JOAN A. SMYTH, P.G., RSM

Senior Hydrogeologist - Raleigh, NC

Academic Credentials:
B.S. Hydrogeology, 1988
Northern Arizona University, Flagstaff, AZ

Duties:
2016 - Present - Vice President
2010 - Present - Board of Directors
1998 - Present - Secretary

Professional Credentials:
Professional Geologist - NC, SC
Registered Site Manager - NCDEQ's IHSB
Registered Environmental Consultant Program
40 Hour Health and Safety Training (29CFR1910)
Supervisor Safety Training, 1999

Employment Record:
1994 - Present - Smith Gardner, Inc.
1992 - 1994 - ATEC Associates, Incorporated
1989 - 1992 - International Technology Corporation

Principal Areas of Expertise:
Aquifer investigation and characterization
Ground water assessment and remediation

Professional Activities:
Solid Waste Association of North America - Trainer
NCDEQ Rule Review Committee - Environmental Monitoring Rules

Selected Publications & Presentations:
"Landfills and Groundwater - A Case Study of Impact in North Carolina", (Smyth, J.A. and German, M. M.), Association of Environmental and Engineering Geologists, 2016

"Gravity Driven Dewatering Systems for Landfill Expansion", (Smith, S.A. and Smyth, J.A), Wessex Institute of Technology, 2008.

"Air Sparging and Soil Vapor Extraction for the Remediation of Ground Water", (Raymond, T. P. and Finkbeiner, J.A.), HMCRI Conf., Louisiana, 1994

Ms. Smyth oversees hydrogeological investigations for a variety of clients in the region which include subsurface investigations for solid waste facility siting and permitting. Her assessment and remediation experience extends from underground storage tank removal to contaminant delineation at pre-regulatory landfill facilities with remediation experience that includes performance of monitored natural attenuation, in-situ remediation, source removal and groundwater extraction and ex-situ remediation.

Ms. Smyth has extensive experience in geological and hydrogeological site evaluations for facility permitting and assessment. This experience includes design of subsurface investigations to understand complex hydrogeology and design groundwater monitoring networks. These investigations have included various drilling and sample collection techniques, both surface and "downhole" geophysical studies, evaluation of geologic data collected, groundwater flow data collection, computer modeling and groundwater quality evaluation.

Ms. Smyth's experience includes evaluation of water quality data, preparation of feasibility studies, design of groundwater recovery and remediation systems, including land application to promote vegetative growth for slope stabilization. Due to her experience with waste facilities and superfund, she is a Registered Site Manager (RSM) under NCDEQ's Registered Environmental Consultant (REC) program.

Her soil and groundwater remediation expertise include design and performance of aquifer pumping tests, design of groundwater recovery systems and passive landfill gas recovery systems. She has also designed air sparging remediation systems coupled with vapor recovery systems for the remediation of volatile organic compounds from groundwater and soil.

Ms. Smyth's hydrogeological assessment expertise includes evaluation of aquifer properties of flow and chemical quality, evaluation of background conditions and use of statistics and public data sources to establish naturally occurring conditions within aquifers.

Her landfill gas remediation experience includes soil vapor extraction remediation systems for volatile organic remediation for municipal landfills, and the design and installation of passive methane recovery trenches and vent wells.

Ms. Smyth's most recent projects include evaluation of extent, depth and impact from pre-regulatory landfills, gravity groundwater dewatering system permitting, and emergency response to landfill gas off-site migration.