



MASON & ASSOCIATES, INC.

Environmental Consulting & Projects



STATEMENT OF QUALIFICATIONS

www.Mason-Associates.com

Mason & Associates, Inc.

Our firm provides **environmental, planning,** and **project management** services to clients in both private and public sectors. Our offices in Scituate, Rhode Island and Milford, Massachusetts serve our clients in southern New England. In working with our clients, we are guided by the following principles:

- responsive and timely service
- high-quality technical work
- practical, cost-effective solutions

Mason & Associates was founded in 1996 by Christopher O. Mason, PWS. The firm is committed to providing practical, economical, and effective solutions to the problems faced by our clients. To meet that commitment, Mason & Associates is structured to ensure the hands-on technical involvement of senior professionals on each project. Project staff work closely with the client to maintain a consistent level of responsive, high-quality service.

Environmental Sciences

We offer comprehensive environmental services and specialize in wetlands and water resources.



- Wetlands
- Environmental Impact Studies
- Permitting
- Mitigation and Restoration
- Construction Monitoring
- Invasive Species Monitoring & Control
- Rare Species Surveys
- Water Quality & Stormwater
- Biological Assessment
- Ecological Risk Assessment
- Aerial Photograph Interpretation
- Expert Testimony

Planning

We provide a wide range of planning services, from local community plans to statewide facility plans to federal management plans.



- Growth Management
- Land Use / Open Space
- Natural Resources
- Geographic Information Systems (GIS)
- Economic / Fiscal Analysis
- Public Participation
- Transportation

Project Management

An important aspect of our management approach is the dedication of a small group of experienced professionals to a given project.



- Regulatory Compliance
- Consultant Prequalification / Selection
- Owner Representation
- Peer Review
- Staff Training
- Project Team Building
- Issue Resolution
- Agency Liaison

Representative Projects



Energy

- National Grid Transmission Line - Groveland to Amesbury, MA
- Q143/R144 Transmission Line - Providence to North Smithfield, RI

Institutional

- University of CT Landfill Remediation / Wetland Restoration - Mansfield, CT
- URI W. Alton Jones Facility - West Greenwich, RI

Restoration and Monitoring

- Burleigh Estates - Palmer, MA
- Massachusetts Task Force Facility - Beverly, MA

Recreational

- Wintonbury Hills Golf Course - Bloomfield, CT
- Sakonnet Greenway Trail - Aquidneck Island, RI

Peer Review Services

- Environmental Consulting Services - Various Municipalities, MA
- Environmental Review and Monitoring - Coventry, RI

Residential

- Carolina Farm Subdivision - Charlestown, RI
- Stub Pond Assessment - Avon, CT

Coastal

- Quaker Hill Farm - Little Compton, RI
- Wetland Restoration - East Providence, RI

Invasive Species Management

- University of CT Landfill Remediation / Wetland Restoration - Mansfield, CT
- Indian Avenue - Portsmouth, RI

Planning

- North Providence Comprehensive Plan - Providence, RI
- West Side Master Plan - Aquidneck Island, RI

Remediation

University of CT Landfill Remediation / Wetland Restoration - Mansfield, CT

Public Sector

- Wetlands Mapping & Conservation Project - North Kingstown, RI
- West Side Master Plan - Aquidneck Island, RI

Conservation

- Open Space Inventory & Management Study - Milford, MA
- Narragansett Tribe Wetland & Water Quality Studies - Washington County, RI

Transportation

- Route 11 FEIS - Salem, Montville, E. Lyme, Waterford, CT
- Galilee Roadway Pollutant Loading Analysis - Narragansett, RI

Commercial

- BJ's Wholesale Club - Middletown, RI
- Bellingham Business Center - Bellingham, MA

Industrial/Manufacturing

- Copart of Bellingham - Bellingham and Mendon, MA
- Tyco Printed Circuits Grp. Water Diversion - Stafford Springs, CT

Agricultural

- Gibson Hill Cranberry Bog - Coventry, RI
- Vaucluse Farm Land Management Plan - Portsmouth, RI

Representative Clients

GOVERNMENT

- Federal Aviation Administration
- U.S. Postal Service
- Rhode Island Department of Environmental Management
- Rhode Island Department of Transportation
- Connecticut Department of Transportation
- Massachusetts DCPO Correctional Facility
- Narragansett Indian Tribe
- Connecticut, Rhode Island, & Massachusetts Municipalities

INSTITUTIONAL / NON-PROFIT

- University of Connecticut
- University of Rhode Island
- Hotchkiss School
- Kent Hospital
- Save The Bay
- Aquidneck Land Trust

ENERGY

- National Grid
- Exelon
- Block Island Power Company
- AES Connecticut Yankee
- Statoil
- Unocal

COMMERCIAL

- American Stores Properties
- BJ's Wholesale Club
- Laidlaw
- Copart
- Time Warner/Cablevision
- Cherry Semiconductor
- Cox Communications
- WRT Management Corp.

ATTORNEYS, DEVELOPERS, REALTORS

- Holland & Knight, LLP
- National Development Group, Inc.
- J.T. O'Connell Realty
- Pepe & Hazard LLP
- Beauchemin Construction Service
- Lawson & Weitzen

GOLF COURSES

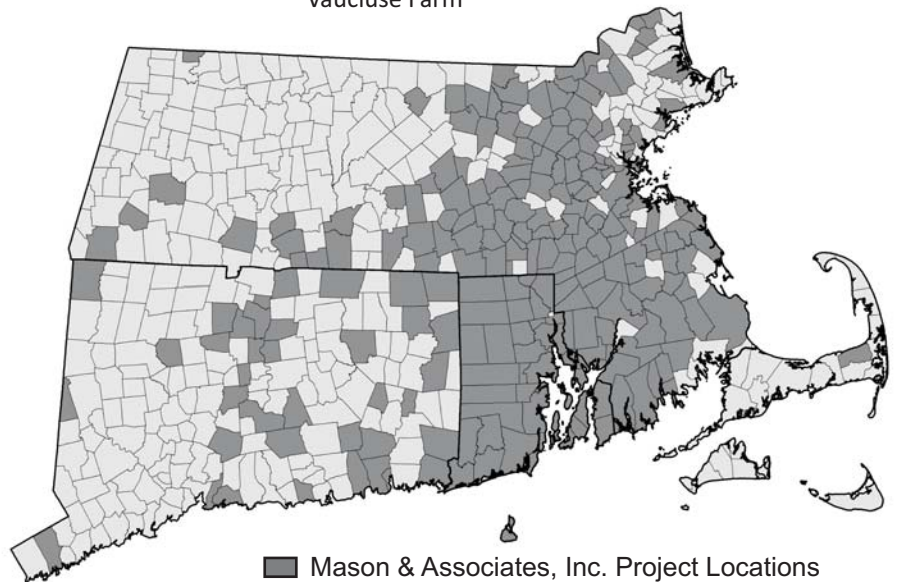
- Wintonbury Hills Golf Course
- Fairview Farm Golf Course
- River Oaks of Sherman
- Valley Country Club
- Newport National Country Club
- New England Country Club
- North Kingstown Municipal Golf Course

ENGINEERING, ARCHITECTURAL, & SURVEY FIRMS

- GEI Consultants
- Nitsch Engineering
- Commonwealth Engineers & Consultants
- Sage Environmental
- Environmental Risk Limited
- Maguire Group
- Meridian Associates
- Pare Engineering
- Bohler Engineering
- CDM
- Katherine Field and Associates
- Paul Finger Associates

AGRICULTURE

- The Greene Company
- Casey Farm
- Vaucluse Farm



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Mason & Associates, Inc.

Representative Project Descriptions

- Energy
- Institutional
- Restoration and Monitoring
- Recreational
- Peer Review Services
- Residential
- Coastal
- Invasive Species Management
- Planning
- Remediation
- Public Sector
- Conservation
- Transportation
- Commercial
- Industrial
- Agricultural

National Grid Wachusett Substation Expansion – West Boylston, MA



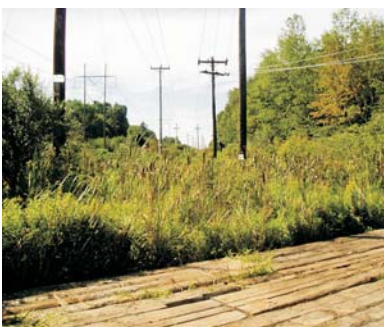
The firm provided environmental, regulatory compliance and construction inspection services to National Grid for this substation expansion. Services included resource area delineation, strategic development, permitting, agency coordination, construction monitoring and issue resolution. With the project adjacent to a public water supply, regulatory compliance included the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Massachusetts Department of Environmental Protection, Massachusetts Department of Conservation and Recreation, and the Town of West Boylston Conservation Commission. Also, the company participated at the Department of Telecommunications and Energy public hearing and prepared the National Pollutant Discharge Elimination System (NPDES) Notice of Intent and Storm Water Pollution Prevention Plan (SWPPP).

Q143 / R144 Transmission Line Refurbishment - Providence, North Providence, Lincoln, and North Smithfield, RI



Mason and Associates provided wetland services and regulatory review for this refurbishment project. Staff delineated wetland along the 11.4 mile right-of-way. Wetland flags, access, stone walls, and other resources and points of interest were located using GPS, aerial photograph interpretation, and field review. This data was then incorporated into a GIS map and database and used to determine locations where environmental protection measures such as swamp mats would be needed. Additionally, Mason & Associates performed a review of local, state, and federal environmental regulations to determine permitting requirements. Their findings were provided to the client in a technical memorandum.

National Grid New 115 kV Electrical Transmission Line – Groveland, West Newbury, Merrimac, and Amesbury, MA



The company provided environmental and regulatory compliance services, agency coordination, and project planning for this new 7-mile 115 kV electrical transmission line in an existing right-of-way through Groveland, West Newbury, Merrimac, and Amesbury. Mason & Associates conducted extensive wetland delineation and obtained required environmental permits including four local Orders of Conditions, State 401 Water Quality Certification, U.S. Army Corps of Engineers Section 404 Permit, MEPA Certificate on the Single Environmental Impact Report, and U.S. EPA Storm Water Construction General Permit. Additional work included construction monitoring and wetland replication area design.

University of Connecticut Landfill - Mansfield, CT



The University of Connecticut undertook a major landfill closure and wetland restoration project at their Storrs campus. Mason & Associates delineated the wetlands at the site and performed a function and value assessment. The company used this information to develop a mitigation plan that included areas of both wetland creation and enhancement. Wetland enhancement plans included extensive remediation of wetland areas that were contaminated by the landfill. Mason & Associates provided permitting services at both the State and Federal level. Follow-on services have included preparation of plans and specifications, construction monitoring, and educational outreach with faculty and students. Mason & Associates continues to monitor wetland development, vegetation, soils, wildlife, hydrology, and amphibian breeding habitat during the post-construction mitigation monitoring period.

W. Alton Jones Facility - West Greenwich, RI



This project involved a number of improvements to the University of Rhode Island's W. Alton Jones conference facility, including beach facility alterations, building additions, and installation of a waterline that crosses an intermittent stream channel, with its associated RIDEM jurisdictional Riverbank Wetland, and Perimeter Wetland. Mason & Associates performed fieldwork including wetland delineation based on soils and vegetation. Mason & Associates worked with the client and project architect to avoid and minimize impacts to wetlands during the project. Technical analysis and mitigation measures were provided in support of wetland permits granted by RIDEM.

Massachusetts Correctional Facility - Norfolk, MA

Wetland delineation and vegetation analysis were performed by Mason & Associates at this Commonwealth of Massachusetts maximum security prison. Assistance in the preparation of a Notice of Intent wetland permit application was also provided for a corrosion control facility project that required excavation within the wetland buffer. Along with this fieldwork, Mason & Associates worked with the client to develop plans that resulted in only a temporary disturbance within the buffer zone and no significant impacts to wetland.

Burleigh Estates Subdivision - Palmer, MA



Mason & Associates provided consulting services in response to an Administrative Consent Order for a sediment discharge from a residential construction site into off-site wetlands and waterways immediately upstream of the Roger Reed Salmon Hatchery. The firm coordinated extensively with the DEP, Division of Fish and Wildlife, U.S. Army Corps of Engineers, Town of Palmer, site contractor and others. Mason & Associates collected baseline data, performed site characterization and sediment analysis, and prepared the Pond and River Restoration Plan.



Mason & Associates participated in contractor solicitation and selection. During implementation of the Restoration Plan, the company provided continuous, on-site environmental compliance monitoring. Site work was efficiently conducted and closely monitored to ensure operation of the State fish hatchery was not adversely affected. Following sediment removal and site restoration, M & A prepared the required Pond and River Restoration Post-Construction Report. DEP accepted the Report and found that restoration work was completed in substantial compliance with the Order.

Massachusetts Task Force Facility - Beverly, MA

On behalf of the City of Beverly, Mason & Associates provided environmental and construction monitoring services in response to an Administrative Consent Order for wetland alteration on the City's civil defense property known as the Massachusetts Task Force Facility. To ensure compliance with the Order and the preparation of a responsive wetland restoration plan, this effort was closely coordinated with DEP, who approved the detailed Wetland Restoration Plan and Schedule. As required, the company performed construction oversight and environmental compliance monitoring. Restoration included: re-establishing pre-existing wetland elevations, hydrology, and intermittent stream channel, and planting and seeding of a 0.5-acre wetland. DEP determined that restoration had been completed in substantial compliance with the approved Plan and Consent Order and all submissions and restoration activity were completed in accordance with the schedule established in the Order. As required, the wetland restoration area will be monitored and annual reports will be prepared for a 5-year period.

Wintonbury Hills Golf Course - Bloomfield, CT



Mason & Associates obtained federal, state and local wetland permits for this 18-hole municipal golf course. Water supply and water quality impacts to wetlands and public recreational waters were important elements in the development of project alternatives. Five alternative sites and 10 alternative course layouts were evaluated in compliance with the Clean Water Act Section 404(b)(1) Guidelines. Field studies conducted by Mason & Associates included habitat mapping, wetland functional assessment, and a Survey for *Pedicularis lanceolata*, the swamp lousewort, a rare plant species protected by state law. A comprehensive wetland mitigation program was developed, including wetland creation, enhancement and preservation. Mason & Associates continues with permit compliance activities including construction inspection and wetland mitigation area monitoring.

North Kingstown Municipal Golf Course - North Kingstown, RI

Mason & Associates provided environmental consulting services in support of irrigation system improvements and investigation of a new water source for this town-owned golf course which straddles RI Department of Environmental Management and RI Coastal Resources Management Council jurisdiction. Work for the irrigation system improvements included wetland delineation, GPS location for GIS analysis, impact assessment, and preparation of permit application packages. Mason & Associates also performed stream flow and water table monitoring during pump tests for a proposed golf course irrigation well.



Aquidneck Land Trust, Sakonnet Greenway Trail - Aquidneck Island, RI



Mason & Associates provided planning, design, & permitting services for the Sakonnet Greenway Trail, a hiking and equestrian trail constructed in several phases. For Phase 1, Mason & Associates evaluated wetland and wildlife habitat, then worked with the Land Trust, land owners, and regulators to identify alternative alignments. Low impact designs and construction methods were developed and included in permit applications. Phase 1 of the project crossed nearly 1 mile of wetland, several streams, and an active dairy farm. It also dealt with slope and soil limitations and equestrian needs and impacts. Mitigation measures included stream stabilization, boardwalks allowing amphibian migration, & low maintenance erosion control measures. Permits were obtained from RIDEM and US Army Corps of Engineers. Follow on services were provided during bidding and construction phases. Phase 3 of the project is now underway. Mason & Associates provided environmental services including wetland delineation, plan review, and preparation of an Application to Alter a Freshwater Wetland for submission to RIDEM.

Various Municipalities - Massachusetts

Mason & Associates, Inc. has provided regulatory support and environmental consulting services to the Towns of Andover, Bellingham, Fairhaven, Franklin, Lakeville, Mansfield, Milford, Millis, Natick and Raynham, Massachusetts in connection with wetland delineation, jurisdictional determinations, and regulatory compliance reviews pursuant to the Massachusetts Wetlands Protection Act and local wetland bylaws. Additional peer review services have included assessing unauthorized wetland alterations, reviewing and monitoring the implementation of wetland restoration plans, identifying and assessing the suitability of potential wetland replication sites, conducting open space and management studies, assisting in the development of regulatory Appeals, litigation support, public presentations, and issue resolution.

Town of Mansfield Conservation - Mansfield, MA

Mason & Associates, Inc. provided peer review services to the Mansfield Conservation Commission in response to a Notice of Intent for the proposed 400,000 sq. ft. Mansfield Crossing shopping center. Pursuant to the Massachusetts Wetlands Protection Act and the Town Wetland Protection Bylaw, Mason & Associates provided technical environmental review comments and a comprehensive regulatory compliance assessment. As a result, the project was revised in response to extensive coordination with the Commission and the Applicant's environmental and engineering consultants. Specifically, the project evolved to include a comprehensive, long-term mitigation plan focused on wetland replication, buffer zone enhancement, water quality monitoring, invasive species control and preservation of open space. The Conservation Commission issued an approved Order of Conditions for the proposed project as revised.

Town of Coventry - Rhode Island



Mason & Associates staff performed environmental review of proposed land developments at the request of the Town of Coventry Department of Planning and Development. Work included management of an Environmental Review Team, analysis of various issues identified by the team, and preparation of an Environmental Review Team report. The scope of the environmental review included wetlands, rare species, groundwater quality and supply, stormwater management, traffic management, and cultural/archeological resources.

Additionally, Mason & Associates staff provided on-call erosion and sedimentation (E&S) control monitoring and plan review services for the Town of Coventry. Services included monitoring the installation, maintenance, and performance of E&S controls in residential subdivisions and the preparation of regular field reports for town staff and regulatory commissions. Mason & Associates staff also provided review of proposed E&S control plans submitted to the town as part of the municipal design review and permitting process.

Quaker Hill Farm Subdivision - Little Compton, RI



Mason & Associates performed wetland delineation, alternatives analysis, plan review, and RI Coastal Resources Management Council application preparation for this proposed 46 acre subdivision on the coast of Little Compton. This process included addressing concerns raised by abutters, such as non-point source pollution and visual impacts. In response to these concerns, Mason & Associates performed a pollutant loading analysis and created a three-dimensional visual rendering of proposed buildings. Additionally, staff provided expert testimony during public hearings. Throughout the evaluation, planning, and application processes, Mason & Associates balanced environmental concerns with the needs of the client.

Oak Ridge Subdivision - North Attleboro, MA

Wetlands were delineated by Mason & Associates for the planned expansion of this residential subdivision. Areas of the site qualified as “problem area” for wetland delineation due to their location in a former sand and gravel mining area. Massachusetts Bordering Vegetated Wetland Delineation Field Data Forms were prepared in support of a Notice of Intent wetland application filed for the project. Mason & Associates also evaluated site wetlands for potential vernal pools, and participated in a site walk with the Conservation Commission.

Stub Pond Assessment - Avon, CT



Mason & Associates conducted an environmental assessment of Stub Pond for the Pond Place Association in Avon, Connecticut. The purpose of the assessment was to provide information to the Association so they might make an educated decision on whether or not to pursue ownership of the pond and adjoining property. Key issues addressed by the assessment included pond eutrophication, non-point sources of pollution, dam maintenance, and recreational use. Mason & Associates prepared the assessment by synthesizing existing reports, historical research, interviews, and site investigation. A wide range of recommendations was developed, from short-term methods of controlling non-point source pollution, to long-term measures for pond restoration.

Block Island Power Wetlands & Endangered Species Assessment - New Shoreham, RI

Mason & Associates prepared a wetlands evaluation report and Endangered Species Act Section 7 Biological Assessment for a 34.5 kV Electrical Transmission Line. The project proposed 6.5 miles of transmission line upgrades in Charlestown, RI, installation of a submarine cable across Block Island Sound, and the installation of 3.1 miles of direct buried cable on Block Island, RI. The firm performed a right-of-way assessment that identified and analyzed potential construction impacts and potential secondary effects to wetlands and federally threatened or endangered species. Two primary species of concern were the federally threatened Piping Plover (*Charadrius melodus*) and the federally endangered American Burying Beetle (*Nicrophorus americanus*). Several transient marine species were also assessed. Mason & Associates addressed issues raised by state and federal wildlife species experts. A comprehensive review of the project Alternatives Analysis and Secondary Impacts Assessment and follow-on wetland delineation and coastal permitting services were also provided.

Sakonnet Point Club Impact Assessment - Little Compton, RI

The Sakonnet Harbor Conservancy hired Mason & Associates to evaluate potential impacts from the proposed Sakonnet Point Club in Little Compton, Rhode Island. The evaluation focused on impacts to water quality, aquatic life, aesthetics, and public access. Water quality issues included nutrient and bacteria loading, stormwater, wastewater, and metal contamination from the proposed desalinization system. Potential impacts to aquatic life, such as eelgrass and macroalgae, were examined as well. The company reviewed proposed plans and used graphics software to evaluate public access issues and aesthetic impacts. Sakonnet Harbor Conservancy was able to use the information provided to advocate a more responsible plan for development of this site.



Wetland Restoration - East Providence, RI



Mason & Associates designed and built a *Spartina alterniflora* saltmarsh at an oil terminal tank farm and site of a former toluene release. The marsh is designed to restore former wetland functions and to reduce residual toxic chemicals through phytoremediation. Mason & Associates has continued to monitor the progress of the restoration in terms of vegetation density and species diversity.

MA Mason & Associates, Inc. - Project Experience **INVASIVE SPECIES MANAGEMENT**

University of Connecticut Landfill Remediation Invasive Species Control - Storrs, CT

As part of their long term monitoring efforts for this extensive wetland restoration and creation project, Mason & Associates plans and performs control of invasive plant species across 45 acres of wetland and upland habitat. Mechanical control methods include use of a weed wrench and hand pulling. Where necessary, chemical control of large stands of great reed (*Phragmites australis*) and cattail (*Typha* spp.) is performed by staff certified as pesticide operators, under the supervision of a CT certified pesticide supervisor.



Indian Avenue Buffer Zone Management - Middletown, RI



Mason & Associates developed a CRMC Buffer Zone Management Plan for a residence along the Sakonnet River in Middletown. Plan elements included shoreline recreation structures, shore access, invasive plant species management, and restorative planting. One of the firm's on-staff Certified Invasives Managers worked closely with the landscape architect and CRMC to ensure the project complied with CRMC Buffer Zone regulations and guidance. Mason & Associates conducted field investigations, reviewed plans, recommended plant species, and suggested methods for invasive species control and long-term management. Plans were approved and a CRMC Assent was obtained for the project. Ongoing services

include monitoring of invasive plant species and review of planting success.

Walmart Store - North Attleborough, MA

Mason & Associates provided consulting services in connection with the control of invasive plant species adjacent to Walmart Store # 2366. Using transect sampling methods, work included an on-site inventory regarding the extent of invasive plant species within a detention basin. Invasive plant species were identified and flagged and a written report was prepared to document their extent, propose removal methods, and provide a long term management plan to control the growth of invasive vegetation.



West Side Master Plan - Aquidneck Island, RI

Mason & Associates assisted the Aquidneck Island Planning Commission (AIPC) in the development of a West Side Master Plan for the Island. This involved meeting with a task force to develop project criteria and alternative land use scenarios. Public work sessions were also organized to educate the public about the project, brainstorm new ideas, and get public input on the criteria and land use scenarios. Mason & Associates also compiled existing Geographic Information Systems (GIS) data for the AIPC and created original coverages, including detailed maps for the three land use scenarios. Throughout the development process, Mason & Associates helped the AIPC to meet their specific objectives, including the achievement of the Shared Island Vision by incorporating the four elements, A Livable Landscape, Social Well Being, Alternative Modes of Transportation, and Strong Economy, into the planning process.

Cedar Creek Subdivision - Coventry, RI



On behalf of the Town of Coventry Planning Commission, Mason & Associates provided an evaluation of this proposed 30 lot subdivision on 73 acres of land in Coventry, RI. The environmental review assessed soils and hydrology, vegetation, wildlife habitat, wetland types and other surface water resources, stormwater management, groundwater resources, and road impacts. Findings were presented to the Town in the Environmental Review Team Report, as was a list of recommendations.

North Providence Comprehensive Plan - North Providence, RI



Mason & Associates assisted the Town of North Providence in updating its Comprehensive Community Plan. The plan was last updated in 1998 and required an extensive rewrite of several plan elements to provide a unified community vision for the next 20 years. The plan was developed to meet all of the planning requirements of the State of Rhode Island while fulfilling community goals and policies in this mature “bedroom” community with over 32,000 residents. Because the community is at a current state of build-out, identification of new growth opportunities within already developed areas was necessary. An extensive public participation program, including

numerous public meetings and workshops, ensured that the plan would address public concerns and community needs and would enjoy widespread public support.

Contaminated Soil Remediation and Waterfront Park Development-Dorchester, MA

Mason & Associates is providing environmental and regulatory consulting services to the Massachusetts Department of Conservation and Recreation (DCR) in connection with a Massachusetts Contingency Plan (MCP) site located adjacent to the lower Neponset River in Dorchester, Massachusetts. This remediation project will involve limited excavation and capping of contaminated soils and bank stabilization in preparation for waterfront park development by DCR on this 20-acre site. To accomplish these tasks, Mason & Associates has delineated the coastal wetland resource areas and will coordinate and prepare the required federal, state and local permit applications with the U.S. Army of Engineers, Executive Office of Energy and Environmental Affairs, Massachusetts Office of Coastal Zone Management, Department of Environmental Protection, and the City of Boston.

Wetland Restoration - East Providence, RI



Mason & Associates designed and built a *Spartina alterniflora* saltmarsh at an oil terminal tank farm and site of a former toluene release. The marsh is designed to restore former wetland functions and to reduce residual toxic chemicals through phytoremediation. Mason & Associates has continued to monitor the progress of the restoration in terms of vegetation density and species diversity.



Town-wide Wetlands Mapping & Conservation Project - North Kingstown, RI



Mason & Associates led a team of professional wetland scientists in the mapping and classification of wetlands throughout the Town of North Kingstown, Rhode Island. The Town of North Kingstown funded the project with assistance from the U.S. Environmental Protection Agency. Aerial photograph interpretation, field surveys, and geographic information system (GIS) mapping were all prepared for the Town to assist in their open space preservation efforts. Mason & Associates also contributed to the public participation and land use planning components of the project.

West Side Master Plan - Aquidneck Island, RI



Mason & Associates assisted the Aquidneck Island Planning Commission (AIPC) in the development of a West Side Master Plan for the Island. This involved meeting with a task force to develop project criteria and alternative land use scenarios. Public work sessions were also organized to educate the public about the project, brainstorm new ideas, and get public input on the criteria and land use scenarios. Mason & Associates also compiled existing Geographic Information Systems (GIS) data for the AIPC and created original coverages, including detailed maps for the three land use scenarios. Throughout the development process, Mason & Associates helped the AIPC to meet their specific objectives, including the achievement of the Shared Island Vision by incorporating the four elements, A Livable Landscape, Social Well Being, Alternative Modes of Transportation, and Strong Economy, into the planning process.

Bowdish Reservoir Wildlife Analysis - Gloucester, RI

Mason & Associates prepared a baseline wildlife inventory and impact assessment for the RI Department of Environmental Management concerning their plans to repair the dam at the Bowdish Reservoir. Principal impacts involved the lowering of the reservoir's water level during construction. The wildlife analysis led to project revisions to avoid rare species impacts.



Open Space Inventory and Management Study - Milford, MA

Upper Charles Conservation, Inc. retained Mason & Associates to assess wetlands, wildlife, and vegetation on a 127-acre site located in Milford, Massachusetts. The assessment was funded by a Riverways Grant awarded to Upper Charles Inc. by the Commonwealth of Massachusetts Riverways Program. The site is located east of Route 85, and is in the center of a larger undeveloped area known as the Charles River Headwaters Area. Mason & Associates conducted surveys of vegetation, wetlands, wildlife, and vernal pool habitat. The firm prepared a technical report including recommendations for future management, incorporating the ecologically sensitive placement of a bicycle path along the railroad right-of-way, west of the property.



Narragansett Indian Tribe Boundary Description and Wetland Delineation - Washington County, RI



Mason & Associates staff provided wetland reconnaissance, identification, delineation, and classification services to the Narragansett Indian Tribe Natural Resources Department in conjunction with Trust Land boundary recovery and mapping. These activities included field training of Tribal personnel in soil morphology and vegetation analysis, vernal pool assessment, geographic information system mapping, and assistance in the fulfillment of U.S. EPA Clean Water Act Wetlands Protection grant requirements.

Massachusetts Audubon Society - Natick, MA

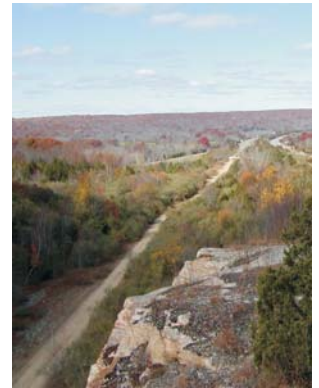
Mason & Associates staff provided wetland and regulatory support services in connection with the wetland and vernal pool boardwalks constructed for the Massachusetts Audubon Society at the Broadmoor Wildlife Sanctuary in Natick, Massachusetts. Located within the Charles River Natural Valley Storage Project area, the 460 linear foot wetland boardwalk was subject to extensive negotiations with the U.S. Army Corps of Engineers Real Estate Division. In addition, to facilitate education, recreation, and scientific study while protecting the environment, the project received an Order of Conditions from the Natick Conservation Commission.

Bradley Airport - Windsor Locks, CT

Mason & Associates provided wetland related services to the Federal Aviation Administration for the Bradley International Airport Fiber Optic Cable Duct System serving the new control tower. Services included wetland delineation in accordance with federal criteria, wetland characterization, mapping, impact assessment, and plan submission to the U.S. Army Corps of Engineers.

Route 11 FEIS - Salem, Montville, East Lyme, Waterford, CT

Mason & Associates provided environmental support to the Connecticut Department of Transportation's Environmental Impact Statement (EIS) for completion of Route 11, a limited access highway planned to serve Salem, Montville, East Lyme and Waterford Connecticut. Mason & Associates delineated wetlands along the length of the highway alignment, approximately 10 miles. The firm prepared federal wetland delineation documentation forms for submission to the Army Corps of Engineers in support of the federal Clean Water Act Section 404 permit application. Mason & Associates assessed the soils along the proposed highway route and compiled a soil scientist's report for use in local / state wetland permitting. These actions supported the final goal of improving the transportation network in southeastern Connecticut.



Port of Galilee Roadway Reconstruction Pollutant Loading Analysis - Narragansett, RI

A pollutant loading analysis was performed by Mason & Associates for the RI Department of Transportation reconstruction of the Galilee circulator road. The analysis included modeling of existing and post-construction project-related runoff loading to the Great Salt Pond and the Galilee Bird Sanctuary. The analysis was performed in support of an application for a wetlands permit and Section 401 Water Quality Certification.

BJ's Wholesale Club - Middletown, RI



Mason & Associates prepared environmental studies, obtained wetland permits, and conducted environmental compliance monitoring for construction of a major retail center in Middletown, RI. Work included obtaining a RI DEM Freshwater Wetlands permit for development proximate to environmentally sensitive areas, including the water supply for the City of Newport. The firm coordinated design development of stormwater management facilities with officials from two municipalities and the State of Rhode Island to offset potential water quality issues. The final design provided a net water quality benefit to both municipalities by addressing non-point source runoff issues on-site. The project also involved detailed wetland delineation in a locality exhibiting complex vegetative communities and the problematic dark soils of the Narragansett Basin. Additionally, wildlife/buffer plantings and floodplain compensation were developed and incorporated by Mason & Associates personnel to create an attractive and permissible proposal meeting the criteria of all parties involved.

Regional Mall - Hartford Metropolitan Area, CT

Potential environmental impacts and wetland permit issues were identified for two alternative mall sites in the Hartford, CT metropolitan region. The national firm proposing the development required approximately 150 acres of developable land with good access to the regional highway network. Mason & Associates provided wetland and wildlife field services and assisted in the development of alternative site layouts to meet developer's needs while limiting environmental impacts to an acceptable level. Mason & Associates also developed wetland mitigation schemes including constructed wetlands for water quality treatment.

Bellingham Business Center - Bellingham, MA

Mason & Associates, Inc. prepared and submitted a Notice of Intent (NOI) permit application for the proposed Bellingham Business Center in Bellingham, MA. The project received an approved Order of Conditions to construct a 210,000 square foot commercial warehouse building and associated drainage system. Other project work included wetland delineation, Massachusetts Environmental Policy Act (MEPA) compliance, and preparation of a National Pollutant Discharge Elimination System (NPDES) NOI. Additionally, a stormwater management system was designed to mitigate project-related runoff in accordance with state and local regulations. The final project was consistent with the goals and objectives of the Town's Master Plan and Metropolitan Area Planning Council (MAPC) Regional Development Plan.

Copart of Bellingham Stormwater Controls - Bellingham and Mendon, MA



Mason & Associates procured wetland permits (Orders of Condition) and resolved a Notice of Violation related to a 27-acre automobile salvage facility in Bellingham and Mendon, MA. The project involved the development of a Stormwater Management Plan that included wetland field delineation, drainage investigation, Impact analysis and mitigation, stormwater management control, and buffer vegetation plantings. Permit application development and follow through included the coordination of on-site meetings

with Conservation Commission members from the two Towns and the Massachusetts Highway Department, preparation and submittal of permit application materials, attendance at Conservation Commission hearings, and assistance in selection of a site contractor via development of a bid package. included the coordination of on-site meetings with Conservation Commission members from the two Towns and the Massachusetts Highway Department, preparation and submittal of permit application materials, attendance at Conservation Commission hearings, and assistance in selection of a site contractor via development of a bid package.

Tyco Printed Circuits Group - Stafford, CT

Mason & Associates assisted Tyco Printed Circuits Group in their application to the Connecticut Department of Environmental Protection for a Water Diversion Permit. The company provided a variety of environmental services to demonstrate that continued withdrawal of water from adjacent Riverside Pond would not pose adverse environmental impacts. These environmental services included natural resources mapping, wetland function and value assessment, fishery investigation, bathymetric mapping, and macro-invertebrate sampling. An evaluation of Furnace Brook water quality was performed using the macro-invertebrate data and EPA rapid bio-assessment methods.

Wetlands Monitoring & Mitigation - East Greenwich, RI

Construction and operation of remediation facilities at a major New England industrial site posed impacts on area wetlands. As part of the remediation, a long-term wetland monitoring and mitigation plan was implemented. The wetlands program was developed by Mason & Associates staff in the context of a state ordered consent agreement. The program included monitoring of construction impacts and indirect impacts to wetlands expected as a result of a groundwater extraction system. The program included monitoring of vegetation, wildlife biota, hydrology, water chemistry, and soil geochemistry.



Gibson Hill Cranberry Bog - Coventry, RI



Mason & Associates provided design development and wetland permitting services for a large commercial cranberry grower involved in bog expansion activities. The project included reconnaissance, inventory, delineation, and mapping of state and federally regulated wetlands on a 260 acre parcel for the creation of 35 acres of new bog. Mason & Associates coordinated interagency review and site walks involving Rhode Island Department of Environmental Management Divisions of Freshwater Wetlands, Water Resources, and Agriculture, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service.

An analysis of surficial geological characteristics of the site, including a hydrological study, was conducted to evaluate long term water supply and indirect hydrologic impacts to wetlands. Mason & Associates prepared permit plans and documentation including design of artificial wetlands for water quality improvement.

In response to regulatory agency comments, the firm developed water quality assessments of nutrient and pesticide loading to wetlands and receiving waters. Best Management Practices were developed for a state-of-the-art, efficient, and environmentally sound agricultural operation. Mason & Associates was highly praised by the client for the quality and value of the services provided, and the commitment to meeting project deadlines. All required permits were obtained in record time, allowing construction to commence within a few months of the project's inception.

Vaucluse Farm Land Management Plan - Portsmouth, RI

Mason & Associates assisted in the development of a land management plan for the historic Vaucluse Farm. This work included wetland delineation, natural resources mapping and analysis using a geographic information system model developed by Mason & Associates for the property. The GIS model included the integration of spatial data from topographic survey, boundary delineation, wetland delineation, state resource mapping and aerial photography. This information was used to develop long-term management plans, evaluate alternative development proposals, and reduce local property taxes.





Mason & Associates, Inc.

Professional Staff

Christopher O. Mason, PWS

PRESIDENT & PRINCIPAL SCIENTIST

TECHNICAL EXPERTISE

Environmental Impact Assessments
Wetlands Evaluation & Analysis
Site Assessment & Remediation
Community Planning
Permits & Environmental Compliance
Public Participation Programs
Training and Public Education

EXPERIENCE

1996 - Present

Mason & Associates, Inc.

1993-1995

Treadwell & Rollo, Inc.

1989-1993

Vanasse Hangen Brustlin, Inc.

1981-1989

Maguire Group, Inc.

EDUCATION

1981/MCP/ City and Regional Planning
University of Pennsylvania, Philadelphia
With Distinction

1978/BA/Botany and

Human Ecology

Connecticut College, New London

Phi Beta Kappa, Magna Cum Laude

PROFESSIONAL CERTIFICATIONS

Professional Wetland Scientist #795

Society of Wetland Scientists

Pesticide Applicator #O-38799

CTDEP

Registered Wetland Scientist

RI Association of Wetland Scientists

PROFESSIONAL ASSOCIATIONS

American Planning Association

Association of MA Wetland Scientists

CT Association of Wetland Scientists

Society of Wetland Scientists

RI Association of Wetland Scientists

PROFESSIONAL PROFILE

Mr. Mason is Principal Scientist and President of Mason & Associates, Inc. He has demonstrated expertise in the areas of wetlands and water resources, environmental impact studies, hazardous waste, litigation support and regulatory compliance. Mr. Mason has over twenty-eight years of experience managing a wide variety of large, multidisciplinary environmental projects for both private and public sector clients. He has provided on-call technical and management services to federal and state agencies / institutions including the EPA, Army Corps of Engineers, USDA, FAA, U.S. Postal Service, RIDEM, RIDOT, RIAC, University of Rhode Island and University of Connecticut. He also provides technical services to municipalities, utilities such as National Grid, private sector clients in land development, and non-profit organizations such as Save the Bay and the Aquidneck Land Trust.

Mr. Mason has conducted hundreds of wetland and water resource studies from New England to the Caribbean. These studies have included tasks such as wetland delineation, functional assessment, creation, remediation and restoration, hydrographic analysis, pollutant modeling, permitting, and compliance monitoring. He has developed and executed over 100 sampling plans for various environmental media pursuant to state and federal regulatory protocol and has also served as Quality Assurance Officer for environmental sampling pursuant to EPA Superfund regulations and directives. Mr. Mason recently served on the RIDEM Director's Wetlands Task Force to improve the state's wetland regulations. He chaired the Task Force's Watershed Approach subcommittee, drafting proposals for RIDEM to help integrate wetlands and water resource management into watershed planning. He is a part-time instructor in Wetland Ecology at URI and has represented the Department of Natural Resources Science on RIDEM's Wetland Restoration Advisory Group.

REPRESENTATIVE EXPERIENCE

University of Connecticut Wetland Restoration and Mitigation – Storrs, CT: Mr. Mason has managed the wetland related studies in support of UConn's landfill closure and wetland restoration project. Work has involved wetland delineation and functional assessment; analysis of alternatives for restoration of wetlands contaminated with heavy metals; preparation of wetland restoration and creation plans; and associated support of permit applications to the CT Department of Environmental Protection (CTDEP) and the U.S. Army Corps of Engineers. The wetland mitigation plan prepared by Mr. Mason includes approximately: 3 acres of wetland restoration; 2 acres of wetland creation; 60 acres of upland and wetland preservation; control of invasive species over 45 acres, creation of a vernal pool, and development of education / recreation trails. Mr. Mason has overseen the construction of the wetland restoration/creation project and provides long term permit compliance monitoring.

Aguntaug Swamp Water Quality Assessment – Westerly, RI: Funded in part by a US EPA Clean Water Act grant, Mr. Mason assessed existing water quality conditions and identified specific recommendations for ongoing water quality sampling and monitoring in this sensitive area. Work included review and compilation of existing water quality data, stereoscopic analysis of aerial

photographs, site reconnaissance to determine point and non-point sources of pollution, GIS mapping and literature review. Mr. Mason has provided additional analysis of Aguntauag Swamp as part of an NRCS wetland restoration program, including research in Atlantic White Cedar ecological requirements, hydrologic impact assessment, and recommendations for culvert design and hydrologic monitoring.

National Grid / Narragansett Electric Transmission Line Refurbishment Projects – RI: Mr. Mason was project manager for environmental permitting of four transmission line refurbishment projects. Work included wetland delineation, identification of access routes, permitting assessment, and preparation of environmental permit applications/compliance documents. He managed the efforts of six field biologists who delineated wetlands and watercourses over 45 miles of transmission line corridor. Work included transcription of field data into a GIS and AutoCAD format T-sheets. Use of swamp mats and other BMP's for construction were identified. Mr. Mason prepared Notice of Intent applications and Stormwater Pollution Prevention Plans, and conducted compliance inspections and reporting throughout construction.

Environmental Assessment – Stafford Springs, CT: Mr. Mason conducted an environmental assessment in support of a Water Diversion Permit for a Tyco Printed Circuits Group facility in Stafford Springs, CT. Included in the assessment were natural resources mapping, wetland function and value assessment, fishery investigation, bathymetric mapping, and macro-invertebrate sampling. A water quality evaluation was performed using the macro-invertebrate data and EPA rapid bioassessment methods.

Fore River 850 MW Combined Cycle Power Plant – Weymouth, MA: Mr. Mason conducted hundreds of inspections of erosion and sedimentation controls at this electric generating facility and acted as an agent of the local Conservation Commission in the enforcement of an Order of Conditions for the project. Work involved inspection, reporting, and working with contractors to develop solutions for this five-year, 1 billion dollar construction project.

EPA Wetlands Assessment – New Jersey: Mr. Mason managed the evaluation of over 7,500 acres of wetlands in New Jersey's Hackensack Meadowlands. The study was funded by the U.S. EPA and carried out with the assistance of the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, National Marine Fisheries Service, the NJ Department of Environmental Protection, and the Hackensack Meadowlands Development Commission. Mr. Mason led the interagency team in field evaluations and functional assessment of nutrient retention and transformation, sediment and toxicant retention, floodflow alteration, and wildlife and aquatic life habitat functions. He was responsible for the development and use of an interactive database/functional assessment model for the U.S. EPA.

Town-wide Wetlands Mapping and Conservation Project – North Kingstown, RI: Mr. Mason lead a team of professional wetland scientists in the mapping and classification of wetlands throughout the Town of North Kingstown, Rhode Island. The Town of North Kingstown funded the project with assistance from the U.S. EPA. Aerial photograph interpretation, field surveys, and GIS mapping were prepared for the Town to assist in their land use planning and open space preservation efforts. Mr. Mason also contributed to the public participation and land use planning components of the project.

Superfund Remedial Investigation/Feasibility Study – Salem, Massachusetts: This 210-acre site was contaminated with heavy metals and volatile organic compounds. As project manager, Mr. Mason was responsible for the coordination and execution of the scope of work between the EPA and a potentially responsible party. This included: sampling of surface water, sediments, groundwater, biota (sampling program in excess of \$500,000); quality assurance, three dimensional modeling of contaminants, risk assessment, and alternatives for site remediation.

Land Trust Trail System – Aquidneck Island: Mr. Mason conducted field studies, interpretation of aerial photography, and GIS analysis in support of the Sakonnet Greenway Trail in Portsmouth and Middletown, RI. Alternative routing plans and construction techniques were developed in the context of environmental constraints and opportunities for trail system linkage to other trails and greenways. Mr. Mason secured the state and federal wetland permits for Phases 1A and 1B of the trail system which crosses large tracts of swamp and marsh.

David R. Westcott, AICP

CHIEF PLANNER / ENVIRONMENTAL SCIENTIST

TECHNICAL EXPERTISE

Environmental impact assessments
Wetlands evaluation and analysis
Site assessment & remediation
Community planning
Zoning and subdivision review
Port and marine development
Permits & environmental compliance
Public participation programs
Training and public education

EXPERIENCE

1979-2011

Maguire Group Inc.

1976-1978

Winsor Associates

EDUCATION

1979/MCP/Community Planning &
Area Development,
University of Rhode Island
1976/BS/Resource Development,
University of Rhode Island

PROFESSIONAL CERTIFICATIONS

AICP #4614-1983

American Institute of Certified
Planners

OSHA Certifications

HAZWOPER, 1991

8 Hour Refresher 2011

OSHA Site Supervisor, 1991

OSHA Construction Site Safety, 2004

SCBA Certified

PROFESSIONAL ASSOCIATIONS

American Planning Association

Society of Wetland Scientists

PROFESSIONAL PROFILE

Mr. Westcott combines the skills of a professional planner with those of a field biologist and natural resource specialist. He has over 30 years of experience as a project manager, planner, and environmental scientist. He has managed projects in a wide range of disciplines and locations throughout the United States and U.S. Territories. He has managed on-call contracts for the U.S. Environmental Protection Agency, U.S. Navy, U.S. Army Corps of Engineers, U.S. Department of the Interior and General Services Administration.

WETLAND EXPERIENCE

Mr. Westcott is experienced in the delineation and mapping of wetlands, determining wetland values, evaluating project impacts on wetlands, and developing wetland mitigation plans. He has prepared and supervised wetland permit applications for literally hundreds of projects throughout the eastern U.S. and has served as an expert witness in wetland science for both the U.S. Environmental Protection Agency and the Rhode Island Department of Environmental Management.

Mr. Westcott's port and marine experience includes feasibility studies, environmental permit applications, dredged material evaluations and dredged material disposal plans. He served as principal environmental planner for such port and marine projects as reconstruction of the ferry terminal in Oak Bluffs, MA; construction of a new port at Enighed Pond in St. John, USVI; and the EIS for development of a container port at Quonset Point, RI. He developed the intermodal and water transportation facilities plan for Boston Harbor and was Principal Planner for the Rhode Island Water Transportation Plan. He has performed dredging studies and dredged material disposal studies for the Providence River in Providence for RIDOT; Harbor dredging in New Bedford/Fairhaven, Fall River and Gloucester, MA for the MACZM; and dredging needs and disposal alternatives for dredged materials in Rhode Island and southeastern Massachusetts for the U.S. Army Corps of Engineers. He recently completed plans and permits for a new marina at Allens Harbor in North Kingstown, RI.

PLANNING EXPERIENCE

Mr. Westcott has been an AICP Certified Planner since 1983. He has prepared comprehensive community plans and participated in updates for community plans in Narragansett, Cumberland, Hopkinton, Richmond, and North Providence, RI. He has undertaken planning, zoning and redevelopment studies for Broad Street in Pawtucket, RI; the Promenade Industrial Area and the Port of Providence in Providence, RI; South County Commons in South Kingstown, RI; Wrentham Bargain Outlet in Wrentham, MA; Gillette Stadium in Foxborough, MA; Bronco Highway in Burrillville, RI; and Route 1 in Washington County, RI. He has provided on-call planning and related services for multiple year contracts in Braintree, MA; Sutton, MA; Norton, MA; and Providence, RI. He developed plans for implementation of

statewide recycling in RI, assisted in the preparation of the Quonset/Davisville Master Plan, and has undertaken master planning for the reuse of surplus federal property in multiple jurisdictions throughout the U.S. as an on-call contractor to the U.S. General Services Administration.

Mr. Westcott is a firm believer in public participation as a means to improve public and private projects. He has conducted innumerable public workshops, hearings, and other public meetings during the course of his career. An accomplished public speaker and an experienced educator, he nonetheless believes that the key to effective public participation is listening more than speaking. He served as an Adjunct Assistant Professor at the University of Rhode Island from 1992-1995 and an Adjunct Associate Professor from 1997-2005, teaching environmental planning courses in the Masters Program in Community Planning and Area Development and advising graduate student on thesis projects. He has developed training programs in environmental compliance for the US Environmental Protection Agency, the US General Services Administration, and the US Department of the Interior and presented them in locations throughout the continental U.S. and the island territories, including Guam, the Marianas, and American Samoa.

REMEDIATION EXPERIENCE

Mr. Westcott is an OSHA-trained hazardous waste site worker and an experienced site remediation supervisor. His experience ranges from initial site assessments of relatively “clean” sites for property transfers to remedial activities at highly contaminated federal superfund sites. He has participated in remediation activities for contaminated sites at multiple locations in Rhode Island as well as in Salem, MA (Salem Acres); Philadelphia, PA (Reading Train Shed); and Stratford, CT (U.S. Army Engine Plant and Raymark). He is an experienced site worker, site safety officer and corporate health and safety officer.

REGULATORY EXPERIENCE

Mr. Westcott has participated in over 20 environmental impact statements (EISs) and Environmental Assessments (EAs), and has completed numerous state and local environmental impact documents with similar requirements. His experience includes EISs and EAs on:

- Wastewater treatment facilities in Boston, Plymouth, Kingston, Sandwich and Falmouth, MA and in the U.S. Virgin Islands;
- Disposal of dredged material in New Bedford, MA and in RI Sound;
- Highway projects in NH (Route 101A), MA (Route 3), CT (Route 11), PA (Route 22), VA (Southeastern Expressway), and RI (Route 6, Route I-195, Route 146, and Waterfront Drive);
- Reuse of military properties in RI (Newport and North Kingstown);
- Broadband network expansion in the U.S. Virgin Islands.

Mr. Westcott assisted the Department of the Interior, Office of Insular Affairs in the development of new NEPA regulations and has provided NEPA and related training for the USEPA, USGSA and USDO.

Mr. Westcott has been assisting clients in obtaining permits for hundreds of public and private sector projects over the past 30 years. He prepared permits for such projects as the relocation of the rivers and construction of WaterPlace Park in downtown Providence; expansion of the RI State Central Landfill in Johnston, RI; relocation of Route I-195 in Providence and reconstruction of the Central Artery (Contract C009A) in Boston, MA. He has been active in water quality and storm water management studies throughout his career. He developed new storm water pollution control regulations for the U.S. Virgin Islands; prepared storm water management plans for Cambridge, MA, Smithfield, RI, and Glocester, RI; and has prepared numerous applications for pollutant discharge permits and water quality certifications. He has completed biological assessments for threatened and endangered species, including bald eagles and short-nosed sturgeon and has undertaken water quality studies of surface water, groundwater, urban runoff and wastewater discharges throughout the northeast region.

Joseph P. McCue, PWS

SENIOR ENVIRONMENTAL SCIENTIST

TECHNICAL EXPERTISE

Wetland Delineation
Impact Evaluation & Analysis
Expert Testimony
Permits & Environmental Compliance
Construction Monitoring
Wildlife Habitat Assessment
Site Assessment & Remediation

EXPERIENCE

2009 – Present

Mason & Associates, Inc.
Senior Environmental Scientist

2009

SAGE Environmental, Inc.
Senior Project Manager

1996-2009

Natural Resource Services, Inc.
Project Manager

1995-1996

Applied Bio-Systems, Inc.
Wetland Biologist

EDUCATION

1992/BS/Soil and Water Resources
University of Rhode Island

PROFESSIONAL CERTIFICATIONS

Professional Wetland Scientist #2010

Society of Wetland Scientists

Professional Soil Scientist

Society of Soil Scientists of
Southern New England

RI Certified Invasive Manager

RICRMC & University of Rhode Island

NRCS Technical Service Provider

TSP-11-7617

Pesticide Applicator #O-39603

CTDEP

OSHA Certification

OSHA 30-Hour Construction Safety &
OSHA 40-Hour HAZWOPER

PROFESSIONAL ASSOCIATIONS

RI Association of Wetland Scientists
Society of Wetland Scientists
Society of Soil Scientists of
Southern New England
The Wildlife Society

PROFESSIONAL PROFILE

Mr. McCue is a Senior Environmental Scientist responsible for state and federal wetland issues relating to wetland delineation, permitting, and regulatory procedures for environmental planning and natural resource management including commercial, residential, government and utility projects. Mr. McCue has been working in freshwater and coastal wetland identification, delineation, permitting, and wetland impact assessment since 1996. Mr. McCue is a Professional Soil Scientist certified by the Society of Soil Scientists of Southern New England (SSSSNE) and has experience in soil morphological analysis, mapping and interpretation. He is a Professional Wetland Scientist (PWS #2010) registered with the Society of Wetland Scientists (SWS). Mr. McCue has conducted numerous wildlife habitat assessments and vernal pool evaluations.

Mr. McCue has conducted well over one thousand wetland delineations in the States of Rhode Island, Massachusetts and Connecticut. His work includes analyzing wetland functions and values according to US Army Corps of Engineers (USACOE), Massachusetts Department of Environmental Protection (MADEP), the Rhode Island Department of Environmental Management (RIDEM), the Rhode Island Coastal Resources Management Council (RICRMC) and the Connecticut Department of Environmental Protection (CTDEP), preparation and submissions of RIDEM, RICRMC and MADEP wetland applications, project monitoring to ensure compliance with the terms and conditions of issued permits, and development of RICRMC Buffer Zone Management plans using ArcMap10 GIS software.

He has designed several replication and restoration wetlands, and has supervised their constructions as well as performing post-construction monitoring of replication and restored wetlands.

Mr. McCue has been accepted as an expert in wetland delineation, wetland biology and aerial photograph interpretation by planning and zoning boards in numerous municipalities in Rhode Island. He has also provided expert testimony in both wetland delineation and aerial photograph interpretation at Rhode Island Superior Court and the RIDEM Administrative Adjudication Division. He has appeared before Conservation Commissions in Massachusetts, Connecticut and Rhode Island.

Mr. McCue also has experience in site remediation work, including performing Phase I site assessments, groundwater gauging & sampling, and supervision of site remediation activities.

WETLAND EXPERIENCE

National Grid – RI: Mr. McCue has conducted wetland delineations on behalf of National Grid for transmission line and pole replacement projects along utility lines in Rhode Island; including the 11.4 mile parallel 115kV transmission lines Q143 and R144 from the Woonsocket substation in North Smithfield, through Lincoln, North Providence, terminating at the Admiral Street substation in Providence.

US Naval Facility – Newport, Middletown, Portsmouth, RI: Mr. McCue delineated all of the freshwater wetlands within the 1,000+ acre US Naval Facility. He collected and prepared the necessary data for submission of a wetland edge verification with the RIDEM.

RI Resource Recovery Corporation – Johnston, RI: Mr. McCue photo-interpreted the entire RI Resource Recovery property and performed the subsequent delineation of all wetlands within the property. He also performed wildlife habitat assessments and assisted project engineers in the permit application submittals. Project phases have been reviewed by DEM and ACOE.

The Nature Conservancy’s Tillinghast Pond Management Area – West Greenwich, RI: Mr. McCue performed an aerial photograph interpretation of the 1800 acre property for The Nature Conservancy prior to the Conservancy’s purchase of the property. Mr. McCue field checked the photo interpreted wetland locations.

RESTORATION/MONITORING EXPERIENCE

University of Connecticut Wetland Restoration and Mitigation – Storrs, CT: Mr. McCue has managed the wetland related studies in support of UConn’s landfill closure and wetland restoration project. Work has involved wetland delineation in accordance with the standards in the USACOE Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast regions. Mr. McCue is providing long term permit compliance monitoring, including vernal pool, vegetation and invasive species monitoring, water table data collection and wildlife monitoring data to assess functional assessment of the 2 acres of created wetland and 3 acres of restored wetlands.

Supervision of Wetland Construction, Gillette Stadium – Foxboro, MA: Mr. McCue supervised the construction of a one-quarter acre replication wetland, as remediation for a stream crossing associated with infrastructure improvements and Stadium expansion. He inspected the replicated wetland weekly, then yearly for two years, to assess the success of the constructed wetland. He also prepared written progress reports for submission to MADEP.

WILDLIFE EXPERIENCE

Wildlife Habitat Evaluation, Proposed Subdivision – Richmond, RI: Mr. McCue supervised weekly investigations of species utilization of an open water body to determine its value for amphibian breeding. He performed dip-net sweeps for species identification and attended meetings at RIDEM to discuss permitting strategies for avoidance and minimization.

EXPERT TESTIMONY EXPERIENCE

RI Superior Court, Lombardi vs. Town of Johnston, RI: Mr. McCue was sworn in as an expert in Wetland Delineation and Aerial Photograph Interpretation. The case involved the installation of two thirty inch pipes by the Town of Johnston on property adjacent to the client (plaintiff). These pipes discharged high volumes of stormwater runoff onto the plaintiff’s property. Mr. McCue determined through aerial photograph interpretation of historical aerial photographs and current wetland delineation that the Town effectively created over one acre of wetland on the Plaintiff’s property. The Judge ruled in favor of the Plaintiff.

Lisa S. Caledonia

ENVIRONMENTAL SCIENTIST

TECHNICAL EXPERTISE

Wetland Science
Stormwater
Restoration/Monitoring
Invasive Species

EXPERIENCE

2005 - Present

Mason & Associates, Inc.,
Environmental Scientist

2000-2005

Town of Dighton, MA, Conservation
Agent & Planning Board Consultant

2003

Cassady Wetland Consulting,
Consultant Staff

2001- 2003

Town of Plainville, MA, Conservation
Commission, Conservation Agent

2000- 2001

The Wildlands Trust of Southeastern
Massachusetts, Land Stewardship and
Protection Assistant

EDUCATION

2000/BS/ Geography & Environmental
Studies; Minor /Sociology
Bridgewater State College

PROFESSIONAL CERTIFICATIONS

RI Certified Invasive Manager

RI Coastal Resource
Management Council
& University of Rhode Island

OSHA Certification

OSHA 40-Hour HAZWOPER

Advanced Training & Workshops
MA Association of Conservation
Commissions 2003–2006

PROFESSIONAL PROFILE

Ms. Caledonia is an Environmental Scientist with Mason & Associates, Inc. with specialized expertise in wetland science, plant identification, regulatory compliance, and municipal open space planning and protection. She has applied her experience to various multidisciplinary projects, providing research, wetland delineation, vegetation assessment, environmental data collection, technical writing, regulatory compliance, construction inspection, and environmental monitoring services.

Ms. Caledonia has worked as construction monitor for National Grid to ensure storm-water, wetlands, and priority habitat environmental compliance during substation and pole replacement work.

Ms. Caledonia has worked for private landowners as Invasive Species Manager, developing coastal buffer zone management plans for RICRMC approval. Her work includes assessing vegetation, recommending native plants, preparing planting plans, ensuring control of erosion and sedimentation, recommending invasive management techniques, and supervising restoration efforts and on-going maintenance.

As Conservation Agent for the Town of Dighton, MA, Ms. Caledonia chaired the Open Space and Recreation Plan Sub-Committee, and developed a comprehensive five year Open Space and Recreation Action Plan for the Town of Dighton. Ms. Caledonia used Geographic Information Systems (GIS) to develop town maps and proposed a unique home rule bill to start an open space fund in the Town, which was adopted by the United States Congress.

WETLAND EXPERIENCE

Wetland Reconnaissance, Identification, and Delineation – MA/RI: Ms. Caledonia is experienced in field delineation of wetland boundaries in accordance with local, state, and federal procedures. She is responsible for the creation of GIS maps and documenting and preparing state and federal data forms, and is experienced in aerial photograph interpretation.

Wetland Delineation Review and Project Compliance – MA: Ms. Caledonia completed technical and inspection work for the Dighton Conservation Commission. She enforced the MA Wetlands Protection Act and Town of Dighton Wetlands Protection Bylaws and ensured that applicants complied with the Rivers Protection Act, Stormwater Management Standards, FEMA Regulations, and DFW Endangered Species Program. She served as a liaison between the Commission, other Town boards, residents, regulatory agencies, and applicants. She reviewed plans and environmental impact reports, conducted field reviews, and interpreted aerial photographs. She ensured that applicants provided the Commission with all required information prior to public hearings.

STORMWATER EXPERIENCE

Storm Water Pollution Prevention Plan & Monitoring – Farnum Pike Substation, Smithfield, RI: Ms. Caledonia assisted in the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent application to the RI Department of Environmental Management for the expansion of Narragansett Electric’s Farnum Pike Substation in Smithfield Rhode Island. Her work on the SWPPP included use of GIS to develop pre- and post-development stormwater runoff curve numbers. She was also responsible for storm water permit compliance monitoring of erosion and sedimentation controls.

Storm Water, Wetlands & Priority Habitat Environmental Compliance Supervisor – E183/F184 Transmission Line-Structure Replacement, Swansea, MA: Ms. Caledonia identified wetlands, reviewed project plans, conducted turtle sweeps, inspected erosion controls, monitored to ensure permit compliance and recommended corrective actions. Her work was done under strict National Grid Compliance Standards.

RESTORATION/MONITORING EXPERIENCE

University of Connecticut Landfill Remediation – Storrs, CT: Mason & Associates provides wetland consulting services for this large-scale landfill remediation project that includes extensive wetland restoration and mitigation elements. Ms. Caledonia serves as an environmental monitor and is part of a team that monitors site water levels, vegetation, and habitat characteristics in restored and created wetlands, and a created vernal pool. She directs the monitoring of vegetation plots at each mitigation site, including comprehensive monitoring of species identification and abundance. She oversees invasive control efforts in the mitigation areas. She continues to provide compliance inspection and monitoring in accordance with CTDEP and USACOE requirements for wetland mitigation monitoring.

Wintonbury Hills Golf Course – Bloomfield, CT: Ms. Caledonia assists in conducting field inspections of wetland creation and enhancement areas at this municipal golf course in central Connecticut. Tasks involve inspections of the one-acre wetland creation area and several acres of wetland enhancement that serve as mitigation for the golf course’s wetland impacts. Wetland mitigation monitoring includes evaluation of plantings and natural re-vegetation, hydrology, and wildlife use.

INVASIVE SPECIES EXPERIENCE

Buffer Zone Management – Middletown, RI: Ms. Caledonia works as an Environmental Scientist and Invasive Manager with a private landowner, landscape architects, engineers, and CRMC staff to develop a buffer zone management plan for habitat restoration of a coastal buffer for CRMC approval. The plan included removal of invasive species, planting of native shrubs and herbaceous plants, modification to an existing gazebo, and a new deck (shoreline recreation structure) with a kayak rack and associated shoreline access stairs. Ms. Caledonia is responsible for monitoring and reporting to CRMC during construction and for the period after the initial growing season to ensure successful invasive plant control and habitat restoration.

Buffer Zone Management - Barrington, RI: Ms. Caledonia works as Environmental Scientist and Invasive Manager with a private landowner and Rhode Island School of Design to develop a buffer zone management plan for habitat restoration of a coastal buffer for CRMC approval. The plan included removal of invasive species, planting of native trees, shrubs, and herbaceous plants, construction of a patio with shoreline access and a view corridor. Ms. Caledonia is responsible for monitoring and reporting to CRMC during construction and for a period after the initial growing season to ensure successful invasive plant control and habitat restoration.

PUBLICATIONS

Town of Dighton Open Space & Recreation Action Plan. Lisa S. Caledonia et al. Town of Dighton, Massachusetts. 2003

Diana S. Brennan

ENVIRONMENTAL SCIENTIST

TECHNICAL EXPERTISE

Wetland Delineation
Wetland Mitigation & Monitoring
Site Assessment
Construction Monitoring
Permits & Environmental Compliance
Geographic Information Systems

EXPERIENCE

2008 - Present

Mason & Associates, Inc.,
Environmental Scientist

2006-2008

The Gifford Design Group
Wetland Scientist

2006

CT Department of Environmental
Management, Seasonal Staff

2002-2006

Mason & Associates, Inc.,
Environmental Scientist

2000 – 2002

Cooperative Extension Service,
University of Rhode Island,
Coastal Fellow

EDUCATION

2002/BS/Environmental
Science & Management,
University of Rhode Island
Magna Cum Laude

PROFESSIONAL CERTIFICATIONS

OSHA Certification

24-Hour HAZWOPER

PROFESSIONAL ASSOCIATIONS

Rhode Island Association of Wetland
Scientists

PROFESSIONAL PROFILE

Ms. Brennan is an Environmental Scientist with Mason & Associates, Inc., specializing in wetland science and geographic information system (GIS) analysis. With over nine years of experience in the practice of wetland science, she has contributed to various multidisciplinary projects which include research, environmental analysis, wetland delineation, wetland mitigation and monitoring, mapping, technical writing, permitting services, and regulatory compliance and construction inspection.

WETLAND EXPERIENCE

Wetland Delineation & Mapping – RI/CT/MA: Ms. Brennan is experienced in field delineation of wetland boundaries in accordance with state and federal procedures. She specializes in GIS, and creates maps of site aerial photography and soils in preparation for field delineation. Field work includes wetland delineation, field documentation of vegetation, soils and hydrology, and the preparation of state and federal wetland data forms. She is also experienced in aerial photograph interpretation.

National Grid USA/Narragansett Electric Transmission Circuits – RI: Ms. Brennan delineated and mapped wetlands along National Grid Transmission circuits 347, 328, I-187, Q-143, and R-144 as part of a major transmission line refurbishment project. Using ArcView GIS and AutoCAD software, Ms. Brennan transferred the new wetland information generated onto existing National Grid maps. Ms. Brennan also provided storm water permitting services to National Grid under the new Rhode Island Pollutant Discharge Elimination System (RIPDES) Phase II regulations.

E1 Line Extension (A24) Project – Easton and Mansfield, MA: Ms. Brennan provided fieldwork and mapping services for this proposed new 115 kV electrical transmission line in southern Massachusetts. Fieldwork included wetland delineation along the pertinent length of the right-of-way. Ms. Brennan then used GPS data to create maps of the delineated wetland and proposed project, using ArcView GIS software, AutoCAD, and CorelDraw. These maps were created for use by National Grid and as presentation graphics for public review.

Narragansett Indian Tribe, Charlestown and Westerly, RI: Ms. Brennan provided mapping and database support for this project, which involved an investigation of over 2,000 acres of land in Washington County, Rhode Island, including two of the largest Atlantic white cedar swamps in Southern New England. Ms. Brennan digitized field mapping and classification of project area wetlands into an ArcView GIS coverage. She provided the data to the Narragansett Tribe in paper map format and also in electronic format to supplement their developing GIS database.

RESTORATION/MONITORING EXPERIENCE

University of Connecticut Landfill Remediation – Storrs, CT: Mason & Associates provides wetland consulting services for this large-scale landfill remediation project, which includes extensive wetland restoration and mitigation elements. Ms. Brennan assisted in the planning phases of the project, and continues as an environmental monitor. Her planning efforts included creating wetland-specific construction specifications and details, monitoring site water table levels and habitat characteristics, inspecting existing site vernal pools, meeting with regulatory agency representatives, and assisting the University in procuring wetland permits from the Army Corps of Engineers and the State of Connecticut. Additionally, Ms. Brennan has worked with University staff, faculty, and students to organize and promote educational and research aspects of the project. Ms. Brennan continues to review site wetlands during the mitigation monitoring project phase.

Wintonbury Hills Golf Course – Bloomfield, CT: Ms. Brennan conducted field inspections of wetland impact areas and wetland creation areas at this municipal golf course in central Connecticut. Tasks involved inspection of golf course construction activities in and near wetlands to ensure compliance with local, state and federal wetland permits. A key aspect of her construction inspection was the evaluation of erosion and sedimentation controls and working with the contractor to implement corrective actions. With the construction phase now complete, Ms. Brennan now provides mitigation monitoring and reporting for the one-acre wetland creation site and for several acres of wetland enhancement area. This work includes evaluation of mitigation success based on vegetation, soils, wildlife, and hydrology.

RIDOT Freight Rail Improvements, Wellington Bridge Project – Warwick and Cranston, RI: Ms. Brennan performed environmental monitoring for the construction of a new railway crossing of the Pawtuxet River. The main focus of her inspections was to assess the performance of erosion and sedimentation controls and work with RIDOT personnel to correct any issues that arise, therefore ensuring compliance with state wetland permits.

REGULATORY EXPERIENCE

Jamestown Water Treatment Plant – Jamestown, RI: In 2007 and early 2008, Ms. Brennan provided wetland services to the Town of Jamestown in support of the expansion of Jamestown's Water Treatment Plant. Ms. Brennan assisted in obtaining a Rhode Island Coastal Resources Management Council permit for the project. The expansion of Jamestown's Water Treatment Plant was of significant public importance; however it resulted in unavoidable, permanent impact to freshwater wetland. Therefore, part of the permitting process included development of a wetland mitigation plan to replace lost wetland. Ms. Brennan helped to develop a three-part mitigation plan which included wetland restoration, planting, and invasive species control and which avoided impacts to sensitive archaeological sites.

PLANNING EXPERIENCE

West Side Master Plan – Aquidneck Island, RI: Mason & Associates has provided planning services to the Aquidneck Island Planning Commission in its master plan for the west side of the Island, including portions of Newport, Middletown and Portsmouth. Ms. Brennan assisted in the preparation of GIS mapping and in the analysis of natural resource constraints to development. The project presents a model for public involvement and the application of GIS data in the development of sustainable growth scenarios.