

Claudia A. Browne
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Education

B.S., Department of Natural Resources, Cornell University, College of Agriculture and Life Sciences 1983

Graduate course work, Hydrology, Boston College, 1987

Riparian Buffer Systems, Professional Training Program, University of MD, Cooperative Extension, 1997

Experience

Ms. Browne is currently the Rocky Mountain Bioregion Leader for Biohabitats -- a 22-year old national ecological restoration design and construction firm. She has nineteen years of experience in environmental protection with expertise in project management, hydrogeologic investigations, water resource protection, wetland restoration, environmental site assessments, remediation of contaminated soils and groundwater, as well as policy analysis and community education for environmental issues. Ms. Browne's experience includes managing multi-million dollar site investigation and remediation contracts which included supervising multiple teams of subcontractors and field staff. Ms. Browne's strengths include project organization; financial management; staff development; technical writing; problem solving; and working with diverse members of the public, private sector, regulatory agencies, and technical communities. Ms. Browne's background includes international project experience in Canada, France, and Russia.

Project Experience

Wetland Mapping and Functional Assessment. *City of Boulder, CO, Planning and Development.*

Ms. Browne conducted functional assessments for nearly 100 wetlands and riparian areas in the City of Boulder. The field work involved walking around the perimeter of each wetland, collecting relevant environmental and vegetation data, and mapping the wetland boundaries on color aerial photographs. The wetland functions that were evaluated included groundwater recharge and discharge, floodflow storage or alteration, sediment trapping, shoreline anchoring (erosion control), nutrient retention, food chain support, aquatic and wildlife habitat, and recreation and heritage values.

Water Resource Management Study, *San Luis Valley, CO.* Ms. Browne conducted a water resource study of a 100,000-acre bison ranch owned by The Nature Conservancy. The study included visual surveys of 3 major on-site stream corridors, evaluating historical flow data, reviewing ditch diversion records and water rights, gathering and evaluating available groundwater records, and researching off-site pumping stresses. The goals of the study were to describe the water supplies for the on-site aquatic features, to understand the influences of ditch systems, to assess the potential for wetland restoration, and to suggest modified irrigation practices to help restore natural drainage features.

Wetland Mitigation & Irrigation Ditch Modification, *South Park, CO.* Ms. Browne is assisting Warm Springs Wetland LLC with their mitigation planning process by describing the hydrogeology of the site, identifying key threats to the long-term viability of the wetland, and providing recommendations to address those threats. The project included: reviewing available geologic and hydrogeologic information; conducting visual surveys of drainage features; preparing a conceptual hydrogeologic model of the site; evaluating potential threats and water rights issues; preparing a groundwater monitoring program; and overseeing soil sampling and the installation of five

piezometers. The preliminary findings of the study revealed that the long-term viability of the wetland restoration area will depend on ditch modifications, a long-term water rights protection strategy, and effective use of groundwater monitoring data during grading activities.

Hydrogeologic Investigation for RCRA Facility, Tennessee. Ms. Browne has provided oversight and technical support for over ten years during a multimillion dollar, large-scale site investigation and remediation effort at a former electroplating facility. Complex karst conditions and the presence of high concentrations of trichloroethylene (TCE) posed challenges for the project. Tasks conducted and supervised by Ms. Browne include a wide range of field sampling (including over 40 well installations, groundwater, surface water, soil, and sediment sampling), aquifer testing, a spring survey and dye trace study, sampling of over 70 homeowners wells, and preparation of work plans, quality control/quality assurance documents, and summary reports.

Pond Hydrology Study for The Nature Conservancy, Caroline County, MD. Ms. Browne is providing hydrogeologic consulting services including soil sampling and installation of piezometers by direct push drilling method, surface water and groundwater monitoring, data evaluation, and preparation of a conceptual hydrogeologic model. The purpose of the study is to establish baseline conditions and to gain a better understanding of the hydrologic regime that supports 13 coastal plain ponds found on a 230-acre preserve. The project findings will be used to help the Conservancy respond to a pending permit application for a sand and gravel mine located within ¼-mile of the preserve.

State of Virginia Hydrogeologic Investigations. Ms. Browne managed field investigations for the Virginia Water Control Board at two sites where leaking underground storage tanks had contaminated nearby homeowner's wells. The purpose of the project was to identify the source of the release and define the nature and extent of contamination using electromagnetic surveys, soil vapor surveys, soil borings, surface water and drinking water sampling, groundwater monitoring well installations, water quality sampling, elevation surveys and data evaluations.

Superfund Site Investigation, Virginia. For several years, Ms. Browne was involved in the implementation and management of a Remedial Investigation and Feasibility Study at a former electroplating facility on the federal Superfund list. Initially, Ms. Browne oversaw Immediate Removal Abatement activities to remediate surface impoundments contaminated with heavy metals and cyanide wastes. Ms. Browne managed the field investigation including drilling, sampling, data evaluation, and aquifer testing. She supervised several subcontractors and was responsible for managing up to 10 field personnel. Site challenges included the lack of historical information and the presence of four major volatile organic compounds each with distinct plume configurations. Detailed analyses and the assistance of computer modeling were used to identify source areas, migration pathways, and discharge locations to assist in planning for remediation efforts. The risk assessment revealed unacceptable health risks associated with potential future ingestion of groundwater, and as a result, both groundwater and soil remediation alternatives were reviewed as part of the feasibility study.

Hydrogeologic Characterization of Playa Wetlands, San Luis Valley, CO. Ms. Browne completed a hydrogeologic study and assessed the impacts from off-site water users for a 1,000-acre Nature Conservancy preserve containing ephemeral playa wetlands. A primary objective of the project was to prepare a water balance to better understand the details of the hydrologic regime that may influence the plants and animals that live, forage, and reproduce on the preserve. Another important goal was to identify significant factors that could affect the wetland's long-term viability and identify potential management strategies.

Phase II & III Assessments of Former Manufacturing Facility, Connecticut. After volatile organic compounds were detected in groundwater during a property transfer for a former apparel fastener manufacturing facility, Ms. Browne supervised Phases II and III of the site investigation. As

such, Ms. Browne evaluated preliminary data, developed Work Plans, and oversaw the installation of monitoring wells, sampling, soil gas survey and aquifer testing to assess the nature and extent of contamination and recommend remedial actions.

Hydrogeologic Study to Support Mining Reclamation. *Boulder County, CO.* Ms. Browne assisted Boulder County Open Space with an evaluation of the hydrogeologic issues associated with managing a post-mining wetland restoration project. The site encompasses a former sand and gravel mine located along the St. Vrain river corridor. Ms. Browne's input identified inadequacies in the proposed design and assisted the County in the preparation of their response to the mining company's draft reclamation plan.

Hydrogeologic and Vegetation Monitoring Plan, *South Park, CO.* Ms. Browne prepared a groundwater and vegetation monitoring plan of a 700-acre fen preserve which supports a number of rare plant species and communities. The planning process included a summary of existing hydrogeologic information, identification of data gaps, and development of a scope of work to obtain the missing data. Results of the preliminary site characterization identified key properties to target for conservation of the water resources that support the wetland.

National Survey of Pesticides in Drinking Water Wells. *Southeastern States.* As Field Team Leader for drinking water sampling activities for the EPA's National Pesticide Survey, Ms. Browne sampled homeowner wells in several states throughout the southeast. The project required strict adherence to sampling and handling procedures, community relations, and document tracking to ensure statistically valid data.

EPA Office of Underground Storage Tanks Support. *Washington D.C.* Ms. Browne was responsible for creating and writing a technical guidance manual to assist state UST inspectors with site investigation activities. The document provided a compendium of engineering practices and tools such as worksheets and checklists to help inspectors evaluate the activities on their sites.

Review of Ground Water Courses. *Washington, D.C.* Ms. Browne assisted with the evaluation of available groundwater seminar courses for the EPA's Office of Solid Waste. The process involved a review of course materials and a comparison of courses nationwide.

Environmental Compliance Audits and Phase I Assessments. *Nationwide.* Ms. Browne has conducted numerous environmental compliance and Phase I projects for a variety of clients and a variety of properties including commercial, open space, agricultural, residential, and manufacturing facilities. Projects cover compliance and liability issues related to wastewater, air quality, solid waste, spill controls, oil and hazardous substances, underground storage tanks, PCBs, asbestos, off-site contamination issues, geologic hazards, endangered species, wetlands, and wildfires.