   |   |   |  | ●   |  | ●   |   |                     |
| Jared Hamela, PG            | 10                | BS        | ●                        | ●                      |   |   |   |  |   |  |   | ●                                       |                     |
| Kayla Ouellette             | 6                 | MS        | ●                        | ●                      |   |   |   |  |   | ●  |   | ●                                       |                     |
| J. Morgan, PE               | 17                | MBA       |                          | ●                      |   |   | ●   | ●  | ●   |  |   | ●                                       | ●                   |
| Marta VanDussen, EI         | 7                 | MS        | ●                        | ●                      |   |   |   |  | ●   |  | ●   | ●                                       | ●                   |
| Tony Cartee                 | 22                | --        | ●                        |                        |   |   | ●   | ●  |   |  |   |   |                     |

## I.3 OVERALL EXPERIENCE

Solid waste consulting is the primary business of SCS Engineers. The Team we have put together for your projects has conducted the full range of landfill and other solid waste facility-related studies, design, and construction projects for governments and private clients throughout the US and internationally. Our experience has established SCS as one of the preeminent firms in the area of municipal solid waste consulting. SCS possesses the qualifications and experience to provide a wide variety of solid waste management engineering services.

In addition to the firm's engineering services, SCS offers clients full-service construction capabilities, through our SCS Field Services Division, including design/construct, construction contracting, and operation and maintenance of LFG recovery and control systems and remediation systems.

### Experience on Similar Projects

**Solid Waste Management Regulations:** SCS has been providing design, permitting, and construction services to New Hanover County for more than a decade, sometimes generating unique circumstances through the permitting process. Knowledge of the regulations and their applications often provide opportunities to offer designs that benefit the client. With the most recent construction/operation permit application for Cells 7-13, we worked closely with NCDEQ to lower the bottom elevation of the landfill. **This application saved the County nearly \$3 million in soils required for the operation or construction of the new cells which includes Cells 14 and 15. It also incentivized the gaining of approximately \$13 million in additional airspace for disposal based on current tip fees.** Through all the years of landfill project development, we have built professional relationships with the regulators in all aspects of solid waste facilities and operations. Those relationships will prove helpful when dealing with solid waste and environmental permitting, reporting, and operation.

**Municipal Solid Waste Landfill Cell Design:** Members of our design team have experience in all aspects of disposal facilities that range from gaining suitability approval of potential landfill sites, to planning of facilities and operation of sites, construction permitting design for disposal units and closures, certification of construction, and preparation of operation plans. In Section II of the submittal, we list clients in the Carolinas for whom we have conducted solid waste services for around the United States and overseas. We have worked on literally hundreds of sites including but not limited to bioreactors.

By definition a "bioreactor" landfill is a municipal solid waste disposal unit that operates to rapidly transform and degrade organic waste. The increase in waste degradation and stabilization is accomplished through the addition of liquid including leachate to enhance microbial processes. Some facilities inject air in the process to keep the waste fill in an aerobic condition. Those facilities that do not inject air are anaerobic and produce landfill gases. These gases can be collected and provide a beneficial use as per the Buncombe County new landfill. Power is generated at the new landfill from



Contamination Study Area of the  
Buncombe County Closed Landfill

the gas collected. The concept of injecting leachate is also a positive approach to management of landfills by reducing the volume of liquids that have to be treated for ultimate discharge. Buncombe County has the distinction of being one of only three lined landfills in the US designated as bioreactor site under the EPA Project XL Program.

Some of the bioreactor sites that we have been involved in includes conducting feasibility studies, preparation of RD&D design applications, preparation of construction design documents, preparation of landfill gas design documents, preparation of construction specifications, conducted technology reviews, conducted operation plans and evaluations, prepared facility upgrade designs, and/or conducted Annual Reports. Locations for these efforts include Salt River Landfill, Scottsdale, AZ.; Brisbane, Australia; Beijing, China; Houston, TX; Tucson, AZ; and Baltimore, MD.

In New Hanover County, members of our team have been involved in almost all of the projects on the landfill site. Many of our key personnel were instrumental in the siting, design and permitting of the South Property, a 93+ acre landfill footprint expansion utilizing a double liner system, and the associated master stormwater and erosion control plans. They were involved in the design, permitting, and construction of the South Slope Closure and are currently involved in the construction of Cell 7. Meanwhile other members of our team have also been assisting New Hanover with the recent completion of the C&D recycling facility, leachate collection, and treatment and management systems for all landfill cells. Most notable are the new reverse osmosis facility and leachate concentrate recirculation.

#### **Solid Waste Transfer Station Design and**

**Operation:** SCS has significant experience with transfer stations, waste recycling, household hazardous waste (HHW), and scale facilities. Mike Kalish, a member of our team, is the national guru at SCS when it comes to these facilities. Many of the other key personnel have experience in several designs, including transfer stations/citizens drop off and scales for Pinellas and Charlotte County in Florida. Our team is also currently finalizing a redesign for Orange County, Florida, that includes updates to an existing transfer station and the addition of a citizen's drop off plus an HHW collection and storage building to that existing site.



Redesign of Transfer Station  
Orange County, Florida

**Landfill Gas Systems Design and Operation:** SCS is nationally recognized for our expertise in LFG management. Some of our national leaders in LFG management have been and will be involved in your facility design. The LFG group from our Asheville and Charlotte offices have been involved in Title V permitting and Tier II testing and analysis, of which includes the New Hanover site. Through their efforts, our clients have delayed initiating active LFG recovery systems and have designed systems to enhance gas collection and to control odors. This includes design of flare systems to provide destructive burning of LFG and design of energy producing systems that use the gas for beneficial



Gas Valve at Area A  
Buncombe County Closed Landfill



use. Our North Carolina Field Services leader recently did a walk-through review of the condition of the gas collection system at the old Buncombe landfill and assisted in the development of issues that should be addressed to bring the system into more productive capability.

**Landfill Gas to Energy Facility:** The SCS Energy Group is involved in the development of energy producing systems and provides installation and operational assistance. We are the only solid waste engineering firm that has a landfill gas to energy group. Our energy group designs, builds, operates and maintains electrical and Hi & Low BTU landfill gas to energy projects. We designed, built, and operated the LFG to energy project in DeKalb County, Georgia, and Manatee County, Florida.

**Stormwater Management Systems:** Virtually every solid waste facility has stormwater management requirements. Permitting of stormwater facilities on a landfill site in North Carolina requires coordination with both the Solid Waste Group and the North Carolina Land Quality Group. We typically utilize stormwater modeling software acceptable to the agencies to aid in the design of our stormwater treatment and storage facilities. Unique design situations often arise because of site conditions or client preferred conditions. For example, on the Cedar Trail facility we designed a closure with part of the facility utilizing an exposed liner while the remainder of the site was closed with soil and grass cover over the liner. This enabled the exposed liner section of the site to be temporarily closed at a reduced cost. Applying an exposed liner to that face required developing the stormwater design model to determine the most effective way to collect the runoff.

**Customer Convenience Site Design and Operation:** Many of our clients have needs for areas where individuals and/or small collection operators can bring their waste and recyclables. These facilities are generally referred to as “Convenience Centers.” For more rural areas, the sites can be as simple as an un-manned open top transfer container; however, small operators from the active working force are preferred for sophisticated recycling/waste disposal facilities for operation efficiency and safety reasons. Several un-manned sites have been developed for this purpose in Charlotte County, Florida, that include recycling drop-off, HHW, and a simple transfer station that are housed on one site. Routing of traffic was critical for the multi-functional area. Remote scale systems have allowed for the ease of transfer collections for the same client.



West Charlotte Mini Transfer Station  
Charlotte County, Florida

**Leachate Management System Design:** With the initiation of the Subtitle D regulations, leachate management became the most challenging component of lined landfill waste management. All landfills now require efficient collection of the leachate to meet the maximum head requirement over liners. SCS typically uses combinations of piping and geocomposites to meeting the State and Federal design permit requirements; applying the EPA HELP Model to generate the calculations for long-term operating conditions and the established 25 year 24 hour storm event to design for the recovery in 72 hours. System pumping design addresses the worst-case scenario of removing leachate from the disposal area while still providing for controlled cycling of pumping runs. Management of leachate treatment follows as another key element of landfill operation, which is where Buncombe's bioreactor comes into play. Not only does the recirculation of leachate help in the biological activity desired in the landfill, it also reduces the volume of leachate that must be tankard to MSD for ultimate processing and disposal. Hauling cost reduction is a benefit of that program.



The French Broad River Adjacent to the Buncombe County Closed Landfill

**Environmental Assessment and Permitting:** Ed Hilton has been involved in environmental issues for Buncombe County since the early 1990s. This includes management of the groundwater contamination evaluation and approaches to addressing the cleanup by a logical cost effective method. Working closely with the State regulators, we have developed a working approach and avoided the high cost of developing more expensive resolutions to the problem. The approach required first developing and conducting a groundwater investigation to define the extent of said problem. Having done that, the effort has been focused on encouraging the natural treatment process by injecting compounds into the contaminated area that encourage the "bugs" to transform the contaminants into harmless compounds. Once injected the harmful compounds are monitored for the success of the treatment. The first injection program was conducted over a two year period during the mid-2000s; that effort resulted in reduction of contaminants to acceptable levels at that location that are still within the regulatory standards. The second stage of that process is currently underway with the changes in the contaminant levels monitored on a semi-annual basis.

SCS projects have also required extensive assessments of the overall site conditions as a component of permitting property to be used for landfilling purposes. The latest of these permits was for New Hanover County led by Ed Hilton, and included environmentally what we refer to as the "bugs and bunnies" conditions. These conditions require



View from Area D Adjacent to the Safety Training Facility Buncombe County Closed Landfill

evaluation and acceptance of impacts on the vegetation and live species located on the property. SCS worked with subconsultants including soil and hydrogeo firms to establish the groundwater conditions for the expansion of the current landfill site. We were pleased that the University of North Carolina at Wilmington was a player in that effort particularly where flora and fauna were involved. Working with the County staff, SCS was able to get the property accepted as a landfill site by DEQ and construction is underway for the first disposal unit on that property.

**Experience with Community Relations:** An important component of solid waste management is its relationship with the public because of the residual image of dealing with the “dump” concept. Historically, Public Education has encouraged tours of the solid waste management facilities for community and school groups, as a point of education, concerning the high technical quality of modern facilities. Buncombe County staff members have been involved in public education through visitors through facilities and interviews by newspaper and television reporters. These efforts create citizen support and should be encouraged. Our staff members have participated in similar programs and have created graphics and presentations about such programs as an educational tool during campaigns to gain public acceptance of projects, to support approval of general obligation bonds, as well as being on programs for local community service associations. Often these presentations are to boards of county commissioners to share the knowledge of programs that they may have under consideration. SCS is prepared to provide this type of assistance to the County as we did with the preparation of the site development plan for the South Property in New Hanover and for other counties seeking landfill permits.

## II. PROJECT MANAGEMENT

### II.1 STAFF'S EXPERIENCE IN NORTH CAROLINA AND BUNCOMBE COUNTY

To have successful projects at the level of complexity and expense that are common to solid waste facilities and operations, there has to be an appropriate management system, not only at the operations level but at the capital improvements level also. Having a team that supports Buncombe County's solid waste staff in carrying out their responsibilities would be best served if the leader of the support team had experience in both operations and in the design, permitting, and construction of the key facilities. That individual needs to have the ability to communicate clearly, coordinate professionally, but most of all must be capable of LISTENING to what the client's needs are and based on his experience assist the client in achieving their goals. The proposed SCS team leader for your project has the experience of being responsible for not only the operation of a local government program but has also been the individual that developed that program. Ed took a solid waste program that was reliant on the private sector to operate on sites that did not provide adequate environmental conditions and moved the program into a modern facility. He worked hand-in-hand with design engineers that adapted a hazardous waste disposal facility concept to a solid waste disposal site. Ultimately, that North Carolina County, New Hanover, took over all landfill operations and expanded the solid waste program to include other management alternatives such as waste-to-energy, which not only made beneficial use of the waste but also reduced the volume of waste going into the disposal units 80-85 percent. Ed has been bringing this type of management approach to Buncombe County for many years – to bring the right engineers/scientists to address the County staff needs, to listen to what those needs are, and invest himself in working closely with the Buncombe/SCS team as though we are an extension of your own staff. He would be a good player on your Buncombe team.

#### A Recent Success for Buncombe County!

Partnering with the DEQ office in Swannanoa, North Carolina resolved issues of metals concentration exceedances in groundwater. The ongoing issues between Duke Energy and DEQ appear to have caused the agency to require that all lined landfills in the state to start an Assessment Monitoring Program or conduct an Alternate Source Demonstration (ASD). It was determined through discussion with County staff that the ASD method would be the preferred path. On June 5, 2018, we received the letter of acceptance of our recommendation to adjust the limits of concentration on the identified metals upward to account for the natural conditions of the site. **This avoids any current requirement to expand the groundwater program at the new landfill.**





**Table 2** provides a list of North Carolina counties for which SCS staff has provided solid waste consulting, management engineering and environmental monitoring services. Each client is unique, and the types of projects we have completed varies. The staff have successfully performed the range of services requested by Buncombe County.

Table 2. Staff Experience in North Carolina and Buncombe County

|                             | Buncombe County | Gaston County | New Hanover County | Anson County | Cumberland County | City of Greensboro | Winston Salem | Lincoln County | Town of Chapel Hill | Mecklenburg County | Orange County | Union County | Wake County |
|-----------------------------|-----------------|---------------|--------------------|--------------|-------------------|--------------------|---------------|----------------|---------------------|--------------------|---------------|--------------|-------------|
| <b>Key Personnel</b>        |                 |               |                    |              |                   |                    |               |                |                     |                    |               |              |             |
| C. Ed Hilton, Jr., PE       | ●               |               | ●                  |              |                   |                    |               |                |                     |                    |               |              |             |
| Steve Lamb, PE              | ●               | ●             | ●                  | ●            | ●                 | ●                  |               | ●              |                     | ●                  |               | ●            | ●           |
| Carlo Lebron, PE            |                 | ●             |                    |              |                   | ●                  | ●             |                |                     |                    | ●             |              |             |
| Albert Glenn, PE            | ●               |               | ●                  | ●            | ●                 | ●                  |               | ●              |                     | ●                  |               | ●            |             |
| David Greene, PE            | ●               |               | ●                  | ●            | ●                 | ●                  |               |                |                     | ●                  |               |              | ●           |
| <b>Project Team Members</b> |                 |               |                    |              |                   |                    |               |                |                     |                    |               |              |             |
| Robert B. Gardner, PE       |                 |               |                    | ●            | ●                 |                    |               |                | ●                   | ●                  | ●             |              |             |
| Vita Quinn                  |                 |               |                    |              |                   |                    |               |                |                     |                    |               |              |             |
| James Law, PE               |                 |               | ●                  | ●            |                   |                    |               |                |                     |                    |               |              | ●           |
| Mike Kalish, PE             |                 |               |                    | ●            | ●                 | ●                  |               |                |                     |                    | ●             |              |             |
| Shane Fischer, PE           |                 |               | ●                  |              |                   |                    |               |                |                     |                    | ●             |              |             |
| Ravi Kadambala, PE          | ●               |               |                    |              | ●                 |                    |               |                |                     |                    |               |              | ●           |
| Orion Holtey, PE            | ●               | ●             | ●                  | ●            | ●                 | ●                  |               | ●              |                     |                    |               |              |             |
| Ian Spurlock, PE            | ●               |               | ●                  |              |                   |                    |               |                |                     |                    | ●             |              |             |
| Jared Hamela, PG            | ●               | ●             | ●                  | ●            | ●                 | ●                  | ●             | ●              |                     | ●                  |               | ●            | ●           |
| Kayla Ouellette             | ●               |               |                    |              |                   |                    |               |                |                     |                    |               |              |             |
| J. Morgan, PE               |                 | ●             | ●                  |              | ●                 | ●                  | ●             |                |                     | ●                  |               |              |             |
| Marta VanDussen, EI         | ●               |               | ●                  |              | ●                 | ●                  |               |                |                     |                    |               |              |             |
| Tony Cartee                 | ●               | ●             | ●                  | ●            | ●                 | ●                  | ●             |                |                     | ●                  | ●             |              | ●           |

## II.2 PROJECT TEAM ORGANIZATION AND “CHAIN OF COMMAND”

**Figure 2** reflects our project team’s organization around Buncombe County’s criteria. Our leader is Mr. Ed Hilton, who has served this role since 2005 with SCS but has managed multiple engineering and environmental tasks for the County for 26 years. Mr. Steve Lamb, who has also provided support for the work on Buncombe County projects since 2005, will support Ed on this contract. This institutional knowledge and familiarity with your solid waste system makes it the obvious choice for

us to continue with this approach. Not only have we been responsive to the landfills associated needs, we have also participated in other environmental efforts associated with County projects requiring special attention. At the Safety Training Facility, we have designed and provided construction observation for sub-slab passive and active gas evacuation systems under buildings and at the indoor firing range. We have also permitted end use plans for the old landfill. On short notice, we have conducted environmental evaluations associated with support for recruiting new industries and/or expansions of existing businesses and for diverting threatened litigation on a site whose owner blamed the County for groundwater contamination on their site. Being responsive, as was done in the noted cases, required immediate organization of the teams necessary to evaluate the conditions, determine the appropriate plan of action, bring in the team members to carry out the function, and coordinate with the County and any third parties to fulfill the County's commitment. SCS has done that in the past and we are prepared to do so in the future.

Figure 2. Proposed Project Organization Chart

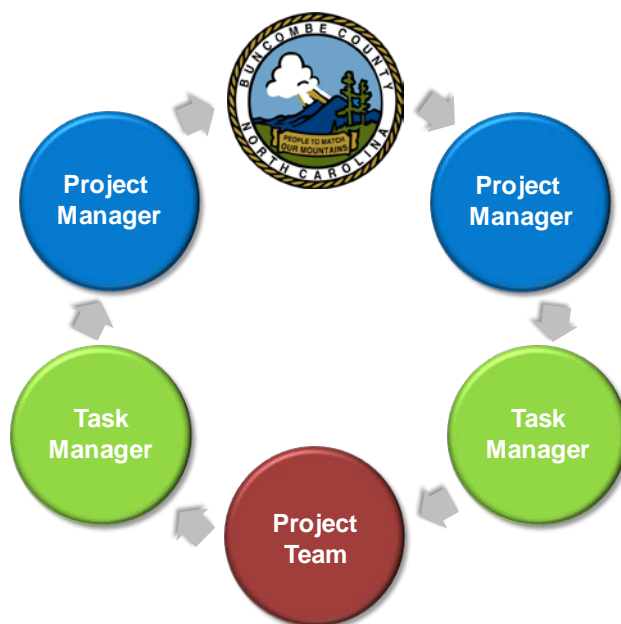


**SCS has over 800 professionals nationwide that can provide support to your solid waste projects.**

We have organized our team around our strengths, which coincides with the three service lines you have requested: Solid Waste Management Consulting, Solid Waste Engineering, and Environmental Monitoring. A task leader, who is familiar with your requirements and understands your needs, leads each of our service lines. In conjunction, we have a Health and Safety officer, Kayla Ouellette, and a Quality Assurance officer, Carlo Lebron. Both of them have overarching roles across the three service lines and will report directly to Ed or Steve for your projects.

A simple and streamlined organization chart supports and enforces the chain of command that we have; Ed will be your primary contact supported by Steve. Based on the assignment, each will be actively involved with the work effort and will be up to speed on the progress. All task leaders report directly to Ed and Steve and, in turn, their team reports directly to them. Steve will also have the administrative responsibility of managing the subconsultants for this contract. **Figure 3** describes the service delivery structure. **Our service delivery structure is very simple – every step along the way is focused on your goals and expectations.**

Figure 3. Service Delivery Structure



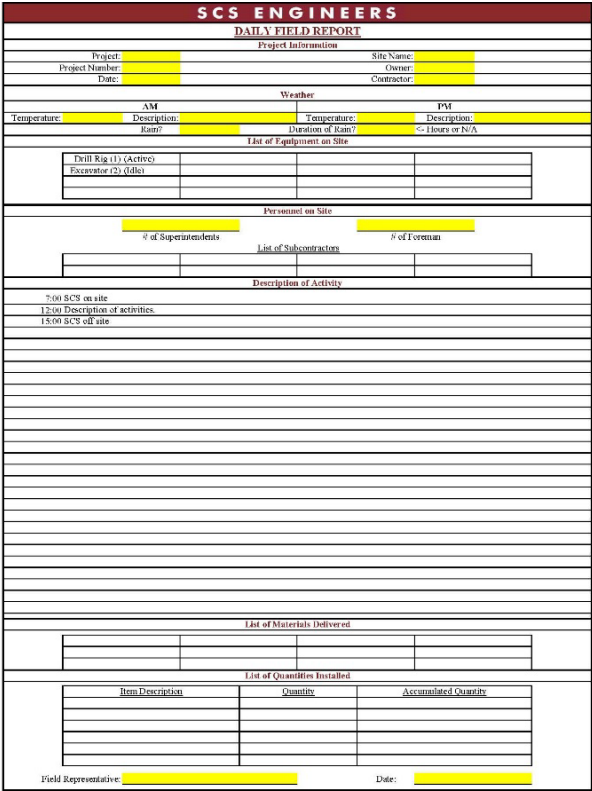
Every Project Starts/Ends with  
Buncombe County

## II.3 DATA MANAGEMENT AND PROJECT TRACKING METHODS

In our 48 years of solid waste engineering consulting, we have gained tremendous experience that has allowed us to develop effective data management techniques for our projects. You will benefit with our move towards electronic field records books. This approach minimizes transcription errors and reduces the overall cost for construction management. Our trained CQA staff photo-document information during construction and instantly upload it to the Cloud, which guarantees information instantly accessible and viewable to our clients as well as our team.

We have standardized templates from a daily field report to meeting minutes (**Figure 4**). This standardization and the accompanying training we provide our employees allows us to accurately collect the information necessary and communicate it effectively to all parties. SCS is committed to working with Buncombe County to tailor these policies and procedures to ensure consistency in the documentation, reporting, accountability, and management of projects. Our commitment to the project will make certain we are extremely responsive to your needs.

Figure 4. Example Logs and Reports



**SCS ENGINEERS**  
**DAILY FIELD REPORT**

Project Information: Project Name, Site Name, Project Number, Owner, Date, Contractor

Weather: AM (Temperature, Description, Rain?, Duration of Rain?), PM (Temperature, Description, Rain?, Duration of Rain?)

List of Equipment on Site: Drill Rig (1) (Active), Excavator (2) (Idle)

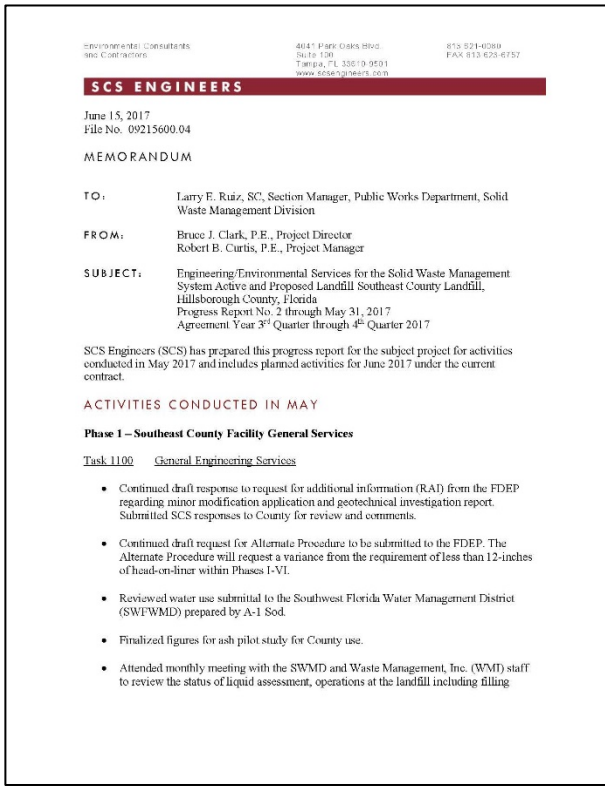
Personnel on Site: # of Supervisors, # of Foreman, List of Subcontractors

Description of Activity: 7:00 SCS on site, 12:00 Description of activities, 15:00 SCS off site

List of Materials Delivered

List of Quantities Installed: Item Description, Quantity, Accumulated Quantity

Field Representative: \_\_\_\_\_ Date: \_\_\_\_\_



**SCS ENGINEERS**

June 15, 2017  
File No. 09215609.04

**MEMORANDUM**

**TO:** Larry E. Ruiz, SC, Section Manager, Public Works Department, Solid Waste Management Division

**FROM:** Bruce J. Clark, P.E., Project Director  
Robert B. Curtis, P.E., Project Manager

**SUBJECT:** Engineering/Environmental Services for the Solid Waste Management System Active and Proposed Landfill Southeast County Landfill, Hillsborough County, Florida  
Progress Report No. 2 through May 31, 2017  
Agreement Year 3<sup>rd</sup> Quarter through 4<sup>th</sup> Quarter 2017

SCS Engineers (SCS) has prepared this progress report for the subject project for activities conducted in May 2017 and includes planned activities for June 2017 under the current contract.

**ACTIVITIES CONDUCTED IN MAY**

**Phase 1 – Southeast County Facility General Services**

**Task 1100 – General Engineering Services**

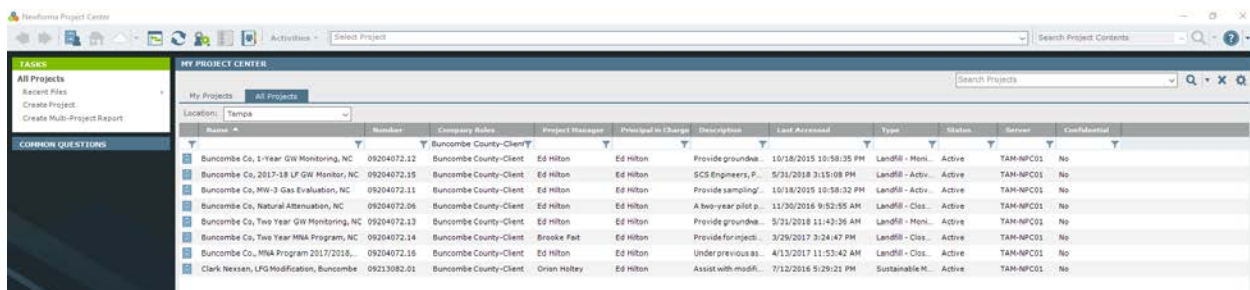
- Continued draft response to request for additional information (RAI) from the FDEP regarding minor modification application and geotechnical investigation report. Submitted SCS responses to County for review and comments.
- Continued draft request for Alternate Procedure to be submitted to the FDEP. The Alternate Procedure will request a variance from the requirement of less than 12-inches of head-on-line within Phases I-VI.
- Reviewed water use submittal to the Southwest Florida Water Management District (SWFWMD) prepared by A-1 Sod.
- Finalized figures for ash pilot study for County use.
- Attended monthly meeting with the SWMD and Waste Management, Inc. (WMI) staff to review the status of liquid assessment, operations at the landfill including filling.

Daily Field Report Log

Project Progress Report Memorandum

We also utilize Newforma (**Figure 5**), a web based project information management technology that enhances collaboration between individuals and project teams. As a member of our team, you will have real-time access to files related to your projects including notifications of when data is uploaded. This will allow for faster information sharing and thus streamline project completion. Microsoft Project is available to our task managers, so we see no problem using it for any of your projects as we have before.

Figure 5. Example Screenshot of Newforma Software



| Name                                     | Number      | Company                | Project Manager | Principal in Charge | Description           | Last Accessed          | Type                | Status | Review    | Confidential |
|--|-------------|------------------------|-----------------|---------------------|-----------------------|------------------------|---------------------|--------|-----------|--------------|
| Buncombe Co. 1-Year GW Monitoring, NC    | 09204072.12 | Buncombe County-Client | Ed Hilton       | Ed Hilton           | Provide groundwa...   | 10/16/2015 10:58:35 PM | Landfill - Mon...   | Active | TAM-APC01 | No           |
| Buncombe Co. 2017-18 LP GW Monitor, NC   | 09204072.15 | Buncombe County-Client | Ed Hilton       | Ed Hilton           | SCS Engineers, P...   | 5/31/2018 3:15:08 PM   | Landfill - Activ... | Active | TAM-APC01 | No           |
| Buncombe Co. MW-3 Gas Evaluation, NC     | 09204072.11 | Buncombe County-Client | Ed Hilton       | Ed Hilton           | Provide sampling...   | 10/16/2015 10:58:32 PM | Landfill - Activ... | Active | TAM-APC01 | No           |
| Buncombe Co. Natural Attenuation, NC     | 09204072.06 | Buncombe County-Client | Ed Hilton       | Ed Hilton           | A two-year pilot p... | 11/20/2016 9:52:55 AM  | Landfill - Clos...  | Active | TAM-APC01 | No           |
| Buncombe Co. Two Year GW Monitoring, NC  | 09204072.13 | Buncombe County-Client | Ed Hilton       | Ed Hilton           | Provide groundwa...   | 5/31/2018 11:43:36 AM  | Landfill - Mon...   | Active | TAM-APC01 | No           |
| Buncombe Co. Two Year MNA Program, NC    | 09204072.14 | Buncombe County-Client | Brooke Felt     | Ed Hilton           | Provide for inject... | 3/29/2017 3:24:47 PM   | Landfill - Clos...  | Active | TAM-APC01 | No           |
| Buncombe Co. MNA Program 2017/2018...    | 09204072.16 | Buncombe County-Client | Ed Hilton       | Ed Hilton           | Under previous as...  | 4/13/2017 11:53:42 AM  | Landfill - Clos...  | Active | TAM-APC01 | No           |
| Clark Nexsen, LFG Modification, Buncombe | 09213082.01 | Buncombe County-Client | Orion Holley    | Ed Hilton           | Assist with modifi... | 7/12/2016 5:29:21 PM   | Sustainable M...    | Active | TAM-APC01 | No           |

Provides an organized filing structure for your data.

SCS's **DataServices®** software (**Figure 6**) facilitates the capture and utilization of landfill gas, and other solid waste facility monitoring and management data. This information is used for environmental compliance reporting, document management, due diligence, and operational analyses. For example, our software can send out notifications of when landfill gas wells need to be



re-monitored to correct exceedances. It also has the capability of being a central repository for all your permits and other essential data.

Figure 6. Example Screenshot of DataServices® Software



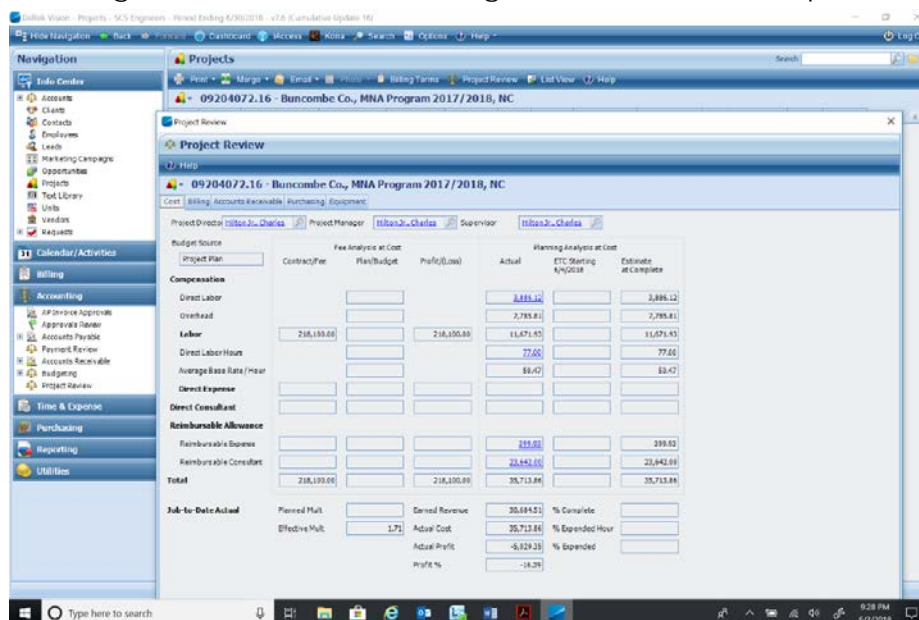
Allows you to choose any parameter that the field equipment collects and set custom ranges to quickly identify trends.

## II.4 COST AND SCHEDULE CONTROLS

### Budget/Cost Control

All project budget control (**Figure 7**) at SCS is performed using the Deltek Vision project accounting system. All Project Managers and above at SCS receive a series of bimonthly and monthly reports from the system, as well as having continuous on-line access to project budget information. This information is reviewed by the Client Services Manager for each assignment.

Figure 7. Deltek Vision – Budget/Cost Control Example



Unanticipated anomalies in potential project costs can be intercepted early and addressed in a timely manner. Invoices are sent on a monthly basis for work conducted during the monthly billing cycle. This provides the County's staff the opportunity to follow the financial aspects of the project on a regular basis. This is the same process that has been applied to past projects with the County.

## Schedule Control

Many of our assignments have schedules associated with criteria in state and federal regulations. Unless the County has a driving concern, we have historically kept our submittals within the regulatory requirements. Other times on specific assignments there were driving forces that required immediate action and response periods. An example of this would be performing the Phase I and Phase II studies on the GE site. This effort required creating a plan of where to locate borings for groundwater monitoring, conducting the drilling and construction of the wells in accordance with the regulations, sampling and testing on an accelerated timeframe, coordinating with state geologists, coordinating the report with GE's internal geologists and attorneys, and finally producing the report. To accomplish this, all parties had to participate in the scheduling and maintain adherence to that schedule. That project was carried out within the timeframe defined. To make sure all parties are aware and involved in the project, the following steps will be the approach to follow:

**All schedules will be developed with your input.** Schedules will be created in conjunction with scopes of work and be submitted with the task orders. The main topics of discussion as we are developing a scope of work is why are you wanting to do this project and when does it need to be completed. These two pieces of information are critical to a successful project. During regular progress meetings, we will review the project schedule with you and discuss upcoming milestones so as all parties are aware of the schedule and have the opportunity to make on the spot changes as necessary.

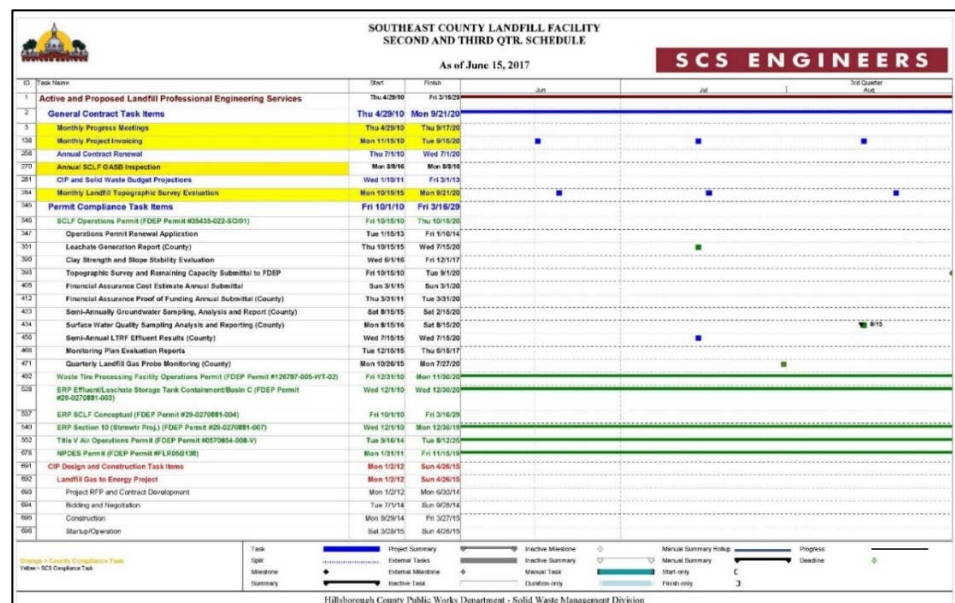
**If outside influences have an impact on the schedule, SCS will coordinate with the County to evaluate the results on the project and work with you to attempt to moderate any delays.** One of the specific challenges we face with respect to schedules is when outside forces do cause an unexpected delay. For instance, a client of ours required more time than normal to review a deliverable. This caused a chain reaction of compressing the timeline in our future submittals.

Because of the size of our solid waste practice, we were able to shift resources internally to meet our client's deadlines while still meeting our other obligations.

If deemed critical, we will plan and track your project activities through Microsoft Project developed at the onset of the assigned tasks. Using this information, Ed and Steve will develop monthly forecasts (e.g., look-ahead schedules) and work plans to verify all activities receive due

attention. This will ensure we will meet all of your schedules. These schedules are shared and updated with Buncombe County staff. **Figure 8** is an example of a schedule developed for a Hillsborough County project.

Figure 8. Example Project Schedule



## II.5 QUALITY ASSURANCE PROCEDURES

Our philosophy to maintaining quality control (QC) during a project is recognizing that it is inefficient to “add quality” to a report or engineering design at or near the end of a project. While a necessary step, the end-of-project review, plan check, and/or final edit does not substitute for an overall project specific program that incorporates regular reviews of in-progress work, interaction with clients to confirm their needs, and frequent communication between all project team members. At SCS, we believe quality work products are created when all team members:

- Focus on the achievement of quality in each project task;
- Held accountable for the success of a project task; and
- Want you to succeed.

We implement our QC procedures at the onset of every project with an internal kickoff meeting. Mr. Lebron or his delegate will be assigned the role of QC reviewer for the project’s duration. In order to be the QC reviewer for a project the individual must have completed several projects similar to the task assignment. The schedule will note internal milestones to meet the project deadline. Our QC reviewer shall attend internal progress meetings to discuss project status and provide input as necessary. Specifically, for our design drawings, we have developed a checklist (**Figure 9**) that provides a template of items to review. Our QC reviewer will utilize this template and sign off at each milestone, typically 30, 60, 90, and 100% stages, with comments provided to the project manager as necessary. All deliverables we submit to you will include a certification by our QC reviewer to ensure the product we are giving you has undergone our quality review process.

Figure 9. Design Quality Management Checklist (shown is a portion of the checklist)

| SCS Design Quality Management Checklist v10 Feb 2014 |  | Revision Dates:                         |             | Due Dates: (M/DD/YYYY) |                       |          |
|--|--|---|-------------|------------------------|-----------------------|----------|
| Project #:   | Revision #:  | Project Location:                       |             | Design Start:          |                       |          |
| Proj Name:   |  |   |             | 35% Review:            |                       |          |
| Client:  |  | SCS Team:                               |             | 60% Review:            |                       |          |
| POC Name:  |  | Project Designer                        | Design Lead | QA Review              | Responsible Signatory |          |
| Title:   |  |   |             |                        |                       |          |
| Location:  |  |   |             |                        |                       |          |
| Phone #:   |  |   |             |                        |                       |          |
| email:   |  |   |             |                        |                       |          |
| Item #   | Item   | Project Designer                        | Design Lead | QA Review              | Responsible Signatory | Comment: |
|  |  | Initial and Date Each Box at Completion |             |                        |                       |          |
| 1  | Does design conform with contract requirements?  |   |             |                        |                       |          |
| 2  | Have relevant building codes been obtained and reviewed by designer? (Design Lead should identify codes in comments.)                                      |   |             |                        |                       |          |
| 3  | Is design consistent with applicable codes?  |   |             |                        |                       |          |
| 4  | Is the basis for design documented (e.g., in a basis of design memo)?  |   |             |                        |                       |          |
| 5  | Are calculations documented and checked?   |   |             |                        |                       |          |
| 6  | Are drawings (including title blocks and profile and detail references) consistent with each other and with SCS CADD Standards Manual or client standards? |   |             |                        |                       |          |

## II.6 SUBCONSULTANTS

SCS has developed a project team specifically for Buncombe County projects. These professional subconsultants supplement our capabilities to provide services potentially needed by the County. These firms have experience working in North Carolina and have worked with SCS on previous projects. With their presence in North Carolina, they have knowledge of the appropriate regulations, building codes, and state agencies including the Solid Waste Section of the Department of Environment Quality, the Department of Water Quality, and other state and national agencies. As needed, we may add with the approval of the County additional specialty firms for specific project assignments.



**Pace Analytical Services, LLC** has been a member of our team for Buncombe County for decades. Their local office in Asheville is located on MSD property on Riverview Road very close to the old landfill, providing for the groundwater sampling and testing services at both County landfills. Their reports are the basis for the SCS semi-annual groundwater reporting for both landfills and the MNA program for the old county landfill.



**TRI Environmental, Inc.** provides multiple support services during landfill construction projects through testing for conformance with physical specifications on materials like the HDPE liners, geocomposites, and geosynthetic clay liners. They have the capacity to go to the manufacturing facility to pull the samples, thus gaining assurance that the materials meet the specifications before they are shipped to the site. They also test the liner seams for the specified requirements with a 24 hour turn around which will keep the project moving. With the advent of conductive liner systems, manufactured as a layer within the HDPE liner material, TRI has equipment and can locate pinhole size holes in the liner. They can also make these readings through 2 feet of soil cover over the liner. Since it has been determined that the most significant damage done to liners is during the process of placing the soil cover over the liner, their capabilities have become more important. They can also train personnel to operate the equipment.



**CBHF Engineers, PLLC** is a Wilmington based electrical and mechanical design firm. Mr. Allen Cribb, a principal of that firm, has worked with our team on design for landfill electrical systems for many years. They will be associated with the electrical oversight for the pump systems for the disposal cells or other power service needs at the County facilities.



**McKim & Creed Engineers** is a North Carolina Engineering firm with offices across the State including Asheville. They will be providing structural engineering assistance where needed. Previous work with SCS includes the MRRF and leachate treatment building at the New Hanover County Landfill.



**GPI** is one of the more innovative and progressive firms in quality survey and mapping solutions. SCS has utilized the organization for more than 15 years with our work in New Hanover. Annual flights have provided the information to calculate annual volumes of waste disposal that is used in calculating the remaining capacity of the disposal areas. Traditional survey/mapping techniques are available as well as 3D laser scanning or terrestrial LiDAR for projects requiring more exacting data or that is more highly vegetated. North Carolina office are in Charlotte and Wilmington.

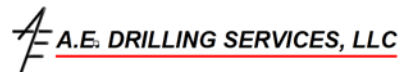




**Ed Holmes & Associates** is a land survey firm located in Buncombe County that has worked closely with SCS previously on the survey work at the landfill. They are a well-established firm and have performed survey services for many County projects previously. This firm is programmed for survey assignments as the need arises.



**Reuben Caldwell Drilling, Inc.** is an Asheville well drilling company that has provided well drilling for groundwater and landfill gas monitoring purposes at the landfills. They have also assisted in abandoning wells on the old landfill when the wells were no longer needed. Caldwell has provided minor maintenance services to clear access to and work space around the wells and repairs to the well protection covers.



**A.E. Drilling Services, LLC** is an Economically Disadvantaged Woman-Owned Small Business that has provided national clientele high quality environmental, geotechnical, mineral exploration, and

water supply drilling services since 1969. They are based in Greenville, South Carolina and have available the necessary equipment for deep well drilling as well as mobile direct push vehicles. The firm has provided landfill services at locations in North and South Carolina and Georgia.

Because of our extensive history of service with Buncombe County and experience with similar continuing engineering assignments, we are aware of the staff and technical resources that must be committed in order to satisfy your needs and expectations. The availability of any of our staff varies with the assignments and workload requirements from our various clients. However, we recognize the importance of this contract and the importance of our relationship with the County. We are committed to be the engineer of choice for Buncombe County.

### III. REFERENCES

The County's request for qualifications indicated that the selected firm must demonstrate expertise in solid waste management consulting, solid waste management engineering, and environmental monitoring services. **Table 3**, located at the end of the section, provides a list of clients for which SCS has provided such services during the last five years. Each client is unique, and the types of projects we have completed varies. These projects demonstrate 1) that we have successfully performed the range of services requested by Buncombe County, and 2) the contacts references provided will attest to the level of service we provide, and our good reputation and standing in managing compliance and regulatory issues. In addition to the matrix, we wanted to highlight five key projects which we feel demonstrate our expertise.

#### BUNCOMBE COUNTY LANDFILL GROUNDWATER PROGRAM

Buncombe County, North Carolina

|                | Contract Information   |
|----------------|--|
| Client Contact | Buncombe County Contact<br>Kristy Smith<br>81 Panther Branch Rd<br>Alexander, NC 28701<br>(828) 250-5473<br><a href="mailto:Kristy.smith@buncombecounty.org">Kristy.smith@buncombecounty.org</a> |
| Project Term   | 2005 – Present   |



Buncombe County is located in the mountain region of western North Carolina. The old Buncombe County landfill closed in 1998, showed evidence of limited groundwater contamination in the early 1990s. Through consent agreement with the North Carolina Department of Environment and Natural Resources (now DEQ), the County initiated a program to define the limits of the plume and determine what compounds were present in the groundwater that exceed the regulations. This effort was conducted over several years. At the end of the initial program a risk assessment was also conducted that found no risk to humans or the environment based on the testing done on the groundwater under a worst-case scenario. A pilot program was then conducted to determine if an appropriate compound injected into a fracture zone along one flow regime would enhance the natural treatment to clean up the impacted area. The pilot project was designed, permitted, and was instituted. The two-year program showed that such an injection enhanced the natural attenuation to a point that the regime contaminant levels were reduced to acceptable levels-no longer an issue. Based on these positive results the remainder of the site contaminant areas also received injections. This program is currently in the Monitor Natural Attenuation phase and appears to be positively impacting the exceedance contaminants. The program will be evaluated at the end of 2019 for determination of requirements, and if any, for additional efforts.

#### Benefits to Buncombe County

- ✓ Program Management
- ✓ Institutional Knowledge of County facilities
- ✓ Favorable professional relationships with State Agencies
- ✓ Worked with key solid waste personnel at the County

Since 2005, SCS has provided for the semi-annual sampling, testing, and reporting of the groundwater monitoring program at the closed landfill and the active landfill. In addition the County started sampling the off-site individual homes sites within a one-half mile area around the new landfill property, testing for the same volatile contaminants as those tested for on the landfills. This step has proven to be popular and somewhat comforting to those individuals under the program.

Other issues associated with the groundwater program include:

- Researching and presenting historical information from our groundwater database in support of the County to resolve concerns from the State and/or EPA Project XL group concerning levels of metals/volatiles in surface and groundwater.
- Resolution of landfill gas contamination of the groundwater at a monitoring well at the new landfill.
- Providing ongoing technical support, studies, and reporting on the Alternate Source Demonstration for metals in the groundwater at the new lined landfill. This issue was created from the DEQ/Duke Energy issues.
- Working with County Staff and multiple State agencies to address Phase I and Phase II studies at other locations to help with the promotion of development of new industries and/or expansions of existing operations.
- Working closely with the State Agencies to avoid the requirement of construction and operation of an expensive long-term pump and treat facility at the old landfill.

SCS has been a go-to source for the County Staff to rely on to address any issues that arise in the solid waste planning, construction, and operation of the County facilities.

## NEW HANOVER COUNTY CONTINUING SERVICES

New Hanover County, North Carolina

|                | Contract Information  |
|----------------|---|
| Client Contact | New Hanover County<br>Sam Hawes<br>5210 Highway 421 North<br>Wilmington, NC 28401<br>910-798-4454<br><a href="mailto:shawes@nhcgov.com">shawes@nhcgov.com</a> |
| Project Term   | 2005-present  |



New Hanover County first utilized the services of SCS in 2005. Following that initial work the County started selecting firms on maximum five-year intervals. SCS has been pleased to be selected for the past three selection periods with the latest beginning in 2018. During the most recent years, several significant projects have been conducted. These include annual aerials/volume calculations; a new leachate treatment facility designed to meet the requirements of the NPDES discharge permit; closure permitting Cells 2-6; Cell 6E construction/Cell 5 closure; west slope closure; south slope closure; south property site acceptability permitting; materials recycling & reuse facility permitting/construction; construction permitting for Cell 7-13; master plans and permitting for stormwater and erosion control on the northern and southern sites; permitting/construction document preparation for Cell 7/8A; and full time construction observation services (CQA) on all new landfill construction projects including the current Cell 7 construction.

While all of the above were very important projects, two are very significant including the construction of the reverse osmosis (RO) leachate treatment facility and the initial project for construction of the disposal units on the south property (Cell 7).

### Benefits to Buncombe County

- ✓ Expertise of Professionals
- ✓ Knowledge of DEQ rules and personnel
- ✓ Team atmosphere for projects

The RO facility was the result of treatment studies with the primary concept being a new biological plant followed by chemical treatment for metals removal. Initial metals removal testing indicated positive results; however, follow up treatment bench testing did not confirm the original results. It was determined that an RO facility could provide treatment. New pumping systems were constructed including a structure to house the RO system. This system has proven to be fully capable of removing the metals allowing the process to meet the new discharge limits defined in the NPDES permit.

The south property adjacent to the active site was acquired in 1988 for the purpose of expanding the landfill. The permitting of the site as “acceptable for landfill development” was the first stage that began in 2013. The stormwater and erosion control treatment permits were obtained and the final site design was made. The construction permit for future Cell 7-13 was applied for and has been issued. SCS worked with the DEQ to address opportunities to save expenses on construction and operations such that approximately \$3 million were saved on materials and a gain in potential revenue from design considerations saved approximately \$15 million over the life of the site. Construction is anticipated to be completed in 2018 for Cell 7.

It should be noted that Mr. Ed Hilton, one of your proposed client contacts, was Director of Engineering and Facilities for New Hanover County for about 10 years, beginning in 1980. In that management role, he was responsible for helping the County resolve a solid waste crisis resulting from the lack of a permitted disposal facility. This involved litigation between the County and the Army COE that ultimately resulted in the federal courts closing the active landfill on his second day as a County employee. Working with the State agencies, Ed assisted in finding an interim disposal site and managed the County’s interest in that site that was operated by a private solid waste firm. He managed the Solid Waste Program through the development of the first lined landfill in the State and the Waste-to-Energy facility construction and operation, also leading the take-over of the landfill operation from the private sector to unify the Solid Waste Program. Upon his departure from the County, they continued to use Ed’s services through the private engineering sector with the most recent multi-year agreement starting this year for a potential six-year term.

## CUMBERLAND COUNTY SOLID WASTE ENGINEERING AND CONSULTING SERVICES AND YARD WASTE FACILITY EVALUATION

Cumberland County, North Carolina

|                | Contract Information   |
|----------------|--|
| Client Contact | Cumberland County<br>Engineering & Infrastructure Dept.<br>Public Utilities Division<br>Jeffery P. Brown, PE<br>130 Gillespie St., Suite 214<br>Fayetteville, NC 28301<br>(910) 678-7633<br><a href="mailto:Jbrown@co.cumberland.nc.us">Jbrown@co.cumberland.nc.us</a> |
| Project Term   | 2017 – Present   |



SCS was retained by Cumberland County in 2017 to provide solid waste engineering and consulting services for the County’s Ann Street Landfill, which includes a closed, pre-regulatory MSW landfill, an active Subtitle D landfill, and an active C&D landfill. SCS is also providing services for the County’s Wilkes Road Compost Facility.

### Benefits to Buncombe County

- ✓ Solid Waste Program Management
- ✓ Compliance Water Quality Monitoring
- ✓ Clean Air Act/NSPS Related Reports
- ✓ Solid Waste and Environmental Permitting and Reporting
- ✓ Regulatory Liaison



Relevant projects include the following:

**Solid Waste Budgeting.** SCS assists the County with planning and budgeting of its solid waste program and associated capital projects, including the various projects that follow.

**Yard Waste Facility Evaluation.** Cumberland County operates a receiving, processing, composting and hauling facility for land clear debris, yard waste, and wooden pallet management at Wilkes Road. SCS evaluated the facility in order to form a list of potential facility improvements and assist with the marketing of recovered products.

**Landfill Semi-Annual Water Quality Monitoring.** SCS samples groundwater monitoring wells, surface water locations, and the leachate pond and prepares the regulatory required semi-annual water quality monitoring report for the County's landfills.

**LFGCCS Expansion Design-Build.** SCS designed an expansion to the existing LFGCCS installed in the Subtitle D landfill at the County's Ann Street Landfill facility. The expansion included 12 new and replacement extraction wells and the associated gas piping. SCS Field Services constructed the expansion.

**Clean Air Act Consulting and Reporting.** SCS prepares all Clean Air Act/NSPS related reports for the facility including the Semi-annual Title V Deviation reports, Annual Compliance Certification, Greenhouse Gas reports, and Emissions Inventory.

**10-Acre Partial Closure.** SCS is currently designing a 10-acre partial closure of the Subtitle D landfill at the Ann Street Landfill facility.

**Scales, Scale House, and Entrance Road Redesign/Upfit.** SCS is preparing concept designs and cost estimates for a new scale house and scales at the entrance to the Ann Street Landfill.

## ANNUAL SOLID WASTE DEPARTMENT BUDGETING AND LFG CONTROL SYSTEM PERMITTING, DESIGN, AND CONSTRUCTION SOUTH WAKE LANDFILL

Towns of Apex and Holly Springs, North Carolina

|                | Contract Information  |
|----------------|---|
| Client Contact | Wake County, North Carolina<br>John Roberson, PE<br>Solid Waste Management Director<br>336 Fayetteville Street<br>Raleigh, NC 27602<br>(919) 856-6365<br><a href="mailto:John.Roberson@wakegov.com">John.Roberson@wakegov.com</a> |
| Project Term   | 2008 - Present  |



SCS has been retained by Wake County's Solid Waste Management Division and by the County's Facilities Design and Construction Department to perform LFG control system design, CQA, testing, control system operations and repairs, landfill gas-to-energy (LFGE) project technical support, and a Life of Landfill Extension study for the South Wake Landfill. Relevant projects include:

### Benefits to Buncombe County

- ✓ LFGE Economic Analysis
- ✓ LFG System Design
- ✓ Construction Documents
- ✓ Bid Assistance
- ✓ Construction Engineering
- ✓ Permitting
- ✓ Pipeline Route Study
- ✓ LFGE Pipeline Design/Permitting
- ✓ Regulatory Compliance/Interface

**Annual Solid Waste Budgeting.** SCS assists the County with planning and budgeting of its solid waste program and associated capital projects, including with the various projects that follow, on an annual basis.

**Landfill Gas Collection and Control System Design and Construction Support.** SCS designed and permitted the first phase of an active landfill Gas Collection and Control System (GCCS) at the South Wake Landfill. The County elected to install the GCCS, prior to any regulatory requirement, to both monetize the carbon credits and support a beneficial energy use project.

Performed the engineering design to develop construction drawings and specifications, developed construction cost estimates, provided bid assistance services, and construction administration such as shop drawing review.

**LFG Transmission Pipeline to Novartis.** SCS designed and permitted a LFGE transmission pipeline from the South Wake Landfill to the Novartis Pharmaceutical Plant in the Town of Holly Springs.

Coordinated on survey of final route and developed design criteria for proposed pipeline. Performed the engineering design to develop permit-level drawings and specifications for Encroachment Agreement and interfaced with NCDOT, NCUC, and other agencies.

**CQA and Construction Engineering.** SCS performed CQA services of LFG monitoring probe installation and LFG control system construction, including numerous network modifications and LFG system expansions.

**Life of Landfill Extension Study.** SCS performed a study to explore potential ways to prolong the expected lifespan of the South Wake Landfill classified into two primary categories of strategies: Increase Waste Reduction and Diversion Measures and Expand Capacity of Landfill.

## ENGINEERING AND CONSULTING SERVICES

Anson County, North Carolina

|                | Contract Information   |
|----------------|--|
| Client Contact | Anson County, North Carolina<br>Utilities Department<br>Mike Sessions<br>Utilities Director<br>907 N. Washington Street<br>Wadesboro, NC 28170<br>(704) 994-3050<br><a href="mailto:msessions@co.anson.nc.us">msessions@co.anson.nc.us</a> |
| Project Term   | 2009 - Present   |



SCS was retained in 2009 by Anson County to provide professional and field services for the County's solid waste management program.

The County's solid waste management program consists of the following components:

- Six (6) convenience residential waste and recycling collection centers.
- Active municipal solid waste (MSW) landfill operated by private company Waste Connections, Inc.
- Closed unlined MSW landfill (Lilesville Landfill).

### Benefits to Buncombe County

- ✓ Solid Waste Program Management and Technical Assistance
- ✓ Compliance Groundwater and Methane Monitoring
- ✓ Landfill Gas Migration Remediation
- ✓ Landfill Post-Closure Monitoring
- ✓ Solid Waste and Environmental Permitting and Reporting
- ✓ Regulatory Liaison
- ✓ Construction Quality Assurance

- Public education and training for residential and commercial waste disposal, recycling, composting, mass poultry mortality, and disaster debris management.
- Assistance and recycling educational material and training for the County's solid waste operations.


A summary of projects completed to date by SCS Charlotte office staff are as follows:


**Program Management and Technical Assistance.** In 2012, Anson County decided to retain an outside company to fully manage and provide technical support for the County's solid waste program. SCS was retained to fill this roll. Scope of work includes:


1. Inspection of all six (6) convenience centers on a quarterly basis and every month for the active Anson County MSW Landfill.
2. Public education and training for residential and commercial waste disposal, recycling, composting, mass poultry mortality, and disaster debris management.
3. Regulatory liaison, preparation, and submittal of the State white goods, electronics, and tire reimbursement documentation and grant applications.
4. Completion of the regulatory required Solid Waste Annual Reports for submission to the NCDEQ.


**County 10-year Solid Waste Management Plan.** SCS prepared a new 10-year Solid Waste Management Plan (SWMP) in 2009 for the County and an update to the plan in 2012. As part of the 10-year plan preparation SCS completed a waste characterization study. The SWMP is a reporting and planning tool used by the County and State to outline the current and future solid waste management and recycling programs for the County.


**Recycling is taking something old and making something new.**


 Some products made from recycled items:


  
**Glass Bottles**

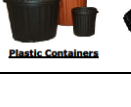
  
**Plastic Bottles**


  
**Paper Towels**

  
**Paper**

  
**Clothes**

  
**Packaging**

  
**Plastic Containers**

  
**Clothes Hangers**

**HOUSEHOLD TRASH DISPOSAL AND RECYCLING LOCATIONS FOR ANSON COUNTY RESIDENTS**

Convenience Collection Centers

1. Anson County Landfill  
375 Dozer Drive, Polkton  
(704) 694-6900
2. Ansonville  
2244 Plank Road, Ansonville  
(704) 826-6353
3. Burnsville

Further information about what and where to recycle or dispose of your trash please contact:

➤ Mr. Mike Sessions  
Anson County Utilities Department  
Phone: 704-694-5208  
Web site: [www.co.anson.nc.us](http://www.co.anson.nc.us)

**What Items are Accepted for Disposal**

Bagged Household Trash

**What:** Bagged household trash.

**Where:** All six (6) Convenience Collection Centers.

**How:** In bags or trash cans.

**What Items are Accepted for Recycling**

Plastic Bottles

**What:** Plastic bottles with a neck, both clear and colored, including water bottles, milk jugs, and personal care products. Just check for the neck!

**Where:** All six (6) Convenience Collection Centers.

**How:** Discard cap. Empty and rinse.

**Not Accepted:** Grocery bags, food wrap, car oil bottles, plastic toys, pool chemical containers.

Glass Bottles

**What:** Food and beverage bottles and jars—clear, green or brown.

**Where:** All six (6) Convenience Collection Centers.

**How:** Empty and rinse. Remove lids. Leave on labels. No broken glass.

**Not Accepted:** Pyrex, light bulbs, window glass and mirrors.

Paper and Newspaper

**What:** Paper and newspapers and any inserts delivered with the newspaper.

**Where:** All six (6) Convenience Collection Centers.

**How:** Tie in bundles or place in brown paper bags or place in recycling bin.

**Not Accepted:** Newspapers in plastic bags or plastic grocery bags.

Magazines, Catalogs and Phone Books

**What:** All magazines, glossy mail order catalogs, and phone books.

**Where:** All six (6) Convenience Collection Centers.

**Not Accepted:** Magazines and catalogs placed in plastic bags or plastic grocery bags.

Metal Cans

**What:** Steel or aluminum containers such as soup, pet food, soda, vegetable, fruit, and pie plates.

**Where:** All six (6) Convenience Collection Centers.

**How:** Empty and rinse. Do not flatten. Leave on labels and lids.

**Not Accepted:** Scrap metal such as toasters, pots, frying pans, coat hangers, etc.

Electronics

**What:** Electronic devices such as televisions, computers, radios, VCRs, CD players, phones, etc.

**Where:** Anson County Landfill.

Corrugated Cardboard

**What:** Doubled-walled cardboard and shipping cartons.

**Where:** All six (6) Convenience Collection Centers.

**How:** Cardboard must be clean. Flatten empty carton.

Appliances (White Goods)

**What:** Large appliances such as clothes washing machines and dryers, dish washers, stoves and ovens, refrigerators, and microwaves. Small appliances such as toasters, blenders, etc.

**Where:** Anson County Landfill.

**Additional Items Accepted at the Anson County Landfill**

Used Motor and Transmission Oil

Yard Waste

Furniture

Used Tires

Used Batteries

**Landfill Compliance Groundwater Monitoring.** On a continual basis, SCS conducts the regulatory required water quality monitoring sampling, data analysis, and reporting documentation for the County's closed Lilesville Landfill.

**Landfill Post-Closure Care and Methane Monitoring.** SCS completes the post-closure quarterly visual inspections and methane monitoring for the County's closed Lilesville Landfill.

**Landfill Gas Migration Remediation.** SCS developed a remediation plan for the prevention of methane gas migration at the County's closed Lilesville Landfill property boundary. Once the remediation plan was completed, SCS Field Services in conjunction with the County's Utilities Department constructed the plan's selected remedial action.

**3rd Party Quality Assurance during Landfill Construction.** SCS provided field observation and material testing services necessary for 3rd party quality assurance during cell construction at the Anson County Landfill since 2012. Private company Waste Connections, Inc. operates the Landfill. 3rd party quality assurance services were completed during construction to ensure the County's interests were represented and construction was according to the Landfill's regulatory permit documentation.

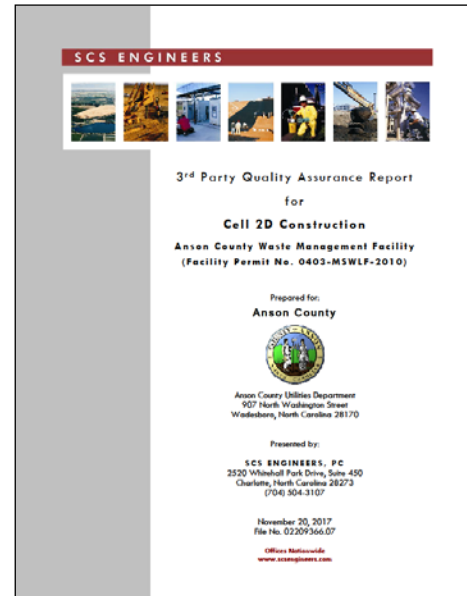




Table 3. Relevant Publicly Owned Landfill Services for Other Clients

| Client                                    | Contact                           | Solid Waste Mgt Planning<br>Recycling/Strategic Plans | Waste<br>Characterization | Rate Studies/Financial Analyses | Solid Waste | NSPS/Title V Permitting and Compliance | Groundwater/Hydrogeological | Air/LFG | Landfill Engineering | LFG Engineering/O&M | Leachate Management | Stormwater Management | Transfer Station/MRF/CD/CCC | Bid Assistance | CQA | Certifications | Public Hearings | Presentations to Commissions/<br>Councils | Procurement Services |
|---|-----------------------------------|---|---------------------------|---------------------------------|-------------|--|-----------------------------|---------|----------------------|---------------------|---------------------|-----------------------|-----------------------------|----------------|-----|----------------|-----------------|---|----------------------|
| Chapel Hill, NC                           | Wendy Simmons (919) 969-5123      | •   | •                         | •                               | •           |  |                             |         |                      |                     |                     |                       | •                           | •              |     |                | •               | •   | •                    |
| Gaston County, NC                         | Marcie Smith (704) 922-0267       |   |                           |                                 |             |  |                             | •       |                      | •                   |                     |                       |                             | •              | •   | •              |                 |   | •                    |
| Lincoln County, NC                        | Don Chamblee (704) 736-8497       |   |                           |                                 | •           |  |                             |         |                      |                     |                     |                       | •                           |                | •   |                |                 |   | •                    |
| Mecklenburg County, NC                    | Laurette Hall (980) 314-3866      | •   | •                         | •                               |             |  |                             |         |                      |                     |                     |                       |                             |                |     |                |                 |   | •                    |
| New Hanover County, NC                    | Sam Hawes (910) 798-4454          | •   | •                         | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     | •                           | •              | •   | •              | •               | •   | •                    |
| Orange County, NC                         | Gayle Wilson (919) 968-2885       | •   | •                         | •                               |             |  |                             |         |                      |                     |                     |                       |                             |                |     |                | •               | •   | •                    |
| Union County, NC                          | Chris Medlin (704) 296-4210       | •   |                           |                                 |             |  | •                           | •       | •                    |                     |                     |                       | •                           | •              | •   | •              |                 | •   | •                    |
| Wake County, NC                           | John Roberson (919) 856-6365      | •   | •                         |                                 | •           |  |                             |         |                      |                     |                     |                       |                             |                |     |                |                 |   | •                    |
| Winston-Salem Utilities Commission, NC    | Ed Gibson, (336) 661-4900         |   |                           | •                               | •           | •                                      |                             | •       |                      | •                   |                     |                       |                             | •              | •   | •              | •               | •   | •                    |
| Anson County, NC                          | Mike Sessions (704) 994-3050      | •   | •                         | •                               | •           | •                                      |                             | •       | •                    | •                   | •                   |                       |                             | •              | •   | •              |                 |   |                      |
| City of Greensboro, NC                    | Chris Marriot (336) 373-7612      |   |                           |                                 | •           | •                                      |                             | •       |                      | •                   |                     |                       |                             | •              | •   | •              |                 |   | •                    |
| Cumberland County, NC                     | Jeffery Brown (910) 678-7633      |   |                           |                                 | •           | •                                      | •                           | •       | •                    | •                   |                     | •                     |                             | •              | •   | •              |                 |   | •                    |
| Berkley County, SC                        | Melissa Wheatley (843) 826-8173   |   |                           | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     |                             | •              | •   | •              |                 |   | •                    |
| Spartansburg County, SC                   | Travis Brown (864) 595-5320       |   |                           |                                 |             | •                                      |                             | •       |                      | •                   |                     |                       |                             | •              | •   | •              |                 |   | •                    |
| Greenville County, SC                     | Marcia Papin (864) 243-9672       |   |                           |                                 |             | •                                      |                             | •       |                      | •                   |                     |                       |                             | •              | •   | •              |                 |   | •                    |
| Bedford County, VA                        | Sheldon Cash (540) 586-7601       |   |                           | •                               |             |  |                             |         |                      |                     |                     |                       |                             |                |     |                |                 | •   | •                    |
| Fairfax County, VA                        | Chris Meoli (703) 690-3696        | •   | •                         | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     |                             | •              | •   | •              |                 |   | •                    |
| Frederick County, VA                      | Joe Wilder (540) 722-8215         | •   | •                         | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     | •                           | •              | •   | •              | •               | •   | •                    |
| Hampton Roads Planning District, VA       | Jai McBride (757) 420-8300        | •   | •                         | •                               |             |  |                             |         | •                    |                     |                     |                       |                             |                |     |                | •               | •   | •                    |
| Norfolk, VA                               | Reynaldo Hernandez (757) 823-4000 | •   | •                         | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     | •                           | •              | •   | •              | •               | •   | •                    |
| Page County, VA                           | Jeff Blevins (540) 743-3854       | •   |                           | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     | •                           | •              | •   | •              | •               | •   | •                    |
| Rockbridge County, VA                     | Jeremy Garrett (540) 463-1460     | •   |                           | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     |                             | •              | •   | •              | •               | •   | •                    |
| Rockingham County, VA                     | Phillip Rhodes (540) 564-3020     | •   |                           | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     |                             | •              | •   | •              | •               | •   | •                    |
| Southeastern Public Service Authority, VA | Bucky Taylor (757) 961-3740       | •   | •                         | •                               | •           | •                                      | •                           | •       |                      |                     |                     |                       |                             |                |     |                | •               | •   | •                    |
| Virginia Beach, VA                        | John Barnes (757) 385-4628        | •   | •                         | •                               | •           | •                                      | •                           | •       | •                    | •                   | •                   | •                     | •                           | •              | •   | •              | •               | •   | •                    |



## KEY PERSONNEL RESUMES

## C. ED HILTON, JR., PE

### Education

BS – Urban Environmental Engineering, University of North Carolina  
Charlotte, 1973

### Professional Licenses

Professional Engineer, NC, FL, GA, AL

### Professional Affiliations

Solid Waste Association of North America  
American Society of Civil Engineers  
American Public Works Association



### Professional Experience

As an SCS Vice President and Project Director, Mr. Hilton is an experienced program manager, project manager, project engineer, and administrator involved in directing the firm's solid waste practice throughout the southeast. In over 45 years of professional experience, he has been responsible for a wide variety of engineering projects including facility siting studies and site permitting; permitting and construction management of landfill cells and landfill closures; solid waste planning and management; waste and wastewater facilities; groundwater monitoring and remediation; and environmental studies. His career includes serving as Director of Engineering and Facilities for New Hanover County, North Carolina for a 10-year period. The balance of his work experience has been in the consulting/engineering field. Following his departure from New Hanover County, he has served as the engineer of record for New Hanover County. Since the early 1990s, Mr. Hilton has worked with Buncombe County to address environmental and solid waste issues.

### Solid Waste Projects

- **Buncombe County, North Carolina, Landfill Siting Study.** Project Manager for the development of a siting study for the purpose of identifying potential sites within Buncombe County that could be developed into a landfill to serve the citizens of the County. The process applied defined criteria against which potential sites could be evaluated. Each criteria was given an importance factor (multiplier) so that the selection process would address special items of high importance to the County as a whole. More than 12 sites were ultimately found and rated. Mr. Hilton presented the report to the County Commissioners with an understanding that several sites could be additionally evaluated to address more environmental concerns. The current active landfill was one of the top sites from the study.
- **Buncombe County, North Carolina, Transition Plan and Closure Permitting.** Project Manager for the design and permitting of a vertical expansion of the Area D disposal area. Subtitle D landfill requirements limited expansions of unlined landfill areas. This allowed continued operation of the old landfill while the County continued with the permitting of the new site. The regulations also required the development of a "Transition Plan" that defined how the County would move from the old unlined landfill into the new Subtitle D facility. In order to meet regulatory timelines the closure of Area D was required to be permitted and constructed. Mr. Hilton led the team that also provided for construction quality assurance

during the construction. The capping system included a geosynthetic clay liner in conjunction with local clay material. Upon issuance of the permit, the closure construction was conducted including the certification of the construction process.

- **Buncombe County, North Carolina, Groundwater Program.** Project Director for the ongoing groundwater monitoring/reporting since the early 1990s with the old County Landfill and since 1998 at the new landfill. This permitted program requires semi-annual sampling, testing, and reporting of test results to the County and State. Where necessary additional testing has been required from time to time for special conditions SCS has worked with the State to resolve issues at both the old and new landfills. The task orders associated with the groundwater program also included on-call engineering assistance. Several projects at the old and new landfills were conducted under that assignment.
- **Buncombe County, North Carolina, Groundwater Contamination Program.** SCS has conducted programs to address groundwater contamination at the old landfill. The County entered into a consent agreement with the State to determine the extent of the contamination both vertically and horizontally. Following that, a program was developed to evaluate the alternatives to address the issue. It was suggested that following that study, a groundwater treatment pilot study was successfully conducted on part of the landfill site in the mid-2000s. This program was very successful and has now been extended to the remainder of the site. This approach, Monitored Natural Attenuation (MNA), was negotiated with the State Agency and allows the County to avoid the installation of a “pump and treat” system that would require more wells for extraction of groundwater, construction and operation of the treatment facility, requiring costly development and operation for an extended period of time. The results to date for the MNA program indicate a positive impact on the reduction of the level of contaminants in the groundwater.
- **New Hanover County, North Carolina, South Property Permitting.** Project Director for managing the south property permit process to allow solid waste disposal units to be constructed and operated on the tract that was purchased in 1988 for that purpose. The County staff and SCS staff worked closely to address all issues associated with this project. To address site usage a concept development plan was created that addressed the combined north and south properties. It served as the basis for the future development of the combined sites. The process required special permitting under the County Zoning Regulations to allow the tract to be developed for solid waste purposes. State permitting included regional and local studies to demonstrate the need for the facility, local impacts of the development, soil and groundwater evaluations, and environmental impacts due to the development. The work resulted in the allowance of the State to use the property as an extension of the existing landfill. In order to actually build a disposal unit, a permit to construct and to operate is required. Under the new state requirements, a “life of site” permitting is available. Working with the staff it was determined that future Cells 7 through 13 was included in the process. The permit has been issued and construction level documents were prepared and approximately 15 acres of disposal area was bid for construction. The bids were reviewed, contract awarded, and construction has begun. SCS is providing personnel for the full-time office and field CQA program.

STEVE LAMB, PE

### Education

BS – Civil Engineering, University of Arizona, 1987

### Professional Licenses

Professional Engineer, NC, SC, TN, OH, AZ

### Professional Affiliations

Solid Waste Association of North America  
American Society of Civil Engineers



### Professional Experience

Mr. Lamb provides SCS with over 30 years of experience in solid and hazardous waste management, environmental engineering, civil engineering, hydrology and hydraulics, landfill engineering, remedial design, and regulatory compliance. He has managed over 400 landfill projects for design, permitting, and construction quality assurance (CQA) activities. Mr. Lamb serves as program manager for solid waste services provided to Cumberland County, NC and Berkeley County, SC. Mr. Lamb is a Vice President and director of SCS's Charlotte, NC office. Examples of his project experience include:

#### Landfill Gas and Clean Air Act Projects:

- **Water & Sanitation Landfill, Berkeley County, Moncks Corner, South Carolina.** Certifying engineer and engineering manager of a design-build project for a landfill gas collection and control system (GCCS). The project included over 45 new landfill gas extraction wells, header and lateral pipe, and a 2,500 scfm utility flare.
- **Gaston County Landfill, Gaston County, North Carolina.** Managed the preparation of construction drawings, specifications, and bidding documents for a 24 LFG well expansion at the Gaston County Landfill.
- **White Street Landfill, Greensboro, North Carolina.** Managed Clean Air Act and Title V air permitting assignments including preparation of a Tier 2 non-methane organic compound (NMOC) report, NSPS GCCS Design Plan, and Initial NSPS Annual Report.
- **Ann Street Landfill, Cumberland County, North Carolina.** Certifying engineer and engineering manager of a design-build project for a landfill gas collection and control system (GCCS).
- **Republic Services, Charlotte Motor Speedway Landfill, Concord, North Carolina.** Since 2002, served as Project Manager for all LFG-related projects. Prepared construction drawings and specifications for (7) seven major landfill GCCS expansions. Prepared air permit to construct applications for 3,000 scfm utility flare and for a 6,000 scfm enclosed flare. Prepared Title V and NSPS Semi-Annual Reports, annual emissions inventories, and Title V Annual Compliance Certifications.

## Solid Waste Projects

- **Salt River Pima Maricopa Indian Community, Phoenix, Arizona.** Certifying engineer for a 35-acre bioreactor landfill design at the Salt River Landfill. Prepared Design Report which addressed liquids management, landfill gas generation, and slope stability.
- **Water & Sanitation Landfill, Berkeley County, Moncks Corner, South Carolina.** Certifying engineer for the preparation of the construction drawings, specifications, and bidding documents for a 10-acre closure of the east slope at the Berkeley County MSW landfill. The closure system consisted of an 18-inch thick compacted soil liner and the ClosureTurf lining system. Managed CQA activities and prepared construction certification report.
- **Waste Management, Inc., Great Oak Landfill, Asheboro, North Carolina.** Certifying engineer for the preparation of the construction drawings, specifications, bidding documents, and erosion & sediment control plan for a 10-acre cell. The cell's liner system consisted of three geomembrane liners, geosynthetic clay liner (GCL), leak detection geocomposite, and leachate collection geocomposite. Managed CQA activities and prepared construction certification report.
- **Newberry County Landfill, Newberry County, Newberry, South Carolina.** Prepared a Corrective Measures Study to address groundwater contamination and landfill gas migration at the closed MSW landfill. The selected remedy design consisted of an active soil gas extraction system with 25 active soil gas extraction wells.
- **Waste Corporation, Yarnell Road Landfill, Knoxville, Tennessee.** Prepared a major permit modification for a vertical expansion of the landfill. The application included stormwater and slope stability calculations, revised drawings, and Closure/Post Closure Plan.
- **Allied Waste, Anson County Landfill, Polkton, North Carolina.** Managed all CQA activities in accordance with the landfill's CQA Plan and NCDENR regulations associated with the construction and certification of Cell 1C, Subcell 2, constructed in 2007. This cell is a 5.5-acre composite-lined solid waste cell. The composite liner included prepared subgrade, compacted soil liner, HDPE geomembrane liner, geocomposite, and leachate collection layer.
- **Fort McMurray Landfill, SALT and LG Aerobic Systems, Wood Buffalo, Canada.** Provided engineering and technical support for the development of design drawings and equipment requirements for an aerobic bioreactor landfill. The project area is approximately 62 acres (238,000 square meters) of landfill area.
- **Duke Energy, Lee Steam Station Landfill, Anderson County, South Carolina.** Managed all engineering, permitting, and hydrogeologic work related to the preparation of the Site Suitability Study and Engineering Permit Application for an 18-acre Class 3 landfill.
- **Republic Services, Lee County Landfill, Bishopville, South Carolina.** Prepared permit modification to the landfill's Solid Waste Permit to modify the landfill's final cover system. The alternative final cover system included a landfill gas collection layer (geocomposite) placed beneath the cap geomembrane. Prepared construction drawings, bid documents, and provided construction quality assurance (CQA) services for a 15-acre partial closure in 2007 and for a 20-acre partial closure in 2010.

## CARLO F. LEBRON, PE

## Education

BS – University of Florida, Environmental Engineering, 1999

## Professional Licenses

Professional Engineer, NC, AL, FL, GA, PR

## Professional Affiliations

Solid Waste Association of North America  
Chairman of Field Practices Committee for Landfill Gas



## Professional Experience

Mr. Lebron is a Project Director in SCS's Tampa office. He has a broad and diverse solid waste engineering background that includes projects in landfill gas, groundwater, landfill services and solid waste facilities. He provides solid waste management consulting and engineering services and he has provided environmental monitoring support. Mr. Lebron has been practicing solid waste engineering since 1999 and has worked on projects in more than half the country. He has experience in landfill gas collection systems and landfill gas to energy projects all across the country. He has experience on over *one hundred* landfill gas projects; these include evaluation, design, permitting, construction, operation. Mr. Lebron has lead a solid waste group that has experience in construction management and oversight of not only landfill and landfill gas collection systems but soil vapor extraction systems and other solid waste construction projects. He has extensive experience with Title V permitting and other regulatory requirements associated with landfill gas collection systems such as NSPS and NESHAP.

## Landfill Gas Engineering

- **Gaston County Landfill, Gaston County, North Carolina, LFG Support Services.** Senior Technical Advisor for general landfill gas support issues as well as for the sampling and analysis of the gas collection system at the landfill for siloxanes.
- **White Street Landfill, Greensboro, North Carolina, Landfill Gas Support Services.** Produced Masterplan layout for landfill gas collection system. Masterplan included chronological sequencing for phasing construction of landfill gas collection system. Completed analysis, design and details for the Phase III of the landfill. Design include the use of a combination flare station/pumping station to deliver landfill gas to end user over six miles from landfill. Special attention had to be paid to existing landfill gas to energy project using common header to end user. Provided field engineering services during construction and start up services at the completion of construction.
- **Three Rivers Regional Landfill, Aiken, South Carolina, Landfill Gas Support Services.** Assisted TRSWA in developing a Title V permit renewal application for submittal to the SCDHEC. Provide assistance to TRSWA by reviewing the testing, analytical, and calculation methodology of the recent Tier II testing and reporting in order to advise TRSWA on options regarding installation of the gas collection and control system. During this review, a



discrepancy was noted in the reporting method. Correcting this discrepancy allowed TRSWA to postpone installation of GCCS. Produced an updated Tier 2 report using the actual 2004 waste acceptance rate as provided by TRSWA. Developed a Gas Collection and Control System Design plan for the Landfill to allow the site to develop an innovative landfill gas collection system. This gas collection system was designed to provide fuel for an alternative waste reduction process. Assisted the client in landfill gas to energy project by providing owners representative services with respect to technical support. This service allowed the client to receive bond funding to own and construct the project. Also assisted TRSWA in monetizing greenhouse gas credits from the early installation of the landfill gas collection system. Currently developing the next expansion of the LFGCS.

- **Bees Ferry Landfill, Charleston, South Carolina, Landfill Gas Evaluation.** Reviewed historical data and projected future data to determine the feasibility of utilizing the landfill gas for a gas to energy project. Produced a report summarizing our findings and evaluation. Supported Tier 2 sampling for the facility.
- **Hanes Road Landfill, Winston Salem, North Carolina, Landfill Gas Collection System Design.** Evaluated projected waste disposal rates and designed of 6200 foot 24" diameter HDPE landfill gas transmission line for proposed expansion area of the landfill. Design included the use of condensate sumps, air lines and dual contained condensate return lines. Developed bid documents and assisted with prebid meeting to address contractor's questions. Additional design services included producing bid documents for the expansion of the landfill gas collection system and providing construction support.
- **Rowan County Landfill, Woodleaf, North Carolina, Carbon Credit Analysis.** A carbon credit analysis was prepared to ascertain the possibility of Rowan County implementing a greenhouse gas reduction project at the landfill. The analysis discussed different markets, local and national programs, gas modeling and generation, potential revenue outcomes.
- **Williamsburg County Sanitary Landfill, Salters, South Carolina, Methane Migration Remedial Action Plan and Carbon Credit Analysis.** Developed methane migration remedial action plan to mitigate elevated levels of methane noted at methane monitoring probes. This plan implemented a phased approach to allow various low cost techniques to be initiated. A carbon credit analysis was prepared to ascertain the possibility of Williamsburg County implementing a greenhouse gas reduction project at the landfill. The analysis discussed different markets, local and national programs, gas modeling and generation, potential revenue outcomes.
- **Twin Chimneys Landfill, Greenville, South Carolina, Landfill Gas Support Services.** Developed the Title V air permit application and prepared the first NMOC report for the landfill. Developed protocol for Tier 2 portion of NMOC project for the City and produced the Tier 2 report to meet regulatory deadlines. Designed a landfill gas collection system and provided construction support services.
- **Enoree Landfill, Greenville, South Carolina, Landfill Gas Collection System Master Plan.** Produce Masterplan layout for landfill gas collection system. Masterplan included chronological sequencing for phasing construction of landfill gas collection system.

ALBERT D. GLENN, PE

## Education

BS - Civil Engineering, University of North Carolina at Charlotte, 1995

## Professional Licenses

Professional Engineer, NC, VA

## Professional Affiliations

Solid Waste Association of North America (SWANA), North Carolina and South Carolina Chapter

## Professional Experience

For the past 23 years Mr. Glenn's career has focused in the solid waste field providing engineering and technical services for some of the largest solid waste management facilities in the Southeast of the United States and internationally. His experience includes project management, planning, regulatory liaison, federal and state permitting, construction quality assurance (CQA) and quality control, new and closure landfill design, transfer station and convenience center design, development of construction packages, and construction administration for the solid waste industry.

Some examples of relevant project experience include:

### **Solid Waste Management Planning and Budgeting**

**Anson County, Solid Waste Management Planning, North Carolina.** Project Manager, prepared County's Solid Waste Management Plan. The plan included determination of and planning for County's current and future solid waste and recycling collection, disposal, and processing needs including emergency response for disaster debris and mass poultry mortality. Since 2009, continually assist in coordinating the County's solid waste management program as well as financial analysis and regulatory reporting. Also, for the County's public education program assisted preparing solid waste disposal and recycling educational material and updating the material as needed.

**Union County, Solid Waste Management Plan, North Carolina.** Project Manager, prepared County's Solid Waste Management Plan. Plan included determination of and planning for County's current and future solid waste and recycling collection, disposal, and processing needs.

Union County, Landfill Development Plan and Financial Analysis, North Carolina. Project Manager, in conjunction with County staff developed a plan for optimal and long term use of the County's solid waste management facility property with associated capital, operations and regulatory compliance costs. The facility included a C&D Landfill, closed unlined MSW landfill, MSW Transfer Station, Type 1 composting, recycling collection and processing, and various administrative and operations buildings.

### **Landfill Gas and Clean Air Act Projects**

Anson County, Landfill Gas Migration Remediation, North Carolina. Project Manager, prepared a remediation plan and system design for the prevention of methane gas migration from the County's closed unlined Lilesville Landfill property. Once the remediation plan and design was completed, SCS Field Services constructed the selected remedial action in 2014. Since then no methane has been detected outside the Landfill property.



**New Hanover County, Landfill Gas Collection and Control System (GCCS), North Carolina.** Project Manager. Prepared a design, specifications, and bid package for construction of a new GCCS at the County's MSW Landfill. The project included 10,000 feet of gas collection piping, 18,700 feet of gas liquids collection piping, and a 2,500 scfm gas combustion flare and blower skid.

Landfill Gas Collection and Control System Design and Clean Air Act Compliance for:

- East Carolina MSW Landfill, Aulander, North Carolina
- Upper Piedmont MSW Landfill, Rougemont, North Carolina
- Foothills MSW Landfill, Lenoir, North Carolina
- Anson County MSW Landfill, Polkton, North Carolina

### **Solid Waste Facility Projects**

**Union County, Type 1 Composting Operations, North Carolina.** Project Manager, designed and prepared all regulatory required information for permitting a new Type 1 composting operation at the County's Solid Waste Management Facility. SCS prepared a site plan and equipment selection for the operations and updated the Landfill's Operations and Waste Acceptance Plan to include the composting operations. The composting operation was designed to operate on 1.75-acres and process 22,400 cubic yards of material annually.

**Union County, Municipal Solid Waste (MSW) Transfer Station, North Carolina.** Project Manager, designed and managed Transfer Station rehabilitation and improvements. Project included development of system for resurfacing Transfer Station floor and the addition of structural steel components for tipping floor edge and hopper as well as new loadout scales.

**Obtained Permit-to-Operate (PTO) renewal for the MSW Transfer Station.** As part of the PTO a new Operations Plan was prepared and training of staff for the Transfer Station and waste receiving scales.

**Lincoln County, Residential Waste and Recyclables Collection Convenience Centers, North Carolina.** Project Manager, performed an analysis of the physical condition of five solid waste and recyclables collection convenience centers and provided recommendations for improvements in 2016. The analysis and recommendations were converted to a design for the recommended improvements. SCS was then contracted to provide the personnel, equipment, and materials to construct the improvements at the five convenience centers in 2016 and in 2017.

Solid Waste Landfill Design and Regulatory Permitting for:

- Charlotte Motor Speedway MSW Landfill, Concord, North Carolina
- Anson County MSW Landfill, Polkton, North Carolina
- Union County C&D Landfill, Wingate, North Carolina
- Lake Norman C&D Landfill, Lincoln County, North Carolina

## DAVID S. GREENE, PE

## Education

MS – Environmental Engineering; University of Tennessee

MBA – University of Tennessee

BS – Industrial Engineering; University of Tennessee

## Professional Licenses

Professional Engineer, NC, SC



## Professional Affiliations

Air and Waste Management Association (Chair, Waste Resource Recovery, Processing, and Bioenergy Technical Coordinating Committee; Vice Chair Waste Management Division)  
Carolinas Air Pollution Control Association

## Professional Experience

Mr. Greene is a Project Manager locally-based in the SCS Asheville, NC office with over 24 years of experience. Mr. Greene is experienced in a variety of solid waste related environmental engineering areas, including air permitting, landfill gas, landfill gas to energy (LFGE) financial analysis, landfill due diligence efforts, regulatory development and analysis, compliance planning, greenhouse gas monitoring, emission inventory including emission factor development. David has provided Air regulatory assistance for 14 landfills in North Carolina, including Buncombe County's closed landfill site and four NSPS Subpart XXX sites in the state, and 18 Subpart WWW-subject sites in various states. Mr. Greene has also consulted internationally in Southeast Asia focusing on the areas of training and evaluating the feasibility of LFG energy projects at solid waste disposal sites. Mr. has also permitted LFG-fired leachate evaporators at two separate sites. Examples of his project experience include:

## Landfill Air Permitting and Compliance

- **Waste Management, Great Oak and Piedmont, North Carolina; Hickory Hill, Oakridge, Palmetto, Richland County, South Carolina; and R&B Landfill, Georgia, Variety of Air Permitting and Air Compliance Activities.** Experience includes air construction permitting of innovative landfill gas fired Leachate Evaporator systems at two landfill sites-including leading initial performance testing efforts, greenfield MSW landfill Title V permitting, and a variety of modifications, renewals, and regulatory reporting. Prepared permit applications for landfill gas fired engines, and the preparation of an NSPS exemption demonstration. Assisted Environmental Protection staff with implementation for NSPS Subpart XXX requirements. Additionally, prepared a Leachate Evaporator air permitting guidance document for use by Waste Management corporate offices.
- **New Hanover County Landfill, North Carolina, Title V Permitting activities and LFG Sampling.** Conducted feasibility study for energy development, GCCS planning, GCCS bid document planning, performed air permitting, responding to state regulators on behalf of the Landfill, managed federal GHG reporting for Landfill, and prepared air emissions inventory submittals. Assisted with LFG planning including managing gas well installations. Developed planning scenarios for implementation for NSPS Subpart XXX requirements.

- **Cumberland County, Ann Street Landfill, North Carolina.** Assisted landfill planning and implementation for NSPS Subpart XXX requirements. Prepared emissions inventory submittal and federal greenhouse gas reporting for Landfill as well as developed planning scenarios for NSPS Subpart XXX requirements.
- **Santek Environmental, Haywood County White Oak Landfill, North Carolina.** Initial air permitting consulting and Title V permitting of site, NSPS Subpart XXX permitting, and assisted with groundwater monitoring well installation, and water quality sampling.
- **Buncombe County Closed Landfill, North Carolina.** Initial development of greenhouse gas monitoring plan and the preparation and submittal of federal Best Available Monitoring Methods documentation for reporting. Assisted Buncombe County in coordinating with third party energy developer and completing mandatory reporting on schedule. Submittal and obtained the Landfill's exit from federal greenhouse gas reporting obligations.
- **White Street Landfill, Greensboro, North Carolina.** Prepared air emissions inventories, federal greenhouse gas reporting, and regulatory determination for treatment systems for municipal site. Assisted in semi-annual reporting and annual certification statements.
- **Berkeley County, Water and Sanitation Landfill, South Carolina.** Air consulting for county-owned Landfill. Title V permitting renewal and flare modification. Prepared emissions inventories, managed federal greenhouse gas reporting for Landfill and semi-annual air reporting requirements. Supervised Tier 2 NMOC sampling and testing activities under federal NSPS regulation.
- **Wake County, North Carolina, LFG Feasibility Study.** Developed financial *pro forma* analyses and energy option feasibility study for landfill gas to energy project. Responsibilities included investigating proximate industrial facilities for direct-use potential of landfill gas, obtaining steam and energy-use information for potential energy users. Further assisted County with evaluation of the technical component of a landfill gas developer agreement contract and examined various ownership options for the County.
- **Republic Services, Upstate Landfill, South Carolina.** Air permitting of large disposal area expansion, NSPS Subpart XXX permitting, assembled and submitted GCCS design plan under Subpart XXX requirements, prepared air emissions inventories, federal greenhouse gas reporting, and regulatory determination for treatment systems. Supervised air dispersion modeling for site. Assisted in semi-annual reporting and annual certification statements.
- **Republic Services, Foothills, North Carolina.** Managed Title V permitting efforts Prepared air emissions inventories, federal greenhouse gas reporting, and permitting and initial performance testing for an open flare. Assisted in semi-annual reporting and annual certification statements and in evaluating leachate treatment options.
- **Republic Services, Charlotte Motor Speedway Landfill, North Carolina.** Permitted enclosed flare, prepared air emissions inventories, federal greenhouse gas reporting, and regulatory determination for treatment systems. Assisted in semi-annual reporting and annual certification statements.
- **Lockhart Power Landfill Gas to Energy Projects, South Carolina.** Prepared Title V air permit applications for two separate landfill gas to energy projects utilizing engines to generate electricity for sale on the local grid. Other responsibilities included developing landfill gas sampling protocol, analyzing landfill gas and submitting test results to state regulatory agency for permitting purpose.

EXHIBIT C

Task Order Number \_\_\_\_\_ (YY-#, i.e., 18-01)

\_\_\_\_\_ (Title of Task)

Buncombe County Environmental Management Department

SCOPE OF SERVICES

**Scope of Work Description**

**Deliverables and Schedule**

Work will commence within \_\_\_\_\_ days of notice to proceed and will be completed by \_\_\_\_\_/\_\_\_\_\_/20\_\_\_\_\_. (A proposed schedule for this work must be included herein.)

**Compensation**

Compensation to the Contractor for services performed under this Task Order will be in accordance with the (lump sum or time and materials (*circle one*)) invoice method and shall be based upon the fees as set out in the Agreement.

SCS ENGINEERS, PC proposes to complete this Task for a fee of \$\_\_\_\_\_. This fee, which is based on the assumptions provided in this Task Order proposal, shall not be exceeded without written authorization from the County.

| BUNCOMBE COUNTY BOARD OF<br>COUNTY COMMISSIONERS | CONTRACTOR     |
|--|----------------|
| By: _____  | By: _____      |
| (Signature)                                      | (Signature)    |
| _____  | _____          |
| (Printed Name)                                   | (Printed Name) |
| _____  | _____          |
| (Title)  | (Title)        |
| _____  | _____          |
| (Date)   | (Date)         |

THIS INSTRUMENT HAS BEEN PRE-AUDITED IN THE MANNER REQUIRED BY THE LOCAL GOVERNMENT AND FISCAL CONTROL ACT

\_\_\_\_\_  
Finance Director

Approved as to form

\_\_\_\_\_  
County Attorney/County Staff Attorney



# SCS ENGINEERS, PC

## EXHIBIT D

### SCS ENGINEERS, PC FEE SCHEDULE (Effective January 1, 2018 through December 31, 2018)

|                                    | <u>Rate/Hour (\$)</u> |
|------------------------------------|-----------------------|
| Principal/Office Director.....     | 235                   |
| Project Director .....             | 235                   |
| Senior Project Advisor.....        | 185                   |
| Senior Project Manager.....        | 185                   |
| Project Manager.....               | 165                   |
| Senior Project Professional.....   | 150                   |
| Project Professional.....          | 120                   |
| Designer .....                     | 108                   |
| Construction Superintendent.....   | 105                   |
| Staff Professional .....           | 105                   |
| Senior Technician .....            | 98                    |
| Associate Staff Professional ..... | 90                    |
| Designer/Drafter.....              | 90                    |
| Technician .....                   | 70                    |
| Secretarial/Clerical .....         | 65                    |

1. The hourly rates are effective through December 31, 2018. Work performed thereafter is subject to a new Fee Schedule issued for the period beginning January 1, 2019.
2. The above rates include salary, overhead, administration, and profit. Other direct expenses, such as analyses of air, water and soil samples, reproduction, travel, subsistence, subcontractors, computers, and other reimbursable fees, are billed in accordance with the attached reimbursable fee schedule or at cost, plus 15 percent for administration.
3. For special situations, such as expert court testimony, hourly rates for principals of the firm will be on an individually-negotiated basis.

### ADMINISTRATION/MILEAGE

| <u>Reimbursable</u>                   | <u>Unit Cost (\$)</u> | <u>Unit</u> |
|---------------------------------------|-----------------------|-------------|
| Vehicle Mileage                       | Current Federal Rate  | mile        |
| Truck Usage                           | \$75                  | day         |
| Reproduction – Black and White Copies | \$0.10                | each        |
| Reproduction - Color Copies           | \$0.75                | each        |
| CAD                                   | \$5                   | hour        |