

M. Richard Nalbandian
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Education B.Sc., Earth Sciences, Massachusetts Institute of Technology
 M.Sc., Geology and Geophysics, Massachusetts Institute of Technology
 M.R.P., Regional Planning, University of Pennsylvania (summa cum laude)

Licenses, Certifications, Affiliations

Pennsylvania - Licensed Professional Geologist, No. PG000525G
Alaska- Professional Geologist, No. AA304
Fellow, Geological Society of London, No. 1004018
American Institute of Certified Planners, Charter Member
Center for Resolutions, Basic Mediation Training, Certificate ID 4088102
Member, Pennsylvania Council of Mediators

Experience

1997- Present MRNenvironmental, Inc. (formerly M. R. Nalbandian & Associates)
Principal and Vice President

On behalf of private, commercial, nonprofit and public clients:

- Serves as expert witness and/or mediator in environmental issues.
- Directs multi-disciplinary environmental investigation, remediation, and planning projects; performs geologic and hydrologic investigations for ecologically based land development plans and designs, including green infrastructure for stormwater management.
- Advises citizen groups with respect to land use and environmental issues.

Examples of Projects

- Currently managing design and construction of a stormwater wetland in the Pennypack Creek Watershed, Montgomery County, PA funded by the William Penn Foundation and administered by the National Fish and Wildlife Foundation.
- Advised retirement community in Bryn Mawr, PA, which suffered environmental damage caused by construction on upstream neighboring property. Helped win substantial monetary settlement and significant improvements in stormwater management facilities on the neighboring property.
- Consulted to property owners in headwaters of Pennypack Creek, and provided expert testimony in their successful suit against a proposed upstream subdivision with inadequate designs for stormwater management. The development project was abandoned.
- Conducted environmental studies in collaboration with Andropogon Associates as part of a new campus master plan for the University of Michigan produced by Venturi, Scott-Brown and Associates. Evaluated geologic, hydrologic, and geomorphic conditions for campus infill projects and new construction on undeveloped university properties. Recommended stormwater management, bioengineered slope and stream bank stabilization, and wetland mitigation measures.
- Consulted on stormwater management and ravine restoration issues as part of a project for restoration of Olmstead Woods at the National Cathedral, Washington, D.C.
- Performed reconnaissance of proposed drainage district in St. Clair County, MI. Recommended conservation of important wetland areas and creation of constructed wetlands and bioengineered stream channels for stormwater and water quality management.
- With University of Virginia's Institute for Sustainable Design drafted state regulations for homesteading after mountaintop mining in West Virginia, in partial settlement of a suit brought by the West Virginia Highlands Conservancy.
- Developed wellhead protection plan for nitrate- and phosphate-contaminated sole source water supply well of historic boarding school in Chester County, PA as a component of the school's farm preservation and management plan. Contamination was completely eliminated.
- Evaluated geologic and hydrogeologic conditions at large automobile plant brownfields site on the

shore of the Tappan Zee, Tarrytown, NY. Proposed “daylighting” of buried historic stream channels and marshes as key elements of the open space plan for the site.

- Assisted Urban Development Authority, Sri Lanka, in World Bank-funded preparation of new Structure Plan for Colombo Metropolitan Region, with emphasis on environmental issues.
- Performed geologic and hydrogeologic analyses for state permits for solid waste facilities in southern Louisiana.

2002-2012 **Temple University, School of Environmental Design**
Center for Sustainable Communities

Research Fellow

- Senior investigator in the Temple-Villanova Sustainable Stormwater Initiative (T-VSSI), which constructed and is monitoring performance of demonstration BMPs in the Philadelphia region.
- Investigator in PA Act 167 Watershed Management Plan for the Wissahickon Creek. Responsible for field observations and measurements, which provided the basis for the hydrologic and hydraulic modeling for new Flood Insurance Rate Maps (FIRMs) to be issued by FEMA.
- Investigator for multi-jurisdictional planning projects such as the Pennypack Creek Watershed Study, which involved accurate delineation of floodplains to produce new FIRMs that were issued by FEMA in 2011. Wrote Model Municipal Stormwater Management Ordinance and recommended new stormwater BMPs, retrofitting of existing facilities and buyouts of at-risk properties.
- Co-Principal Investigator for a study of the Sandy Run watershed and Fort Washington Office Park for Upper Dublin Township, PA, wherein new floodplain maps were produced and stormwater management, transportation and land use improvements were recommended.
- Co-Principal Investigator for Upper Moreland School District Stormwater Management Plan funded by the Claneil Foundation. Recommended BMPs for school campuses that can be used by their science faculties in development of environmental science curricula for all grade levels.
- Major contributor to development of successful grant applications totaling more than \$2 million.

Department of Community and Regional Planning

Associate Professor (Research)

Courses included: Environmental Planning; Planning Studios; Analytical Methods. Graduate project (thesis) and undergraduate Capstone project advisor. (Graduate studios won American Planning Association prizes for best student projects in SE PA chapter in 2010 and 2011, and statewide in 2012.)

1995-1996 **Golder Associates Inc.** **Mt. Laurel, NJ**
Project Director

Directed multi-site environmental site assessments (ESAs), mined land reclamation and brown-fields redevelopment projects. Served as Account Manager for Ford Motor Company, ITT, and other national master service agreement (MSA) clients.

1992-1994 **ATEC Associates, Inc.** **Blackwood, NJ**
National Account Manager and Philadelphia District Manager

Responsible for business development and project direction for national clients (Obtained Master Service Agreements (MSAs) with Ford Motor Company, Mellon Bank). Managed district with staff of more than twenty employees in Pennsylvania and New Jersey. As consultant to design team that planned re-use of Denver’s Stapleton International Airport, urged ‘daylighting’ of long-buried and piped streams, which enabled efficient and economic remediation of soils and groundwater contaminated with jet fuel and organic solvents. Those stream corridors now form major open space portions of the new community established on the 4,700-acre site.

1988-1992 **Dames and Moore, Inc.** **Willow Grove, PA**
Senior Consultant

Negotiated MSA with Ford Motor Company for Environmental Site Assessments (ESAs), subsurface investigations, and remediation for Ford's Environmental Quality Office and its real estate, dealer development, delivery service and banking subsidiaries. As Ford National Account Manager, directed 170 such projects in the U.S., Canada, Australia, and Europe. Directed:

remedial investigation feasibility study and cost impact analysis of large oil refinery near Philadelphia; \$ 1,000,000+ groundwater and soils investigation and remediation at a large suburban Philadelphia hospital; investigation of soils contaminated by thorium and lead for specialty glass manufacturer, which led to site remediation and design of cap-and-cover system for its on-site landfill. Editor of firm's manual for Phase I ESAs (Before publication of ASTM-1527). Consultant to World Bank mission to India; identified environmental issues related to major development projects in the Mumbai region and recommended solutions and necessary additional studies.

- 1987-1988** **University of Pennsylvania** **Philadelphia, PA**
Visiting Professor
Taught graduate hydrology and environmental planning courses in the Department of Landscape Architecture and Regional Planning.
- 1983- 1986** **Howard University** **Washington, DC**
Associate Professor
Taught graduate courses in geology, hydrology, environmental analysis and planning, analytical (statistical) methods, and land use planning.
- 1979-1983** **U.S. Department of the Interior, Office of Surface Mining** **Washington, DC**
Chief, Division of Reclamation Planning and Standards (founded the division)
Directed: EIS that set policy for the \$50-million-per-year Federal Abandoned Mine Lands (AML) reclamation program; formulation of guidelines and standards for state reclamation programs and projects; the \$12-million National AML Inventory; and the collection of the \$200-million per year Reclamation Trust Fund.
- 1975-1979** **Delaware Valley Regional Planning Commission** **Philadelphia, PA**
Coordinator, Year 2000 Planning Program
Coordinated the \$7-million Year 2000 Regional Comprehensive Plan for the nine county Philadelphia/Trenton metropolitan area, which included areawide wastewater management, mass transit and highway, housing, and open space plans.
- 1969-1975** **Wallace, McHarg, Roberts and Todd (now WRT)** **Philadelphia, PA**
Senior Planner
Evaluated geology and groundwater resources of Woodlands, Texas, a 17,000-acre new town for 120,000 residents near Houston. Proposed "natural" storm drainage system that saved \$14.2-million in front-end construction costs, and still comprises the major part of the open space of the new town. Directed the EIS of the Glenmont route of the Washington, DC, metro system. Performed geologic and hydrologic investigations for new communities, parks, and industrial sites in NY, MA, MD, LA, PA, and Iran. Developed Environmental Impact Assessment Procedure for Metropolitan Transportation Commission of the 9-county, 7,000-square-mile San Francisco Bay region, which is still used to evaluate proposed transportation projects in the region.
- 1966-1969** **Consulting Geologist** **U.S., U.K., Canada, South Africa, Namibia**
Investigated mineral properties in South Africa and Namibia to evaluate their production potential for rare base metals. Located sources of tantalum in North America and evaluated the production potential of selected deposits for the largest U.S. refiner. Conducted geochemical and geological prospecting for massive base metal sulfide deposits in New Brunswick, Canada.