### SRIVIDHYA VISWANATHAN, PE

### Education

MS – Civil Engineering, University of Oklahoma, 2005 BE – Civil Engineering, Delhi College of Engineering, New Delhi, India, 2002

### Professional Licenses

Registered Civil Engineer – California (No. 80360), Arizona (No. 59485), Oklahoma (No. 24265)



## Specialty Certifications

40-Hour OSHA Health and Safety Training Manager of Landfill Operations (MOLO)

#### Professional Affiliations

Solid Waste Association of North America (SWANA) American Society of Civil Engineers (ASCE)

# Professional Experience

Ms. Viswanathan is a registered civil engineer with over 15 years of experience, specializing in solid waste management. During her tenure as a municipal engineer, she was involved in the permitting, design, and construction of a variety of municipal projects, including landfill expansion and liner installation. Since joining SCS, she has been involved in the preparation of feasibility studies, and the permitting, design, and construction of various landfill and landfill gas (LFG) projects.

Her work includes design and installation of LFG collection systems, landfill de-watering systems, LFG Blower-Flare Station (BFS) planning and site civil design, and construction oversight for LFG-related projects. She also has experience performing analysis of airspace consumption and remaining life assessments using AutoCAD Civil 3D, and in estimation of closure and post-closure care costs for various landfills. She has designed 5-year operational fill and gas collection and control system (GCCS) sequence plans, and prepared Joint Technical Document (JTD) updates for various landfills in California.

Ms. Viswanathan is a strong client manager with excellent GCCS design, construction quality assurance (CQA), and construction skills. She has a thorough understanding of all aspects of fill operations, construction, and OM&M, and has been an integral part of several site operations teams since joining SCS in 2012.

She is currently the Engineer of Record for GCCS expansion projects for several Republic Services sites and provides routine regulatory support for landfill and LFG issues. She is also the Engineering Manager, responsible for reporting to the U.S. Environmental Protection Agency (EPA) on the Salt

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River Landfill bioreactor cell (Scottsdale, AZ), and is involved in the permitting, design, construction, and operations and maintenance (O&M) of LFG systems across Southern California and Arizona.

#### Landfill/Landfill Gas Design and Construction Services

#### California

**Republic Services, Inc., 2018 Blower Facility for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan is responsible for the design of the blower facility and associated piping upgrades.

**Republic Services, Inc., 2018 GCCS Expansion Design for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2018 GCCS Expansion CQA for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for installation of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 GCCS Expansion Design for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 GCCS Expansion CQA for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for installation of vertical LFG extraction wells and associated header and lateral piping.

**CA.** As Project Manager, Ms. Viswanathan was responsible for the design and CQA for installation of 125-hp air compressor, desiccant dryer and oil-water separator.

**Republic Services, Inc., 2017 Electrical Service Upgrade Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the design and CQA for upgrading the 600 Amp electrical service to 1,600 Amp electrical service to allow operation of the air compressor station.

**CA.** As Project Manager, Ms. Viswanathan was responsible for the 5-year fill and GCCS Sequence Planning for the period 2017 to 2021.

**Republic Services, Inc., 2016 GCCS Expansion Design for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2016 GCCS Expansion CQA for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for installation of vertical LFG extraction wells and associated header and lateral piping.

**CA.** As Project Manager, Ms. Viswanathan was responsible for the design and CQA of the de-watering system and associated air supply and force main piping.

**Republic Services, Inc., 2016 5-Year Fill and GCCS Sequence Planning Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for the 5-year fill and GCCS Sequence Planning for the period 2016 to 2020.

**Republic Services, Inc., 5-Year Permit Review/Joint Technical Update for Otay Landfill, Chula Vista, CA.** As Engineer of Record, Ms. Viswanathan was responsible for updating the JTD in accordance with California Code of Regulations Title 27.

**Republic Services, Inc., Regulatory Support for Otay Landfill, Chula Vista, CA.** As Project Manager, Ms. Viswanathan was responsible for providing routine regulatory support for landfill and LFG issues.

**Republic Services, Inc., 2018 GCCS Expansion Design for Sycamore Landfill, Santee, CA (Ongoing).** As Project Manager, Ms. Viswanathan is responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 GCCS Expansion Design for Sycamore Landfill, Santee, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 GCCS Expansion CQA for Sycamore Landfill, Santee, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for installation of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 5-Year GCCS Sequence Planning Sycamore Landfill, Santee, CA.** As Project Manager, Ms. Viswanathan was responsible for the 5-year GCCS Sequence Planning for the period 2017 to 2021.

**Republic Services, Inc., 2016 GCCS Expansion Design for Sycamore Landfill, Santee, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2016 GCCS Expansion CQA for Sycamore Landfill, Santee, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for installation of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2016 5-Year Fill and GCCS Sequence Planning Sycamore Landfill, Santee, CA.** As Project Manager, Ms. Viswanathan was responsible for the 5-year GCCS Sequence Planning for the period 2016 to 2020.

Republic Services, Inc., 5-Year Permit Review/Joint Technical Update for Borrego Landfill, Borrego Springs, CA. As Engineer of Record, Ms. Viswanathan was responsible for updating the JTD in accordance with California Code of Regulations Title 27.

**Republic Services, Inc., Routine Inspection for Ramona Landfill, Ramona, CA.** As Project Manager, Ms. Viswanathan was responsible for providing routine inspection, reporting, and on-call engineering services.

**Republic Services, Inc., Routine Inspection for Imperial Landfill, Imperial, CA.** As Project Manager, Ms. Viswanathan was responsible for providing routine inspection, reporting, and on-call engineering services.

**County of San Diego, Enclosed Flare and Blower System Replacement for Jamacha Landfill, San Diego, CA (Ongoing).** As Project Manager, Ms. Viswanathan is responsible for design and installation of a replacement enclosed flare and blower system at Jamacha Landfill.

County of San Diego, Enclosed Flare and Blower System Replacement for Bell Jr. High School Landfill, San Diego, CA. As Project Manager, Ms. Viswanathan was responsible for design and installation of a replacement enclosed flare and blower system at Bell Jr. High School Landfill.

**County of San Diego, Enclosed Flare and Blower System Replacement for Hillsborough Landfill, San Diego, CA.** As Project Manager, Ms. Viswanathan was responsible for design and installation of a replacement enclosed flare and blower system at Hillsborough Landfill.

**County of San Diego, Routine Inspection for Various Landfills, CA.** As Project Manager, Ms. Viswanathan was responsible for providing routine inspection, reporting, and on-call engineering services. Projects included design and oversight of the installation of LFG extraction wells, evaluation of LFG impacts on groundwater, environmental impacts of a possible air crash at an airport constructed on a landfill, permitting assistance for the addition of a flare condensate injection system, and general technical support.

City of San Diego, Feasibility Study for a New BFS, Civil Design, and Permitting for a BFS at Miramar Landfill, San Diego, CA. As Project Manager, Ms. Viswanathan was responsible for preparation of a feasibility study investigating the potential design, permitting, and economic considerations for possible locations of the new BFS, and design plans for the construction of the new BFS.

**County of San Bernardino, US Army Garrison Amended JTD for Ft. Irwin Sanitary Landfill, Ft. Irwin, CA.** As Project Manager, Ms. Viswanathan was responsible for updating the JTD for the Ft. Irwin Sanitary Landfill, in response to the addition of a waste-to-energy (WtE) facility, as a subconsultant to ECORP Consulting, Inc.

**County of San Bernardino, Excavation Management Plan (EMP) for Mid-Valley Sanitary Landfill, Rialto, CA.** As Project Manager, Ms. Viswanathan was responsible for the preparation of an EMP for air monitoring, mitigation, and excavation management during construction activities associated with the waste excavation and partial closure of the Unit 1 fill area and construction in the Unit 3 fill area.

#### Arizona

**Republic Services, Inc., 2017 GCCS Expansion Design for Apache Junction Landfill, Apache Junction, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 GCCS Expansion CQA for Apache Junction Landfill, Apache Junction, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for the installation of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2017 GCCS Expansion Design for Southwest Regional Landfill, Buckeye, CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for the installation of vertical LFG extraction wells and associated header and lateral piping.

Republic Services, Inc., 2016 GCCS Expansion Design for Apache Junction Landfill, Apache Junction, CA. As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**Republic Services, Inc., 2016 GCCS Expansion CQA for Apache Junction Landfill, Apache Junction, CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for the installation of vertical LFG extraction wells and associated header and lateral piping.

**CA.** As Project Manager, Ms. Viswanathan was responsible for the design of vertical LFG extraction wells and associated header and lateral piping.

**CA.** As Project Manager, Ms. Viswanathan was responsible for the CQA for the installation of vertical LFG extraction wells and associated header and lateral piping.

**Pima-Maricopa Indian Community, Engineering, Inspection, and Reporting Services for Salt River Landfill, Scottsdale, AZ.** As Project Manager, Ms. Viswanathan was responsible for providing engineering, inspection, and reporting services for bioreactor operations to the EPA. She was also responsible for the estimation of airspace consumed and the remaining site life, and preparation of closure/post-closure care costs.

**Santa Cruz County, Engineering Services for Rio Rico Landfill, Rio Rico, AZ.** As Project Manager, Ms. Viswanathan was responsible for providing engineering services for the estimation of airspace consumed and the remaining site life, and preparation of closure/post-closure care costs.

**Santa Cruz County, Engineering Services for Rio Rico Landfill, Rio Rico, AZ.** As Project Manager, Ms. Viswanathan was responsible for providing engineering services for the estimation of airspace consumed and the remaining site life, and preparation of closure/post-closure care costs.

**Town of Huachuca City, Closure and Post-Closure for Huachuca City Landfill, Huachuca City, AZ.** As Project Manager, Ms. Viswanathan was responsible for preparation of closure and post-closure care costs for financial assurance.

#### Oklahoma

**City of Lawton, Feasibility Study for LFG-to Energy (LFGTE) Facility, Lawton Landfill, Lawton, OK.**Ms. Viswanathan was responsible for providing research support as a City of Lawton employee for the design of the LFG system and LFGTE facility for the City of Lawton Landfill. Tasks included delineation of waste limits, assessment of waste depths, and review of historical data for assistance in waste characterization.

**City of Lawton, Management and Oversight of CQA Services, Lawton Landfill, Lawton, OK.** As Project Manager, Ms. Viswanathan was responsible for providing management and oversight of CQA services and construction surveying for Landfill Cells 4 and 5. Her responsibilities included review of technical submittals for construction materials, preparation of contract change orders and cost analyses, and review of field and laboratory geotechnical and geosynthetic test reports for conformance with project specifications and permit requirements.

**City of Lawton, Engineering Services for Lawton Landfill, Lawton, OK.** As Project Manager, Ms. Viswanathan was responsible for providing engineering services for the design and/or management of various municipal infrastructure projects (water, sewer, and drainage improvement) as a City of

Lawton employee. She managed the preparation of construction plans and specifications, contract administration, review of construction material submittals, site inspections to ensure conformance with project plans and specifications and state and federal regulations, and approval of pay estimates and any change orders.