



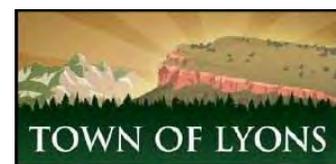
SMITH ENVIRONMENTAL & ENGINEERING

Sustainable Environmental Solutions

PROPOSAL TO PROVIDE ENVIRONMENTAL CONSULTANT SERVICES TO THE TOWN OF LYONS

RFP-JK-1610

*Prepared for the Town of Lyons
by Smith Environmental & Engineering*



Due Date and Time: September 9, 2016, 4:30 PM MT



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1.0 COVER LETTER

September 9, 2016

Town of Lyons
Attn: Dave Fenity, Project Manager
432 5th Avenue, P.O. Box 49
Lyons, CO 80540

RE: Proposal to Provide Environmental Consultant Services to the Town of Lyons, RFP #JK-1610

Dear Mr. Fenity:

It is my pleasure to submit this Smith Environmental & Engineering (SMITH) Proposal to Provide Environmental Consultant Services to the Town of Lyons (the Town), in response to RFP #JK-1610.

SMITH is a full-service environmental consulting and design-build company which has been providing services for various projects since our firm's inception in June of 2000. SMITH has provided services on more than 1,100 projects in the last 16 years, including many in and around the Town of Lyons and Boulder County. From our headquarters in Westminster, we can mobilize to the Town within approximately 45 minutes or less.

Since the historic flooding that impacted many Front Range communities in 2013, many of our projects have dealt with repairing infrastructure and restoring waterways and other natural habitat that has been damaged by the flood. SMITH is sensitive to the needs of the Town in continuing its recovery from this event and we look forward to putting our expertise to work for the Town under this contract.

SMITH's unique qualifications for this project include:

- Substantial experience in working with state, federal, and local agencies to comply with necessary regulatory components.
- The SMITH team has a deep understanding of the Town's needs and is dedicated to making sure each project meets all regulatory components and, if not, work on solutions to gain compliance in a timely, low-cost manner. We are well-staffed and ready to begin work under this contract immediately.
- SMITH has extensive experience conducting environmental studies and preparing reports in all areas which are relevant to the projects reviewed under this contract, including hazardous materials investigations, air and water quality studies, floodplains, wetlands, environmental justices, endangered species, fish and wildlife, migratory birds, and historic preservation.

I hereby certify that the information and data contained in the attached proposal are true to the best of my knowledge. If you have any questions regarding our proposal, please contact me at (303) 551-7972, by email at petersmith@smithdelivers.com, or at the Westminster address below.

Respectfully submitted,
Smith Environmental & Engineering



Peter Smith
Vice President

Primary Point of Contact:

Peter Smith, Principal in Charge
Smith Environmental & Engineering
1490 W. 121st Ave., Suite 101
Westminster, CO 80234
Phone: (303) 551-7972
Fax: (720) 887-4680
Email: petersmith@smithdelivers.com

2.0 STATEMENT OF PROJECT UNDERSTANDING

SMITH understands the difficult situation Front Range municipalities are put in when a natural disaster occurs. Damage, whether it is flooding, damage caused by a blizzard, high wind damage or tornadoes, all wreak havoc on existing infrastructure. And immediately following the natural disaster, municipalities focus attention on human health and safety (as they should) and less so on strictly adhering to all environmental regulations. And FEMA understands the need for immediate attention to address human health and safety issues when they issue a Record of Environmental Consideration (REC), which is in effect a relaxed standard of an existing environmental law (Clean Water Act, Clean Air Act, Endangered Species Act, National Historic Preservation Act, etc....) so that the municipality can make emergency repairs to insure human health and safety. For example, the FEMA REC issued to the Town for repairing a damaged bridge that borders Preble's meadow jumping mouse habitat (protected under the Endangered Species Act) allows for the impacting of Preble's meadow jumping mouse (PMJM) habitat to implement the repair and is not overly concerned if the construction traffic does impacts PMJM habitat. In another example, if an above ground fuel storage tank was ruptured, found to be leaking after the flood, and the Town implemented immediate removal of the tank and excavation of what appeared to be contaminated soil, SMITH would investigate the location of the cleanup and verify the soil is not contaminated, or if it is still contaminated, make soil remediation recommendations to the Town.

As the town is now in a position to assess impacts to natural and cultural resources, SMITH is prepared to conduct investigations on a wide range of resources to help the Town demonstrates compliance for all its capital improvement projects. And the purpose of these impact assessments and reports will be to document that the Town is in compliance with the requirements of the FEMA REC. And if the Town is not in compliance with the FEMA REC, SMITH will develop mitigation strategies and methods to bring the Town into compliance with the REC. These mitigation plans and recommendations will be consistent with the Town of Lyons Recovery Action Plan and Environmental Sustainability Plan.

SMITH has been developing sustainable solutions since its inception in 2000. We have provided these types of services to our Front Range municipal clients on over 400 projects since 2000. We have highly qualified and certified scientists to complete these investigations and impact assessments including hydrologists, soil scientists, wetland scientists, wildlife biologist, plant ecologists, cultural resource specialist, historians, geologists, and hazardous materials specialist.

SMITH understands the Town had some environmental investigations conducted immediately after the flood. SMITH will utilize this information in assessing the condition of the resource when making impact assessments. For example, if a study was conducted to document the extent of PMJM habitat after the flood, SMITH will utilize that information to finalize the impact assessment associated with any stream restoration activities completed that may have impacted any remaining PMJM habitat, or document that the stream restoration activities did not impact any remaining PMJM habitat. In another example, if a house was investigated for the presence of asbestos containing materials (ACM) that was severely damaged and was going to be demolished, SMITH would evaluate the land where the building was demolished and document that no asbestos containing material is in the soil (assuming that was the result of the investigation). And if SMITH found there was ACM in the soil, we would make soil cleanup recommendations.

3.0 PROPOSED METHODOLOGY

SMITH understands that this effort consists of many projects with different funding sources that were completed for multiple agencies and by different contractors. As a result, proper organization will be essential from the beginning to ensure that each project is addressed in a straightforward and efficient manner. During the Initial Planning phase (Task 1), SMITH will develop a schedule utilizing Critical Path methodology to establish milestones for investigating all the projects in a timely manner. This schedule will drive the weekly meetings and will be used to establish action items and to identify information gaps so that each task can move forward efficiently. The schedule will be based on the priorities developed in collaboration between the Town and SMITH. Deadlines for each submittal will also be mutually agreed upon between the two parties. SMITH understands that meeting these deadlines will be heavily dependent upon the responsiveness of the contractors and agency representatives. Therefore, SMITH will contact each party at least three weeks in advance of the established deadline, and request that all necessary information be provided within two weeks. SMITH is committed to completing these all tasks in a timely manner.

We also recognize the need to follow communication protocols through the project manager and plan on following the procedures set forth in the contract. However we also are aware of the dynamics in a smaller community such as Lyons. There will be residents wanting to communicate with whomever they see as available at the time or wanting to go directly to the people with whom they feel comfortable. It may be necessary to handle some communications directly with stakeholders or other Town officials at times. This would always be done with keeping the Town's project manager in the loop but recognizing that unresponsiveness to community members may not be in the best interests of the Town in relation to facilitating the project in goodwill. We recognize that good organization calls for structure in communication and this will be followed. However we also recognize that the Town of Lyons recognizes each member of the community as a valued asset and will want to have them treated in a manner that communicates that respect.

For project organization, we will utilize spreadsheet and/or database tracking tools for data storage and retrieval when identifying applicable regulatory components for each project. These spreadsheets/databases will provide the foundation of SMITH's work through the duration of the review process and will be edited, expanded if necessary, and referred to as the review advances. This approach will facilitate quality control while working on several projects concurrently.

Once SMITH has identified the applicable regulatory components for each project, the project documentation provided by the Town will be evaluated to determine what issues have been adequately addressed and do not require additional investigation. The findings will be summarized and submitted to the Town as the submittal package for Task 1, and will include the project tracking spreadsheets. SMITH will incorporate each project's schedule into this initial review in order to prioritize the detailed reviews that will be conducted in Task 2.

When the Town approves of the initial submittal, SMITH will begin the in-depth review of the project documentation, including interviews with Town staff and contractors. Our Ecological Services Group will serve as the lead group for this effort. Mr. Darrin Masters and Mrs. Rebecca Hannon have extensive experience in conducting on site surveys and preparing necessary environmental permitting documentation, especially for the National Environmental Protection Act (NEPA). We have worked on

many flood recovery projects since 2013 and we have a keen understanding of regulatory requirements from the Clean Air Act, Endangered Species Act, and Cultural Resource to the Clean Water Act, hazardous materials abatement, and floodplain management. This puts us in a unique position of being on both the permitting and compliance review parts of a project. Therefore, we know what is expected by many federal agencies.

While our company is relatively small with 32 employees, we have a depth of expertise between our specialist groups; Ecological Sciences, Ecological Management, Construction Management, Engineering, and the Hazardous Materials Group to confirm compliance with any federal agency. The appropriate project tasks will be delegated to the group with the necessary knowledge to review the compliance measures accurately and efficiently. This internal review strategy will ensure that the team member with the most knowledge of each regulatory component is performing the review.

In order to minimize the costs to the Town and to complete the project reviews efficiently, SMITH intends to conduct in-person interviews only as necessary. We believe that most interviews can take place over the phone and information and reports can be obtained electronically. A list of unresolved issues will be compiled for each project, and this information will first be conveyed by email to the appropriate entity (i.e. the Town or contractor). If the issues cannot be resolved through email, a phone conference will be scheduled. If a face-to-face meeting required, specifically for document review, SMITH will coordinate the meeting and only key staff will attend.

SMITH will compile the information into a thorough report for the Town that will be submitted as the deliverable for Task 2 and revised for Task 3. As requested, each project will be discussed in a separate, stand-alone section of the report with all pertinent field data and supplemental information included in the appendix. SMITH has developed complex reports for a diverse array of clients, and is confident in our ability to present a clear, organized document.

SMITH acknowledges that internal organization and accounting will be essential in order to bill the Town correctly for our time and resources. Many of our projects that we work on throughout the year are organized through Davis-Bacon and Prevailing Wages. Our accounting team is well-versed at parsing work hours with the appropriate billing structure. SMITH's largest active project currently has 36 individual task items, and project managers instruct and validate hours to be used, project codes for timesheets, vehicle mileage logs, equipment purchases, etc. to their respective staff members. Developing a budgeting structure that incorporates the requirements of all the funding agencies for this project will also be one of the first things completed in the Initial Planning Phase. This structure will be vetted through the Town's project management team to ensure that it works easily with your structure. SMITH is confident that our strategy will be effective for this effort.

SMITH is an established and respected consulting firm operating within the Front Range of Colorado. Over 15 years, we have formed connections with many private, local, state and federal organizations. As a result, we receive many referrals and sole-sourced repeat business! SMITH understands that the timeline will be of the utmost importance in order to meet the conditions of federal funding. SMITH has worked on similar projects where full funding was contingent upon completion by a certain date. We are committed to completing all tasks by December 31.

4.0 QUALIFICATIONS

4.1 OVERALL COMPANY QUALIFICATIONS

SMITH is a full-service environmental consulting and design-build company which has been providing services for various projects since our firm's inception in June of 2000. SMITH has provided services on nearly 1,100 projects in the last 16 years, including many in and for the Town of Lyons (the Town). From our headquarters in Westminster, we can mobilize to the Town within approximately 45 minutes or less.



Our 32-person professional staff includes Project Managers, NEPA specialists, environmental scientists, environmental and water resource engineers, Certified Wildlife Biologists (CWB), Professional Wetland Scientists (PWS), Certified Professional Soil Scientists/Soil Classifiers (CPSS/SC), Certified Professionals in Erosion and Sediment Control (CPESC), State Historic Preservation Office (SHPO)-certified Principal Investigators (PI), hazardous materials specialists, AutoCAD experts, and other environmental professionals. We are well-positioned and well qualified to provide the services required under this contract to the Town.

SMITH has extensive experience completing the following services in and around the Town: wetland jurisdictional determinations; wetland mitigation bank plan, design and implementation; threatened & endangered species surveys, Biological Assessments and Section 7 consultations; black-tailed prairie dog (*Cynomys ludovicianus*) removal and relocation; cultural resources management for historical and archaeological resources, including Class I, II, and III field surveys, inventories and testing; National Historic Preservation Act and Section 106 review and compliance; Section 4(F)/6(F) assessments and mitigation; engineering, planning, and development permitting; Senate Bill 40 Certifications; National Environmental Protection Act compliance, including Environmental Assessments and Environmental Impact Statements; paleontological studies; Phase I and II Site Assessments for hazardous materials; noise and air quality assessments and mitigation plans; and asbestos and lead based paint surveys and abatement.

SMITH has grown steadily in our 16 years into a company that will provide more than \$3.5 million in engineering, environmental consulting, and construction services this year. Of the more than 1100 projects for which SMITH has provided services, approximately 65% have been for repeat clients. Our growth stems from our ability to develop innovative, sustainable, and cost saving strategies, our capacity to respond rapidly and adapt to changing project conditions, and our history of dependably meeting project schedules and budgets.

4.2 PROJECT TEAM, ROLES AND RESPONSIBILITIES

Brief bios for SMITH personnel who will provide services under this contract are included below. Single-page resumes are included in Section 4.4.

Peter Smith, PWS, CPSC, CPESC, Principal/Senior Environmental Scientist – Mr. Smith is a Principal/Vice-President of SMITH. His qualifications as a Principal, Project Manager, landscape designer, wetland scientist, soil scientist and hydrologist include more than 35 years of experience managing project teams and budgets, preparing Project Management Plans (PMP) and QA Project Manuals, conducting studies, obtaining permits, preparing construction drawings and specifications, and providing construction services on DB and DBB projects. He has developed wetland mitigation plan sets for projects throughout Colorado and other neighboring states. Mr. Smith's qualifications include a comprehensive understanding of soil-water-flora-fauna relationships in riverine, upland and wetland environments, and the design and the construction process associated with creating and maintaining wetland mitigation and stream restoration sites. This understanding comes from completing more than 1,100 wetland mitigation, stream restoration, soil survey, irrigation suitability, T&E species, fluvial geomorphic, hydrologic, geochemical, and vegetation studies. He has been Principal and Project Manager for more than 1,200 environmental projects and managed project budgets in excess of \$1 million. For this project Mr. Smith will oversee budget control and provide review and consultation on matters of soils, vegetation, and agency requirements.

Darrin Masters, CWB, Senior Environmental Scientist/Project Manager – Mr. Masters has 26 years of experience in the environmental and wildlife sciences. During his years with SMITH, he has completed multiple NEPA projects for US Forest Service, US Fish and Wildlife Service, USDA Rural Development, and Housing and Urban Development. He has worked from beginning to end on Environmental Assessments, Biological Assessments and has been responsible for ensuring that all conservation measures and other stipulations found in Biological Opinions are completed and monitored for the appropriate amount of time. He has managed data collection, report development, mitigation and monitoring strategies for many Categorical Exclusions pursuant to Colorado Department of Transportation's procedures. All of the flood recovery projects shown in our project brief section had FEMA involvement and Mr. Masters has established a positive working relationship with their local flood recovery office. For this project Mr. Masters will serve as the project manager and will be responsible for budget control, project tracking and compliance, and quality control of all deliverables.

Jonathan Diller, P.E., Water Resources Engineer – Mr. Diller has been working in the field of stormwater quality management and EPA regulations of stormwater quality for over 25 years. Mr. Diller has also been developing the advocacy of constructed wetlands BMP for the management of stormwater quality and quantity for over 10 years. Mr. Diller is currently working on a master's thesis at the University of Florida that involves the modeling of the National BMP Database in a series of EPASWMM models. This work includes the modeling of the performance of BMP wetlands and the removal of *E. coli*. Mr. Diller has also taken graduate work in Wetlands and Water Quality, and Urban Soils and Water Systems as part of his master's program of Soil and Water Science (24 of 30 hours complete.) Mr. Diller has experience in designing wetlands systems for stormwater quality improvement in an urban setting and the design of wastewater treatment wetlands subject to wide swings in water flow rate including periods of no flow. This includes the design of a stormwater

treatment wetlands in Northeastern Illinois which has extensive cold weather periods in the winter. For this project Mr. Diller will serve to review and verify that any engineering-related work is in compliance with the RECs

Andrew S. Ricker, CSEM, REM, Senior Environmental Scientist – Mr. Ricker has more than 26 years of experience as a Health and Safety Manager. He serves as SMITH’s Company Safety Manager, Health and Safety Officer (HSO), and Safety QA Manager. Mr. Ricker has served as the HSO on many Brownfield and CDOT projects and has authored numerous Health and Safety Plans (HASP), QA Plans (QAP), Sampling and Analysis Plans (SAP), No Further Action (NFA) Requests, Site Characterization Reports (SCR), Corrective Action Plans (CAP) and groundwater monitoring reports. For this project will oversee research pertaining to air quality, health and safety, and hazardous materials.

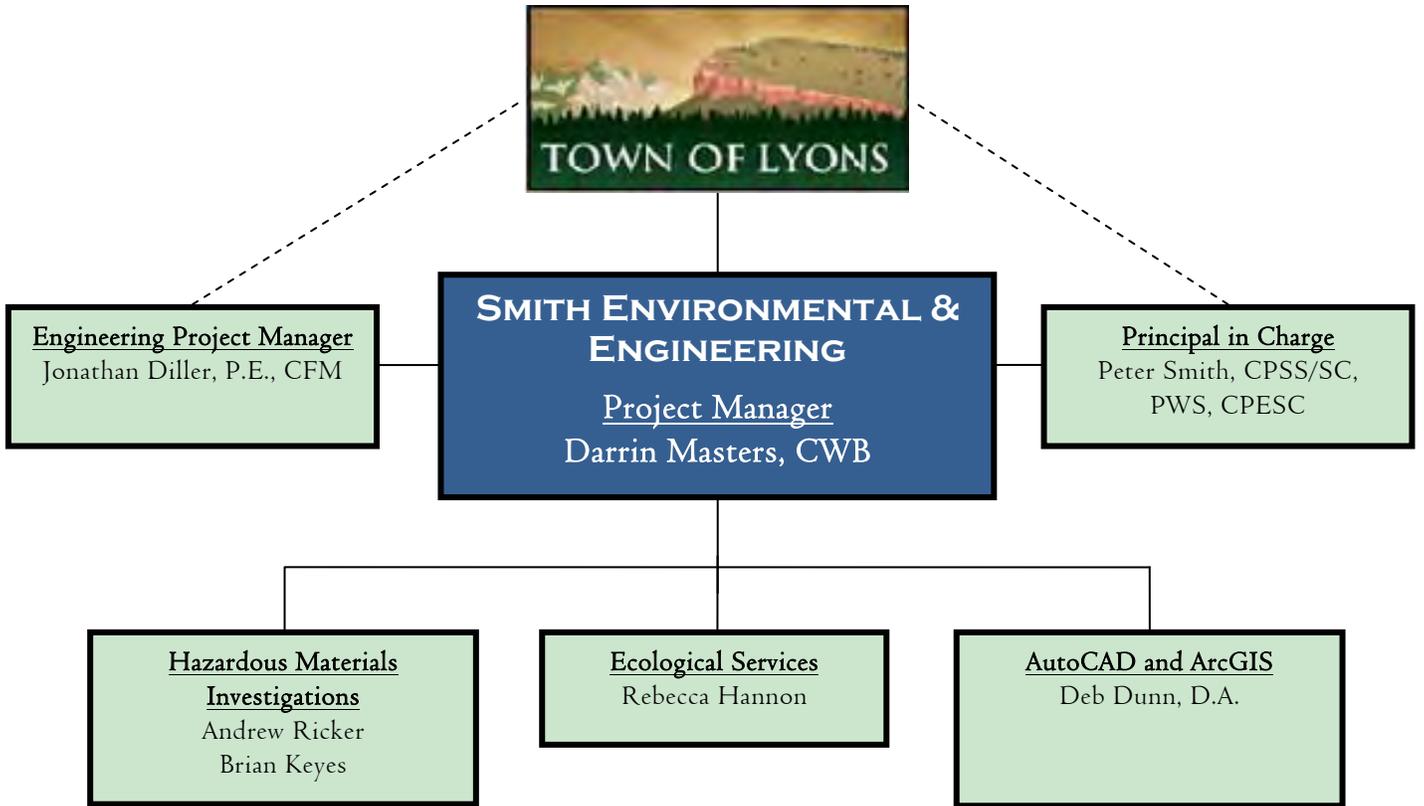
Brian T. Keyes, Certified Asbestos Building Inspector/Air Monitoring Specialist

Mr. Keyes has more than 14 years of experience in the environmental consulting and industrial hygiene industry. He has extensive working knowledge of environmental, health and safety regulations. He has managed numerous school, commercial, and industrial projects involving environmental remediation, site demolition and decommissioning, regulatory compliance and Environmental Health and Safety (EH&S) throughout the Rocky Mountain Region – NM, CO, UT, WY, and MT. Specific experience includes; asbestos and hazardous materials building inspections, asbestos and hazardous materials abatement oversight, on-site collection and analysis of Phase Contrast Microscopy (PCM) air samples, asbestos and regulated building materials operations; management program development and implementation, asbestos contaminated soil (ACS) characterization and management plan development and implementation; Occupational Safety and Health Administration (OSHA) exposure assessments, training provider, mold and moisture investigation, and hazardous materials handling.

Rebecca L. Hannon, Environmental Scientist II – Ms. Hannon has more than five years of experience as a wetland scientist and wildlife biologist specializing in environmental permitting. She has prepared environmental clearance documentation, including Categorical Exclusions, for the US Fish and Wildlife Service, US Forest Service, and Federal Emergency Management Agency, and is familiar with the differing requirements of each agency. She has also worked on projects with state and local agency requirements, especially the Colorado Department of Transportation. Her field experience includes wetland delineations, habitat suitability assessments for threatened and endangered species, small mammal trapping, bird surveys, and noxious weed surveys and removal. Ms. Hannon is highly experienced in the use of GPS equipment to capture the location of a variety of natural resources, and in the spatial analyses of natural resource layers using ARCGIS. For this project Ms. Hannon will serve as a researcher, data organizer, and report writer in conjunction with Mr. Masters.

Deb Dunn, GIS and AutoCAD Specialist – Ms. Dunn has more than 20 years of professional experience in environmental sciences with a focus on utilizing AutoCAD and ArcGIS to design wetland restoration sites along the Front Range of Colorado. For this project, Ms. Dunn will compile and review geospatial data that are relevant to each project constructed under the RECs. She will be instrumental in identifying impacted resources and evaluating engineering controls that were implemented on each project.

4.3 ORGANIZATIONAL CHART



4.4 RESUMES

Single-page resumes for key personnel are included on the following pages.



SMITH ENVIRONMENTAL & ENGINEERING

Sustainable Environmental Solutions

Education

B.S., Watershed Science (Hydrology), Colorado State University, 1976

Graduate Courses, Soil and Range Sciences, Colorado State University, 1978

Graduate Coursework M.B.A. (20 quarter credits), University of Denver, 1992-93

Employment History

Smith Environmental and Engineering

Sugnet and Associates

Stoneman-Landers, Inc.

Camp Dresser and McKee

Woodward-Clyde Consultants

Soil Conservation Service, USDA

Professional Registrations/Certifications

Certified Professional Soil Classifier

Certified Professional Erosion and Sediment Control Specialist

Registered Professional Soil Scientist

Professional Wetland Scientist

Federal Fish & Wildlife Permit – Over 25 species

Scientific Collections License – Colorado Division of Wildlife

Selected Publications

Smith, P. L. and P. Wayland. 1999. Wetland Mitigation Sites – Attenuating Solids, Salts and Metals in Irrigation Water. In *Wetlands and Bioremediation, An International Conference, Conference Proceedings*. Salt Lake City, Utah.

Smith, P.L. and Bryant, G., 1990. The Use of Geographic Information Systems in Hazardous Waste Site Investigations. Adjunct Professor - HAZMAT Program. Front Range Community College. Westminster, Colorado

Smith, P.L., Redente, E., and Hopper, E., 1987. Soil Organic Matter. In: *Reclaiming Mine Soils and Overburden in the Western United States: Analytical Parameters and Procedures*. Soil Conservation Society of America. Ankeny, Iowa.

Peter L. Smith

Principal/Senior Soil Scientist/Watershed Scientist

Qualifications Summary

Mr. Smith's qualifications as a Soil and Watershed Scientist, Project Manager, and Principal include over 35 years of managing, planning, and performing NEPA, watershed, water quality, threatened and endangered species, soils, wetland, wildlife, reclamation and vegetation studies and environmental impact assessments in mountains and plains areas. Mr. Smith has completed National Cooperative Soil Surveys, Ecological Ujhnit Inventory, soil erosion modeling using the Revised Universal Soil Loss Equation, prepared storm water management plans (SWMP), designed new streams, prepared wildfire mitigation plans, conducted HECRAS analyses, prepared bio-engineered plans sets, and prepared numerous revegetation and reclamation plans for drastically disturbed land - burned areas, mined land, landslide areas, flooded areas, and chemically contaminated areas. He is highly skilled in assessing impacts of development, wildfire, mining, and timber harvesting on surface and ground water, agricultural, vegetation, soil, wildlife, wetlands, air quality, visual, socioeconomic, paleontological, and cultural resources. His project management qualifications include multi-disciplinary, multi-state projects with budgets in excess of \$1 million and managing 30-person teams. His NEPA qualifications includes 30 years' experience on over 40 large, third party EISs/EAs and management plans for stormwater, wildlife, vegetation, noxious weeds, wildlife, soil, hazardous materials, air quality, and water quality for municipalities, federal agencies, oil and gas companies, mining companies, and the State of Colorado. He has authored or a co-authored over 1,700 technical reports/plans set, made over 12 professional presentations, co-authored a book on disturbed land reclamation, published over 15 professional papers, and holds 5 professional registrations or certifications.

Experience Summary

Mr. Smith has managed and completed more than 1,000 environmental studies and management plans for private, state, municipal, and federal projects, many of which were open space projects. Some of his experience is listed below.

Argo Mine, Boulder County, CO – Environmental planning, design and reclamation services at the Argo Mine site near Jamestown to: 1) reduce leaching and erosion of mine wastes and sediment into Little James Creek, 2) improve water quality in Little James Creek, and 3) decrease the interaction of mine wastes with precipitation and surface run-off.

Pikes Peak Highway, Pikes Peak, CO – Revegetation Plan, Erosion Control, and Monitoring – Revegetation Plan, five years of monitoring, construction oversight and management of the last 7 miles of highway to the summit.

Lakewood Pipeline, Boulder County, CO – Mr. Smith investigated hydrologic and soil characteristics along 14 miles of Four Mile Creek to taxonomically classify hydric soils in a proposed pipeline corridor. He prepared maps and a report showing the extent of hydric soils and recommending routes to minimize impacts on the creek and wetlands. This information was included in the EIS prepared for the pipeline.

SH 36, Nelson Road to Lyons, Boulder County – Mr. Smith managed several 800 trap-night surveys to ascertain the presence of the PMJM, a biological assessment, and section 7 consultations and coordination with the FWS.

Roadside Revegetation, Boulder County, CO – Under this on-call environmental services contract Mr. Smith has provided a wide range of technical services. These services include erosion hazard assessments, erosion control recommendations, revegetation recommendations, and other suggestions to improve the erosion control and revegetation at Boulder County Transportation project sites.

US 36 Wetland Mitigation, Boulder, CO – At this 22-acre wetland mitigation site, Mr. Smith is providing wetland revegetation and erosion control assessments and recommendations. Started in 2015, this project will be seeded and planted in 2016 and begin monitoring in 2017. Erosion control and revegetation success will be monitored to ensure compliance with the project specifications.



**SMITH ENVIRONMENTAL &
ENGINEERING**

Sustainable Environmental Solutions

Education

*M.S. Wildlife Ecology and Conservation
The University of Florida-Gainesville, Florida 2002.*

*B.S. Environmental Biology
Heidelberg College-Tiffin, Ohio 1988.*

Employment History

*Smith Environmental and Engineering
Hoopa Valley Indian Tribe
Florida Fish and Wildlife Conservation Commission
The University of Florida
Anchorage Water and Wastewater Utility*

Selected Publications

*Dobey, S., Masters, D., Scheick, B., Clark, J.D., Pelton,
M., Sunquist, M. Ecology of Florida Black Bears
in the Okefenokee-Osceola Ecosystem. Wildlife
Monographs, no. 158, January 2005.*

*Nelson, S., Masters, D., Humphrey S., Kunz T. Fruit
Choice and Calcium Block Use by Tongan Fruit
Bats in American Samoa. Journal of
Mammalogy, December 2005.*

Presentations

*Black Bears: Natural History and Behavior of a
Misunderstood Species A public presentation for
National Bear Aware Week, Boulder, Colorado,
May 2007*

*Managing Black Bears on the Hoopa Valley Indian
Reservation. A presentation to the California
Department of Fish and Game Eureka,
California. July 2005.*

*Bear-Human Conflicts on the Hoopa Reservation in
Northwestern California: What's the Problem?
Poster presented at the Fifteenth International
Conference on Bear Research and
Management. February 8-13, 2004. San Diego,
California.*

Professional Affiliations

*2011 Certified Wildlife Biologist – Wildlife Society
2015 The Wildlife Society - National Membership
2015 The Wildlife Society - Colorado Chapter
Membership*

Darrin Masters

Project Manager/Senior Environmental Scientist

Qualifications Summary

Mr. Masters has 26 years of professional experience in the environmental and wildlife sciences. He has coordinated and conducted both Individual and Programmatic USDOT Section 4(f) and LWCF Section 6(f) evaluations with CDOT, prepared Habitat Suitability Assessments for T&E species consultation, Biological Assessments for NEPA documentation, and facilitated ESA Section 7 and 9 consultations between clients and federal agencies. He has participated in NEPA resource documentation for Categorical Exclusions, EA's, and EISs over the past 10 years.

Experience Summary

A select list of some of Mr. Masters' project experience is described below.

- Sunset Bridge, Longmont, CO – Project Manager for a Waters of the US delineation, habitat suitability assessment for threatened and endangered species and noxious weed survey. Also facilitated the Section 4(f) and 6(f) evaluation of public recreation and publically funded resources. Facilitated the necessary public notices and prepared documentation to obtain a de minimis finding from the Federal Highway Administration
- Highway 105: I-25 to SH 83, El Paso County, CO – Project Manager for environmental surveys required for CDOT Categorical Exclusion documentation. Currently my team is preparing documentation for USFWS consultation for the Preble's meadow jumping mouse and evaluating the status of two potential 4(f) resources within the Project Area. Will prepare 4(f) documentation if required.
- Weld County Road 1 Bridge, Longmont, CO – Project Manager for a Waters of the US delineation and habitat suitability assessment for threatened and endangered species for a bridge that was washed out by flooding on St. Vrain Creek. Evaluated the Project Area for potential 4(f) resources, and prepared a report of the findings. Clearance was ultimately not required from the FHWA.
- ECLR over Boulder Creek, Boulder and Weld Counties, CO – Project Manager for environmental clearance documentation for a CDOT Categorical Exclusion for a flood recovery project on Boulder Creek. Completed a Waters of the US delineation, habitat suitability assessment for threatened and endangered species and noxious weed survey. Also evaluated a privately-owned conservation easement for 4(f) resources and prepared a clearance memo for the project file.
- Pinello Ranch Wetland Mitigation Area Design, El Paso County, CO – Project Manager. Managed a team to design a 9.81 ac wetland as compensatory mitigation for impacts to Waters of the U.S. During design, we evaluated ground and surface water hydrology, soils, and plant assemblages to ensure a high standard of wetland function when the project is built.
- Rocky Mountain Metropolitan Airport EA, Jefferson County, CO – Project Manager for documentation of affected environmental resources of the EA. Coordinated a team who produced detailed reports on wetlands, general wildlife, T&E species, water quality, hazardous materials, Department of Transportation Section 4(f) lands, and cultural resources.
- Wiggins Water Transmission Line EA, Morgan County, CO – Project Manager. Wrote a detailed EA outlining the potential impacts to resources by a proposed water pipeline construction project. Environmental resources included: Prime Farmland, Formally Classified Lands, Floodplains, Wetlands, Historic Properties, Biological Resources, Water and Air Quality, and Socio-economic issues. Provide technical advice and served as liaison between the client and the USDA Rural Development Department.
- Squaw Pass Road Improvement EA, U.S. Forest Service – Project Manager. Facilitated resource reports and wrote an EA for the U.S. Forest Service for a proposed bike lane and other improvements along Squaw Pass Road.



SMITH ENVIRONMENTAL & ENGINEERING

Sustainable Environmental Solutions

Education

M.S. Soil and Water Science, University of Florida,
(all but thesis)

B.S. Chemical Engineering, Rose-Hulman Institute of
Technology, 1983

Employment History

Jonathan M. Diller, P.E.

Flood Rebuild Advocate – Lyons Emergency
Assistance Fund

Floyd Browne Group

BA Engineers, Inc.

Hanson Professional Service Inc.

Robinson Engineering, Ltd.

Ruettiger, Tonelli & Associates Paragon Professional
Services

Resource International, Ltd.

Berkley, Howell & Associates

Selected Publications

Compliance with NPDES Storm Water Discharge
Permits Requirements presented to the Spring
National Meeting of the American Institute of
Chemical Engineers April 20, 1994, later published
in AIChE's Environmental Progress, February 1995

USEPA Office of Water NPDES Storm Water Phase
II Rule presented to the Illinois Association for
Floodplain and Stormwater Management Annual
Meeting March 2001, revised and represented for
the March 2002 Annual Meeting

**Professional Registrations, Certificates,
and Memberships**

Registered Professional Engineer: Colorado,
Wyoming, and Ohio; NCEES record

Certified Floodplain Manager (CFM)

Colorado Association of Stormwater and Floodplain
Managers

Will County Stormwater Management Committee
(Member 1999-2004, Secretary 2005-2007)

Editorial Committee Member for Storms and Floods
(IAFSM) (2005-2007)

Past Chairman National Membership Committee
American Institute of Chemical Engineers

Jonathan Diller, P.E., CFM

Water Resources Engineer/Project Manager

Qualifications Summary

Mr. Diller has more than 30 years of experience as a water resources engineer. This includes over 15 years of experience in the preparation of Erosion and Sediment control plans, Stormwater Pollution Prevention Plans and the Inspections of the BMPs which were a part of those plans. He also have over 10 years of experience in the preparation of MS4 programs and permit applications and the design and inspection of associated BMPs.

Experience Summary

Some of Mr. Diller's previous experience is described below.

Consultant to Town of Lyons, Lyons, CO – Tasks include review of internal and external floodplain develop permits including HEC-RAS models, and review of land development projects in coordination with Jim Blankenship.

Flood Rebuild Advocate – Lyons Emergency Assistance Fund, Lyons, CO – Provides assistance to homeowners in obtaining floodplain development permits, coordinates design issues with insurance companies including NFIP and private underwriters, and meets with homeowners on site to discuss specific issues with proposed rebuild and/or flood protection activities.

Colorado Springs Utilities – Preparation of design drawings and specifications for a constructed wetlands mitigation project for a major utility. Project involved the creation of a wetlands system in the floodplain. This included the design of the E&S plan.

City of Cheyenne – Project Manager for the design of a stormwater treatment wetland in an urban are of Cheyenne, Wyoming. The project involved the design of a series of stormwater treatment elements, diversion structure, forebay, constructed wetlands and micropool for the purpose of reducing sediment load and e. coli discharged into the receiving waters. The project involved the use of native vegetation and is being incorporated as an open space park.

For a span of 7 years he served 20 municipalities in Illinois as their stormwater administrator providing the review and approval of all design submittals related to stormwater management and the handling of all stormwater permitting issues for the municipalities. This included the preparation of NPDES MS4 permit applications for the municipalities and compliance programs. This included the performance and supervision of E&S BMP inspections. This also included the review and approval of SWPPP and E&S plans for all developments within those communities. This also included the performance and supervision for the inspection of the BMPs in those plans.

Project Manager for the civil and hydraulic design of the award winning Frankfort Prairie Park storm water detention and wetlands/prairie restoration project in Frankfort, IL. This included the preparation of the E&S plan and SWPPP. Supervised and performed E&S BMP inspections.

Lockport, Illinois – The design of the stormwater management and detention system for a large subdivision. This included the NPDES stormwater permit application, the development of the E&S plan and the SWPPP, and the performance and supervision of E&S BMP inspections.

Tinley Park, Illinois – The design of a regional stormwater detention system that removed hundreds of acres from the floodplain and prevented the recurrence of flood for over 50 homes. The project created an open water amenity and allowed for the development of prime commercial land along a major highway that had previously been undevelopable because it was in the floodplain and subject to frequent flooding.



**SMITH ENVIRONMENTAL &
ENGINEERING**

Sustainable Environmental Solutions

Education

B.S. Geology, University of Maryland, 1989

Employment History

Smith Environmental & Engineering

Adecco Technical, Inc.

Savci Environmental Technologies, LLC.

PMT & Associates, Inc.

Professional

Registrations/Certifications

OSHA Hazardous Materials Operations, 40-
Hour Safety Training Course and
Refresher Courses

Colorado Department of Public Health and
Environment, Air Pollution Control Division
Asbestos Building Inspector/Management
Planner/Project Designer Certification No:
12747

Continuing Education

Bioremediation Workshop, University of
Maryland, 1995

Fracture Trace and Lineament Analysis,
National Ground Water Association, State
College, PA, 1994

Ground Water Monitoring and Sampling,
National Ground Water Association,
Harrisburg, PA, 1992

Geophysics Applied to Environmental,
Engineering and Ground Water
Investigations, Blackhawk Geosciences,
Inc., College Park, MD, 1991

Site Characterization for Subsurface
Remediation's, USEPA, Boston, MA, 1990

Andrew S. Ricker

Senior Environmental Scientist

Qualifications Summary

Mr. Ricker has more than 25 years of experience as a Geologist/Environmental Scientist. His experience includes the management and supervision of all aspects of Phase II Environmental Site Assessment (ESA) projects and Initial Site Assessments (ISA). His qualifications include the design, managing and implementation of surface water, subsurface soil, and groundwater investigations for site characterizations of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), private, municipal, commercial and industrial sites. Mr. Ricker's project experience includes the interpretation of field investigation data and generation of comprehensive reports for submission to clients and Federal and State environmental agencies, including Hot Spot Analysis reports, Site Characterization Reports, Initial Site Assessments, Phase I and Phase II ESA Reports, and Asbestos investigations, Lead based Paint (LBP) investigations and reports, Quarterly, Semiannual and Annual Groundwater Monitoring Reports, Site Characterization Reports, Corrective Action Plans, Work Plans, Sampling Plans, Health and Safety Plans. Field operation experience includes surface water and ground water sampling, soil sampling, domestic water sampling, installation of piezometers and monitoring wells, operating and maintaining pump and treat groundwater remediation systems, overseeing vacuum truck free phase petroleum product and soil vapor removal operations, hollow-stem auger drilling with split-spoon sampling, mud-rotary drilling, air-rotary drilling, direct-push investigations, geophysical surveys, and aquifer testing.

Experience Summary

- Alameda Ave., Denver, CO – Performed noise analysis study for City and County of Denver with regard to an impending asphalt paving operation. Duties included utilization of a SLM noise meter to conduct an analysis of the existing background road noise for the purposes of obtaining a variance from the City.
- Sheridan Blvd and 104th Avenue Drainage and Roadway Improvements, Westminster, CO – Conducted Hot Spot analysis, Phase I ESA, and LBP investigation and report.
- Florida Interceptor Project, Denver, CO – Responsible for oversight of monitoring well installations, and conducted soil and groundwater sampling to characterize the subsurface conditions prior to the installation of a new stormwater drainage system in the vicinity of the Shattuck Chemical Superfund Site.
- Burt Toyota, Englewood, CO - Conducted a subsurface soil and groundwater investigation at a petroleum hydrocarbon contaminated site. Completed Site Characterization Report, Corrective Action Plan, and Quarterly monitoring reports.
- Arvada Channel, Arvada, CO – Conducted ISA and groundwater sampling investigation for stormwater management improvement.
- Summit County Transportation Facility, Frisco, CO – Completed groundwater monitoring program as a result of a LUST at the facility.
- Loveland Ski Resort, near Georgetown, CO – Conducted groundwater monitoring program as a result of a LUST at the facility.
- Air Force Academy, Colorado Springs, CO – Performed asbestos investigation and abatement report, and LBP investigations and reports.
- Arrowhead Golf Course, Littleton, CO – Completed groundwater monitoring program as a result of a LUST at the facility.
- Pueblo Chemical Depot, Pueblo CO – Conducted federal groundwater monitoring program, which included the sampling of numerous monitoring wells.
- District 4 Police Station, Denver, CO – Ground water monitoring program was completed as a result of a LUST at the facility.
- Florida Interceptor Project, Denver, CO – Conducted soil and groundwater investigation to characterize the subsurface conditions at the Shattuck Chemical Superfund Site.



**SMITH ENVIRONMENTAL &
ENGINEERING**

Sustainable Environmental Solutions

Education

A.S. Accounting, Barnes Business College, Denver,
CO, 1985

B.A. Elementary Education, Metro State College of
Denver, 1992

Employment History

Smith Environmental & Engineering

Schafer Environmental Consulting, Inc.

Landmark Environmental Consulting, Inc.

Elite Environmental Services, Inc.

Kemwest Environmental, Inc.

Professional Registrations/Certifications

2016 – REM Registered Environmental Manager,
National Registry of Environmental Professionals

2016 – CSEM Certified Safety, Environmental, and
Emergency Manager, National Registry of
Environmental Professionals

2016 – OSHA 40-Hour HAZWOPER

2016 – OSHA 10-Hour Safety and Health

2013 – CDPHE Air Monitoring Specialist

2000 – NIOSH 582E Sampling and Evaluating
Airborne Asbestos Dust

2016 – EPA/CDPHE Asbestos Building Inspector

2005 – Confined Space Training

2005 – Mold Inspector

Brian T. Keyes

Certified Asbestos Building Inspector/Air Monitoring Specialist

Qualifications Summary

Mr. Keyes has more than 16 years of experience in the environmental consulting and industrial hygiene industry. He has extensive working knowledge of environmental, health and safety regulations. He has managed numerous school, commercial, and industrial projects involving environmental remediation, site demolition and decommissioning, regulatory compliance and Environmental Health and Safety (EH&S) throughout the Rocky Mountain Region. Specific experience includes performing Phase I and II ESAs, asbestos and hazardous materials building inspections, asbestos and hazardous materials abatement oversight, on-site collection and analysis of Phase Contrast Microscopy (PCM) air samples, asbestos and regulated building materials operations, management program development and implementation, asbestos contaminated soil (ACS) characterization and management plan development and implementation, Occupational Safety and Health Administration (OSHA) exposure assessments, mold and moisture investigations, and hazardous materials handling.

Experience Summary

Mr. Keyes has performed numerous Phase I and II ESAs, asbestos and hazardous materials building inspections, implemented management plans and performed asbestos and hazardous materials abatement oversight. He also specializes in characterization, inspection and abatement oversight of ACS and ACM in buildings. Mr. Keyes began conducting services in 1990. He has performed Phase II ESA investigations such as asbestos inspection services and air sampling and analysis services for properties, schools, and other private and public projects. Some of his relevant experience is described below.

- Sloan's Lake Medical Center, Denver, CO – As Lead Coordinator Mr. Keyes performed asbestos inspection services and provided asbestos abatement oversight services. His duties included; asbestos inspection, operations and maintenance program implementation, ambient, OSHA and clearance air sampling.
- Three Abandoned Houses, Ignacio, CO – As Assistant Project Manager, Mr. Keyes performed asbestos inspection and provided technical support and project oversight services. He also performed clearance, ambient and OSHA air sampling, sample collection and documentation during asbestos abatement of the three houses.
- SH 157 over US 36, Boulder, CO – Mr. Keyes provided lead based paint remediation services on this bridge during bridge reconstruction.
- Riva Ridge Condominiums and Shopping Mall, Dillon, CO – Mr. Keyes also was the lead supervisor for this large mold remediation project.
- Denver Metro Schools – Mold investigation and indoor air quality descriptions.
- Air Force Academy, Mitchell Hall Heating Plant, Colorado Springs, CO – Asbestos investigation and abatement report; Lead-based paint investigations and reports.
- Air Force Academy, Cadet Building, Colorado Springs, CO – Asbestos investigation and report; Lead-based paint investigation and report.
- I-225 Rail Line, Aurora, CO – Phase II ESA of transit pipe fragments in the soil in Area D, and report; Certified Asbestos Building Inspector during ACM abatement.
- I-225 Rail Line, Aurora, CO – Phase II ESA of 3301 Peoria Street, 3341 Peoria Street, 13771 E Colfax Ave., and 13791 E Colfax Ave. . Site investigation, sampling, and report.



SMITH ENVIRONMENTAL & ENGINEERING
Sustainable Environmental Solutions

Education

B.S. Natural Resources Management

Minored in Spanish and Conservation Biology,
Colorado State University, 2009

Employment History

Smith Environmental & Engineering

Missouri River Communities Network

Colorado State University Office of Admissions

Johnson County Parks and Recreation District

Certifications

OSHA – 40-Hour HAZWOPER, 2012

OSHA – 10-Hour Training for the Construction Industry, 2011

Certified Operator, Forest, Rangeland, Aquatic, Industrial and Right-of-Way, Public Health and Turf Control, Colorado Department of Agriculture, #26278, 2012

Qualified Supervisor, Outdoor Vertebrate Control, Colorado Department of Agriculture, #26278, 2012

Adult, Child, Infant CPR/AED, 2015
Standard First Aid, 2015

Trainings

Railroad Safety Training, UPRR and BNSF, 2015

Colorado Native Plant Master, 2014

Missouri Stream Team Program, 2009-2010

City of Columbia TreeKeepers Program, 2010

City of Columbia Aquatic Restoration Program, 2010

Rebecca L. Hannon

Environmental Scientist II

Qualifications Summary

Ms. Hannon has more than five years of experience as a wetland scientist and wildlife biologist specializing in environmental permitting. She has prepared environmental clearance documentation, including Categorical Exclusions, for the US Fish and Wildlife Service, US Forest Service, and Federal Emergency Management Agency, and is familiar with the differing requirements of each agency. She has also worked on projects with state and local agency requirements, especially the Colorado Department of Transportation. Her field experience includes wetland delineations, habitat suitability assessments for threatened and endangered species, small mammal trapping, bird surveys, and noxious weed surveys and removal. She is highly experienced in the use of GPS equipment to capture the location of a variety of natural resources, and in the spatial analyses of natural resource layers using ARCGIS.

Experience Summary

A select list of some of Ms. Hannon's project experience is described below.

- Old St. Vrain Bridge, Boulder County, CO – Currently preparing environmental clearance documentation for a project to replace a bridge that was destroyed during the 2013 flooding. Completed a Waters of the US delineation, habitat suitability assessment for threatened and endangered species, noxious weed survey and migratory bird habitat survey. Compiled the FEMA EHP packet, and is preparing the SB 40 application for Colorado Parks and Wildlife.
- ECLR over Boulder Creek, Boulder and Weld Counties, CO – Prepared environmental clearance documentation for a CDOT Categorical Exclusion for a flood recovery project on Boulder Creek. Completed a Waters of the US delineation, and habitat suitability assessment for threatened and endangered species. Also prepared an SB40 evaluation for submission to CPW.
- Comanche Solar PV, Pueblo, CO – Surveyed 1700 ac for Waters of the US, threatened and endangered species habitat, noxious weeds and migratory bird habitat. Prepared an Environmental Screening Report assessing potential issues for a proposed solar site. Coordinated the development of the 1041 permit application for Pueblo County, a process involving several entities. Wrote several sections of the application and developed most figures and maps.
- RMMA Pilatus Facility, Jefferson County, CO – Completed a field investigation of a proposed development site at the Rocky Mountain Metropolitan Airport and prepared a Biological Resources Report to assist in the development of an Environmental Assessment for the Federal Aviation Administration. Resources assessed included Waters of the US and wetland features, threatened and endangered species habitat, noxious weeds, and migratory bird habitat.
- Sunset Bridge, Longmont, CO – Completed a Waters of the US delineation, habitat suitability assessment for threatened and endangered species and noxious weed survey. Also assisted on the Section 4(f) and 6(f) evaluation of public recreation and publically funded resources.
- SWIF Homes, San Juan and McKinley Counties, NM and Apache County, AZ; Assisted with Categorical Exclusion assessments at nine home sites in the Navajo Nation. Produced maps in ArcGIS to assist field crew in identifying the rural sites, and created shapefiles of the field collected data for the final CE.
- Squaw Pass Road, Clear Creek County, CO; Assisted in the development of an EA for the US Forest Service for improvements along Squaw Pass Road. Completed Boreal Owl surveys in the project area, and created multiple map documents in ArcGIS for the final EA.
- Stone Creek Ranch, Douglas County, CO – Developed maps for areas of suggested riparian enhancement for a proposed housing development. Prepared a Biological Assessment for submission to the US Fish and Wildlife Service to assess impacts to and propose mitigation for the Preble's Meadow Jumping Mouse.



SMITH ENVIRONMENTAL & ENGINEERING

Sustainable Environmental Solutions

Education

Doctorate of Arts Biology, Idaho State University

M.S. Botany, University of Northern Colorado

B.A. Biology Education, University of Northern Colorado

A.S. Survey and GIS, Kansas State University – Salina, KS

Employment History

Smith Environmental & Engineering

Spartan Engineering

LW Survey, Engineering & Design

McPherson County Public Health Department

Bucher, Willis & Ratliff

Bethany College

Oglala Lakota College

Department of Forestry, Dominica, British West Indies

Selected Publications

Dunn, D, Edwards, J. 1980. Forest of Morne Trois Pitons National Park, Dominica, British West Indies, Department of Forestry, Roseau, Dominica.

Dunn, D. 1977. Probable Salt Tolerance Mechanisms of *Sporobolus airoides*. Master's Thesis, University of Northern Colorado, Greeley, CO.

Deborah Dunn, D.A.

GIS and AutoCAD Specialist

Qualifications Summary

Dr. Dunn has more than 20 years of professional experience in environmental sciences, with an emphasis on plant ecology, wetland design, and waste water analysis. Her qualifications include plant survey and species inventories, plant community mapping, wetland design, and community waste water analysis specifically for *E. coliform*. Her experiences also extend to public presentations, and project management and reporting.

Dr. Dunn has a broad range of technical skills, including vegetation inventories, interpreting aerial photography, using ArcGIS and AutoCAD Civil to generate maps and project designs, and managing grants and projects.

Experience Summary

A selection of Dr. Dunn's relevant projects experiences are described below.

- CAD Designer. Many Projects throughout the Rocky Mountain Region – Civil CAD designer with more than seven years of experience with AutoCAD Civil 3D. Supervised 5+ drafters often working on different projects in different offices in different states. Worked in the pipeline business for 10+ years. Projects included route design of 800+ miles of pipelines in North Dakota, Wyoming, Colorado, Oklahoma, Texas and New Jersey. Assisted in creating the permit drawings and in some cases the associated alignment sheets. Also assisted in design of 2 gathering systems, designed HDD bores and construction drawings, and created as-built drawings for pipelines and valve sites
- Forest type inventory of Morne Trois Pitons National Park, Department of Forestry, Roseau, Dominica, British West Indies (a Peace Corps/Smithsonian Institute supported project) – Combined field work and aerial photography to map the locations of all forest types for the 30 square mile park for the forestry department's master design plan. Field confirmation of forests types in areas that were not accessible was accomplished by working with local forest rangers/tree spotters using binoculars. Assisted the designer to designate those areas of the park suitable for tourism and areas which contained species needing special protection.
- Analysis of salt tolerance in *Sporobolus airoides*, Greeley, CO – Specimens collected from different floodplains in Colorado were grown for six months in hydroponic solutions to which either NaCl, KCl or MgPO₄ had been added. Changes in the concentrations of Na⁺, K⁺ and Mg²⁺ in both the leaves and roots were determined to atomic absorption spectrometry and flame spectrometry. Tissue sections of the leaves were examined for anatomical adaptations to hypersaline conditions.
- Pinello Ranch Wetland Mitigation, Colorado Springs, CO – Designed AutoCAD model for over 9 acres of new wetlands along the Fountain Creek. Produced drawing set for the project.
- Environmental Lab Technician, Bucher Willis and Ratliff, Salina, KS – Analyzed sewage sludge for total solids, total volatile solids, nitrogen-nitrate and ammonia levels, and *E. coliform* count. *E. coliform* counts in swimming pool water and private water supplies.
- Science Research – A Minority Student College Science Grant, Oglala Lakota College, SD – Supervised original student research projects that were presented at the annual meeting of Native American Science Students at Haskell Indian Nations University. Projects included germination requirements for *Psoralea* (*Psoralea esculenta*), and effectiveness of nitrogen treated zeolites as a soil additive for wheat.

5.0 RELEVANT PROJECT EXPERIENCE

References are provided with the relevant project briefs included below.

5.1 EAST COUNTY LINE ROAD OVER BOULDER CREEK

Boulder County, Colorado

J-U-B Engineers, Inc., Jeff Temple, (970) 377-3602, jtemple@jub.com

The flooding that occurred along the Front Range in September 2013 damaged the East County Line Road bridge over Boulder Creek. Boulder County intends to make repairs to the bridge and roadway, and complete channel improvements along the eroded bank. SMITH provided environmental services and obtained clearances in accordance with the requirements of the current federal and state environmental regulations. SMITH conducted a historic/prehistoric survey; completed a Section 4(f) and 6(f) resource assessment, programmatic agreement, and clearance; a threatened and endangered species (TES) habitat assessment; a waters of the U.S. delineation; a noxious weed survey; a migratory bird habitat survey; and an Initial Site Assessment (ISA). SMITH generated reports outlining the findings of all of these surveys.



5.2 WELD COUNTY ROAD 1 BRIDGE (EAST COUNTY LINE BRIDGE) REPLACEMENT OVER ST. VRAIN CREEK

Boulder County, Colorado

Boulder County Transportation, Tim Swope, (720) 564-2658, tswope@bouldercounty.org; JUB Engineers Inc., Jeff Temple, (970) 377-3602, jtemple@jub.com

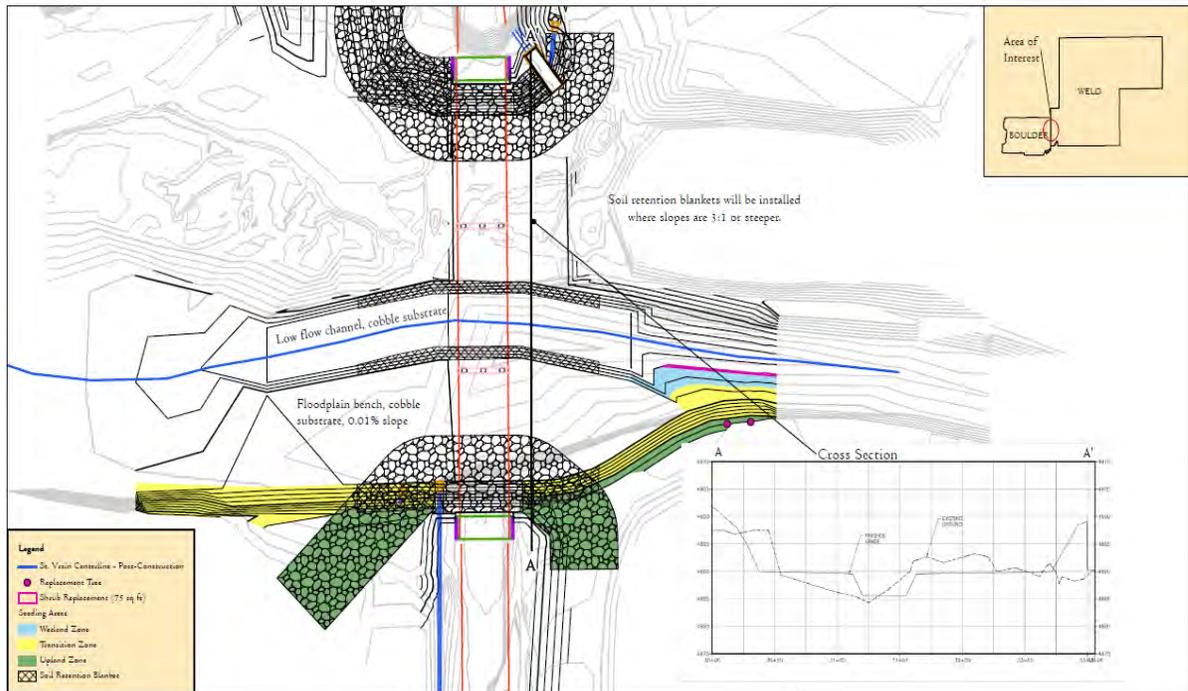
The extensive flooding that occurred along the Front Range of Colorado in September 2013 significantly altered the St. Vrain Creek floodplain within the East County Line Road (ECLR)/Weld County Road (WCR) 1 Project Area. During the flooding, extensive scouring of land occurred about 60 ft. to the north and about 200 ft. to the south of the original creek channel. The north and south approaches for the ECLR/WCR 1 Bridge were completely destroyed along with several feet of roadway and land. The piers and center span of the bridge remained standing but road connection to the structure was severed. An asbestos containing pipe was broken and pieces of asbestos were strewn across the site. Lead based paint was on the remaining guardrails of the bridge. A Bald Eagle nest is nearby, and the Oligarchy Ditch was damaged in the Project Area. Replacement of the ECLR/WCR1 bridge and road repair to re-establish



transportation connection across the creek was one of the Boulder County’s highest priorities on the plains for post-flood construction. SMITH was successful in keeping the project to a Categorical Exclusion (Cat Ex) clearance under the National Environmental Policy Act (NEPA) during discussions with CDOT, US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), and Boulder County Transportation Department (BCTD), rather than having to complete an Environmental Assessment (EA). A Cat Ex was completed and a Section 404 permit was obtained from the USACE. Additionally, a Senate Bill (SB) 40 Formal Wildlife Certification was obtained from Colorado Parks and Wildlife to address impacts to water quality and wildlife habitats.

Under this FEMA funded project, SMITH provided environmental services and obtained clearances in accordance with the requirements of the current federal and state environmental regulations. BCTD rebuilt the old bridge and roadway approaches that were damaged by the September flooding. SMITH completed a Section 4(f) and 6(f) resource assessment, programmatic agreement, and clearance; conducted a historic/prehistoric survey and prepared a report; a threatened and endangered species (TES) habitat assessment for selected federal, state, and Shortgrass Prairie Initiative species; waters of the U.S. delineation and report; a Wetland Findings report for CDOT; Initial Site Assessment (ISA); an asbestos survey and abatement plan; and obtained the Section 404 permit from the USACE for the Cat Ex. The Wetland Findings report included an analysis of three different build alternatives.

SMITH also provide guidance on completing construction activities without disturbing the Bald Eagle nest that is located approximately 1,000 ft. west of the bridge. SMITH completed initial monitoring to verify Bald Eagle presence in the area and use of the nest. SMITH prepared a Technical Memo that discussed regulatory issues, historical and current use of the nest, and recommendations for construction scheduling and monitoring. SMITH developed a monitoring protocol that was used during construction activities. SMITH completed this work according to a fast track schedule so construction could start the summer of 2014.



SMITH performed an Initial Site Assessment (ISA) of the project area to identify hazardous substances, petroleum contamination, solid waste, and other recognized environmental conditions (REC) that could be affected by the project. The objective of the ISA checklist was to identify REC in the project area that represents a risk or liability to the project sponsors and construction worker health and safety. This assessment and checklist were be accomplished by reviewing written information concerning the past and present uses of the land; reviewing federal and state databases of environmental liabilities and potential liabilities; possibly interviewing current and past land owners; and completing an initial site inspection. The on-site inspection included a visual reconnaissance to search for evidence of REC. The assessment was be accomplished by adhering to CDOT standards. During the site inspection SMITH observed pieces of ACM transite pipe in the river bed and along the area adjacent to the west of the road, south of the river. SMITH notified JUB who in turn had Foothills Water District remove the ACM accordingly.

In 2015, the East County Line Bridge Replacement over St. Vrain Creek project received an award from the American Public Works Association's Colorado Chapter for Disaster or Emergency Construction Project of the Year in the Large-sized community category.

5.3 SUNSET BRIDGE

Longmont, Boulder County, Colorado

JUB Engineers, Inc., Jeff Temple, (970) 377-3602, jtemple@jub.com

The severe flooding that occurred along St. Vrain Creek in September 2013 scoured much of the riparian corridor, removing almost all of the existing vegetation and depositing sediment. In Longmont, the southern half of the Sunset Street bridge was washed out. The City of Longmont, in cooperation with Boulder County, intends to replace the bridge, reconstruct the St. Vrain Greenway Trail underpass and trail connections to Sunset Street and Izaak Walton Park, and complete channel



improvements near the bridge. SMITH provided environmental services and obtained clearances in accordance with the requirements of the current federal and state environmental regulations. SMITH conducted a historic/prehistoric survey; a threatened and endangered species (TES) habitat assessment for selected federal, state, and Shortgrass Prairie Initiative species; a waters of the U.S. delineation; a noxious weed survey; a Section 4(f) and 6(f) resource assessment, programmatic agreement, and clearance; and an Initial Site Assessment (ISA). SMITH generated reports outlining the findings of all of these surveys to satisfy requirements for the Categorical Exclusion.

SMITH determined that wetland impacts would be minor and would not require mitigation under Section 404 of the Clean Water Act, and submitted these findings to the USACE. SMITH coordinated a meeting between the project proponents, the design team and CPW to discuss Senate Bill 40 issues and prepared an application for CPW to document impacts to identified fish species and

riparian habitat and propose appropriate mitigation measures. SMITH obtained the necessary clearances from the USFWS, USACE and CPW in order to keep the project on schedule.

The project proposed to impact portions of the Izaak Walton Park and the St. Vrain Greenway, both Section 4(f) resources. SMITH worked closely with the City of Longmont and CDOT to post the required public notices and prepare the documentation for the U.S. Federal Highway Administration. SMITH encouraged the design team to reroute trails during construction to maintain public use and thus allow the project to be permitted as a *de minimis* use.

6.0 REFERENCES

Name: Kathryn Bergh / Kristan Pritz

Title: City and County of Broomfield, CIP Project Manager (Ms. Bergh), Director of Open Space and Trails (Ms. Pritz)

Address: One DeCombes Drive Broomfield, CO 80020

Email: KBergh@broomfield.org / KPritz@broomfield.org

Phone: (303) 464-5802 / (303) 438-6335

Project: On-Call Environmental Services

Name: Dave Loseman

Title: P.E., City of Westminster

Address: 4800 West 92nd Avenue Westminster, CO 80030

Email: dloseman@cityofwestminster.us

Phone: (303) 658-2125

Project: Westminster Mall – ACM and LBP Survey, and Air Monitoring during Asbestos Abatement

Name: Randy Earley (now retired)

Agency: City of Boulder, Public Works

Address: 1739 Broadway Boulder, CO 80306

Phone: (720) 289-2575

Project: Boulder Wastewater Treatment Plant Noise and Odor Monitoring

7.0 COST

7.1 COST ESTIMATE

SMITH estimates that it can complete the project in the timeframe requested for **\$39,832.00**. However, given the uncertainty of the number and frequency of staff and consultants to be interviewed, whether interviews need to be in person or by phone, and the extent of documentation that needs to be reviewed, this cost may increase or decrease as the schedule is completed. The following assumptions apply to our estimate:

1. Up to 20 Projects Reviewed
2. One in-person progress meeting per month and one weekly meeting via phone
3. Project involves research and compliance verification only; no major resource sampling, surveys, or site visits
4. Up to 2 rounds of review and revision of final document
5. No more than two documents reviewed per project
6. Cost includes mileage fees for meetings that are not included in the billing rates below

HOURLY BILLING RATES

Staff	Rate (per hr)	Estimated Hours
Peter Smith, PWS, CPSC, CPESC, Principal/Senior Environmental Scientist	\$180.00	12
Darrin Masters, CWB, Senior Environmental Scientist/Project Manager	\$99.00	120
Jonathan Diller, P.E., Water Resources Engineer	\$125.00	16
Andrew S. Ricker, CSEM, REM, Senior Environmental Scientist –	\$99.00	30
Brian T. Keyes, Certified Asbestos Building Inspector/Air Monitoring Specialist	\$62.00	24
Rebecca L. Hannon, Environmental Scientist II	\$80.00	216
Deb Dunn, GIS and AutoCAD Specialist	\$64.00	24
Yohanna Wallace, Accounting Manager	\$87.00	4

7.3 PROPOSED SCHEDULE

Preliminary Project Schedule

Task	Duration	Target Completion Date
Town Board Approval	1 day	September 19, 2016
Signed Contract and Notice to Proceed	1 day	September 23, 2016
Task 1 - Initial Planning	3 weeks	October 14, 2016
Task 2 - Project Interview and Research	5 weeks	November 18, 2016
Task 3 - Final Reporting	4 weeks	December 16, 2016
Project Completion - Town Review	2 weeks	December 31, 2016

8.0 REQUIRED FORMS

Required forms from the RFP are included on the following pages.

8.1 PROPOSAL ACKNOWLEDGMENT FORM

Attachment D:

Proposal Acknowledgement

PROPOSAL ACKNOWLEDGEMENT FORM

PROJECT NAME: Lyons Environmental Consultant

Failure to complete, sign and return this submittal page with your proposal may be cause for rejection.

Contact Information	Response
Company Name:	Smith Environmental & Engineering
Name and Title of Primary Contact Person:	Peter L. Smith Vice President
Company Address:	1490 W. 121st Ave. Suite #101 Westminster, CO 80234
Phone Number:	(720) 887-4928
Email Address:	petersmith@smithdelivers.com
Company Website:	http://smithdelivers.com/

By signing below I certify that:

- I am authorized to submit this proposal on my company's behalf.
- I am not currently an employee of the Town of Lyons.
- None of my employees or agents is currently employees of the Town of Lyons.
- I am not related to any Town of Lyons employee or Elected Official.

Yohanna Wallace pp Peter Smith V. President 9/1/2016
 Signature of Person Authorized on Company's Behalf Date

Note: If you cannot certify the above statements, please explain.

8.2 CONTRACTORS CERTIFICATE OF COMPLIANCE

CONTRACTOR'S CERTIFICATION OF COMPLIANCE

Pursuant to Colorado Revised Statute, § 8-17.5-101, et seq., as amended 5/13/08, as a prerequisite to entering into a contract for services with the Town of Lyons, Colorado, the undersigned Contractor hereby certifies that at the time of this certification, Contractor does not knowingly employ or contract with an illegal alien who will perform work under the attached contract for services and that the Contractor will participate in the E-Verify Program or Department program, as those terms are defined in C.R.S. § 8-17.5-101, et seq., in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the attached contract for services.

CONTRACTOR:

Smith Environmental & Engineering

Company Name

9/1/2016

Date

Peter L. Smith

Name (Print or Type)

Yohanna Wallace pp Peter Smith

Signature

Vice President

Title

Note: Registration for the E-Verify Program can be completed at: <https://e-verify.uscis.gov/enroll/>.

8.3 FEMA CFR 13.36 – AFFIRMATIVE STEPS TAKEN

FEMA CFR 13.36

Affirmative Steps Taken

Project Name and Number: Lyons Environmental Consultant

Contractor: Smith Environmental & Engineering

1. Place qualified small and minority businesses and women’s business enterprises on solicitation lists? How was this accomplished (please add supporting documentation if applicable)? If this was not done explain why.

Not applicable. SMITH is certified as a M/WBE and is self-performing the work under this contract.
2. Assure that small and minority businesses, and women’s business enterprises are solicited whenever there are potential sources. How did you reach out to these businesses (add documentation if applicable)? If this was not done explain why.

Not applicable. SMITH is certified as a M/WBE and is self-performing the work under this contract.
3. Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women’s business enterprises? What requirements were broken out into smaller tasks or quantities? If this did not occur please explain why.

Not applicable. SMITH is certified as a M/WBE and is self-performing the work under this contract.
4. Establish delivery schedules, where requirement permits, which encourages participation by small and minority businesses, and women’s owned business enterprises. Were you able to establish delivery schedules that encouraged these businesses to participate? If not explain why.

Not applicable. SMITH is certified as a M/WBE and is self-performing the work under this contract.
5. Use the Small Business Administration and Minority Business Development Agency of Department of Commerce to solicit these businesses. Please confirm these sites were utilized, if they were not please explain why.

Not applicable. SMITH is certified as a M/WBE and is self-performing the work under this contract.

6. Require prime contractors to take these steps in subcontracting. Please document that you have encouraged your prime contractors take the five affirmative steps listed above to reach out to small and minority and women's owned business enterprises.

Not applicable. SMITH is certified as a M/WBE and is self-performing the work under this contract.

Prepared By:  Jason Futey Date: September 9, 2016
Reviewed By:  Peter L. Smith Date: September 9, 2016
Approved By:  Lancia Smith Date: September 9, 2016

****For each step enter what actions were taken to meet the requirement**

****If the step could not be fulfilled enter reason why in detail**

****Attach any supporting documentation or reports or responses of the businesses contacted**

****EVERY REQUIREMENT HAS TO BE ADDRESSED**

T. Sanders 7/16/15