

## THOMAS WILLIAMS, EIT

### Education

MS – Civil Engineering (Civil and Environmental), University of Virginia, 2018

BS – Civil Engineering, University of Virginia, 2015



### Professional Affiliations

American Society of Civil Engineers (ASCE)

Solid Waste Association of North America (SWANA), Old Dominion Chapter

### Professional Experience

As a project professional, Mr. Williams is responsible for technical project work, including the preparation of engineering drawings and calculations for landfill engineering, landfill gas management, landfill environmental systems, and other environmental projects. Since joining SCS in 2018, he has worked on solid waste permitting, landfill cell design, landfill gas system design, airspace calculations, CQA, stormwater analysis, and cost estimations for municipal and private clients. He has also managed landfill design and construction administration tasks. Notable projects that Thomas has been involved in are described below.

#### Landfill Engineering

**Apex, North Carolina, South Wake Landfill.** Responsible for volume calculations and cost estimates for various potential design modifications and strategies to increase the capacity and extend the life of the landfill.

**Augusta Regional Landfill.** Performed various tasks related to major permit amendment for alternate final cap configuration. Completed a comprehensive airspace analysis for the landfill and prepared a corresponding report.

**Bedford County, Virginia, Solid Waste Major Permit Amendment.** Responsible for assembling design drawings, design report calculations, and the leachate management plan for a part B major permit amendment. Conducted computer modeling to analyze the slope stability of proposed landfill cells (PCSTABL5M) and to estimate leachate generation (EPA HELP model) for various filling stages and completed design calculations for the leachate collection system. Developed a stormwater management plan and relevant design features. Used spatial analysis for cut/fill mapping and airspace calculations for active cells, and performed financial assurance calculations.

**Chester, VA, Shoosmith Sanitary Landfill.** Served as CQA consultant for final cover installation in October of 2018 and bottom liner installation in March of 2020. Monitored and documented geomembrane placement, welding, repair work, and liner sampling to meet project specifications. Developed GIS map document for site and surroundings. Engineering design and development of construction drawings for Cell 26F including stormwater infrastructure, grading plans, and geosynthetic material quantities. Development of updated airspace and earthwork volume calculations for proposed Quarry cell based on current mining plan. Completed CQA for final cover liner repairs and landfill gas header and sump installations.

**Possum Point Power Station, VA.** Assisted with slope stability analysis for a geotechnical design project involving slope stabilization of landfilled materials. Prepared detail drawings and completed computer modeling using PCSTABL5M.

**Blue Ridge Resource Authority Landfill.** Served as CQA consultant for 18-acre final cover installation project consisting of a compacted soil infiltration layer. Reviewed CQC and CQA testing data to confirm technical specification requirements, monitored construction progress using survey data within Civil 3D, reviewed payment applications, and addressed contractor RFIs. Worked to revise design documents and drawings.

Prepared bid documents for the construction of a new landfill cell, including the construction drawings and technical specifications. Managed the bidding process and award on the client's behalf. Revised the overall site grading design for a major permit amendment. Managed construction oversight and administration for a recently completed new landfill cell construction project.

**Knoxville, TN, Yarnell Road Landfill.** Assisted with HELP modeling for multiple filling scenarios.

## **Landfill Gas Management**

**Lynchburg, VA, Concord Turnpike Landfill.** Assessed impact of elevated gas pressure on veneer stability conditions.

**Rustburg, VA, Livestock Road Facility.** Assisted with the design of multiple LFG collection system expansions, including header reconfigurations and extensions, horizontal collector installations, and condensate sump installations. Prepared multiple sets of construction drawings and specifications. Coordinated with surveyors to prepare as-built record drawings.

**Chester, VA, Shoosmith Sanitary Landfill.** Preparation of landfill gas well schedules, contributing to design of comprehensive LFG system expansion including header pipe layout analysis and designing unusual connection details.

**Spotsylvania County Landfill, VA.** Engineering design and development of construction documents for LFG collection system expansion project to enable connection of leachate system for purposes of LFG extraction.

## **Stormwater**

**Pyramid Network Services, LLC.** Engineering design and development for stormwater management, erosion, and sediment control plans for multiple communication tower sites within Virginia. Conducted stormwater modeling calculations for various stormwater features, including culverts and stormwater basins. Applied TR-55 methodology and designed in accordance with the Virginia Erosion and Sediment Control Handbook. Completed Virginia Runoff Reduction Method calculations.

## **Environmental Services**

**Iluka Resources.** Conducted engineering design and support for large-scale earthwork operations as part of a mining reclamation project. Tasks included stormwater analysis, stormwater management design, erosion control design, earthwork volume analysis, and earthwork progress tracking.

**Meadow Ridge Collection Center.** Assisted with stormwater design and analysis. Prepared and edited engineering drawings.