Quinn Bernier, PE

Education

BS – Environmental Systems Engineering, Penn State University, 2017

Professional Licenses

Professional Engineer – Virginia and North Carolina

Professional Affiliations

Virginia Recycling Association – Communications Lead

Professional Experience

Ms. Bernier has 5 years of professional experience with recycling projects, solid waste studies, waste sorting, and solid waste facilities/financial planning projects at the SCS Richmond, VA office. She also engages in landfill gas projects, including Clean Air Act permitting, compliance, regulatory reporting, odor response, carbon credits, and landfill gas modeling at solid waste management facilities.She designs LFG collection and control systems, and manages the bidding, construction, and CQA for LFG system projects. Notable projects that Ms. Bernier has worked on are described below:

Solid Waste Planning and Collections

**Wake County, NC** **Life of Landfill Study.** Proposed waste diversion and reduction strategies to extend the life of the South Wake Landfill, including organic waste management (source reduction, collection strategies, and treatment facilities options, reuse efforts, policy, recycling initiatives, etc.

**Pittsylvania County, VA Convenience Center Design.** Designing layout and physical features for construction of new waste and recycling drop-off facilities in AutoCAD, including stormwater plans, grading, landscaping, and traffic considerations. Securing necessary permits for construction.

**Rappahannock Regional Solid Waste Mgmt Board (R-Board), VA (Stafford Co/Fredericksburg).** Evaluated the efficiency and finances of R-Board’s Landfill and recycling facilities. Offered suggestions regarding contract language and fairness of the agreement forming the Authority and contract with the Landfill Waste-to-Energy Plant. Created a pro forma financial model to predict tip fees from current budget data.

**City of Bristol ISWMF, VA.** Updated Operations Manuals for tire facility, compost facility, transfer station, and landfills, including monitoring checklists, emergency plans, etc.

**College of Charleston, SC Waste Sort.** Designed/wrote sampling plan for the waste sorting event. Field-sorted incoming waste from the College into 50+ categories, weighing samples to analyze the material content.

**Blue Ridge Resource Authority (BRRA) Solid Waste Management Plan Update.** Reviewed regulations and Authority documents to update the Solid Waste Management Plan with population data, waste generation, and solid waste management goals. Coordinating with DEQ to ensure completeness and compliance with existing Permits.

**Upper Chichester, PA Collections Study.** Field observations of solid waste collection routes to analyze material composition, route efficiency, and typical practices, using the data collected to propose improvements to the City’s collections system. Conducted interviews with solid waste collection staff to gather information about preferences, safety concerns, etc.

**Lynchburg, VA Collections Study.** Field observations of solid waste collection routes to analyze material composition, route efficiency, and typical practices, using the data collected to propose improvements to the City’s collections system. Visited City convenience centers to evaluate recycling signage, contamination, and layout.

**Waynesboro, VA Collections Study**. Field observations of solid waste collection routes to analyze material composition, route efficiency, and typical practices, using the data collected to propose improvements to the City’s collections system. Financial analysis and personnel interviews, and a public survey were also used to assess performance. Evaluated the viability privatizing collections.

Landfill Gas Management

**Wake County, NC.** Oversees air compliance at both the County’s active and closed landfills. Manages wellfield design projects and performs CQA for well drilling and other LFG infrastructure construction. Manages and analyzes LFG data from PLC/HMI recording devices. Conducted Initial Flare Performance Tests, written Emissions Inventories, Semi-Annual Title V Reports, and Annual GHG Reports for the landfills. Also wrote and manages an Odor Management and Control Plan for the County, including establishment/tracking of performance metrics, odor mitigation strategies, GIS mapping and study of meteorological effects.

**Shoosmith Bros., Inc., VA.** Aids with LFG well installation CQA and wellfield management. Writes Emissions Inventories and Annual GHG Reports for the landfill. Manages and analyzes LFG data from PLC/HMI recording devices. Holds quarterly odor monitoring events and voluntary events, writing reports of all findings. Conducts TRS sampling events semi-annually. Handles odor complaint logs and analyzes complaints with weather and location data.

**King George County, VA.** Conducted review of odor mitigation strategies, considering complaint analysis, LFG infrastructure, leachate evaporation, cover types, and filling plans.

**New River Resource Authority, VA.** Oversees carbon credit project at regional landfill with the Climate Action Reserve, calculating applicable credits, gathering monitoring data, and acting as a contact for verification bodies. Coordinates sale of credits once awarded. Master planning of LFG system expansions, including blower/flare station(s).

Full Name, Certifications “Resume Heading1”

First, Last (opt. photo 1”x1.25”)

Education “Resume Heading2”

ME – Civil Engineering (Environmental), University of Virginia, 1980

BS – Civil Engineering, University of Virginia, 1979

Professional Licenses

Professional Engineer – States spelled out

Specialty Certifications

Board Certified Environmental Engineer (BCEE), Solid Waste Management

Professional Affiliations

American Academy of Environmental Engineers

American Society of Civil Engineers

Solid Waste Association of North America

National Society of Professional Engineers

National Waste and Recycling Association

Professional Experience

As a title, full name is responsible for (major responsibilities and accomplishments. This is the bio used for the website, public relations, and business development. As a Senior Vice President, Mr. Gardner is responsible for overseeing SCS’s nationwide solid waste management practice, which includes landfill engineering, landfill gas management, solid waste studies, landfill environmental systems, operation and maintenance, and construction. Mr. Gardner works closely with SCS’s national and regional clients. Since joining SCS in 1980, he has completed solid waste, hazardous waste, environmental assessment, facility design, compliance audit, and other environmental study projects for municipal and private clients.

Cover project technical support, business or administrative support, types of facilities, here. Projects typically have involved feasibility studies, due diligence investigations, facility siting, site investigations, environmental studies, permitting, design, and construction services. Facilities have included landfills, landfill gas control facilities, material recovery facilities, transfer stations, wastewater treatment plants, and support facilities (e.g., roadways, buildings, stormwater, utilities). Other projects have included waste composition studies, rate studies, compliance audits, site assessments, and preparation of various procurement documents.

Break detail into areas or more readable chunks followed by project experience by service areas at SCS. He has participated in or directed numerous environmental site assessments, contamination assessments, remedial action plans, and remedial construction projects throughout the United States. Project sites have included fuel storage facilities, vehicle maintenance facilities, truck stops, chemical processing plants, active and closed landfill sites, abandoned chemical disposal sites, and superfund sites. Chemical contamination encountered in both soil and groundwater media has included petroleum, heavy metals, dioxin, pesticides, heavy metals, PCBs, and solvents. Notable projects that Mr. Gardner has been involved in are described below.

Landfill Engineering “Resume Heading3”

**Alachua County, Florida, Independent Review of Landfill Siting Study.** Project Director responsible for detailed review of studies, field investigations, calculations, basic assumptions, and application of a landfill siting and ranking methodology prepared by the County, a Citizens Advisory Committee, and the County's technical consultant and presentation of findings and recommendations at a public hearing to the Board of County Commissioners.

**Allied Waste Services, Mississippi, Design and Construction of Closure of the Little Dixie Landfill.** Project Director responsible for the permitting, design, and construction of a 5-acre partial landfill closure for the Little Dixie Landfill in Jackson, Mississippi. The project was completed on a design/build basis. According to Allied Waste Services,” This job posed unique problems and your [SCS’s] crew developed unique solutions to these problems.”

Landfill Gas Management

**Brevard County, Florida, Landfill Gas Pump Test.** Project Director responsible for direction and oversight of a landfill gas pump test program and development of the final field study report for Brevard County, Florida.

**Broadrock Renewable, LLC, Update of Landfill Gas Reserves Projections for the Olinda Landfill, Orange County, California.** Project Director responsible for updating the landfill gas recovery projections for the Olinda Landfill taking into account projected disposal quantities and characteristics. The updates were used by Broadrock management to evaluate the long-term performance of their 32.5 MW landfill gas to energy power plant at the landfill.

**Broadrock Renewable, LLC, Evaluate Landfill Gas Collection System Performance and Flow and Gas Quality Monitoring Equipment inlet to the new Turbine Facility, Olinda Landfill, Orange County, California.** Project Director responsible for evaluating landfill gas collection coverage and potential options for improving landfill gas recovery, and assessing the flow and gas quality monitoring equipment inlet to Broadrock’s 32.5 MW landfill gas to energy turbine facility at the Olinda Landfill.

Solid Waste Studies

**Broward Solid Waste Disposal District, Florida, Development of Solid Waste Special Assessment Program.** Project Director responsible for development of a solid waste special assessment program for the Broward Solid Waste Disposal District, including evaluation of alternative special assessment strategies and programs used by other counties and municipalities throughout Florida and elsewhere, field testing to develop generation estimates for commercial properties; development of organization and procedures for implementing a special assessment, and preparing final report presenting the special assessment findings and program. The District includes 25 separate municipalities and the unincorporated areas of Broward County.

**City of Lee’s Summit, Missouri, Pro Forma Analysis for Transfer Station.** Principal responsible for preparing a conceptual pro forma to evaluate the feasibility of constructing and operating a new solid waste transfer station to replace the City’s existing landfill operations.

Publications and Presentations

Gardner, R. B., & Rogoff, M. J., “Trends in Solid Waste Collection Part I– What’s the Future”, MSW Management, March/April 2015.

Gardner, R. B., “City of Virginia Beach Compressed Natural Gas Vehicle Conversion Feasibility Study”, Solid Waste Association of North America, Northwest Regional Meeting Proceedings, Richmond, BC, Canada, April 2013.

Gardner, R. B., “Infrastructure from the Ground Up, Civil Engineering Works for Lawyers, Chapter 5 – Solid Waste Management”, American Bar Association Publication, 2012

Gardner, R. B., Matteson, K. M., & Carlock, J., “Solid Waste Management after 2018: Future Options for the South Hampton Roads Region on Virginia”, Solid Waste Association of North America WasteCon Proceedings, August 14-16, 2012.

Gardner, R. B., Leonard, M., Clark, B. J., & Ludt, R., “Waste Processing Facilities and Evolving Markets”, MSW Management, Vol. 18, No. 3, April 2008.