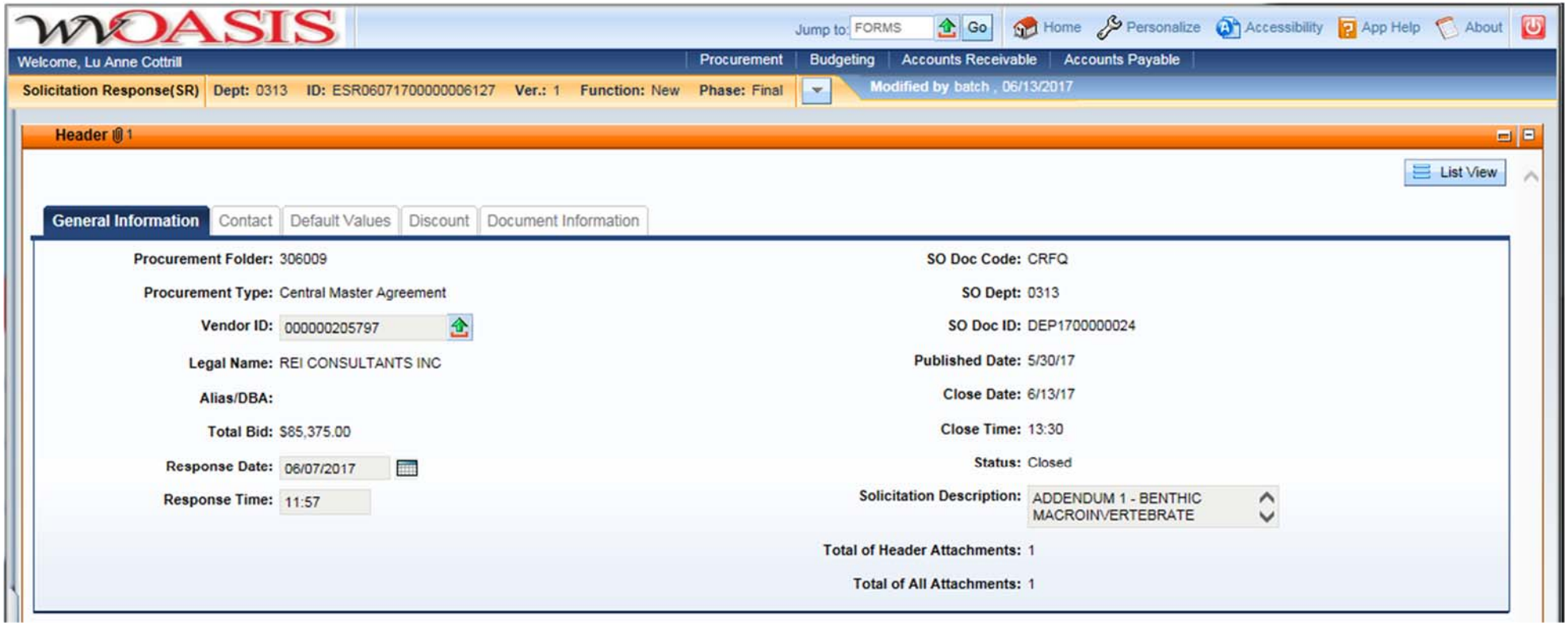
The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.


WVOASIS
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Procurement
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Solicitation Response(SR) Dept: 0313 ID: ESR06071700000006127 Ver.: 1 Function: New Phase: Final
Modified by batch , 06/13/2017
Header 1
List View
General Information
Contact
Default Values
Discount
Document Information
Procurement Folder: 306009
Procurement Type: Central Master Agreement
Vendor ID: 000000205797
Legal Name: REI CONSULTANTS INC
Alias/DBA:
Total Bid: $85,375.00
Response Date: 06/07/2017
Response Time: 11:57
SO Doc Code: CRFQ
SO Dept: 0313
SO Doc ID: DEP1700000024
Published Date: 5/30/17
Close Date: 6/13/17
Close Time: 13:30
Status: Closed
Solicitation Description: ADDENDUM 1 - BENTHIC MACROINVERTEBRATE
Total of Header Attachments: 1
Total of All Attachments: 1

Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Solicitation Response

Proc Folder : 306009

Solicitation Description : ADDENDUM 1 - BENTHIC MACROINVERTEBRATE SAMPLE PROCESSING

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation Response	Version
	2017-06-13 13:30:00	SR 0313 ESR06071700000006127	1

VENDOR

000000205797

REI CONSULTANTS INC

Solicitation Number: CRFQ 0313 DEP1700000024

Total Bid : $85,375.00 **Response Date:** 2017-06-07 **Response Time:** 11:57:11

Comments:

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers

(304) 558-2063
michelle.l.childers@wv.gov

Signature on File **FEIN #** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	SAMPLE IDENTIFIED TO GENUS LEVEL	500.00000	EA	$170.000000	$85,000.00

Comm Code	Manufacturer	Specification	Model #
81131504			

Extended Description : SAMPLE IDENTIFIED TO GENUS LEVEL: INCLUDE TRAVEL COST FOR SAMPLE PICKUP AND DELIVERY PER UNIT.

Comments: please see attached documents

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	PROFESSIONAL STAFF REPRESENTATION OF DATA IN	5.00000	HOUR	$75.000000	$375.00

Comm Code	Manufacturer	Specification	Model #
81131504			

Extended Description : PROFESSIONAL STAFF REPRESENTATION OF DATA IN LEGAL/

Comments: please see attached documents

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June 06, 2017

State of West Virginia
Purchasing Division
2019 Washington Street East
P.O. Box 50130
Charleston, WV 25305-0130
Attn: Bid Clerk

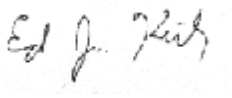
RE: Benthic Macroinvertebrate Sample Processing and Identification; CRFQ 0313 DEP1700000024

To Whom it May Concern:

REI Consultants, Inc. is very excited to be submitting a bid for West Virginia Department of Environmental Protection's benthic macroinvertebrate processing and identification project, CRFQ 0313 DEP1700000024. REI Consultants has been processing benthic samples since 1990; thus, we have been collecting and processing benthic samples for over 25 years. Our Environmental Department's scientists have comprised fisheries biologists, benthic taxonomists, wetland scientists, and now a malacologist, and are backed up by the additional 100+ chemists and support staff employees in our headquarter facility in Beaver, WV and branch offices.

If I can be of any assistance at all, or if you have any questions, please do not hesitate to contact me, and I will be happy to help.

Sincerely,



Ed J. Kirk
Director - Biological Division
R.E.I. Consultants, Inc.
304-255-2500 Beckley, WV office
540-570-3149 Cell
ekirk@reiclabs.com
www.reiclabs.com

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Qualifications

REI Consultants, Inc. typically collects between 250 – 400 benthic samples annually, and receives about the same, or more, samples annually from a wide variety of other consulting firms from West Virginia, Virginia, Ohio, Kentucky, Pennsylvania, and Tennessee. Samples processed by REI Consultants over the past several years include: 630 samples in 2009; 783 samples in 2010; 1,047 samples in 2011; 603 samples in 2012; 730 samples in 2013; 1,200 samples in 2014; 890 samples in 2015; and 741 samples in 2016. Log books are available documenting these numbers. Depending on State requirements and client needs, processing consists of a wide array of specific requirements ranging from 200-bug count picks, 300-bug count picks, full-picks, Family-only Level taxonomy, Genus Level taxonomy, to chironomids to Genus Level.

Jason Shuttlesworth is our primary taxonomist. Jason Shuttlesworth has been ID'ing benthic macroinvertebrates from samples collected by REI Consultants and other State agencies and private firms since 2002. He has also assisted in the training of other taxonomists, no longer employed at REI Consultants. To-date, he has identified the organisms from over 7,500 samples. Dr. Hannah Stout is our secondary taxonomist, and provides taxonomy on our overflow samples as well as the QA/QC for 10% of the samples we receive. SFS (formerly NABS) certificates for our taxonomists are available which document the Genus Level certifications for both EPT Eastern and Chironomidae Eastern groups.

REI Consultants' Environmental Department currently utilizes four persons to "pick" our benthic macroinvertebrate samples. They include: Gale Farley (7 years experience); Barbara Saunders (6 years experience); JoDonna Ballengee (4 years experience); and Martha Newman (2 years experience). These benthic sample processors do NOT perform any identification work, but merely separate ("pick") the benthic macroinvertebrates from the detrital material.

REI Consultants follows the West Virginia DEP's watershed Assessment Branch's Standard Operating Procedures for the sorting/picking and identification of almost all benthic samples collected within the state. Additionally, we have produced our own SOPs for our department, and which we have utilized during the training of persons both in-house and with other consulting companies. This SOP is attached to this bid. However, should REI Consultants be awarded bid DEP1700000024, REI Consultants would exclusively utilized DEP Watershed Branch's SOP (2015) for the sorting/picking and identification of the samples associated with this project.

REI Consultants maintains a stringent QA/QC policy regarding processing of benthic macroinvertebrate samples which includes checking 10% of all picked samples for missed organisms, and re-identifying 10% of all ID'ed samples. Copies of the latest QA/QC sample data accompany every benthic macroinvertebrate report produced to all of our clients.

Resumes

Key personnel within the Environmental Department include Ed J. Kirk, Clayton Scott, Jason Shuttlesworth, and Ben Humphrey. Ed Kirk has been with REI Consultants, Inc. since 1992 and is the Director of the Biological Division which includes the Bioassay and Environmental Departments. He worked primarily with macroinvertebrates during his Master's program at WVU and had begun collecting and identifying aquatic insects in 1988. He ceased identifying benthic organisms for REI Consultants about 2002 when the environmental department grew large enough to warrant the hiring of a full-time taxonomist. Ed Kirk will oversee all aspects of DEP1700000024 should REI Consultants be awarded the contract.

Jason Shuttlesworth, SFS certified taxonomist, would perform all of the taxonomic identifications for DEP1700000024 should REI Consultants be awarded the contract. Dr. Hannah Stout has been performing taxonomic identifications on overflow work and QA/QC for REI Consultants since 2014, and will perform all of the QA/QC for the project.

EDWIN JEFFREY KIRK

225 Industrial Park Road
Beaver, WV 25813
(304) 255-2500 Email: ekirk@reiclabs.com

EDUCATION:

M.S. - Wildlife and Fisheries Resources, West Virginia University, December 1992
B.A. - Biology, West Virginia University, December 1988

ADDITIONAL EDUCATION/WORKSHOPS:

Dave Rosgen's River Restoration & Natural Channel Design Course, (Level IV). 80 hours of instruction, August 2006.
Dave Rosgen's River Assessment & Monitoring Course, March 2005, (Level III). 80 hours of instruction.
Dave Rosgen's River Morphology and Applications, July 2002, (Level II). 40 hours of instruction.
Dave Rosgen's Applied Fluvial Morphology, February 2001, (Level I). 40 hours of instruction.
Mid-Atlantic Stream Restoration Workshop, Nov/Dec 2004.
Mid-Atlantic Stream Restoration Workshop, Nov/Dec 2005.
Mid-Atlantic International Erosion Control Association Workshop, Oct/Nov 2004.
Richard Chinn's USACOE Certified Wetland Delineation and Training, August 2002, 38 Hours of instruction.
Wetland Construction Workshop – taught by Thomas W. Biebighauser, U.S. Forest Service. Roane-Jackson Technical Center, April 2009.
Wetland Training Institute's Identifying Plants, Methods, and Skills, July 2008.
Wetland Training Institute's Planning, Site Selection, and Hydrology Models for Constructed Wetlands, April 2006.
Wetland Training Institute's Wetland Determination & Delineation with an Emphasis on Hydric Soils and Hydrology, June 2007.

EMPLOYMENT/EXPERIENCE:

1992 - Current. Director - Biological Division; Research, Environmental, & Industrial Consultants, Incorporated ("REIC") 225 Industrial Park Rd., Beaver, WV 25813.

SPECIAL SKILLS:

Identification of aquatic macroinvertebrates to genus
Ability to design and develop new benthic macroinvertebrate sampling techniques and protocols
Knowledge of Rosgen® stream classification systems and geomorphological measurements
Ability to navigate by on lakes, reservoirs, small and large rivers
Construction of benthic macroinvertebrate samplers such as light traps, emergence nets, and colonization samplers
Ability to develop quantitative and qualitative experiments and conduct statistical testing
Ability to repair and maintain vehicles, boats, boat motors, and boat trailers and install electronic equipment
SCUBA - PADI Open Water Certified, American Red Cross certified in first aid, CPR

DIRECTORIAL RESPONSIBILITIES:

Lead the Biological Division in securing $0.6 - 1.7 Million in annual sales
Direct the Biological Division into new facets within the biological field
Oversee and direct the Biological Division's 6 biologists, 6 technicians, and 1 administrative assistant
Manage all financial aspects of the Biological Division including salaries, bonuses, sales prices, discounts, monthly expenses, equipment purchases, and generating quarterly and annual gross profit reports
Conducting the interviewing, hiring, and training of all new departmental personnel
Calculating and supplying all quotes for biological services
Executive decision making on aspects of company direction and growth, marketing, cost analysis
Strive to continually improve all aspects of our department such as lab safety, personnel health, quality of workplace, and quality of the final product to the client

BIOLOGICAL RESEARCH RESPONSIBILITIES:

Design research studies for fisheries, benthic macroinvertebrate, and water chemistry studies according to client needs and in cooperation with local, State, and Federal Regulators
Manage all biological projects and facilitate communication and cooperation between clients, State and Federal Agencies, general public, interest groups, and legal professionals
Coordinate meetings between the client and State and Federal Agencies to create management and mitigation strategies for aquatic resources both impacted, and proposed to be impacted by industry
Act as a mediator between industry, concerned citizens, and the private environmental organizations on biological projects
Develop and improve sampling logistics, data analysis techniques, and reporting protocols
Supervise field operations, data analysis, and reporting of research within the Biological Division
Conduct biological investigations of benthic macroinvertebrates, fisheries communities, aquatic habitat, riparian evaluations, substrate characterizations, stream geomorphology, and wetland determinations and delineations
Development and implementation of compensatory stream and wetland mitigation projects
Identification and verification of aquatic macroinvertebrates and analysis of all benthic data
Develop and perform biological research in accordance with specific local, State, and Federal Protocols
Determine and establish sampling reaches which will adequately represent the aquatic community and provide future monitoring sites to evaluate long-term and cumulative impacts
Oversee procedures of toxicity testing (bioassays) for acute and chronic tests, Toxicity Identification Evaluations (TIE's), and Toxicity Reduction Evaluations (TRE's)
Oversee all aspects of the bioassay section including State and Federal certifications, protocols, audits, culture of test organisms

COLLEGE COURSE WORK:

Aquaculture
Limnology
Fisheries Management
Fisheries Techniques
Ecology
Population Biology
Cell Biology
Ichthyology
Aquatic Entomology
Animal Behavior
Experimental Sampling Methodology
Statistical Methods I and II
Non-Parametric Statistics

PROFESSIONAL CERTIFICATIONS AND ACTIVITIES:

American Fisheries Society - Virginia Chapter member
Society of Wetland Scientists member
Society for Freshwater Scientists (formerly North American Benthological Society)
Virginia Fish Farmers Board Member (ret.)
West Virginia Coal Association member

PRESENTATIONS:

February 2010 - Title: Effects of Conductivity on the WV-SCI & Mayflies; a Statistical Analysis of Long-Term Data. Presented at the 37th Annual West Virginia Mining Symposium, Charleston Civic Center, Charleston, WV.

April 2005 - Title: A Preliminary Study of the Selenium Levels Found in Fishes Collected Downstream from Active Coal Mining & Valley Fill Operations. Presented at the 26th West Virginia Surface Mine Drainage Task Force, April 2005, Morgantown, WV.

April 2004 - Title: Long-term Downstream Impacts of Surface Mining & Valley Fill Construction to Benthic Macroinvertebrates and Water Quality. Presented at the 2004 National Meeting of the American Society of Mining and Reclamation and the 25th West Virginia Surface Mine Drainage Task Force, April 2004, Morgantown, WV.

February 2002 - Biological monitoring of the aquatic communities of Cheat Lake, and the Cheat River downstream of the Lake Lynn Hydro Station, 2001. Presented to State agencies at the Lake Lynn Hydro-electric station.

May 2001 - Title: Biological Monitoring of Trough Fork Between 1995 and 2000. Aquatic Issues Stakeholders Meeting, Wheeling Jesuit University, WV

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JASON SHUTTLESWORTH

[redacted]

KEY QUALIFICATIONS

- Dedicated professional with 15+ years of experience in benthic macroinvertebrate identification.
- Proven flexibility, resourcefulness, and ability to work well with minimal supervision.
- Excellent written communication skills.

PROFESSIONAL EXPERIENCE

Biologist Morgantown, WV
REI Consultants *Feb 2002- Present*

- Collect, enter, analyze data, and prepare technical reports on various benthic macroinvertebrate studies. Identification of all macroinvertebrates to genus.
- Required attention to detail and broad knowledge of over 400 of most common aquatic insects in the Eastern United States.

Lab Technician Newport News, VA
Vanguard Energy Services *July 2007-Aug 2010*

- Conduct various analyses on coal including Prox analysis, Percent Chlorine and Fluorine, trace metals analysis using ICP, Forms of Sulfur, and Calorimetry.

Lab Technician Hampton, VA
Hampton Roads Testing Laboratories, Inc. *Sept 2004-Feb. 2008*

- Conduct various analyses on coal and associated byproducts.

Technician Suffolk, VA
Suffolk Mosquito Control Division *July. 2004-Oct 2004*

- Set-up light traps on a daily basis for mosquitoes and helped identify mosquitoes.

Lab Assistant Morgantown, WV
West Virginia University *May 2001-Jan 2002*

- Assist in an organic farm project collecting and identifying nematodes/earthworms, culturing fungi, preparing standards, chemical reagents, and various other media and solutions. Soil sampling, harvesting crops, and other related duties.

Lab Assistant Morgantown, WV
West Virginia University Entomology Dept *May 1996-May 1999*

- Worked on a long-term project studying the impacts of Gypsy Moths and the effects of various pesticides in their control. Collected, sorted and identified insects, sampled vegetation and soil, aided in insect bioassays.

Biologist Bridgeport, WV
Sturm Environmental Services *Apr 1999-Oct 2000*

- Conducted wet chemistry analysis of water and wastewater such as biochemical oxygen demand, chemical oxygen demand, total and dissolved organic carbon. Performed routine analysis for ammonia, pH, hardness, conductivity, chlorine residual, and alkalinity. Performed various analyses for microbiological tests such as standard plate count, fecal coliform testing, total coliform testing, colilert and verification techniques. Calibrated and performed general maintenance on lab instruments and equipment. Maintained proper quality control program in compliance with Laboratory Certification program. Interpreted and recorded laboratory results as required using Standard Operating Procedures. Identification of all macroinvertebrates to genus. Performed toxicity testing (bioassays) for acute and chronic tests, and assisted with sample receiving.

EDUCATION

Bachelor of Arts, Biology 1997
West Virginia University, Morgantown, WV

SPECIALIZED SKILLS AND TRAINING

- **Computers**: Proficient in Microsoft Word and Excel
- **Certified** in Eastern U.S. EPT, General Arthropods, and Chironomidae taxa to Genus Level through the Society for Freshwater Science (formerly NABS)

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TAXONOMIC CERTIFICATION

This five year certification is awarded to

JASON SHUTTLESWORTH

In recognition of excellence for specimen identification to Genus for

Eastern

General Arthropods

SOCIETY FOR FRESHWATER SCIENCE

AUGUST, 2020
Date of Expiry

Dr. Murray Colbo

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TAXONOMIC CERTIFICATION

This five year certification is awarded to

JASON SHUTTLESWORTH

In recognition of excellence for Image identification to Genus for

Eastern

Ephemeroptera, Plecoptera & Trichoptera

SOCIETY FOR FRESHWATER SCIENCE

AUGUST, 2020
Date of Expiry

Dr. Murray Colbo

REIC
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TAXONOMIC CERTIFICATION

This five year certification is awarded to

JASON SHUTTLESWORTH

In recognition of excellence for specimen identification to Genus for

Eastern

Chironomidae

SOCIETY FOR FRESHWATER SCIENCE

April, 2018
Date of Expiry

Dr. Murray Colbo

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Hannah L. Stout, Ph.D.

Entomologist
SFS-Certified Macroinvertebrate Taxonomist
Biological Consultant

Education

Ph.D., Entomology. The Pennsylvania State University. May 2012.

Dissertation: "The green drakes of Spring Creek: Toward reestablishing a population of the mayfly *Ephemera guttulata* Pictet 1843 (Ephemeroptera: Ephemeridae)."

B.S., Biobehavioral Health. *Minor, Neuroscience*. The Pennsylvania State University. Dec 2002.

State Certifications

Maryland Biological Stream Survey (MBSS)

- MBSS Benthic Macroinvertebrate Sampling. Expires Apr 30, 2018.

Taxonomic Certifications - Society for Freshwater Science

- Aquatic Arthropod Genera of Eastern North America. Expires Dec 2018.
- EPT Genera of Eastern North America. Expires Jun 2018.
- Aquatic Insect Families of North America. Expires Jan 2018.

Professional Experience

Freelance Entomologist / Certified Macroinvertebrate Taxonomist / Biological Consultant. Apr 2012 – present.

Current Projects:

- QA/QC identification of macroinvertebrates for an environmental consulting firm based in West Virginia. May 2014 – present.
- Designing and implementing a study of the impact of different power line right-of-way vegetative treatments on the density and diversity of bees, other Hymenoptera, and associated taxa. Clients are a large Pennsylvania university and several large utility and utility maintenance companies. Jan 2016 – present.

Past Client and Project:

Water Resources Monitoring Project for the Spring Creek watershed. Apr 2012– Feb 2013.

The Spring Creek Watershed Association (SCWA) is a grassroots organization comprised of both citizens and professionals, whose goal is to gather the data needed for the long-term stewardship of the Spring Creek watershed and its resources.

In 1997, the SCWA began the Water Resources Monitoring Project (WRMP)—an independent long-term program designed to provide local planning officials with data necessary to make scientifically sound land-use decisions. The components of the WRMP include base flow water quality, water temperature, and discharge. "Biological monitoring" was added to the WRMP roster in 2011, and the organization's first macro survey of Spring Creek and its tributaries, employing the same protocols used by the Pennsylvania Department of Environmental Protection (PADEP) for limestone streams, was conducted in March 2012.

Because of my experience with macroinvertebrate community surveys and aquatic insect identification, my familiarity with PADEP field/lab protocols, and my knowledge of Spring Creek fauna, I was contracted to sort/ID the 2012 WRMP samples. Specifically, I processed, then subsampled 300 + 20% organisms from each of the 20 samples. Macroinvertebrates were identified using the same taxonomic resolution used by the PADEP (non-Chironomid insects to genus, Chironomids to family, etc.). Subsampled organisms were counted and curated, and the data were entered into a comprehensive spreadsheet, ready for metrics calculation and analysis by the WRMP. I provided the WRMP with the macro data needed for their 2012 State of the Water Resources Report, and did so both on-time and on-budget.

The WRMP released the Report in the summer of 2013, and is available at: http://springcreekwatershed.org/images/stories/pdf/WRMP/AnnualReport2012_2.pdf

Founder and Principal Investigator. The Green Drake Restoration Project. Jan 2009 – present.

The Green Drake Restoration Project (GDRP) is a collective collaboration of volunteers—academics, anglers & members of the local community—dedicated to restoring Spring Creek's once-legendary "eastern green drake" mayfly (*Ephemera guttulata*) population.

In 2005, I began working on my graduate research project—an exploration of the cause(s) of the mayfly species' disappearance from Spring Creek in the late 1950s, a set of studies to estimate the present-day compatibility of Spring Creek's water and substrate quality with the ecological needs of that mayfly species, and the design and implementation of a plan for their reintroduction.

After reporting optimistic findings to the Pennsylvania Fish and Boat Commission (PAFBC), I received permission from the PAFBC to begin reintroducing green drake mayflies to Spring Creek.

Every year from 2009 to 2013, the GDRP met at a central Pennsylvania stream to collect adult females for the brief time that they are on the wing. During the five years that the reintroduction project was active, the GDRP collected an estimated 9,000 female green drakes, potentially carrying more than 41 million eggs. Despite these seemingly respectable numbers, population

growth models predicted it would take a minimum of ten years of work to build a self-sustaining population of green drakes in Spring Creek. Because of this, the reintroduction project was officially put on hiatus in 2014, in order to take a step back, thoroughly examine the procedures and the outcomes, and eventually retool the design as necessary to ensure a sustainable long-term future for the project.

In 2011, an apparently healthy green drake larva was collected at the reintroduction site—*the first documented presence of Ephemera guttulata at Spring Creek in more than fifty years!* Videos of this larva are available at: http://www.youtube.com/user/GDRP09 .

Aquatic Entomologist and Environmental Consultant. The WHM Group SM. Oct 2012 – Aug 2016.

As the Aquatic Entomologist for The WHM Group, an environmental consulting/solutions firm headquartered in State College, PA, I provided taxonomic, entomological and biological services to a range of clients from the mid-Atlantic region—from small watershed groups to large for-profit companies.

Duties performed at WHM include: identification of Northeast U.S. freshwater macroinvertebrates, including crayfish and freshwater molluscs; advising Project Managers of macroinvertebrate field/lab protocols for freshwater habitats that are employed by states in the Mid-Atlantic region; freshwater invertebrate sampling and sampling design, including data curation and statistical design; interpreting biological/limnological data; preparing technical reports; conducting water quality and biological field investigations; and accessing, utilizing and managing biological databases.

In addition to freshwater macroinvertebrate field and lab work, I designed terrestrial insect pollinator surveys, participated in Bog Turtle (*Glyptemys muhlenbergii*) telemetry and Phase 2 and 3 surveys, and engaged in stream/wetland crossing permitting and construction site monitoring.

Graduate Research and Teaching Assistant. Department of Entomology, PSU. Aug 2005 – Dec 2011.

In addition to designing and conducting my thesis research, as well as fulfilling the Ph.D. program's required coursework and teaching duties, I took my scientific obligation to public education very seriously during my time as a Graduate Student. The following are examples of the outreach in which I engaged:

-Presenting live insect displays to dozens of schools and community centers.

-Assembling an interdisciplinary team of STEM graduate students to provide a K-6 "Science Day" for an underserved local school.

-Volunteering to help at Penn State's annual "Great Insect Fair". Sep 2006 - Sep 2010.

-Planning and leading the Entomology Department's "Bug Camp for Kids" as its **Assistant Director** for one summer (2008).

-Serving as a volunteer **Docent Coordinator**, Docent, and Insect Zoo caretaker for the Frost Entomological Museum on the Penn State campus. Apr 2006 - Dec 2008.

Teaching experience:

- Ent 313: Introduction to Entomology
- Ent 313: Field Crops Entomology
- Ent 202: The Insect Connection
- Ent 425: Freshwater Entomology

Additional field work: monitoring for vineyard pests in Centre County, PA. May – Aug 2010.

Parataxonomist. Center for BioDiversity Research. PSU. June – Aug 2006.

The Center for BioDiversity Research is an interdisciplinary project based out of Penn State University, and is spearheaded by Dr. Ke Chung Kim, a world-renowned entomologist, taxonomist and biodiversity advocate. The Center's main areas of focus are biodiversity inventory/assessment and conservation, ecosystem management, and applied taxonomy.

In the 1980s, the Pennsylvania State University began a series of complete inventories of the plant and animal diversity in the Gettysburg National Military Park and the Eisenhower National Historic Site (GETT/EISE). The large size and variety of habitats within these two sites contain more than a thousand plant and animal species—some are endangered, threatened, or candidates for protection, but all are accounted for under the mission of the Gettysburg NMP ("to preserve and protect the resources associated with the Battle...") and the "Stewardship" goals and objectives of the Eisenhower NHS. The Center for BioDiversity Research initiated a comprehensive survey of invertebrate biodiversity in 1999—sampling was multi-habitat, and all invertebrates collected were identified and used in the analysis. Over the course of a few years, the Center had amassed more than 23,000 specimens for the study.

Under the tutelage of Dr. Kim, who sought to build on my interest in biodiversity, conservation, and taxonomy, I was hired by the Center in June 2006 to identify groups of terrestrial invertebrates from the GETT/EISE samples, for the Invertebrate Inventory of Gettysburg National Military Park. Invertebrates were identified to the lowest possible taxonomic level, and the data entered into a spreadsheet, to be analyzed upon its completion. My taxonomic contributions were utilized for the 2009 National Park Service technical report "Ecological Analysis of Arthropod Diversity and Development of a Monitoring Plan for Gettysburg National Military Park and Eisenhower National Historic Site", authored by Dr. Ke Chung Kim and Dr. Denise Piechnik.

Document available at: http://www.nps.gov/nero/science/FINAL/GETT_EISE_arthropods/GETT_EISE_NPS_NER_NRTR_2009_143.pdf

Professional Memberships and Activities

Memberships:

- American Association for the Advancement of Science (AAAS)
- American Fisheries Society (AFS)
  - Pennsylvania Chapter

- Buglife – The Invertebrate Conservation Trust
- Entomological Society of America (ESA)
  - Eastern Branch
- Entomological Society of Pennsylvania (ESP)
- Freshwater Biological Association (FBA)
- Freshwater Mollusk Conservation Society (FMCS)
- Friends of the Frost Entomological Museum (FFEM)
  - President (2007 – 2008)
  - Vice-President (2006 – 2007)
- Society for Conservation Biology (SCB)
- Society for Freshwater Science (SFS, formerly NABS)
  - Mid-Atlantic Chapter
- Water Resources Monitoring Project (WRMP) for the Spring Creek watershed
  - Member, Water Resources Monitoring Committee (2015 – present)
- The Xerces Society for Invertebrate Conservation

Activities:

- Identification and Taxonomy of Larval Caddisflies. Association of Mid-Atlantic Aquatic Biologists Workshop. Facilitator: Jason Robinson (Illinois Natural History Survey). Mar 31, 2017.
- Judge, Graduate Student Paper Competition – XXV International Congress of Entomology (ICE 2016). Orlando FL. Sep 26, 2016.
- OSHA 40 hour HAZWOPER training. Completed May 31, 2016.
- Identification and Taxonomy of Snails. Association of Mid-Atlantic Aquatic Biologists Workshop. Facilitator: Art Bogan (North Carolina Museum of Natural Sciences). Apr 1, 2016.
- R Programming. Johns Hopkins University (Coursera). Instructors: Roger Peng, Jeff Leek and Brian Caffo. Febr 1 – Mar 7, 2016.
- Designing for Aquatic Organism Passage at Road-Stream Crossings. Workshop training presented by the USDA Forest Service AOP Cadre: Dan Cenderelli, Bob Gubernick, Mark Weinhold, Dale Higgins and Dan McKinley. State College, PA. Nov 16-20, 2015.
- Conservation, Ecology and Identification of Mid-Atlantic Crayfishes. Association of Mid-Atlantic Aquatic Biologists Workshop. Instructor: Zachary Loughman (West Liberty University). Mar 26, 2015.
- Freshwater Mussels of West Virginia: Life History and Identification course (via West Virginia University). Instructor: Janet Clayton (WVDNR). Feb 23-27, 2015.
- Causal Analysis/Diagnosis Decision Information System (CADDIS) workshop. Instructor: Sue Norton (EPA). Jan 30, 2015.

- Meeting Co-organizer and Chair of Poster Session – 2015 Society for Freshwater Science Mid-Atlantic Branch Meeting. Academy of Natural Sciences at Drexel University. Philadelphia, PA. Jan 30, 2015.
- Judge, Student Poster Competition – 2014 Entomological Society of America Eastern Branch Meeting. Williamsburg VA. Mar 16, 2014.

Awards

- Graduate Student Conservation Research Award (GSCRA). Society for Freshwater Science. May 2009.
- College of Agricultural Sciences Graduate Student Travel Award. The Pennsylvania State University. Oct 2007.
- William Yendol Memorial Research Award. The Pennsylvania State University. Oct 2007.

Professional Society and Public Outreach Presentations

- Entomological Society of America – Eastern Branch Meeting. Williamsburg VA. Mar 17, 2014. Symposium presentation: "Aquatic insect reintroductions: Lessons from the Green Drake Restoration Project".
- Allegheny Mountain Trout Unlimited. DuBois PA. Feb 12, 2014. Public presentation: "The Green Drake Restoration Project of Spring Creek".
- Little Juniata River Association. Tyrone PA. Nov 12, 2013. Public presentation: "The Green Drake Restoration Project of Spring Creek".
- Division of Environmental Services – Pennsylvania Fish & Boat Commission. Weikert PA. May 4, 2012. Private presentation: "The Green Drakes of Spring Creek: Toward Reestablishing a Population of the Mayfly *Ephemera guttulata*".
- Spring Creek Chapter of Trout Unlimited. State College PA. Dec 1, 2011. Public presentation: "The Green Drakes of Spring Creek: Toward Reestablishing a Population of the Mayfly *Ephemera guttulata*".
- Society for Freshwater Science – Annual Meeting. Grand Rapids MI. May 19, 2009. Poster presentation: "Can 'eastern green drake' larvae survive in Spring Creek sediment? : Toward reestablishing the burrowing mayfly *Ephemera guttulata* Pictet (Ephemeroptera: Ephemeridae) in a central Pennsylvania stream".

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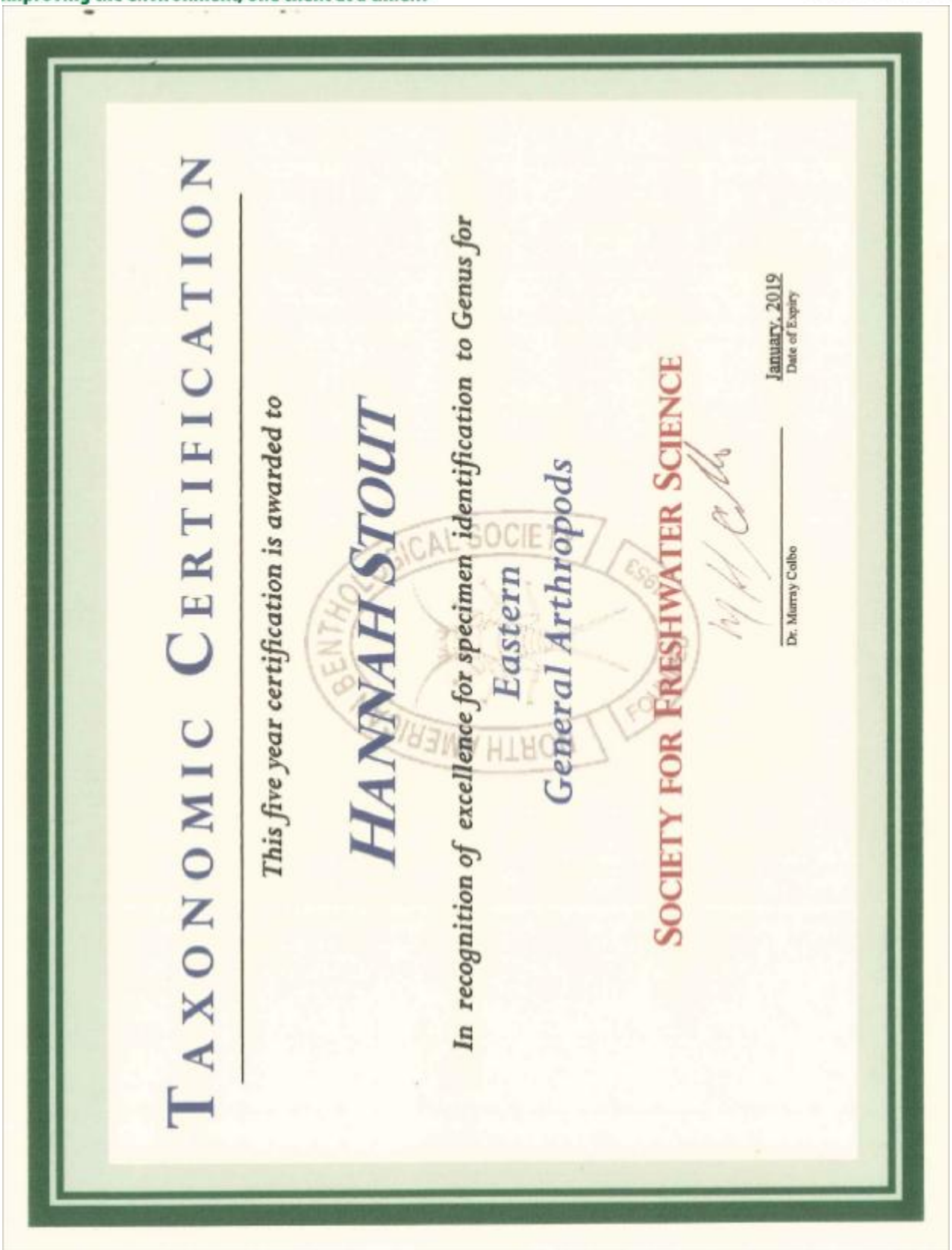

TAXONOMIC CERTIFICATION

This five year certification is awarded to

HANNAH STOUT

In recognition of excellence for specimen identification to Genus for

Eastern
General Arthropods

SOCIETY FOR FRESHWATER SCIENCE

Dr. Murray Colbo

January, 2019
Date of Expiry

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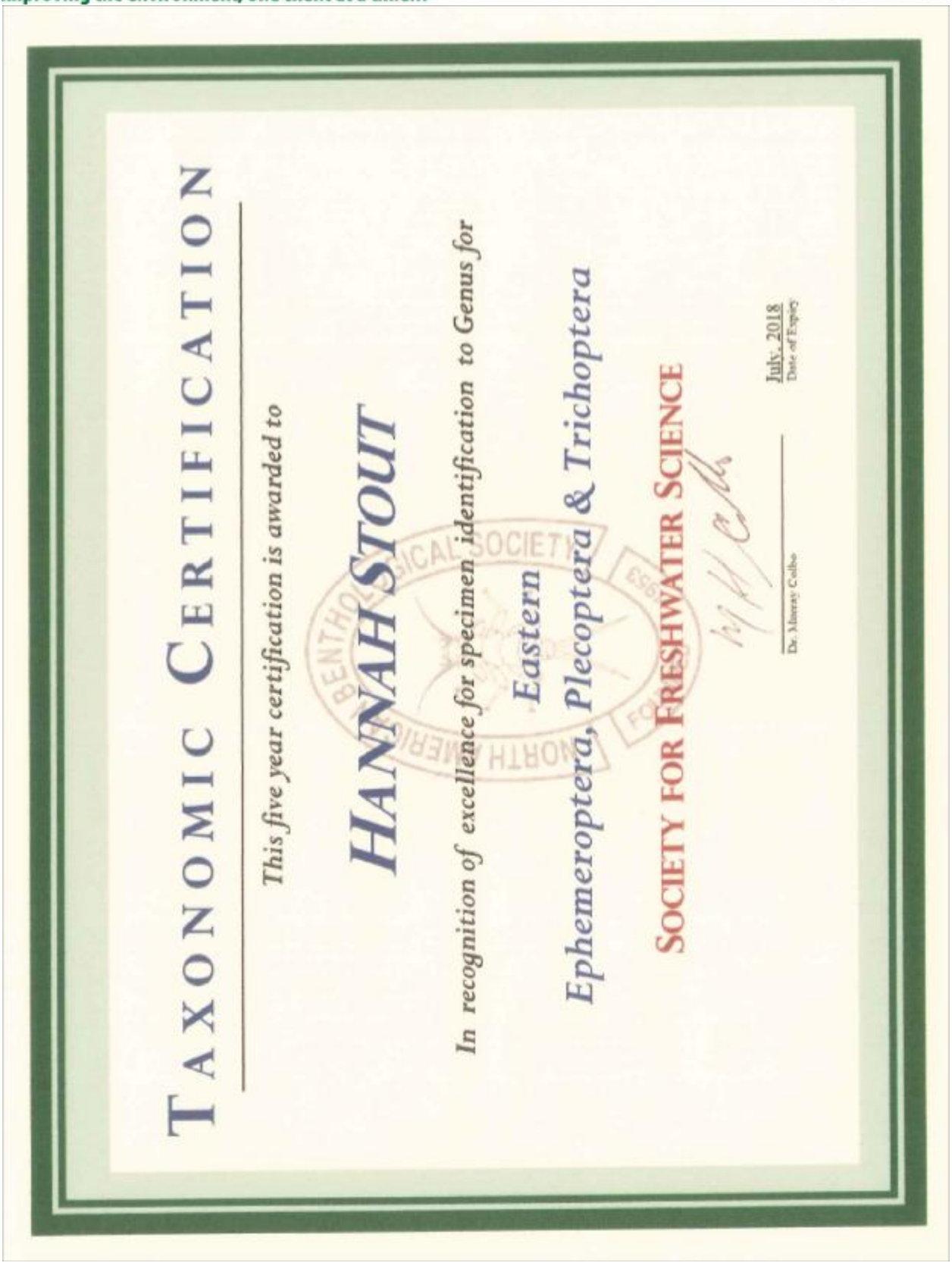

TAXONOMIC CERTIFICATION

This five year certification is awarded to

HANNAH STOUT

In recognition of excellence for specimen identification to Genus for

Eastern

Ephemeroptera, Plecoptera & Trichoptera

SOCIETY FOR FRESHWATER SCIENCE

Dr. Monroe Colbo

July, 2018
Date of Expiry

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Clayton Lee Scott
[redacted]
claytonscott@reiclabs.com

WORK EXPERIENCE

REIC Laboratory, Beaver, WV; 01/2012 – present

Biologist/Project Manager

-Employed standard methods to measure and record physical attributes and collect samples;
-Classify streams according to quantified characteristics;
-Utilized computers and networks to review and verify data and write reports;
-Map streams and other aquatic features using Auto-CAD;
-Collaborate with clients and government agencies to ensure data quality and applicability.

REIC Laboratory, Beaver, WV; 07/2005 – 01/2012

GCMS/HPLC Analyst

-Managed all laboratory semi-volatile GC/MS and HPLC operations;
-Supervised semi-volatile extraction technician;
-Employed standard methods for extraction and analysis of solid, aqueous, and air samples;
-Diagnosed problems with sample extracts and analytical equipment;
-Performed routine maintenance of GC/MS and HPLC systems;
-Maintained chemical inventory and prepared standard solutions;
-Formulated calibrations, daily verifications, and sample dilutions;
-Utilized computers and networks to review, verify, and report data;
-Documented work performed in daily logs.

REIC Laboratory, Beaver, WV; 12/2002 – 07/2005

Volatile Organics Lab Technician

-Performed volatile organics lab standard procedures;
-Performed and documented routine maintenance of laboratory equipment;
-Diagnosed problems and repaired malfunctions of laboratory equipment;
-Maintained chemical inventory and prepared standard solutions;
-Formulated calibrations, daily verifications and sample dilutions;
-Reviewed Chain of Custody documents to assure sample storage and preservation;
-Employed standard methods to analyze water, air, and soil samples;
-Assessed sample characteristics to optimize efficiency;
-Handled samples with rush turn around times and/or high level quality control;
-Utilized computers and networks to review data and prepare reports.

Monroe County Board of Education, Union, WV; 7/2000 - 7/2001

Water Sampling Instructor

-Secured suite of sampling equipment from local citizens' groups and government agencies;
-Trained students in use and care of stream sampling equipment;
-Assisted students in identifying stressors and creating sampling plan;
-Used topographic maps to delineate watersheds and identify landmarks;
-Led students on chemical and biological sample round;
-Employed standard methods to measure and record physical attributes and collect samples;
-Identified aquatic species using taxonomic keys;
-Instructed students in recording, analyzing, and graphing data;
-Reported student performances to lead instructor;
-Clean and return borrowed equipment to appropriate organizations.

WORK EXPERIENCE (cont.)

Plateau Action Network, Fayetteville, WV; 5/1999 - 10/2000

Water Quality Technician

-Compiled and analyzed historic data;
-Led recognizance trips throughout watersheds to identify stressors;
-Developed sample plans to determine water quality and stressor impacts;
-Coordinated and led on-stream water quality monitoring workshops for students and citizens;
-Led more than 10 stream sampling rounds in 2 watersheds;
-Employed standard methods to measure and record physical attributes and collect samples;
-Developed electronic database for storing and presenting data;
-Compiled findings into technical reports;
-Created suites of 5 GIS maps depicting findings;
-Collaborated with 7 state and federal agencies;
-Presented findings to public, to students, and at national conference.

Duke University Landscape Ecology Lab, Durham, NC; 01/1998 - 12/1998

Forestry Technician

During school year (01/1998-05/1998, 09/1998-12/1998, 10+ hrs./wk.):
-Created and compiled electronic database;
-Prepared and analyzed tree core samples;
-Analyzed data using statistical methods.
Through summer (05/1998-08/1998, 40+ hrs./wk.):
-Led crew of 3 forest ecology technicians;
-Used topo maps and compass to select and find plot locations;
-Used GPS receiver to record plot locations for future study;
-Employed standard methods to conduct vegetation and landscape surveys;
-Identified woody and herbaceous species using taxonomic keys;
-Collected samples and recorded data according to protocol.

EDUCATION

Duke University, Durham, NC.
Bachelor's Degree - 12/1998
Major: Environmental Science and Policy
Relevant coursework:

Biology 21; Organismal and Environmental Biology
Geology 41; The Dynamic Earth
Geology 121; The Surface of the Earth
Environment 101; Intro to Environmental Science and Policy
Environment 215; Environmental Plant Physiology
Environment 221; Soil Resources
Environment 236; Water Quality Management
Political Science 149; US Environmental Politics

CERTIFICATES AND TRAININGS

-"Applied Fluvial Geomorphology", Dave Rosgen, Wildland Hydrology, 2014.
-"River Morphology and Applications", Dave Rosgen, Wildland Hydrology, April, 2015.
-"River Assessment and Monitoring", Dave Rosgen, Wildland Hydrology, May, 2016.
-"Assessing and Restoring Headwater Mountain Streams", Will Harman, Stream Mechanics, 2013.
-"First Aid and Adult CPR/AED", American Red Cross, expires 11/20/2015.
-WV drivers' license #E697460.
-PADI Open Water Diver Certified.

References and transcript available upon request.

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Benjamin Scott Humphrey
96 Mahan Street, Oak Hill, WV 25901
Phone: (304) 719-5563 & e-mail: bhumphrey@reiclabs.com or bhumphre@gardner-webb.edu

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Academic Education & Honors:

- **Bachelors of Science.** (May 2015), **Gardner-Webb University,** Boiling Springs, NC 28017 Major: *Environmental Science.* Minor: *Biology.* Independent Research: *"Survey of Freshwater Mollusk in the Broad River Greenway with DNA Analysis of Elimia species"* (unpublished)

Honors:

- Les M. Brown Academic Excellence and Research in Environmental Science Studies Award

Employment History:

March 2016 – Present. Malacologist
REI Consultants, Inc. Beaver, WV 25813
Supervisor: Mr. Edwin J. Kirk, phone (304) 255-2500, e-mail ekirk@reiclabs.com

Duties

- Conduct qualitative and quantitative freshwater mussel surveys in accordance with state survey protocols and federal regulations
- Effectively communicate between clients and various state and federal agencies
- Assist in planning and conducting biological surveys including benthic macroinvertebrates and fish as well as habitat surveys
- Collect water quality data and samples for numerous clients for monitoring purposes
- Input biological data into automatic databases, interpret data using statistical methods, and analyze data for scientific reports
- Draft corresponding business letters and statistical reports, assist in scientific technical writing of report production
- Maintain knowledge of endangered species and status of candidate species
- Complete proposals, scopes of work, and survey design for upcoming projects

May 2015 – March 2016. Biological Technician (Freshwater Mussels) Temporary
West Virginia Division of Natural Resources. Elkins, WV 26241
Supervisor: Ms. Janet L. Clayton, phone (304) 637-0245, e-mail: janet.l.clayton@wv.gov

Duties

- Conducted qualitative and quantitative survey for monitoring the state's freshwater mussel populations, collected and recorded field, species, and morphometric data
- Preformed scientific survey dives in high risk environments such as large rivers and dam outflows
- Assisted with restoration, propagation, translocation, and stocking of freshwater mussels
- Provided administrative support which included data entry of mussel, bat, land snail, and northern flying squirrel surveys
- Assured Biotics 5 biological database was kept current with species element occurrence data
- Surveyed nest boxes for Northern Flying Squirrel, and recorded location with Tremble unit for updating nest box maps
- Completed acoustic bat surveys for annual monitoring

Job-Related Certifications:

- March 2017 Freshwater Mussels of West Virginia Life History and Identification
- March 2017 Freshwater Mussel of Ohio Identification
- July 2015 Open Water Diver
- May 2015 First Responder, First Aid, CPR certification

Job-Related Skills:

- Proficient in using the following software: Biotics 5, Windows 7 – 10, Microsoft Office 2010 - 2016 (PowerPoint, Word, Outlook, Access)
- Statistical analyses of field data
- Well versed in web-based research and methods
- Trained to provide: CPR, First Aid, Oxygen
- Experienced open water diver

Volunteer/Community Service:

- May 2017 – Present: Volunteer with Brian Watson of the Virginia Department of Game and Inland Fisheries to conduct monitoring surveys for freshwater mussels
- March 2016 – Present: Volunteer with the West Virginia Division of Natural Resources in conducting surveys to monitor freshwater mussels, bats, and the Northern Flying Squirrel
- March 2016 – Present: Volunteer with the US Fish and Wildlife Service's Ohio River Islands National Wildlife Refuge in conducting surveys to monitor freshwater mussels

- June 2015: West Virginia Division of Natural Resources. Monitoring surveys of Running Buffalo Clover. Randolph County, WV
- Field Season 2014: Appalachian State University, Aquatic Conservation Research Lab. Eastern Hellbender Survey. Pit tagging of Eastern Hellbender. Watauga County, NC
- Field Season 2014: Appalachian State University, Aquatic Conservation Research Lab. Mussel and fish survey. Assisted with various fish and mussel surveys. Watauga County, NC
- Field Season 2014: Schiele Museum of Natural History. Land Snails. Collecting land snails for museum collection. Cleveland County, NC

Professional Affiliations/Memberships:

- April 2016 – Present: Freshwater Mollusk Conservation Society (FMCS): Active member of the Guidelines and Techniques Committee
- March 2016 – Present: American Fisheries Society (AFS)

(Revised 2017)

REI Consultants, Inc.
Standard Operating Procedures
Benthic Macroinvertebrate Sorting & Taxonomic Identification;
Updated January 2017

Research, Environmental, and Industrial Consultants, Inc., (REIC) has developed Standard Operating Procedures ("SOP"s) to process benthic macroinvertebrate samples in the laboratory for the purpose of measuring the taxonomic composition and abundance of benthic macroinvertebrates found in freshwaters. These SOP's are based on several standard laboratory practices, including those used by the U.S. Environmental Protection Agency (USEPA), and the West Virginia Department of Environmental Protection (WV- DEP) Watershed Branch (2009). In an effort to promote consistent bioassessments of water quality, the USEPA has produced Rapid Bioassessment Protocols for Use in Streams and Wadeable Rivers (Barbour et al, 1999) for use in collecting and processing benthic macroinvertebrate samples from streams and rivers. The REIC "Standard RBP Methodology" and "Modified RBP Methodology" benthic macroinvertebrate laboratory SOP's borrow heavily from the USEPA protocols, but incorporate modifications based on REIC's experience. This SOP describes the 200-count sub-sampling typically used by the benthic macroinvertebrate laboratory of REIC to process benthic macroinvertebrate samples collected within West Virginia. Other states and regulatory agencies utilize different sorting techniques (such as "full-picks") and levels of taxonomic identification (i.e. Chironomids to Genus Level), and protocols for these states and agencies should override REIC's SOPs in these situations.

Quality Assurance and Quality Control

All laboratory personnel will receive basic instruction and evaluation in the sample processing procedure by experienced laboratory staff. Quality Control (QC) procedures are used to ensure that the data consists of <10% total error for the extraction of benthic macroinvertebrates from samples and <10% total error for the identification and the enumeration of the extracted organisms.

QC of sample set-up, extraction, sorting, and cleanup

The Quality Control procedure for monitoring taxonomic sample set-up, extraction, and sorting of benthic macroinvertebrates uses a re-sort method to identify unacceptable (>10%) levels of error in the data, and implements corrective actions that decrease the data error to acceptable levels (<10%). Each project received in the laboratory will receive QC on at least 10% of its samples.

An experienced QC officer will check all sorted grids from every 10^{th} sample processed by a sorter to ensure that each meets the >90% sorting efficiency. Qualification will only occur when a sorter achieves >90% sorting efficiency for five samples consecutively.

The QC officer will calculate percent sorting efficiency (PSE) for each sample as follows: PSE = A / (A +B) x 100 where A = the number of organisms found by the primary sorter and B = the number of organisms missed by the primary sorter and found during the QC check.

A PSE > or = 90% is considered passing.

If the sorting efficiency for each of these five consecutive samples is >90% for a particular individual, this individual is considered "experienced."

In the event that an individual fails to achieve >90% sorting efficiency, they will be required to sort an additional five samples and their sorting efficiency will continue to be monitored until they become "experienced."

Even after individuals qualify, 10% of all of their sorted samples will be checked for sorting efficiency.

If an "experienced" individual fails to maintain a >90% sorting efficiency as determined by QC checks, QC checks will be performed on every grid of five consecutive samples until a > 90% sorting efficiency is achieved on all five samples.

QC of taxonomic identification and enumeration

Every scientist will achieve and maintain at least 90% accuracy rating in macroinvertebrate identification.

Each scientist will have each sample site bottle that he/she identified to genus level reviewed in its entirety by the laboratory administrator or a senior taxonomist until he/she achieves 90% accuracy rating to the family and genus levels. At this point the taxonomist will be considered "experienced."

Each "experienced" scientist in the lab will perform a 10% sample exchange on all samples and Percent Difference in Enumeration and Percent Taxonomic Disagreement will be calculated for each sample.

Percent Difference in Enumeration (PDE) will be calculated for each sample as follows: (n1 – n2) / (n1 + n2) x 100, where n1 is the number of specimens counted in a sample by the first scientist and n2 is the second scientist. The purpose is to find the samples where counts differ and determine the reason for the miscounts. The PDE for each sample checked will be entered into a database and kept indefinitely. The goal of REIC is for each scientist to achieve 90% agreement in enumeration for each sample identified.

A PDE < or = 10% is considered passing.

Percent Taxonomic Disagreement (PTD) will be calculated for each sample as follows: 1 – (number of agreements / N) x 100, where N is the total number of specimens in the larger of

the two counts. Agreements are determinant upon the targeted level of identification. For example, if family is the target, and one taxonomist provides a name for a specimen at the species level and the other leaves the name at the family level, it would constitute an agreement. However, if genus is the target, and one taxonomist identifies at the genus level, and the other identifies it at the family level, it would not be scored as an agreement. The PTD for each sample checked will be entered into a database and kept indefinitely. The goal of REIC is for each scientist to agree 90% of the time in family and genus level identification.

A PTD < or = 10% is considered passing for Family Level taxonomy.
A PTD < or = 15% is considered passing for Genus Level taxonomy.

If a scientist is unable to consistently perform at the designated standards, he/she will be instructed on an individual basis. If the scientist fails to improve to the designated standards, a written disciplinary report will go into his/her employee file. If after individual instruction, the scientist does not improve, he/she will no longer be permitted to identify macroinvertebrates in the lab until he/she demonstrates an ability to adhere to the set standards.

A reference collection will be established and stored in designated cabinets in the benthic macroinvertebrate laboratory. The collection will consist of representative specimens of each species to the lowest identifiable taxon (i.e., genus, family). In addition, species new to the laboratory's reference collection will be sent to recognized experts for taxonomic verification. The verified specimens will then be added to the collection. All specimens in the reference collection will be preserved in 70% ethyl alcohol in glass vials with labels made of waterproof paper printed with a laser printer. Reference specimens will be organized within major taxonomic groups. The laboratory administrator will maintain the collection log including the organism name, the location of the reference specimen, the status of the specimen if it has been loaned to outside experts, and information about confirmation by outside experts.

All REIC taxonomists will obtain Society of Freshwater Scientists ("SFS", formerly North American Benthological Society "NABS") certification in Ephemeroptera, Plecoptera, Trichoptera to Genus Level. The laboratory administrator will provide the tools necessary for the scientists to achieve the required accuracy ratings.

Standard RBP Methodology **sample rinsing and set-up, sorting, and cleanup**

Rinsing and set-up:

1. Obtain a sample from the appropriate box on the designated shelf.
2. Record the sample label information, date of sample rinse and sorting, and the initials of the person rinsing and sorting the sample on the laboratory log sheet for the designated project and on the Benthic Macroinvertebrate Sample Sort sheet.
3. Pour and spread the sample evenly onto a U.S. standard soil sieve #35 (500µm) held above a waste bucket in the sink. Use large forceps if necessary to empty the sample container and spread the sample over the sieve. Drain the alcohol solution into the bucket and gently rinse the sample with water, draining the rinse water into the bucket until the water runs clear.

Rinse the sample bottle through the sieve into the bucket to collect any residue remaining in the sample jar.

4. Remove the rinsed sample from the sieve to the gridded sorting tray, back rinse the sieve to collect all sample residues into the tray and add enough water to the tray to cover the sample.
5. If the sample contains a low amount (one jar) of inorganic substrate such as sand or gravel, proceed in the following manner. Transfer the sample material to the gridded pan and spread the contents evenly across the pan. If the amount of leaf litter or other detritus material exceeds that which fills the gridded pan, then divide the sample among two or more gridded pans.
6. If the sample contains a large amount (two or more jars) of inorganic substrate such as sand or gravel, carefully composite the sample portions into the gridded pan.
7. Backwash the sieve to prevent cross-contamination of samples.
8. After the sediment from rinsing the sample has settled to the bottom of the waste bucket in the sink, dump the water from the top of the bucket through the sieve into the drain, reserving the sediment at the bottom of the bucket. Add water to the bucket and dump the bucket and sediment behind the building in the gravel area designated for samples.
9. Transport rinsed samples to the benthic macroinvertebrate laboratory to begin the sub-sampling procedure. Quantitative samples are sub-sampled to a randomized fixed count of 200 +/-20% benthic macroinvertebrate specimens per sample using standard EPA laboratory sorting methods or sorted whole if the target number of 200 is not reached. All sub-sampling for WV samples is done using the 100-grid sorting trays.

Sorting:

1. Remove large objects (sticks, stones, empty clam shells) and carefully inspect them under the 3X magnifying ring light for organisms. Return organisms, if found, to the sample in the gridded pan and place the large objects into a residue bucket. Gently spread the sample material over the bottom of the gridded pan as evenly as possible. Move the sample material into the corners of the gridded screen using forceps. Gently vibrate or shake the pan to help spread the sample.
2. Use a random number generator to select four grids (the sub-sample) from the gridded tray. The goal is to randomly select at least four of the grids from the 100 grids on the gridded screen in an effort to ensure that the subsample material is representative of the overall sample. Record the total number of randomly chosen grids on the Benthic Macroinvertebrate Sample Sort Sheet.
3. Place the stainless steel dividing frame over the sample at the location of the grids selected for processing based on the numbers marked on the gridded tray.
4. Remove or extract the sample material within the dividing frame (Step 3) from each of the four grids using a white plastic teaspoon, mesh scoop, and/or forceps. Place the extracted sample material into a white plastic pan and add water to cover the sample material. Rinse the extraction tools and the inside surface of the dividing frame over the pan and inspect these tools and the grid for any remaining organisms using the 3X magnifying ring light.

    Use the following rules when dealing with organisms that lie on the line between two grids:

- An organism belongs to the grid containing its head.
- If it is not possible to determine the location of the head (i.e., for worms), the organism is considered to be in the grid containing most of its body
- If the head of an organism lies on the line between two grids, all organisms on the top border of a grid and those on the right border of a grid belong in that grid, and are picked with that grid.

5. Set the gridded tray aside until the macroinvertebrates have been sorted and counted from the previously extracted grid material.
6. If the number of organisms within the first four grids appears to be lower than the sample target count (200 +/-20%), proceed in the following manner:

    - If after sorting and counting all the organisms from the first four grids the organism count is greater than 140, put aside the organisms for that count and randomly choose a new grid following step 2.
    - If four complete grids have yielded fewer than 30 organisms, group the next four randomly chosen grids and sort and count the target organisms.

    If the organism count from the first eight grids is lower than 60, extract the entire remaining sample from the gridded pan and sort and count the benthic macroinvertebrates from it. Write in the "Number of Grids Picked" section of the Benthic Macroinvertebrate Sample Sort sheet that all grids were combined for sorting. If the organism count from the first six grids is higher than 120, resume random selection of individual grids until the target count (200 +/-20%) is reached. If it is uncertain whether a sample should be processed whole, it is at the discretion of the laboratory supervisor to determine whether a sample can be processed whole or by individual grids.
7. If the number of organisms in any four grids appears to exceed the target count (200 +20%), spread the sorted organisms in a second gridded pan and randomly choose individual grids, picking the organisms from each grid until the expected target count (200 +20%) is reached. Once a grid is chosen, the entire grid must be picked. Document in the "General Comments" section of the Benthic Macroinvertebrate Sample Sort sheet that this procedure was used.
8. Obtain a 125ml plastic bottle from the bottle storage area and label it with the appropriate sample label from the project clipboard in the laboratory. Add approximately 50ml of 70% Ethyl Alcohol.
9. Slowly search the entire pan in a systematic pattern to locate all identifiable benthic macroinvertebrates. First search the base of the pan and then search focusing on the surface of the water, looking for surface floating organisms. Remove organisms and place in the appropriately labeled 125ml bottle keeping a tally of the number of organisms placed in the bottle. Record the total number of organisms removed from the sample in the appropriate space on the Benthic Macroinvertebrate Sample Sort Sheet.
10. Do not remove or count: empty snail or bivalve shells; empty caddisfly cases; fragments such as legs, antennae, gills, wings, or headless bodies; round worms (Nematoda); microcrustacea (copepods, ostracods, branchiopods); eggs; or winged adult aquatic insects (except Coleoptera). Search inside empty snail and bivalve shells and caddisfly cases for the

presence of smaller target organisms. Also, search inside aquatic plant stems and leaves for small invertebrates such as Diptera larvae and pupae that mine such tissues. Insects thought to be terrestrial should be verified as such by a taxonomist at sorting time or placed in the labeled bottle for later verification but should not be counted. For segmented worms (Oligochaeta) remove and count only whole bodies and fragments that include a rounded end that could be a head or tail end. Count Oligochaeta end fragments as 1/2 counts (two ends equals one count). Count a whole worm as one count. If unsure as to whether any specimen should be counted, place the organism in the labeled bottle without counting it (the final identity and count will be made by a taxonomist).

11. Record the date each sample was sorted in the appropriate space on the Benthic Macroinvertebrate Sample Sort sheet. Keep a record of the amount of time spent sorting each sample and record it in the appropriate space on the Benthic Macroinvertebrate Sample Sort sheet. Record the total number of grids chosen in the appropriate space on the Benthic Macroinvertebrate Sample Sort Sheet.
12. Prior to discarding the remaining un-sorted sample, briefly look through the sample and record the presence of any large or obviously abundant organisms in the appropriate space on the Benthic Macroinvertebrate Sample Sort Sheet.
13. Place the completed Benthic Macroinvertebrate Sample Sort sheet in the project specific binder with the Benthic Macroinvertebrate Sample Log-in form.
14. Record the date sorted, initials of the person sorting, and the number of hours spent sorting the sample on the laboratory log sheet on the clipboard in the lab.

Sample cleanup:

- Clean the gridded pan using dish soap or all-purpose cleaner and a rag if needed and then backwash the screen.
- Thoroughly wash and rinse all sorting equipment used including pipefittings, scoops, bowls, etc.
- Thoroughly wipe the laboratory table using all purpose cleaner and paper towels.

Sample Storage

All identified samples (macroinvertebrates only) are kept in storage at REIC for at least five years. All picked samples (detrital material) are generally kept only for 6 months to 1 year, and then are dumped and disposed of appropriately.

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Quality Control Sheet
Percent Sorting Efficiency (PSE)

The Percent Sorting Efficiency (PSE) (AKA Bias) is calculated by the following formula:

$$\frac{\text{\# Organisms Originally Sorted}}{\text{\# Organisms Recovered By Checker + \# Organisms Originally Sorted}}$$

PSE =

Percent Sorting Efficiency (PSE) A PSE > or = 90% is considered passing.

Percent Difference in Enumeration (PDE)

The Percent Difference in Enumeration (PDE) is calculated by the following formula:

$$PDE = \left(\frac{|\ n1\ -\ n2\ |}{n1\ +\ n2} \right) \times 100$$

PDE =

Percent Difference in Enumeration (PDE). Where: n_1 = # of organisms counted by Taxonomist 1; n_2 = # of organisms counted by Taxonomist 2. A PDE < or = 10% is considered passing.

Percent Taxonomic Difference (PTD)

$$PTD = \left[1 - \left(\frac{comp_{pos}}{N} \right) \right] \times 100$$

PTD =

Where: N = Highest count of organisms from Taxonomist 1 or 2. $comp_{pos}$ = Total # of taxonomic agreements from the Taxonomic Comparison Form.

A PTD < or = 10% is considered passing for Family Level taxonomy.

A PTD < or = 15% is considered passing for Genus Level taxonomy.

REIC
RESEARCH ENVIRONMENTAL & INDUSTRIAL CONSULTANTS, INC.
Post Office Box 286 • Beaver, WV 25813 • 800.999.0105
304.255.2500 • 304.255.2572(fax)
website: www.reiclabs.com
Improving the environment, one client at a time...

Taxonomic References
for Benthic Macroinvertebrate Identification

Adler, Peter H., Currie, D.C., and D. Wood. 2004. The Black Flies (Simuliidae) of North America. Cornell University Press, Ithaca, NY.

Bolton, M.J. 2007. Ohio EPA Supplemental Keys to the Larval Chironomidae (Diptera) of Ohio and Ohio Chironomidae Checklist.

Edmunds, G. F., Jr., Jensen, S.L., and L. Berner. 1976. Mayflies of North and Central America. University of Minnesota Press, Minneapolis.

Epler, J. H. 1996. Identification Manual for the Water Beetles of Florida.

Epler, J.H. 2001. Identification Manual for the larval Chironomidae (Diptera) of North and South Carolina. A guide to the taxonomy of the midges of the southeastern United States, including Florida.

McCafferty, W.P. Aquatic Entomology: The Fishermen's Guide and Ecologists' Illustrated Guide to Insects and Their Relatives.

Merritt R.W, Cummins K.W, and Berg M.B (eds). 2007. Aquatic insects of North America, 4th Edition. Kendall/Hunt, Dubuque.

Minter J., Jr. Westfall, Michael L. May. Damselflies of North America

Ohio EPA Supplemental Keys to the Larval Chironomidae (Diptera) of Ohio and Ohio Chironomidae Checklist. June 2007, Michael J. Bolton.

Pennak's Freshwater Invertebrates of the United States: Porifera to Crustacea, 4th Edition.

Stewart, K.W. and B.P. Stark. 1993. Nymphs of North American Stonefly Genera (Plecoptera). University of North Texas, Denton, Texas.

Voshell, J.R., Jr. 2005. A Guide to Common Freshwater Invertebrates of North America. The McDonald and Woodward Publishing Company, Blacksburg, Virginia.

Wiederholm, T. (Ed.): Chironomidae of the Holarctic region. Keys and diagnoses. Vol. 1. Larvae. 1983.

Wiggins, Glenn B. 1977. Larvae of North American Caddisfly Genera (Trichoptera). University of Toronto Press, Toronto.

9.1.4. Failure to remedy deficient performance upon request.

9.2. The following remedies shall be available to Agency upon default.

9.2.1. Cancellation of the Contract.
9.2.2. Cancellation of one or more release orders issued under this Contract.
9.2.3. Any other remedies available in law or equity.

10. MISCELLANEOUS:

10.1. Contract Manager: During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Ed J. Kirk

Telephone Number: 304-255-2500 Office
540-570-3149 cell

Fax Number: 304-255-2572 FAX

Email Address: ekirk@reiclabs.com

EXHIBIT A

Pricing Sheet for Sorting and Identifiying Benthic Macroinvertebrate Samples				
Item No.	Quantity	Description	Unit Price	Amount
1	500 samples	Per sample for sorting and identifying to Genus level a 200 organism subsample; include travel costs for sample pickup and delivery per unit	170.00	85,000.00
2	5 hours	Cost/hour for professional staff representation of data in legal/administrative setting	75.00	375.00
			Total =	85,375.00

Note: The estimated quantity represents the approximate volume of anticipated purcheses only. No future use of the contract or any individual item is guaranteed or implied. Pricing Sheet will be use for evaluation puposes only.

Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Quotation
34 — Service - Prof

Proc Folder: 306009
Doc Description: BENTHIC MACROINVERTEBRATE SAMPLE PROCESSING AND/OR IDENTIFIC
Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2017-05-30	2017-06-13 13:30:00	CRFQ 0313 DEP1700000024	1

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Name, Address and Telephone Number:

REI Consultants, Inc.
225 Industrial Park Rd.
Beaver, WV 25813
304-255-2500

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers
(304) 558-2063
michelle.l.childers@wv.gov

Signature X Ed J. Kirk FEIN # 55-0668654 DATE 06/07/17

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMAITON:

Request for Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open-end contract for the processing and identification of benthic macroinvertebrate samples collected from West Virginia waters.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION DIV OF WASTE AND WATER MGT 601 57TH ST SE CHARLESTON WV25304 US	ENVIRONMENTAL PROTECTION DIVISION OF WATER AND WASTE MGT 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	SAMPLE IDENTIFIED TO GENUS LEVEL	500.00000	EA	170.00	85,000.00

Comm Code	Manufacturer	Specification	Model #
81131504			

Extended Description :
SAMPLE IDENTIFIED TO GENUS LEVEL: INCLUDE TRAVEL COST FOR SAMPLE PICKUP AND DELIVERY PER UNIT.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION DIV OF WASTE AND WATER MGT 601 57TH ST SE CHARLESTON WV25304 US	ENVIRONMENTAL PROTECTION DIVISION OF WATER AND WASTE MGT 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	PROFESSIONAL STAFF REPRESENTATION OF DATA IN	5.00000	HOUR	75.00	375.00

Comm Code	Manufacturer	Specification	Model #
81131504			

Extended Description :
PROFESSIONAL STAFF REPRESENTATION OF DATA IN LEGAL/

Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Quotation
34 — Service - Prof

Proc Folder: 306009

Doc Description: ADDENDUM 1 - BENTHIC MACROINVERTEBRATE SAMPLE PROCESSING

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No	Version
2017-05-30	2017-06-13 13:30:00	CRFQ 0313 DEP1700000024	2

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON WV 25305
US

VENDOR

Vendor Name, Address and Telephone Number:

REI Consultants, Inc.
225 Industrial Park Rd.
Beaver, WV 25813
304-255-2500

FOR INFORMATION CONTACT THE BUYER

Michelle L Childers
(304) 558-2063
michelle.l.childers@wv.gov

Signature X Ed J. Kirk FEIN # 55-0668654 DATE 06/07/17

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMAITON:

Addendum

Addendum No. 1 issued to publish and distribute the attached information to the vendor community.

Request for Quotation

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Department of Environmental Protection to establish an open-end contract for the processing and identification of benthic macroinvertebrate samples collected from West Virginia waters.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION DIV OF WASTE AND WATER MGT 601 57TH ST SE CHARLESTON WV25304 US	ENVIRONMENTAL PROTECTION DIVISION OF WATER AND WASTE MGT 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	SAMPLE IDENTIFIED TO GENUS LEVEL	500.00000	EA	170.00	85,000.00

Comm Code	Manufacturer	Specification	Model #
81131504			

Extended Description :

SAMPLE IDENTIFIED TO GENUS LEVEL: INCLUDE TRAVEL COST FOR SAMPLE PICKUP AND DELIVERY PER UNIT.

INVOICE TO	SHIP TO
ENVIRONMENTAL PROTECTION DIV OF WASTE AND WATER MGT 601 57TH ST SE CHARLESTON WV25304 US	ENVIRONMENTAL PROTECTION DIVISION OF WATER AND WASTE MGT 601 57TH ST SE CHARLESTON WV 25304 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	PROFESSIONAL STAFF REPRESENTATION OF DATA IN	5.00000	HOUR	75.00	375.00

Comm Code	Manufacturer	Specification	Model #
81131504			

Extended Description :

PROFESSIONAL STAFF REPRESENTATION OF DATA IN LEGAL/

WV-10
Approved / Revised
12/16/15

State of West Virginia

VENDOR PREFERENCE CERTIFICATE

Certification and application is hereby made for Preference in accordance with ***West Virginia Code***, §5A-3-37. (Does not apply to construction contracts). ***West Virginia Code***, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the ***West Virginia Code***. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Vendor Preference, if applicable.

1. ☒ **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; **or,**

☐ Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification;

☐ Bidder is a resident vendor partnership, association, or corporation with at least eighty percent of ownership interest of bidder held by another entity that meets the applicable four year residency requirement; **or,**

☐ Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; **or,**

2. ☒ **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; **or,**

3. ☐ **Application is made for 2.5% vendor preference for the reason checked:**
Bidder is a nonresident vendor that employs a minimum of one hundred state residents, or a nonresident vendor which has an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia and employs a minimum of one hundred state residents, and for purposes of producing or distributing the commodities or completing the project which is the subject of the bidder's bid and continuously over the entire term of the project, on average at least seventy-five percent of the bidder's employees or the bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years and the vendor's bid; **or,**

4. ☒ **Application is made for 5% vendor preference for the reason checked:**
Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; **or,**

5. ☐ **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; **or,**

6. ☐ **Application is made for 3.5% vendor preference who is a veteran for the reason checked:**
Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

7. ☐ **Application is made for preference as a non-resident small, women- and minority-owned business, in accordance with *West Virginia Code* §5A-3-59 and *West Virginia Code of State Rules*.**
Bidder has been or expects to be approved prior to contract award by the Purchasing Division as a certified small, women- and minority-owned business.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) rescind the contract or purchase order; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: REI Consultants, Inc. Signed: Ed J. Kirk

Date: 06/07/17 Title: Director - Biological Departments

*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

Ed J. Kirk Director - Biological Departments
(Name, Title)

(Printed Name and Title)

225 Industrial Park Rd, Beaver WV 25813
(Address)

304-255-2500 / 304-255-2572
(Phone Number) / (Fax Number)

ekirk@reiclabs.com
(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

REI Consultants, Inc.
(Company)

Ed J. Kirk - Director Biological Departments
(Authorized Signature) (Representative Name, Title)

Ed J Kirk
(Printed Name and Title of Authorized Representative)

06/07/17
(Date)

304-255-2500 / 304-255-2572
(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

MANDATE: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: REI Consultants, Inc.

Authorized Signature: Ed J. Tiss Date: 06/07/17

State of WV

County of Raleigh, to-wit:

Taken, subscribed, and sworn to before me this 7 day of June, 2017.

My Commission expires 10/21, 2023.

AFFIX SEAL HERE

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
JOYCE L. FARLEY
PO BOX 286
BEAVER, WV 25813
My Commission Expires Oct. 21, 2023

NOTARY PUBLIC Joyce Farley

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: CRFQ 0313
DEP17000000024

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:
(Check the box next to each addendum received)

[✓]	Addendum No. 1	[ ]	Addendum No. 6
[ ]	Addendum No. 2	[ ]	Addendum No. 7
[ ]	Addendum No. 3	[ ]	Addendum No. 8
[ ]	Addendum No. 4	[ ]	Addendum No. 9
[ ]	Addendum No. 5	[ ]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

REI Consultants, Inc.
Company

Ed J. Keith
Authorized Signature

06/07/17
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012