

Professional Record

Professional Synopsis:

Ms. Smyth has directed hydrogeological investigations and ground water remediation projects over the past 20 years for clients that include the U.S. EPA, U.S. Army, U.S. Navy Department of Defense, Municipal and Privately Owned Solid Waste Landfills, and Progress Energy (Shearon Harris Plant).

Ms. Smyth has extensive experience in geological and hydrogeological site evaluations for landfill permitting and assessment. This experience includes design of subsurface investigations and groundwater monitoring regimes, both surface and "downhole" geophysical studies, evaluation of geologic data collected, groundwater flow data collection and computer modeling and groundwater quality evaluation.

As Senior Hydrogeologist, Ms. Smyth oversees all groundwater modeling and performs the design and implementation of pilot studies to prove model outcomes and assumptions.

Ms. Smyth's Superfund experience includes preparation of feasibility studies, design of groundwater recovery and remediation system that include land application to promote vegetative growth for slope stabilization. Her considerable Superfund experience has allowed her to be a Registered Site Manager (RSM) under NCDENR's Registered Environmental Consultant (REC) program.

Ms. Smyth's soil and groundwater remediation expertise include performance of groundwater pumping tests, design of groundwater recovery systems and design of separate phase contaminant 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 computer modeling using Visual Modflow, and WHPA models. She has performed risk evaluations and contaminant transport modeling for numerous sites in the Southeast.

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

Ms. Smyth's most recent projects include in-depth geophysical investigations of the interaction of groundwater flow between the surficial and bedrock aquifers for landfill permitting and Enhanced Bioremediation of impacted groundwater.

Joan A. Smyth, P.G., RSM Senior Hydrogeologist

Academic Credentials:

B.S., Hydrogeology, Northern Arizona Univ. 1988

Duties:

1998 - Present - Secretary
1998-2008- Board of Directors

Professional Credentials:

Professional Geologist - NC, SC, GA
Registered Site Manager - NCDENR's IHSB
Registered Environmental Consultant Program
OSHA 40-Hour Health and Safety Training
(29 CFR.1910.120)
Supervisor Safety Training, 1999

Employment Record:

1994-present - Richardson Smith Gardner & Associates
(formerly G.N. Richardson & Associates, Inc.)
1992-1994 - ATEC Associates, Incorporated
1989-1992 - International Technology Corporation

Principal Areas of Expertise:

Assessment of hydrogeologic parameters/
contamination
Ground water regime modeling
Ground water monitoring and remediation

Professional Activities:

Solid Waste Association of North America
Ground Water Professionals of North Carolina

Publications:

"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