KENNETH J. THOMSON

CR Environmental, Inc., 1995 to Present

Years with Other Firms: 12

HABITAT RESTORATION SPECIALIST BOTANIST/SOIL SCIENTIST SENIOR WETLAND SCIENTIST GIS/AutoCAD OPERATOR

AREAS OF SPECIALIZATION

- Oceanographic and Meterological Surveys, Coring Operations
- Wetland Delineation / Habitat Restoration Specialist
- AutoCAD/ArcView
- Environmental Permit Preparation (specializing in FERC)

EDUCATION

University of Massachusetts Soil Morphology
 USFWS Electroshock Fishing Certification

1992 - Present OSHA 40 Hour Health and Safety Training and Refresher courses
 1992 Graduate soils courses, University of Massachusetts, Amherst, MA

1989 Graduate school candidate Soil Sciences, Arkansas State University, Jonesboro, AR

1988 Graduate soils courses, University of Rhode Island, Kingston, RI

1980 - 1984 B.S., Botany, Univ. of Massachusetts, Amherst, MA

Habitat evaluation procedures, U.S. Fish & Wildlife Service

WORK HISTORY

CR Environmental, Inc., Falmouth, MA 1995 - present

Stone & Webster, Stoughton, MA 1995 - June 1999, 2001-2002

Science Support Corp. Superconducting Super Collider, Texas

EG&G Washington Analytical Services Center, Waltham, MA

Sanford Ecological Services, Inc., Natick, MA

University of Massachusetts, Amherst

1993 - 1993

1990 - 1993

1985 - 1989

1981 - 1984

U.S. Air Force - electronics technician

SUMMARY OF PROFESSIONAL EXPERIENCE

Mr. Thomson has more than 20 years of experience in environmental consulting. He specializes in field operations for wetland and oceanographic surveys, and has conducted water quality studies and hazardous waste site audits and monitoring. As project manager, Mr. Thomson has specialized in wetland delineation (federal methodology), ACOE federal highway functional assessment methodology, Wildlife Habitat Evaluation Procedures U.S. Fish & Wildlife Service, wetland design for pretreatment resulting from non-point stormwater run-off (Federal Urban Run-Off Program), and all levels of wetland and water permitting. He has conducting wetland surveys of pipeline corridors and compiled information for Federal Energy Regulatory Commission filings and wetland permits. Most recently his efforts have involved restoration plans for wetland impacts due to site remediation and environmental permitting for mixed retail and housing development. His computer hardware/software capabilities include Autocad, Microstation, and ArcView.

While at EG&G Washington Analytical Services he conducted oceanographic and meteorological surveys off China, side-scan surveys for cable lines across Long Island Sound, ocean current data collection in the Gulf of Mexico, and real-time acoustic current doppler profiler construction and deployment in Tampa Bay, Florida. For a time he was responsible for managing EG&G's equipment lease and repair center.

RELEVANT PROJECTS

Lakeshore Center Retail Development, Bridgewater and Raynham, MA

Conducted wetland delineation, vernal pool assessment, and a nine week Eastern Box turtle radiotransmitter survey of a 150+ acre site in Bridgewater slated for retail/hospitality development. Filed Abbreviated Notice of Resource Area Delineations for Raynham and Bridgewater, and assisted with the MEPA filing of a Notice of Project Change and Draft EIR. Currently working on figures and mitigation plans for the Final EIR, and a Conservation Permit filing with the MA Natural Heritage and Endangered Species Program.

Wetland Scientist, Spotted Turtle Survey – MBTA Greenbush Line Post-Construction Monitoring, Hingham, Cohassett, MA

Maintenance year monitoring effort in 2010, changing transmitters with Stantec for continued monitoring of meta populations of spotted turtles along the Greenbush line right-of-way in Hingham and Cohasset. Control and right-of-way monitoring of 42 vernal pools for invertebrates, water quality, and amphibian egg masses.

Wetland Scientist, Box Turtle Survey – Hingham , Massachusetts

Assisted with surveys to identify box turtle habitat within a proposed sub-division in Hingham, MA. Working within Alan Richmond UMass and Jon Regosin NHESP a cluster development was designed to allow for sufficient open space for turtle habitat, and the site to be developed.

Wetland Scientist, Bog Turtle Surveys-Pennsylvania/Delaware/Maryland

Assisted with multiple surveys to identify bog turtle habitat along natural gas pipe line corridors. Negotiated with the individual heritage programs in Pennsylvania, Delaware and Maryland for rerouting solutions as part of FERC applications

Restoration Specialist, Upper Charles River Reservation Restoration Project

As part of the Carol R. Johnson Associates team, Mr. Thomson designed and supervised construction on 4,000 square feet of forested wetlands for the Metropolitan District Commission's Charles River corridor restoration and pathway construction in Watertown, Massachusetts. The project restored recreational access to the Charles River over a 2-mile section by removing industrial encroachment and constructing a multiuse path and river overlooks.

Restoration Specialist, Spy Pond Park – Arlington, Massachusetts

Working with CRJA developed planting design using native plants for lake shoreline reestablishment of this city park. The design included bioengineering techniques for shoreline stabilization

<u>Project Ecologist, Former GTE Facility, Salem, Massachusetts</u>. Assisted in the restoration and monitoring of a salt marsh which had been buried under several meters of glass and other manufacturing wastes. Work included determination of acceptable elevations for high and low marsh areas, connective channels and elimination of existing stands of the invasive Common Reed (*Phragmites spp.*).

Lead Mill, Salem Harbor, Marblehead and Salem, MA

Assisted with design of a coastal resource area restoration, mitigation and monitoring plan for a former lead mill site to be remediated under the MCP. Provided design material and assisted with submittal of an Expanded NPC in 2007, and environmental permits including NOIs with Salem and Marblehead, the New England Division of the ACE, and DEP Water Quality.

Larkin Road Dam, Newbury, MA

Conducted wetland delineation, data collection for permitting, and location with DGPS of bordering vegetated wetland and top of bank for an impoundment on the Parker River behind the Larkin Road dam for a proposed dam removal project.

Long Island Sound Coastal Park

Provide design and planting recommendations to landscape architects for the Town of Babylon to restore barrier beach for an ecological park on the south side of Long Island, NY.

MBTA Home Meadows Tidal Marsh Restoration, Hingham, MA

Conducted baseline and long-term monitoring of Home Meadows a mixture of salt and freshwater marsh in which tidal inundation was increased with the goal of decreasing the extent of *Phragmites australis* growth. Work includes monitoring of several plots for elevation, hydrologic regime, plant cover and vigor, and soil salinity over 5 years.

Holbrook Conservation Commission

Mr. Thomson has been assisting the Holbrook Conservation Commission as a third party wetland consultant proving review services for wetland projects filed in the town of Holbrook.

Restoration Specialist, Fort Devens, Massachusetts

Designed six different wetland mitigation areas totaling approximately 5 acres associated with hazardous waste cleanup at the military reservation. Habitats included ponds, forested and shrubs swamps plus emergent marshes.

Restoration Specialist, Nyanza Superfund Project Working in cooperation with the Army Corps of Engineers, designed and wrote the construction work plan for ~ 7 acres of swamp, wet meadow, and emergent marsh restoration at the Nyanza Superfund Site in Ashland, MA. Supervised all phases of construction and planting. Unique to this project was the need to develop a large volume of soil. Due to site contamination, all existing wetland soils were excavated. The wetland substrate was replaced by several thousand cubic yards of recycled leaf mulch mixed with a sandy soil mixture resulting in manufactured soil for over 5 acres of wetland. The project design included open water areas, forested swamp, shrub swamp, wet meadow and emergent wetland construction along with reestablishment of a stream corridor and floodplain wetland.

Environmental Coordinator, Old English Square Mixed Use Development off Union Street, Holbrook, MA

Conducted wetland delineation and filed and received permits ANORAD, NOI, Water Quality Certificate, PGP for a \$42 million mixed used development in Holbrook, MA. Recently completed constructing site wetland mitigation in March 2010 (floodplain wetland, riverfront wetland, and bordering vegetated wetland) and implementing invasives control for European Buckthorn and Purple Loosestrife.

Restoration Specialist, Colonial Gas, Lynnfield, MA

Designed and constructed a 5,000 square foot marsh forested wetland restoration area in Lynnfield, Massachusetts. The design was to mitigate for a series of small impacts to forested, shrub and marsh wetlands resulting from the construction of a natural gas pipeline.

Restoration Specialist, Granite State Gas, Well, ME

Designed a six-acre wetland restoration including a 2-acre pond/island system, marsh, shrub swamp and forested swamp for the proposed LNG facility in Wells, Maine for Granite State Gas. Design included construction of a vernal pool and turtle nesting area on a south-facing slope for the enhancement of wildlife habitat. Plan approved by ACOE/USFWS and the state of Maine project under final review by FERC.

Wetland Scientist, Columbia Gas

Party crew chief for the delineation of 42 miles of natural gas pipeline corridor using DGPS in eastern Pennsylvania. Developed wetland report for permit applications.

Wetland Scientist, Rutland Public Schools

Wetland delineation of a 300-acre parcel to assist in the citing and design of a new elementary school.

Wetland Scientist, Worcester and Rutland Public Schools

Currently providing environmental oversight for the development and implementation of NPDES Stormwater Pollution Prevention Plan. Conducted a wetland delineation of a 400-acre parcel for a future high school as part of an alternative analysis.

Restoration Specialist, First Energy, Michigan

Designed and constructed a 1-acre wetland mitigation area in association with the development of an electric generating facility. Other responsibilities included the design and construction of 1.5 acres of naturalized stormwater management ponds.

Factory Pond Fish Collection, Former Fireworks Site - Hanover, MA

Utilizing boat mounted electroshocking equipment fish were collected for population characterization and tissue analysis as part of a preliminary investigation into the levels of mercury, lead and other metals in fish species within Factory and other adjacent Ponds.

Wetland Scientist, Texas Utility, Big Brown Railroad Spur

Developed Stormwater Pollution Prevention Plans (SW3P) for the individual highway intersections crossed by the 29.2-mile rail system. Also developed the project SW3P and contractor specifications for construction of the 25-mile railroad Right-of Way

Wetland Scientist/Permitting, Private Natural Gas Company, Delaware

Conducted fieldwork and developed all Federal, state and local permits in association with the construction of the following natural gas pipeline projects in Pennsylvania, Maryland and Delaware:

2003 Expansion Project

2002 Expansion Project:

2001 Expansion Project- Daleville Compressor Station

2000 Expansion Project

1999 Expansion Project

Route 7 Project

Polly Drummond Hill Road Project

Porter Station Project

Delaware City Compressor Station Project

Task Manager, Alcoa, GIS Development

Development of Arcinfo Geographic Information Systems in connection with two FERC Dam relicensing programs. Each program consists of four hydroelectric dams and associated reservoirs. Program objectives were to provide baseline information of the live pool storage capacity and develop property management tools. These included an interactive pier & dock management tool, GPS data collection tool, map production and data management tool.

Field Chief, Portland Natural Gas Transmission System

Party chief for the delineation of wetlands (federal methodology) along gas pipeline right-of-way in Vermont and New Hampshire (120+ miles). Additional responsibilities included wetland functional assessments, wildlife habitat analysis, stream characterization, and vegetation community analysis. Responsible for QC/QA of the GPS data set for Vermont & New Hampshire. Responsible for preparation of FERC application, all Vermont permits and assisted in the New Hampshire EFSAC application. Prepared Threatened & Endangered Species Report.

Field Chief/Permitting, Washington Gas

Party chief for the delineation of wetlands (federal methodology) along gas pipeline right-of-way in Maryland (8 miles). Permitting included NPDES Hydrostatic test water, NPDES construction application, Water Appropriations Application and the development of Forest Conservation Plans. Designed and constructed a 4,800 square foot wet meadow/ forested swamp for mitigation associated with natural gas pipeline construction. The project was located in Prince George County, Maryland.

Wetland Scientist, Superconducting Super Collider Laboratory

SEIS Reporting. Conducted plant species inventory to meet baseline requirements. Assisted development of site herbarium identifying plants to species level. Prepared NPDES discharge permit. Prepared permit application which required field investigations including physical and biological characterization of the watershed and 40 miles of stream channel. Developed NEPA Environmental Compliance Plans:

Restoration Plan. As project ecologist, developed plans to covert the existing agricultural sites of the main research campuses (8,000 acres) to tall grass prairie. Due to the Texas seed laws, conducted extensive vegetation surveys on the facility to identify sources of native flowers and grasses as a source of seed material. Developed techniques and facilities to grow a prairie sod as part of the Federal Highway Beautification Program associated with the project.

Agricultural Land Use Plan. Developed plans and procedures for environmental management of a federal facility with active agricultural operations. Initiated pesticide management activities including an Integrated Pest Management component. Interacted closely with legal staff and chemists to determine the potential liability resulting from surface and ground water contamination from past and present agricultural activities.

Ecological Monitoring Plan. Conducted annual review and prepared supplements of activities associated with SEIS requirements. Conducted monitoring investigations for the changes of plant communities resulting from land-use changes throughout the 11,000-acre site.

Wetland Mitigation Plan. Reviewed previously prepared plan and provided cost analysis for proposed activities. Evaluated alternative sites and compared functional values for comparison to the proposed plan.

SWPPP Compliance. Responsibilities included weekly monitoring of con-	nstruction ac	tivities, prepa	ration of
individual SWPPP site plans and supervising corrective action activities. determine the final stabilization requirements of perennial grass species.	Conducted	vegetation an	alysis to