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KEVIN S. SCHROEDER

BIOLOGIST / PROFESSIONAL WETLAND SCIENTIST

TECHNICAL EXPERTISE

NEPA/MEPA Documentation and Reporting
Wetland Delineations and Functional Assessments
Sections 401 and 404 Permitting
Wetland Mitigation
Stream Assessments and Restoration
Biological Data Collection / Assessments
Biological Assessments / Sensitive Species Surveys
Vegetation Assessments / Monitoring
GIS/GPS Application

ACADEMIC BACKGROUND

B.S., Environmental Studies,
California University of
Pennsylvania (1986)

CERTIFICATIONS

Professional Wetland Scientist (PWS #2584)
Storm Water Pollution Prevention Plans
Administration (Certificate #0001057)
OSHA 40-Hour HAZWOPER (2018)

PROFESSIONAL TRAINING

Native American Cultural Sensitivity (2019)
Wetland Plant Identification (2016)
Project Management Professional (2009)
Airport NEPA Desk Reference Workshop (2007)
River Restoration and Natural Channel Design (2004)
River Assessment and Monitoring (2003)
River Morphology and Applications (2003)
Applied Fluvial Geomorphology (2002)
Stream Restoration and Bioengineering Workshop (2001)
Creation and Restoration of Wetlands (2001)
Federal Energy Regulatory Compliance (FERC) Permitting (1997)
USACE's Wetland Delineator Certification Program (1996)

QUALIFICATIONS

I have over 28 years of experience in assessing the biological and physical conditions of natural resources of various ecosystems throughout the nation, with an emphasis on aquatic resources. I possess a broad base of experience including work on surface transportation, aviation, railroad, transit, mining, and utility projects, as well as industrial and commercial sites and municipal locations to ensure compliance with federal, state, and local environmental permitting regulations and NEPA compliance in locations throughout the country. I have managed and prepared various environmental documents, ensuring compliance with federal and state environmental laws and regulations under National Environmental Policy Act (NEPA) and Montana Environmental Policy Act (MEPA). I have managed or co-managed several large NEPA projects from initial scoping through agency decision making, while providing meaningful feedback for the lead agency and project proponents

I have worked both independently and with multidisciplinary teams to coordinate, design, and implement ecological restoration techniques that best serve the client's needs, while meeting the demands of the regulators, as well as the local community. I am knowledgeable of the Clean Water Act Section 401 and 401, state, tribal, and local regulations and permitting requirements. I have coordinated numerous projects with the US Corps of Engineers, US Fish and Wildlife Services and State Historic Preservation Office, as well as other state and local resource agencies. I have performed oversight of many complex projects through the permitting process beginning with initial site evaluations through compensatory mitigation; coordinating with the US Army Corps of Engineers (USACE), USFWS, Montana Fish, Wildlife, and Parks, County Conservation Districts, State Historic Preservation Office (SHPO), and other state- and local-resource agencies. Through the years, I have developed mutually beneficial relationships with clients, colleagues, sub-consultants, contractors, regulators, and the public.

I have conducted threatened and endangered species surveys for both plant and animal species in multiple states, including several Biological Assessments for the federally threatened bull trout (*Salvelinus confluentus*). I have designed and monitored the construction of over 25 successful stream, riparian habitat, and wetland mitigation sites. I have followed a majority of these projects through the construction inspection and post-construction monitoring phases, many of which involved large-scale stream restoration and wetland creation projects, but can easily step-in during any phase.

I have conducted Phase I Environmental Site Assessments to identify Recognized Environmental Concerns for MDT projects, as well as private landowners.

I am proficient in ArcGIS and Trimble GPS products, allowing him to create and manage GIS exhibits for NEPA projects, impact calculations, corridor studies, alternatives analyses, and cultural resource predictability models.

TECHNICAL EXPERIENCE

NEPA/MEPA Documentation and Reporting: I possess a broad base of experience with the preparation and project manager duties of various levels of NEPA documents including Categorical Exclusions (CATEX), Environmental Assessments (EA), and contributions to significant portions of Environmental Impact Statements (EIS) and supporting technical reports. I have served as the project manager to prepare an EIS for the construction and operation of a new rail line project designed to provide a connection between CONSOL Energy's newly constructed coal mine with an existing Norfolk Southern rail line that crossed state lines. The EIS was prepared for the Surface Transportation Board's Section of Environmental Analysis. NEPA Federal Highway Administration projects have included the Ironton-Russell bridge spanning the Ohio River in Ohio and Kentucky, State Route 28 improvements in Pennsylvania, the Grand Parkway Corridor in Texas, Hampton Roads crossing in Virginia, and West Virginia's King Coal Highway, Appalachian Corridor D and Corridor H. Montana NEPA/MEPA projects include the EIS Re-evaluation for MDTs West of Whitefish West project. NEPA documentation for aviation projects involves several airports across the nation including Arizona, Kentucky, North Carolina, Ohio, and Pennsylvania. One large-scale project at the Pittsburgh International Airport included an Airport-wide Environmental Assessment for the 10,000-acre facility. Other NEPA compliance experience includes utility projects (Federal Energy Regulatory Commission), and natural gas pipelines (Pipeline and Hazardous Materials Safety Administration).

WETLAND DELINEATIONS AND FUNCTIONAL ASSESSMENTS: I am a Certified Professional Wetland Scientist and have been conducting stream and wetland delineations since 1990. I have refined my craft over the years to become highly efficient at fieldwork, data interpretation, reporting, and mapping. I have delineated wetlands in accordance with both of the Regional Supplements to Corps Delineation Manual within Montana (i.e., Western Mountains, Valleys, and Coast & Great Plains Regions), as well as the Northcentral and Northeast, Midwest, and Eastern Mountains and Piedmont Regions in the eastern US. I am also proficient in surveying aquatic resources by using mapping-grade (sub-meter) GPS equipment to efficiently and accurately survey sensitive resource boundaries. I have prepared many Jurisdictional Determinations and Boundary Verification Requests throughout the country, including in Montana, where I've employed the USACE's Wetland Boundary Verification Checklist. I have employed various methodologies for wetland functional assessments, including the Montana Department of Transportation's Montana Wetland Assessment Method (MWAM); Ohio's Rapid Assessment Method for Wetlands (ORAM); Hydrogeomorphic Approach (HGM), Wetland's Functions and Values: A Descriptive Approach, and Wetland Evaluation Technique (WET).

Sections 401 and 404 Permitting: I am very knowledgeable and experienced in the Clean Water Act Sections 401 and 404 regulations and permitting requirements; by completing the appropriate applications and preparing the necessary support documentation to secure the required permits. I fully understand the permitting processes through my professional and amicable working relationship with many of the regulatory and resource agencies and staying abreast of and apply current regulatory guidance and regulations. I provide technical support for all aspects of 401/404 permitting. I have experience working with regulatory and resource agencies to present my findings and when necessary negotiate permit conditions that best serve my client, including no permit required. I have obtained numerous Clean Water Act permits throughout the country, as well as SPA 124 and 318 authorizations with the state of Montana. I have also secured permits with tribal wetland programs including Confederated Salish and Kootenai Tribes' Aquatic Lands Conservation Ordinance (ALCO), I was the primary author of the Aquatic Findings Report and permit applications for the unavoidable impacts to five watercourses and ½ acre of wetland for MDTs South of Boulder South project. I re-delineated wetlands and waters of the U.S. and received Approved Jurisdictional Determinations from the USACE for the Hecla Mining Company's Rock Creek and Montanore Mines located in the Kootenai National Forest. I worked with the Crow Tribe of Indians on a flood protection project on the Big Horn River, including stream and wetland field assessments and permitting. I led a site visit with the private landowner and the USACE to obtain an approved jurisdictional determination for the wetlands that I delineated and reported for the site in Missoula County, Montana.

Wetland Mitigation: I have conducted mitigation feasibility studies for candidate mitigation sites based on several limiting factors, with none more important than preparing water budget calculations. I have designed and monitored the construction and success of over 25 unique stream, riparian habitat, and wetland mitigation sites; many of which involved combined large-scale stream restoration and wetland creation projects, including monitoring several mitigation sites associated with the MDT Wetland Mitigation Program. My hands-on experience has allowed him to provide construction administrative services and inspections, as well as post-construction monitoring of mitigation sites. I have developed both on-site and off-site stream and wetland mitigation and monitoring plans that involved selecting a site; collecting preconstruction baseline information; calculating a debit-to-credit ratio based on the proposed method of mitigation; developing design, planting, maintenance, long-term management, and adaptive management plans, as well as performance objectives; and adhering to site protection requirements.

For one large-scale wetland mitigation project, I was responsible for the site selection feasibility study, design, specifications, and construction bid package for creating over 23 acres of upland to wetland. I led an extensive study to identify a single site that would be suitable for creating the 23 acres of replacement wetland. I conducted a site suitability analysis on several candidate sites based on several factors including water budget calculations. I coordinated and led multiple interagency team meetings to expedite the review and approval of the Environmental Assessment (EA) and the state and federal permit applications. I provided construction administration and monitoring services during wetland construction. The site was constructed between 2010 and 2011 and is now a successful multi-community 23-acre wetland.

STREAM ASSESSMENTS AND RESTORATION: I have used my full suite of Rosgen's stream restoration coursework (Levels I through Level IV, Wildland Hydrology) on multiple stream stabilization, relocation, restoration, and enhancement projects. I have

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developed stream stabilization/restoration projects, including planning, design, riparian enhancement, and monitoring. I offer over 20 years of experience in “bio-friendly” and “hard-engineering” design techniques, specification and details, construction monitoring, and post-construction monitoring reports.

I have employed multiple stream morphology assessment methods, including the US Environmental Protection Agency’s Rapid Bioassessment Protocol for Use in Streams and Rivers, Ohio’s Qualitative Habitat Evaluation Index (QHEI) and Headwater Habitat Evaluation Index (HHEI), and the Natural Resource Conservation Service’s (NRCS’s) Stream Visual Assessment Survey. These intensive aquatic biosurvey and habitat assessments have included surface and groundwater quality evaluations based on chemical and biological sampling. I routinely identify Ordinary High Water Marks (OHWM) and bankfull elevations for permitting requirements, restoration design, and determining the jurisdictional status of lentic and lotic resources. In addition, I have performed many benthic macroinvertebrate surveys to aid in determining stream health both pre and post-project construction.

BIOLOGICAL DATA COLLECTION / ANALYSIS: I have extensive experience in biological data collection and analysis for all of the biological resources to satisfy state and federal requirements. As lead biologist, I have prepared many Biological Resources Reports and Preliminary Biological Assessments for the Montana Department of Transportation. Additionally, I have conducted wildlife habitat evaluation for several species by using the US Fish and Wildlife Service’s (USFWS) Habitat Evaluation Procedure and Habitat Suitability Index. I played an important role in developing the protocol and collecting environmental baseline data for the General Service Administration (GSA) at several land ports-of-entry (LPOE) along the Canadian and Mexican borders.

BIOLOGICAL ASSESSMENTS / SENSITIVE SPECIES SURVEYS: I have conducted state and federally sensitive plant and animal species surveys and analyses in several states, including Pennsylvania, Ohio, West Virginia, Kentucky, and Montana. I have prepared several BAs for the federally threatened bull trout. Additional Section 7 Endangered Species Act coordination has included formal and informal consultation for several other of T&E species and their critical habitats, which include but are not limited to the Topeka shiner (*Notropis topeka*), grizzly bear (*Ursus arctos*), Canada lynx (*Lynx canadensis*), wolverine (*Gulo gulo luscus*), northern long eared bat (*Myotis septentrionalis*), yellow-billed cuckoo (*Coccyzus americanus*), and Spalding’s catchfly (*Silene spaldingii*), as well as sensitive species, such as the black tailed prairie dog (*Cynomys ludovicianus*) and bald and golden eagles (*Haliaeetus leucocephalus*) and (*Aquila chrysaetos*), respectively.

I have prepared Biological Assessments for the federally threatened Bull Trout for projects involving the Bitterroot River, Clark Fork River, Rock Creek, Blackfoot River, and their tributaries. With USFWS approval, I developed a Fish Salvage Plan for a stream restoration construction project inhabited by the federally protected bull trout.

VEGETATION SURVEYS AND MONITORING: I have developed planting plans for stream, wetland, riparian, and terrestrial mitigation and restoration projects. I am skilled at identifying native, introduced, and invasive plants to the species level. I have conducted extensive baseline vegetation surveys to document the success of revegetation efforts, both qualitatively and quantitatively, for several remediation sites. Such sites include a coproduced water spill site on a US Fish and Wildlife Service grassland easement in northeastern Montana; and the Streamside Tailings and Clark Fork River Operable Units in the upper Clark Fork River Basin of western Montana. The Clark Fork vegetation monitoring is part of a Superfund remediation project administered through the Montana Department of Environmental Quality.

I have worked with the Missoula County Weed District to map and inventory noxious weeds in order to develop Weed Management Plan for the undeveloped and planned open space areas at a site adjacent to the Blackfoot River.

PROFESSIONAL EXPERIENCE

RLS Consulting (Present)

RESPEC (2016–2019)

WGM Group, Inc. (2013–2016)

Michael Baker Jr., Inc. (1998–2013)

GAI Consultants, Inc. (1990–1998)