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Header 1

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 1834025
Procurement Type: Central Contract - Fixed Amt
Vendor ID: 000000192564
Legal Name: RUMMEL KLEPPER & KAHL LLP
Alias/DBA:
Total Bid: $0.00
Response Date: 12/03/2025
Response Time: 9:39
Responded By User ID: CHSRKK12718!
First Name: Jessica
Last Name: Walker
Email: jwalker@rkk.com
Phone: 3045434396

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SO Dept: 0310
SO Doc ID: DNR2600000003
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Status: Closed
Solicitation Description: A&E - Meadow River WMA Wetlands Project
Total of Header Attachments: 1
Total of All Attachments: 1

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

State of West Virginia
Solicitation Response

Proc Folder:	1834025
Solicitation Description:	A&E - Meadow River WMA Wetlands Project
Proc Type:	Central Contract - Fixed Amt

Solicitation Closes	Solicitation Response	Version
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VENDOR

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RUMMEL KLEPPER & KAHL LLP

Solicitation Number: CEOI 0310 DNR2600000003

Total Bid: 0 **Response Date:** 2025-12-03 **Response Time:** 09:39:35

Comments:

FOR INFORMATION CONTACT THE BUYER
Joseph (Josh) E Hager III
(304) 558-2306
joseph.e.hageriii@wv.gov

Vendor
Signature X **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	Civil engineering				0.00

Comm Code	Manufacturer	Specification	Model #
81101500			

Commodity Line Comments:

Extended Description:

Design and Contract Administration of a new wetlands area at Meadow River Wildlife Management Area.

EXPRESSION OF INTEREST FOR:

A&E - MEADOW RIVER WMA WETLANDS PROJECT

West Virginia Division of Natural Resources

State Project CEOI 0310 DNR2600000003 | December 3, 2025

159 Plaza Drive | Keyser, WV 26726 | P 304.788.3370 | www.rkk.com

December 3, 2025

Josh Hager
Department of Administration, Purchasing
Division 2019 Washington Street East
Charleston, WV 23505-0130

RE: **A&E – Meadow River Wildlife Management Area (WMA) Wetlands Project**

Dear Mr. Hager and Members of the Selection Committee:

Rummel, Klepper & Kahl (RK&K) is a leader in wetland science, our firm combines expertise in design, ecology, hydrology, and engineering to effectively restore and conserve streams, wetlands, and habitats for endangered species. We are committed to protecting natural resources and are excited to submit our proposal for the Meadow River WMA Wetlands Project with the **West Virginia Department of Natural Resources (WVDNR)**. With extensive experience in wetland creation and restoration, our team looks forward to partnering with WVDNR to establish a seasonal wetland area within the Meadow River WMA. This initiative will include features designed to manage water flow and create a conducive environment for waterfowl and other wetland species. We are confident in our ability to enhance habitats for wildlife, particularly species of greatest conservation need (SGCN) and threatened and endangered (T&E) species, while aligning with WVDNR's objectives and providing effective, cost-efficient solutions for the project.

Aileen Craig, PE, will lead the RK&K Team as project manager, bringing together a group of highly skilled professionals that includes registered engineers, Virginia Certified Professional Wetland Delineators, Professional Wetland Scientists, and water resource specialists. Our team possesses extensive training in delineating wetlands and Waters of the U.S., conducting stream assessments, navigating regulatory permitting, and implementing wetland and stream mitigation strategies. With a strong background in civil and environmental engineering, Aileen and her team have successfully overseen numerous projects of a similar nature, showcasing their expertise and commitment to excellence.

On behalf of our team, thank you for the opportunity to present our qualifications. If you have any questions, contact me at 304.788.3370 or via email at jcole@rkk.com. We look forward to discussing your needs in more detail, as well as our service capabilities to deliver fully integrated planning and designs for the Meadow River WMA Wetlands Project.

Respectfully submitted,
Rummel, Klepper & Kahl, LLP

John W. Cole, PE
Director

RK&K DIRECTOR
John Cole, PE
Professional Engineer: WV # 017949
Direct: *304.788.3370*
Email: *jcole@rkk.com*

RK&K PROJECT MANAGER
Aileen Craig, PE
Professional Engineer: VA #0402057217
Direct: *540.682.7564*
Email: *acraig@rkk.com*

Israel Creek, Walkersville, MD

Table of Contents

1 | Firm Qualifications

1 | Firm Qualifications

Statement of Qualifications

Our performance is data presented throughout our Expression of Interest (EOI) and includes staff qualifications, certifications, experience completing similar projects, and project examples including client references.

About RK&K

Our Legacy is Built on Trust

RK&K is a distinguished engineering firm with a legacy spanning over 100 years, dedicated to providing innovative solutions for the establishment of natural wetland areas. Our talented and diverse staff is committed to delivering creative solutions that enhance the quality of life in our communities. What sets RK&K apart is our award-winning culture, which fosters collaboration and trust among our team members and clients alike. We pride ourselves on being a trusted partner, a responsive employer, and a steward of the community, serving both public and private sectors with multidisciplinary planning, engineering, environmental, and construction administration services.

Core Technical Teams

Environmental: Our environmental team specializes in stream and wetland delineations and design, mitigation bank design, natural channel design, implementation of strategies for avoidance and minimization, and permitting services.

Water Resources: We provide comprehensive water resource management services, including hydrologic modeling, watershed assessments, and stormwater management strategies tailored to support the establishment of sustainable wetland ecosystems.

Geotechnical Engineering: Our geotechnical team evaluates soil conditions and provides recommendations for the design and construction of wetland areas, ensuring stability and longevity.

Construction Management: RK&K offers full construction administration services, overseeing the implementation of wetland projects to ensure they meet design specifications, budgetary constraints, and regulatory requirements.

Surveying: Our surveying team utilizes advanced technologies to accurately map and delineate wetland boundaries, providing essential data for project planning and execution.

Designed to Meet Your Objectives

RK&K excels in managing the entire lifecycle of project services, particularly for infrastructure projects aimed at enhancing natural environments. Our engineers and scientists employ a forward-thinking approach, utilizing the latest project management and design innovations to deliver projects on time and within budget. We are committed to the highest standards in design, durability, safety, and aesthetic value.

Our multidisciplinary team of engineers, planners, scientists, and technicians collaborates to deliver high-quality, sustainable infrastructure solutions. We cater to a diverse clientele, including state and local governments, industries, and developers, providing tailored planning, engineering, and permitting services that meet unique project needs.

As a leading engineering firm with over 1,950 professionals, RK&K has played a pivotal role in the design and maintenance of some of the nation's most iconic structures. Our certified and registered staff lead dedicated teams in crafting solutions that are constructible, environmentally sensitive, cost-effective, and visually appealing, all while adhering to state, federal, and owner-specific regulations.

Local Expertise

Our services for the establishment of natural wetland areas will be managed from our local Keyser, West Virginia office, which has been operational since 1999, with support from our Roanoke office and Baltimore headquarters. With more than 40 strategically located offices throughout the Mid-Atlantic, Southeastern, and South-Central United States, RK&K is well-positioned to respond to the needs of our clients and deliver exceptional results.

RESPONSIVE *PEOPLE.*

Creative **SOLUTIONS.**

102+	**1,950+**	**40+**	**#76**	**#63**
Years of Services	*Firmwide Personnel*	*Offices*	*ENR Top 500 Design Firms*	*Among Top 100 Pure Design Firms*

RK&K'S IN-HOUSE SERVICES

Environmental
- Environmental Assessments
- Regulatory Compliance
- Pollution Prevention and Spill Response
- Water Quality Management
- Environmental Planning and Documentation
- Public Outreach and Coordination
- Stream/Wetland Delineation
- Stream/Wetland Design
- Impact Avoidance and Minimization
- Permitting
- Cultural Resource Management

Stormwater Resources
- Comprehensive SWM, including Drainage Systems
- Green Infrastructure
- Best Management Practices (BMPs)
- Watershed Management/Modeling
- Floodplain Analysis & Management
- Regulatory Compliance
- Stormwater Quality

H&H
- Watershed Planning and Studies
- Stormwater Management Design and Retrofits
- Floodplain Analysis and Management
- Stream/Wetland Assessment and Restoration
- Hydraulic Structure Design
- Emergency Management Response

Water Distribution & Wastewater Collection
- Pump Station Design
- Electrical & Control Systems
- Startup & Commissioning
- Corrosion Protection System Evaluation & Design
- Utility Infrastructure Planning
- Water & Sewer Pipeline Design
- Pipeline Rehabilitation
- Trenchless Technologies

Water Supply & Storage
- Water Storage Tanks
- Raw Intake Design

Water & Wastewater Treatment
- Electrical & Control Systems
- Water Treatment
- Wastewater Treatment
- Sludge/Residuals Management
- Operation & Maintenance Support
- Startup & Commissioning

Private Utilities
- Power, Gas & Communications
- Corrosion Protection System Evaluation & Design

Structures
- Bridge Structure Design
- Bridge Rehabilitation
- Bridge System Preservation
- Bridge/Structure Evaluations and Analysis

Transportation Planning
- Corridor Study Alternatives
- Multi-Modal Studies
- HOV/HOT/TOLL Studies
- Geometric & Traffic
- NEPA Documents
- Public Involvement

Transportation Engineering
- Interstate/Interchanges
- Streetscapes
- Multi-Modal Studies
- HOV Studies
- Pedestrian/Bicycle Facilities
- Toll Facilities/Express Toll Lanes
- ADA Design

Traffic Engineering
- Capacity/Operations Analysis
- Simulation Modeling
- ITS Design
- Traffic Signal System
- Travel Demand Forecasting

Civil/Site Development
- Master Plans
- Site Grading
- Utility Connection/Location
- Access Roadway Design
- Parking Lot Layout
- Feasibility Studies

Construction Management
- Program Management
- Construction Inspection
- Contract Administration
- Materials Testing
- Contract Closeout

Construction Engineering
- CPM Scheduling
- Claims Analysis
- Issue Resolution
- Cost Estimates
- Computerized Project Controls

Hazardous Waste
- Environmental Site Assessments
- Remediation Planning & Design
- Underground Storage Tanks
- Spill Plans
- Regulatory Compliance Audits
- Permitting

Geotechnical Engineering
- Geological Reconnaissance
- Soil Surveys & Foundation Investigations
- Geotechnical Reports
- Cut/Fill Slope Stability Analyses
- Foundation Design
- Retaining Wall Design

2 | Specialized Experience and Technical Competence

2 | Specialized Experience and Technical Competence

Selecting the Right Team.

The RK&K Team is fully committed to providing the leadership, professional expertise, and technical resources required to successfully deliver the full range of contract plans for the Meadow River WMA Wetlands Project. Consequently, we are committed to maintaining the integrity of this team and its members for the project's duration. Our management team has successfully provided similar engineering services on previous projects for the WVDNR, West Virginia Division of Highways (WVDOH), and West Viriginia Department of Environmental Protection (WVDEP). Our team comprises multiple qualified and certified engineers, designers, managers, professional wetland scientists, natural resource specialist, and inspectors with immediate availability to serve the WVDNR on this project.

Aileen Craig, PE, will oversee our team's project performance and proactively collaborate with WVDNR to ensure alignment with your expectations. She will manage resources, provide technical support, and prioritize tasks such as scheduling, field inspections, and reporting. Her expertise makes sure that your project receives the attention and maintenance it requires, facilitating smooth operations and the longevity of infrastructure. Aileen is supported by task managers, each overseeing specific project components, along with a support services team assembled specifically for their specialized skills, experience, and expertise.

MEADOW RIVER WMA WETLANDS PROJECT

Key Personnel with Resumes Included

DIRECTOR	PROJECT MANAGER	TECHNICAL REVIEW QA/QC MANAGER
John Cole, PE	Aileen Craig, PE	Mike Hogan, PE

TASK MANAGERS

WETLAND DESIGN	H&H	PERMITTING	CONSTRUCTION
Justin Reel, PWS	Jason Coleman, PE, CFM	Justin Summers, EIT, DCA Rhiannon Miller, PE, CCM	Patrick DiNicola, REM, CCM Rion Wimer, PE

Israel Creek, Walkersville, MD

AILEEN CRAIG, PE

Project Manager

Years of Experience

12

Education

MS, Environmental Sciences and Policy, Johns Hopkins University, 2021

MS, Civil and Environmental Engineering, Carnegie Mellon University, 2013

BS, Civil and Environmental Engineering, Carnegie Mellon University, 2012

BS, Public Policy, Carnegie Mellon University, 2012

Registration

Professional Engineer: VA, (#0402057217); also in DC

Aileen is a technical manager with RK&K's water resources group. She has experience in Maryland, Virginia, Washington, District of Columbia (DC), and Pennsylvania, which includes stormwater management (SWM), hydrologic and hydraulic (H&H) analysis for stormwater and stream systems, erosion and sediment control, site inspections, and feasibility studies. Aileen's project experience involves regional and project specific stormwater management plans; permitting for highway projects; site selection studies; cost estimates; and Geographic Information System (GIS) mapping. She also has experience with innovative funding mechanisms for stormwater projects and serves as an expert contributor to updates for stormwater regulations. Throughout her career, Aileen has worked with multiple stakeholders in the public, private, and non-profit sectors.

Project Experience

The Nature Conservancy | Mount Olivet Cemetery Green Infrastructure, Washington, DC: Aileen served as the stormwater program manager on this Nature Conservancy project which was in partnership with Mount Olivet Cemetery which is owned and managed by the Catholic Cemeteries of the Archdiocese of Washington. Aileen was responsible for raising the funds, overseeing the engineering teams, construction, contractors, long-term maintenance of the project once built, and communication with the landowners. This was for twelve bioretention facilities and approximately 400 trees completed in three phases throughout the 80-acre property during eight years. Construction of the final phase was completed in August 2024, and Aileen continued overseeing long-term maintenance until May 2025.

City of Falls Church Public Schools | Meridian High School D/B Civil Design and Construction, Falls Church, VA: As led design engineer, Aileen made sure the project met Virginia's water quality and water quantity requirements. She led the design of innovative stormwater solutions—featuring bioretention systems and permeable pavement—to not only meet stringent stormwater management standards but also elevate the beauty and sustainability of the school campus. Leveraged Bentley PondPack for advanced modeling to ensure optimal performance and long-term value.

Virginia Department of Transportation (VDOT) | Statewide Location and Design Services Contract, Task: Peaks to Creeks Trail, Lynchburg, VA: As lead hydraulics engineer for a new trail connecting two locations in the City of Lynchburg, Aileen is responsible for drainage design, erosion and sediment control, floodplain management, and ensuring the project meets Virginia stormwater management requirements. The trail is in a mostly wooded area and is being designed to minimize impacts to the surrounding landscape.

City of Roanoke | Engineering Design Services for Roanoke River Greenway - Underhill, Roanoke, VA: Aileen serves as lead hydraulics engineer responsible for providing drainage design and erosion and sediment control for a shared-use trail connecting two disconnected portions of the Roanoke Greenway. Additionally, she is responsible for ensuring the project meets Virginia stormwater management requirements.

Chesterfield County | Engineering Services for Watershed Management, Task: Plan Review Services, Chesterfield, VA: Alieen serves as engineer responsible for reviewing plans submitted to Chesterfield County and provides permitting on the County's behalf to ensure that all Virginia and County drainage, stormwater management, and erosion and sediment control design requirements are met.

Anne Arundel County | Furnace Creek Stream Restoration, Anne Arundel, MD: Aileen served as design engineer responsible for erosion and sediment control design, and grading permit submittal for the stream restoration project in Anne Arundel County.

Years of Experience
25

Education
BS, Civil Engineering, Virginia Polytechnic Institute and State University, 2000

Registration
- Professional Engineer: VA, (#0402038783)
- Erosion & Sediment Control Plan Reviewer: VA DEQ
- Certified Stormwater Management Combined Administrator: VA WCB

MIKE HOGAN, PE

Technical Review | QA/QC Manager

Mike has advanced technical roadway and drainage training and experience on both rural and urban design projects. His intense hands-on training and experience provides him with the expertise to handle a wide variety of projects. His project experience includes various types of roadway design projects on new location, reconstruction and widening, and major drainage improvement projects. His experience also includes phased E&SC plans, designs for drainage conveyance systems, SWM facilities, design of projects involving wetland delineation and mitigation, preparation of plans and permit applications to meet environmental requirements for agencies such as USACE and DEQ, and plan reviews. He has extensive experience in the field of environmental permitting, including the development of permit applications for USACE/DEQ joint permits, project Stormwater Pollution Prevention Plans (SWPPPs), and associated Virginia Stormwater Management Program (VSMP) permits.

Project Experience

Fairfax County, DPW | Watershed and Stream Restoration, Flood Mitigation and Stormwater Management Projects, Environmental, Permitting, and Ancillary Services BOA, Task: Dogue Creek at Old Mill Road, Fairfax County, VA: Contract manager responsible for the delivery of services to ensure the team had appropriate resources to meet the County's goals, and coordinated with the County and other stakeholders. This project involved a 2,700 linear feet (LF) stream restoration, encompassing the reaches of Dogue Creek downstream of the Richmond Highway bridge crossing and upstream of the Mount Vernon Memorial Highway bridge crossing with the historical and restored George Washington Gristmill at the bottom. RK&K provided design, natural/permitting resource inventory, land survey, wetland/waterway permitting, and floodplain modeling.

VDOT | MS4/TMDL Implementation Services and Related Activities, Task: Culpeper BMP Retrofit, Culpeper, VA: As design manager, Mike provided total maximum daily load (TMDL) credits for VDOT as part of their Chesapeake Bay TMDL Action Plan by retrofitting an existing detention basin that was originally constructed with the Warrenton Bypass project. The retrofit consisted of grading additional water quality volume, new outlet structure, and converting the basin to a more efficient extended-detention basin with wetland features. The excavation from the retrofit was utilized as fill material to raise and widen the existing basin embankment to improve basin performance and safety.

Arlington County | Ballston Pond under Arlington County Stream Stabilization project, Arlington, VA: Quality control leader for this urban BMP retrofit of a poorly functioning dry detention pond receiving runoff from multiple MS4 regulated areas. The project included site retrofit design and analysis; hydrologic and hydraulic design; stream and bank stabilization along the edge of the facility; environmental permitting, including wetland delineations, design of enhanced habitat and biological uplift elements, with community interpretive elements, and public outreach.

Town of Abingdon | General Engineering & Architectural Services Contract, Task: CFPF Resiliency Plan, Abingdon, VA: Quality control leader for a task order to assist the Town with development of its Resiliency Plan. Following the submission of a successful DCR Community Flood Protection Fund grant application, RK&K is evaluating the vulnerability of public assets, utilities, roads, and structures within the Town to mitigate flooding. The Resiliency Plan focuses on the Town's floodplains, current and planned infrastructure and stormwater management, evaluate flood mitigation options, and provide a path forward to allow the Town to plan for improvements in the future.

Years of Experience
30

Education
BS, Biology, James Madison University, 1995

Registration
- Professional Wetland Scientist: PWS (#2554)

JUSTIN REEL, PWS
WETLAND DESIGN

Justin is a senior environmental scientist and project manager in RK&K's Natural Resources department with responsibilities for designing and coordinating wetland restoration sites, and conducting and managing field studies necessary for successful wetland projects. He is well-versed in tidal and non-tidal wetland creation, water quality monitoring, wetland and aquatic ecology, and lotic and estuary habitat assessments.

He is practiced in implementation of the latest regulatory guidance including Eastern Mountains and Piedmont regional supplements; NRCS Field Indicators of Hydric Soils; SWANCC; Rapanos; USACE Compensatory Mitigation Rule; preliminary (RGL 08-02) and approved JD; and adherence to TMDL requirements. Justin has secured permits under Section 401 and 404 of the CWA, and Section 10 and Section 9 of the Rivers and Harbors Act in West Virginia (including Stream Disturbance Permit through WVDEP) and throughout the mid-Atlantic.

Project Experience

VanMetre Companies | Capon Bridge Technology and Industrial Park, Capon Bridge, WV: Wetland restoration lead, Jsutin delineated wetlands on an 90-acre property following the ACOE wetland delineation manual. Identified and flagged emergent and forested wetlands and non-tidal waters of the United States.

CDS Trust | CDELSIG DelSignore Wetland Evaluation, Elder Swamp/Beaver Creek, WV: Wetland restoration lead, Justin researched wetland and stream mitigation banking in West Virginia and coordinated with the U.S. Army Corps of Engineers to obtain the latest Stream Mitigation Valuation tool. He assembled GIS data layers, conducted field investigations to verify GIS data, and collected stream quality data for the valuation tool. After the initial findings, the owners opted to challenge the assessed value in court, hiring RK&K for a detailed mitigation potential assessment. Justin managed this assessment, which included wetland boundary delineation and the development of enhancement, creation, and preservation concepts. The stream assessment involved evaluating existing conditions, including water quality and habitat assessments, and identifying enhancement opportunities through a stream walk. The findings were compiled into a summary report and a detailed technical report.

Northern VA Regional Commission | Four Mile Run Tidal Restoration, Alexandria, VA: Wetland restoration lead responsible for wetland restoration concept and final design development, wetland delineations, wetland water budget analysis, submerged aquatic vegetation (SAV) surveys, bio-benchmark establishment, and development of the water quality monitoring program for this tidal corridor restoration project that emphasizes natural channel design in a highly urbanized setting. Developed full design documents and supported environmental permitting for this project. Provided recommendations for invasive species control, herbivory control and planting during construction.

Arlington County | Arlington Ballston/Beaver Pond Stormwater Management Retrofit, Arlington County, VA: Environmental scientist/project manager responsible for wetland delineation, wetland / pond design, and permitting. Managed non-tidal wetland delineation, invasive species assessment, and forest and large tree survey. Developed habitat improvement concept designs. Presented concept to the client and the public during public workshops. Refined habitat improvement concept and developed wetland design plans. Attended pre-application site visit with USACE and managed and reviewed permit application submission.

Delaware Department of Transportation | Agreement 1986F, Task 01: Pepper Creek Shoreline Stabilization Mitigation Design, Dagsboro, Sussex County, DE: Justin was the project manager/technical lead for this project. He managed living shoreline/tidal wetland design from concept to Plans, Specifications, and Estimates (PS&E) documents, oversaw permitting and conceptual mitigation plan development, managed bid support activities, and provided engineering support during construction, including initial and final plant inspection.

JASON COLEMAN, PE, CFM

H&H

Jason is an experienced water resources engineer focuses on H&H studies and ecosystem restoration. He is skilled in floodplain analysis, hazard mapping, stream and wetland restoration, hydrologic modeling, hydraulic (1D) and hydrodynamic (2D) modeling, fluvial geomorphology, fish passage, field investigations, and ecosystem habitat creation design.

Years of Experience

23

Education

MS, Environmental Engineering & Science, Johns Hopkins University, 2012
BS, Civil & Environmental Engineering, University of Utah, 2001

Registration

- Professional Engineer: MD, (#38600); also in CO, TX, SC, DC, KY, and AZ

Project Experience

Maryland State Highway Administration (MDSHA) | Environmental Design and Permitting Services (BCS 2012-03E) - Israel Creek Steam Restoration at Stauffer Road, Frederick County, MD: Jason served as the senior project engineer for a stream and wetland complex design to meet pollutant load reductions to a recreational trout stream in a highly agricultural setting. Design included a detailed watershed study to develop a restoration of approximately 3,200 LF of stream and floodplain to significantly reduce streambank erosion, create a riparian stream butter, provide flood attenuation and peak flow reduction, reduce sediment and nutrient delivery downstream, and re-establish the floodplain connection during frequent storm events. The design included the creation of three shallow open-water wetlands to support waterfowl habitat. Jason was responsible for hydrologic/hydraulic/hydrodynamic modeling, geomorphic surveys, TMDL crediting, construction document preparation, and report development.

MDSHA | Full-Delivery TMDL Stream Restoration Sites (Tasks: UT Talbots Branch, Bens Branch), Multiple Counties, MD: Jason led and performed desktop assessments, on-site evaluations and prioritization rankings for over 100,000 feet of stream, concept designs for over 50,000 feet of highly ranked streams, and detailed design of 15,000 feet of streams. The desktop analysis included locating appropriate sites on large parcel tracts with streams and wetlands anticipated to be degraded based on general knowledge of the land use, LiDAR contours showing incised channels, evidence of lateral instability from aerial mapping, and Google street view of the channels where available at road crossings. On-site evaluations included a ranking of each site based on stream length, construction access, forest cover, utilities, lateral and vertical site constraints, streambank erosion, bank erodibility potential, functional uplift potential, bed form, and stream pattern to identify the sites with greatest uplift and credit potential, cost effectiveness, and anticipated permit agency support. Jason led the development of concept designs prepared for the highly ranked sites which included hydrologic and hydraulic studies, plans, construction cost estimates and natural resource impact assessments. He advanced design and permit approvals for two properties in Frederick County spanning over 8,100 feet of stream restoration, which restored over 12 acres of riparian wetlands.

WVDOH | Mt. View to Gilbert Creek Design-Build, Mingo County, WV: Jason provided technical oversight for the hydraulic study of Gilbert Creek as part of a design-build (D-B) roadway improvement of Gilbert Road. The study comprised approximately two-miles of stream studied with 10 bridge structures. The study was also submitted to FEMA to obtain a Conditional Letter of Map Revision (CLOMR).

WVDOH | Route 93 Scherr Overpass, Grant County, WV: Justin served as the hydraulic engineer for the H&H analysis for the replacement of the Scherr Road bridge over Elklick Run. Peak discharges to the bridge were estimated and a bridge hydraulics analysis was performed to determine water surface elevations for the existing and proposed bridges. The hydraulics of the bridge were greatly attected by the alignment of the stream channel, stream valley, and roadway embankment, as much of the flood flow bypassed the bridge opening and continued down the stream valley. A scour analysis was performed and approved by WVDOH.

JUSTIN SUMMERS, EIT, DCA

PERMITTING

Years of Experience

17

Education

BS, Land and Water Resources Engineering, Virginia Polytechnic Institute and State University, 2007

Training, Regulatory I Training, US Army Corps of Engineers, 2024

Registration

- Engineer-in-Training: VA
- Dual Combined Administrator: VA DEQ (#DCA0596)

Justin serves as a project manager on the firm's Natural Resources team. His environmental career encompasses both the private and public sectors, with extensive experience at the state and federal levels. He began his career as a project engineer, conducting delineations and permitting for a diverse range of clients. Justin then transitioned to a role within the VDOT Environmental Section, where he managed the environmental components of roadway maintenance and construction projects. He became a certified stormwater plan reviewer, evaluating projects across various regions. Later, he joined the USACE as a regulatory project manager, focusing on permitting and natural resource management. In this capacity, he oversaw federally funded transportation projects and contributed to the review and approval of jurisdictional determinations. Justin's diverse experience equips him with a comprehensive understanding of environmental regulations and project management.

Project Experience

USACE | Approved Jurisdictional Determination (AJD) District Implementation Team (DIT), Various Locations, VA: Justin was responsible for navigating challenges associated with the evolving definition of "waters of the United States" following the Sackett decision by the Supreme Court. His responsibilities included preparing training materials and conducting training sessions for USACE Norfolk District regulatory staff and VDOT environmental staff statewide. Additionally, he collaborated with a small team of regulators to review all AJDs submitted to the Norfolk District in Virginia.*

VDOT | I-64 Gap Project, New Kent County, James City County, and York County, VA: This project involves upgrading Interstate 64 (I-64) from four to six lanes between mile markers 204.9 and 234, divided into segments A, B, and C. Justin's role included the review and approval of the Preliminary Jurisdictional Determination (PJD) for all streams and wetlands within the I-64 Gap corridor, covering over 350 stream reaches and 570 unique wetland resources. He also reviewed permit applications and issued individual permits (IPs) for Gap A and Gap C segments, coordinating with the United States Fish and Wildlife Service for a Biological Opinion related to the issuance of the I-64 Gap C IP. Furthermore, he issued a permit modification for additional impacts concerning construction access for the I-64 Gap A segment, which commenced construction in Fall 2024.*

VPRA | Richmond Layover Facility AJD, Richmond, VA: As the USACE liaison to the Virginia Passenger Rail Authority (VPRA), Justin assisted in delineating waters of the U.S. at the Richmond Layover Facility. He collaborated with VPRA and their consultant to complete an AJD for two large wetland systems at the facility. His work involved helping navigate the updated definition of waters of the U.S. to document the absence of continuous surface connection between the wetlands and downstream navigable waters, leading to the issuance of an AJD confirming that none of the streams and wetlands on the property fell within federal jurisdiction. Additionally, he supported VPRA staff in navigating other federal review processes, such as Endangered Species Act consultation, to fulfill National Environmental Policy Act (NEPA) requirements.*

VDOT | Hampton Roads Bridge Tunnel, Hampton Roads, VA: Justin managed the HRBT project, which is estimated to cost $3.9 billion and is the largest highway construction project in Virginia's history. The project aims to upgrade 10 miles of I-64 by adding two bored tunnels and constructing new bridges over the James River at its confluence with the Chesapeake Bay. During his management, Justin worked with VDOT and the joint venture (Hampton Roads Connector Partners – HRCP) to hire a liaison to monitor compliance for USACE. He identified areas permitted as temporary impacts where necessary restoration had not occurred and collaborated with VDOT and HRCP to create, implement, and monitor wetland restoration plans at 16 impact areas to ensure compliance with the permit issued by USACE. In this role, he also reviewed and issued permit modifications 11 and 12 and monitored inspection reports and discharge notifications to ensure compliance with applicable federal regulations.*

**Prior to RK&K*

Years of Experience
26

Education
MS, Environmental Science, Johns Hopkins University, 1999

BA, Biology, State University of New York - College at Oswego, 1995

Registration
- Erosion Sediment Control Responsible Person: MD, (#RPC007590)
- Certified Construction Manager (#25929)
- Registered Environmental Manager (#517580516)
- Control Inspection: VADEQ, (#ESIN0688)

PATRICK DINICOLA, REM, CCM
CONSTRUCTION

Patrick is a manager in construction at RK&K and leads the firm's Environmental Construction Management group. His construction management experience specialty includes stream and wetland restoration, stormwater management, landscaping, and other ecological driven projects. Patrick has 24 years of experience in the environmental field as a scientist, designer and construction manager. His diverse experience includes water quality/watershed studies, stormwater and erosion sediment control design, environmental permitting, monitoring, and environmental construction management and inspection (CM/CI). For the past 16 years, he has focused on the management, compliance, and construction of environmental/ecological restoration projects

Project Experience

City of Fairfax | CMI for MS-4/TMDL Projects, Fairfax, VA: Patrick serves as the construction manager on this task, he reviews contractor submittals, performs quality assurance and environmental inspections on site, reviews pay applications, leads progress meetings, and resolves construction issues. He coordinates directly with the City's Department of Public Works and manages a full-time inspector and part-time material and testing inspector. Two recent projects include:

- Ashby Pond Restoration: This two million dollar retrofit of an existing SWM pond as part of the City's compliance with their MS-4 permit requirements. The project involves the dredging of the existing pond, the creation of new forebays, the restoration of two stream channels using natural channel techniques, new sewer and stormwater drainage, trail construction, and landscaping.
- Stafford Drive Stream Restoration: the Stafford Run Stream Restoration is a three million two hundred thousand dollar project that includes the restoration of stream channel and floodplain for approximately 3000 LF on a tributary of Accotink Creek. The work includes the installation of grade controls, including log vanes, imbricated cross vanes, riffle grades, and scour pools, as well as mass floodplain excavation, installation of new drainage manholes, pipe, and headwalls, as well as extensive native landscaping

City of Alexandria | Windmill Hill Park Shoreline Restoration Construction Management/Inspection, Alexandria, VA: Serving as construction manager, Patrick was responsible for the supervision of field inspection and environmental specialist work for a five-million-dollar environmental restoration and park development project. Responsibilities included biweekly progress reports, review, and analysis of proposed change orders, RFI coordination and response with the design team and City staff, utility coordination, and issue resolution with the contractor. Project included the filling of an embayment along the Potomac River to create a living shoreline wetland; restoration of a stream channel using natural channel techniques; installation of park features including a new pedestrian bridge, walking paths, and concrete decorative walls; installation of irrigation and electrical conduit; extensive native landscaping; and the installation of green infrastructure bioretention units along impervious roadway surfaces. Unique aspects of this project associated with working within Old Town included restrictive MOT and hauling, archaeological monitoring, and proactive public outreach.

Northern VA Regional Commission | Four Mile Run Stream/Wetland/Living Shoreline Construction Management/Inspection, Alexandria & Arlington, VA: Environmental manager/construction manager involved in both phases of this environmental restoration project. Performed QA inspection and issue resolution, managed construction staff on the implementation of specifications and details related to the construction of a three-acre tidal wetland, nine living shorelines, landscaping, trail reconstruction, and other park amenities; conduct periodic progress meetings, submittal reviews/response, and invoice tracking; provided expertise on invasive species management, native and aquatic landscaping, tidal wetland construction, ESC compliance/reporting, and sequence of construction.

3 | Past Performance

3 | Past Performance

RK&K is pleased to present project profiles that align with the requirements of qualified firms to provide essential engineering services for the evaluation, design, specification, and construction administration of a natural wetland area at the Meadow River WMA in Greenbrier County, West Virginia. **Aillen Craig, PE**, will oversee all stages of the project to ensure seamless execution.

RK&K offers comprehensive capabilities across all phases of project development, from initial planning and feasibility studies to final design and construction oversight. Our firm has a proven track record of consistently meeting scheduled milestones and project budgets. This achievement is facilitated by a well-established project scheduling and cost control methodology, refined by our project managers over decades. Our approach involves preparing and submitting a computerized schedule and cost control plan for client review, encompassing each major work element defined in the scope of work. Additionally, we provide a simplified schedule of overall project deliverables in bar chart format, aligned with the conceptual completion dates for each group of work elements. Both tabular and bar chart schedules serve as the foundation for our status reporting.

Each month, we deliver an updated schedule and cost control plan that includes the current planning cost summary, amounts invoiced to date, and amounts earned but not yet invoiced. We also provide monthly updates to the project deliverables bar chart and prepare written reports detailing progress, work accomplished during the reporting period, information required from the owner, and any delays or issues encountered, along with planned corrective measures for deviations from the schedule or cost control plan.

The ability of our team to meet scheduled milestones and project completion dates stems from our high-quality project management, meticulous attention to detail, and staff commitment. We will ensure that the appropriate technical staff and adequate resources are allocated to meet the project's needs and milestones. Our team will leverage the full depth of our expertise to provide the services required by WVDNR for this wetland establishment project.

RK&K brings a track record of consistently meeting scheduled milestones and project budgets.

Timeliness of performance extends beyond mere on-time delivery; it encompasses the quality of work at each stage of completion. Our philosophy dictates that if the delivery schedule is met but the work does not meet the required quality standards, then the goal of timely performance is not achieved. Consequently, we mandate that every schedule includes designated time and personnel specifically for QA/QC reviews prior to scheduled submittal dates.

We will diligently track the project based on the schedule developed in coordination with WVDNR. Our proactive approach will address critical issues or items affecting the schedule as soon as they arise. Regularly scheduled coordination meetings will be held to ensure that all team members meet their internal deadlines ahead of any submissions to WVDNR. The RK&K Team takes pride in successfully completing projects within the required schedule, regardless of the task's duration or complexity.

Performance is validated through our commitment to delivering on our promises. The following project examples illustrate our past performance on projects with government agencies and private industries, highlighting our effectiveness in cost control, quality of work, and adherence to performance schedules.

NORTHERN VA REGIONAL COMMISSION | FOUR MILE RUN WETLAND AND LIVING SHORELINE, ARLINGTON, VA

Client:

Northern VA Regional Commission (NVRC)

Client Reference:

Rebecca Murphy, Resources Program Manager | 703.642.4625 | rmurphy@novaregion.org

The Four Mile Run Wetland and Living Shoreline project, located in Arlington, Virginia, is a comprehensive restoration initiative aimed at enhancing the environmental quality of the tidal portion of Four Mile Run while maintaining its flood control function. Sponsored by the NVRC, the City of Alexandria, and Arlington County, the project encompasses approximately 6,000 LF of tidal stream restoration, which includes the creation of a two-acre wetland restoration area and nine living shoreline segments. These efforts are designed to improve biodiversity and habitat viability, which had significantly diminished due to previous flood control measures implemented in the mid-1960s by the U.S. Army Corps of Engineers.

Key features of the project include the establishment of a two-acre wetland restoration area that enhances water quality and provides habitat for various species. The construction of nine living shoreline segments stabilizes the banks and improves ecological functions. Innovative techniques were employed, such as recycling existing rock rip rap along the hardened stream banks, which were regraded, backfilled with topsoil, and planted with native vegetation to provide natural filtration and protection. Additionally, strategies were implemented to address the introduction of invasive species, ensuring the long-term viability of the native plantings.

The environmental impact of the restoration efforts has significantly improved the ecological health of the Four Mile Run corridor, enhancing habitat quality and increasing biodiversity. Ongoing efforts to involve stakeholders and the public in the planning and execution phases have been a cornerstone of the project, with public meetings and stakeholder groups established to gather input and ensure community needs are met. The project has received several awards and recognition, including the 2016 Virginia Treasure Designation and the 2017 Best Urban BMP in the Bay Award, showcasing RK&K's commitment to ecological restoration and community engagement.

ARLINGTON COUNTY | BALLSTON POND RETROFIT STREAM STABILIZATION PROJECT, ARLINGTON, VA

Client:

Arlington County, VA

Client Reference:

Christin Jolicoeur | 703.228.3588 | cjolicoeur@arlingtonva.us

RK&K was tasked by the NVRC on behalf of the Arlington County Department of Environmental Services to develop pre-construction scheduling and cost estimating for the Ballston Pond Retrofit project, a key initiative to meet the County's MS-4 permit requirements. Leveraging our previous success in providing cost estimates for the Four Mile Tidal Restoration Project Plan B Site 2, RK&K created a comprehensive schedule and cost estimate based on production rates, materials, and labor and equipment necessary for project completion. This project involved retrofitting an existing stormwater management basin into a stormwater wetland, incorporating landscaping and public amenities such as trails and an observation platform. Major tasks included excavation, stream diversion, erosion and sediment control, wet pond cell creation, drainage structure installation, removal of invasive species, native landscaping, new trail construction, and decorative fencing installation. The project also included a two-year warranty and care period for new plantings and invasive species control maintenance.

RK&K developed a construction schedule based on the sequence of activities detailed in the Plans, Specifications, and Estimates (PS&E) document set. Production rates for identified tasks were estimated based on our experience and published productivity rates from sources such as RS Means. Specific activity durations were calculated to determine total costs and schedule timeframes. This process resulted in an estimate of 325 working days for project completion. After reviewing the planned contract award date and Notice to Proceed (NTP), we adjusted the schedule to ensure that aquatic landscaping installation occurred in the spring, rather than late fall.

To analyze contractor productivity and material impact on overall project costs, RK&K generated a production cost estimate. This estimate considered unique site factors such as maintenance, water handling, and excavation of wet material. Crew rates for specific activities were developed using previous contractor-provided information, blue book equipment rates, certified payrolls, and supplier material costs, which were then integrated into the production schedule for total estimated costs. Additionally, a traditional cost estimate based on quantity take-offs and unit cost items was performed using historical data from local contracts and pricing information from other stormwater management retrofit projects managed by RK&K. The production cost estimate and traditional unit cost estimate provided the NVRC and County with two data points for estimating construction costs. Ultimately, eight bids were received for the project, with the average bid cost being 11% less than the production-based cost estimate. Project was awarded the 2025 Virginia Governor's Environmental Excellence Silver Award and the 2025 Virginia Lakes and Watersheds Association Watershed Excellence Award.

5 years after construction

MDSHA | BENS BRANCH STREAM/WETLAND RESTORATION, FREDERICK COUNTY, MD

Client:

MDSHA

Client Reference:

Joe Caterino | 804.729.9113
jcaterino@res.us

RK&K identified the restoration of Bens Branch and three tributaries to Bens Branch as part of a full delivery project for MDSHA. RK&K is serving as lead designer and permitting agent.

To help MDSHA meet pollutant load reductions associated with the Chesapeake Bay TMDL, the project restored and enhanced a total of 4,709 existing LF of perennial streams, including Bens Branch, North Fork Bens Branch, South Fork Bens Branch, and an Unnamed Tributary to North Fork Bens Branch. Significant nutrient reductions and TMDL credits were achieved through the elimination of sediment and nutrients stored in erosive stream banks; enhancing plant form, adding channel diversity, and incorporating woody material for improved base flow quality; and attaching flood flows, base flows, and groundwater to a riparian wetland floodplain system that traps and filters sediment and nutrients. TMDL credits were calculated at 186.5 tons/year, 247.3 lb/year, and 2,429.1 lb/year for total suspended solids (TSS), total phosphorus (TP), and total nitrogen (TN), respectively.

The restoration project enhances hydrologic, hydraulic, geomorphic, physiochemical, and biologic functions by creating small active channels that allow runoff to access sustainable riparian wetlands, improving water quality, filtering nutrients, providing flood attenuation, recharging groundwater, and enhancing wildlife habitat. RK&K utilized an integrated stream and wetland approach to create hydraulically connected floodplains, ensuring that groundwater, base flow, and flood flows are attached to dense riparian wetland root zones. Proposed floodplain widths allowed for the reuse of native streambed material and focused on developing smaller active channels that meander through created wetland floodplains. Log structures and root wads were proposed within the restored floodplains to provide grade control, wildlife habitat benefits, and increased surface roughness for flood flows. RK&K performed two-dimensional hydrodynamic modeling to evaluate channel and floodplain shear stress and velocity through the restored reaches, proposing protection measures in areas of high shear stress to ensure long-term stability.

Finished construction

Site photos during construction

MDSHA | ISRAEL CREEK STEAM RESTORATION AT STAUFFER ROAD, ELKTON, MD

Client:

MDSHA

Client Reference:

Ryan Cole, Chief of Water Programs Division | 410.545.8567 | rcole@mdot.maryland.gov

As part of MDSHA's initiative to meet goals for pollutant load reductions associated with the Chesapeake Bay TMDL, RK&K designed a stream and wetland complex restoration for 2,978 LF of Israel Creek, a Use IV stream, on private property just downstream of Stauffer Road. The Israel Creek Watershed project area is approximately 30 square miles and consists primarily of agricultural land use with smaller portions of forest and urban land. The project area and adjacent stream reaches have been heavily manipulated through anthropogenic changes, including a mill dam, mill race, and diversion dam from the mill race just downstream of the project reach. A breach of the diversion dam led to headcut development downstream of the project, creating vertical instability of the channel. The existing channel was also laterally unstable with significant erosion and lateral migration in portions of the stream leaving vertical or near vertical banks through much of the project reach. We observed that the fine mill pond sediments are easily eroded during storm events in addition to significant freeze-thaw erosion during normal baseflow conditions.

Pre-construction bank heights ranged from 3 to 6 feet high above base flow with only sparse vegetation providing protection of the bank faces. The riparian buffer was severely lacking, with few trees along the banks and adjacent floodplain that has been farmed. Impairments to Israel Creek were further noted by the Frederick County Stream Survey (FCSS) Summary Report for the Israel Creek Watershed, which notes the Benthic Index of Biotic Integrity (BIBI) as "Very Poor" and the Physical Habitat Indicator (PHI) as "Poor" near the project reach. The project goals included improving stream conditions by preventing sediment and nutrients delivered downstream; restoring the riparian buffer; creating sustainable wetlands and waterfowl habitat; recharging groundwater; providing additional flood storage; and improving aquatic habitat.

3 | Project Understanding and Approach

4 | Project Understanding and Approach

Methods

The project approach will initially focus on working with WVDNR to establish overall project goals and a design that meets those goals within the designated budget. We will ground truth existing data shown in the site plan and develop a plan that redirects the water to create desirable habitat while minimizing ecological disturbance. Potential approaches include, cessation of mowing and incompatible management, management of invasive species, floodplain connectivity improvements through benching and bank grading, instream habitat and lateral stability enhancements through woody structures, improvements in wetland hydrology and vegetation by ditch plugging and planting, wetland restoration by grading, followed by riparian vegetation reestablishment and enhancements.

Approach

Site Selection | Development of a plan that meets the desired habitat enhancement while minimizing cost and ecological disturbance requires an efficient site selection process. Desktop review and WVDNR meetings are the first steps towards development of an effective restoration plan. No one knows the project area as well as the WVDNR, so early WVDNR discussions are critical to the success of the plan. Generally, site selection will target areas that are still in early succession and in landscape positions that will support wetland development with less invasive techniques. The site selection process will include looking for low valley slopes that will retain water better, sufficient valley width to create offline shallow open water habitat, any bedrock or other long-term grade control onsite, specific vegetation that we can drown out of help thrive if we were to flood it more frequently, and identifying degrading wetland areas that can be enhanced by minor grade control adjustments or water diversions. If specific restoration locations are not already identified, the project team will follow the typical site selection process outlined in figure 1. The process includes an initial desktop review, a windshield survey, and then a walkthrough survey. Figure 2 below shows our initial desktop review of current site conditions and more robust version of this GIS mapping will be completed. WVDNR feedback will be sought at each step prior to dropping sites. Restoration concepts and approaches will be developed for selected sites and evaluated against WVDNR priorities and budget to determine the final plan.

Figure 1

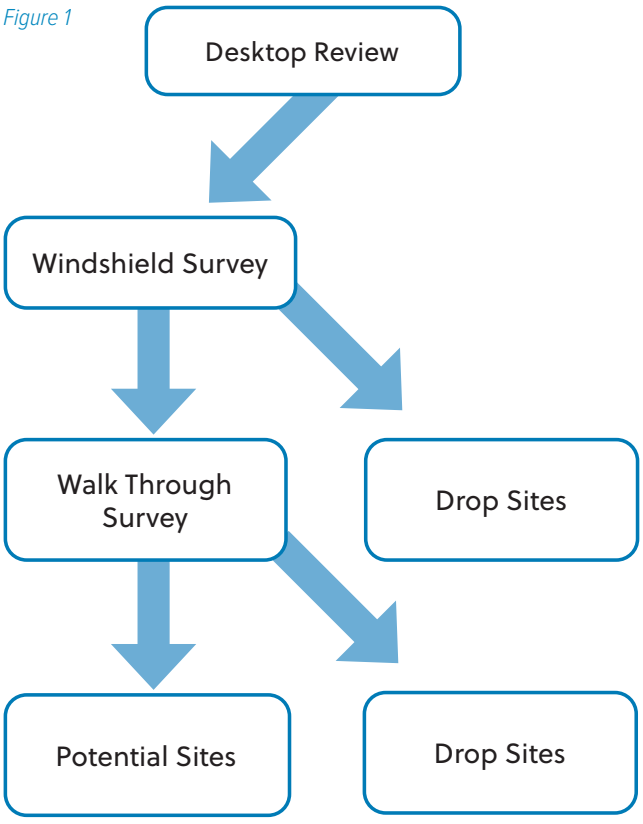
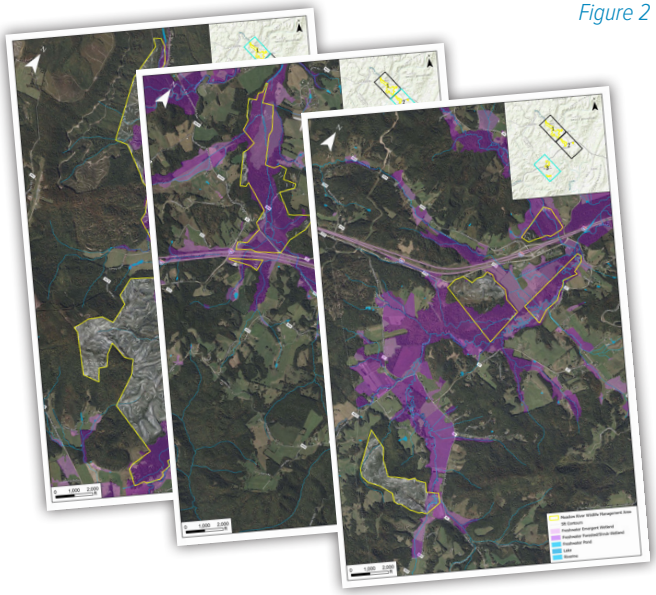


Figure 2



Design | The wetland design process will be focused on hydrologic alterations that promote seasonal wetland hydrology with minimal grading to minimize cost and ecological disturbance. Using natural topography to our advantage we will look for opportunities to facilitate flooding of riparian areas during elevated flows using instream structures, bank alteration, or underground piping. Reviewing soil information and developing simple water budgets will help inform design options. Beaver Dam Analogs (BDAS) will be considered since they are a low impact hydrological alteration that can re-establish floodplain wetlands where stream incision has dried out the floodplain. Biochar amendments to soils will be considered where appropriate to enhance nutrient cycling. We will locate areas where new wetlands can be established with minimal ecological impact. A design approach that has been successful in the past for this type

of habitat is to divert a portion of baseflow from the stream to a floodplain wetland with some shallow open water. Then have wetland drain back to the channel downstream. A small berm can be added as needed around the wetland area, and a small sluice gate, stop log, or similar structure can be added to manually adjust water levels seasonally and allow flow back to the channel through the berm. This is helpful to be able to control the wetland elevation without working in a regulated stream.

The design process will be based on natural channel design principles and process-based restoration techniques. Natural channel design principles require understanding processes and tendencies before developing and implementing a solution. Some stream restoration may be needed if the channel is incised to make sure the stream will flood the wetland/floodplain often. Grade control structure(s) should be added to increase connectivity from the channel to the floodplain wetland.

Design elements will also include invasive removal and site wide vegetation management.

Permitting | Our experience navigating regulatory reviews and permitting processes highlights the importance of communication as the central focus of our permitting approach. Our permitting approach begins with contacting regulatory partners to schedule a kick-off meeting to introduce the project and build relationships that will lead to the successful development and execution of the project. After the kick-off meeting is held and goals are agreed upon, our team will begin the data collection process using both desktop and database reviews as well as field investigations

North County Park, Greensboro, MD

to document conditions within the project area. Information gathered will be used to facilitate additional conversations and reviews with resource agencies responsible for protection of natural and cultural resources. This information will also be used to facilitate conversations with the RK&K design team to ensure that the project is designed in a manner that avoids and minimizes impacts on environmental resources to the maximum extent practicable. Our team will then develop documentation that identifies, quantifies, and depicts unavoidable impacts. This documentation will be used to finalize resource agency review processes and obtain necessary state and federal water quality permits. For this project, our team anticipates utilizing a U.S. Army Corps of Engineers (USACE) Nationwide Permit (NWP) for wetland enhancement, restoration, and/or construction.

Construction Documents | The team will provide quality construction documents through a rigorous quality control process consisting of multiple independent reviews at key stages of design, the most critical of which is 30% design, where the trajectory of the project is determined before significant design dollars are invested. The 30% review is followed by additional reviews at the 60% and 90% design milestones. The process will also include a constructability review by our construction team.

Budget Control | The project team's approach to controlling the budget consists of a four-tier approach. The first tier consists of appropriate planning, preparation, and due diligence that will result in a well-defined project scope. The second tier consists of assembling a team with low overhead, allowing more money to be invested in the resource. The third tier consists of appropriate project leadership and management throughout the process, finding ways to optimize the approach as more information is discovered and avoiding costly pitfalls through communication and teamwork. The fourth tier, specifically from a construction perspective, will encourage that all on-site materials will be re-used, and imported materials, such as quarried stone, will be reduced to the maximum extent practicable.

Quality Assurance | The design team has selected Mike Hogan, PE, as the quality manager for this project. Mike has over 25 years of experience planning, designing, and implementing water resources and ecological restoration projects in the Mid-Atlantic. He will be utilized as the primary independent reviewer during the project design process. During the construction process, quality will be assured through appropriate construction oversight within specified tolerances.

Value Engineering | The project team's approach is value driven; however, opportunities to create additional value for the client will be explored during the design and construction process. This could be as simple as harvesting on-site willow live stakes and whips, harvesting on-site sod, or working with the adjacent land WVDNRs and businesses to identify spoil areas outside of the floodway. All examples may be real opportunities to conserve budget.

Innovation

The project team proposes potential innovative elements to include as cost-effective ways to meet the project goals. One element is potentially integrating Beaver Dam Analogs (BDAs) into the design as an innovative and cost-effective way to create habitat for waterfowl. BDAs are built with natural materials, and sourced onsite to mimic a natural beaver dam. They can either be completely human made or started by humans and left for completion by the local beaver population. This is a cost-effective and natural way to mimic natural processes and create additional habitat.

The project team proposes to integrate an innovative technique for water quality improvements for increased functional uplift. Biochar as a soil amendment has been widely studied for its effects on bacteria transport and retention and its use in anaerobic bioreactors that intercept shallow groundwater, such as that at the project site. In some experiments, bacterial retention increased significantly with just 1% amendment with biochar. Anaerobic reactors consist of fine and coarse wood debris and have the potential to bring elevated nitrate and phosphorus concentrations below or near maximum recommended levels for stream health (Easton et. al., 2023; Teshnizi, 2023). The anaerobic reactor treatment method will be applied longitudinally as a continuous bed treatment in the inlet-outlet channels of the wetland to increase nutrient cycling and benthic habitats. Biochar will be applied in the wetland cell substrates to increase bacterial retention. Both techniques can be used as demonstrations, studied, and set the stage for these types of treatments to be installed elsewhere in the watershed as water quality impairments and their treatments become of greater interest in West Virginia. This treatment can also be done very cost-effectively.

Additional innovations include proposals to plant woody riparian vegetation in localized areas. This high densities of aids in canopy establishment and a reduction in invasive plants. These areas are also habitat and biogeochemical processing hotspots and contribute to overall riparian habitat complexity.

Uplift

The project approach will address every source of impairment for which Meadow River is listed to maximize functional uplift. The following table ties each component of the project to a 303(d) impairment.

Impairment	Improvement
Escherichia coli	Wetland Treatment Cell, Wetland Restoration, Riparian Planting
Iron	Wetland Restoration
Sedimentation/Siltation	Floodplain Connectivity, Bank Stabilization

The project approach will encourage establishment and the protection of significant wetland species of concern noted in the Action Plan for the Meadow River Wetlands Conservation Focus Area. A wetland complex consisting of open water, herbaceous wet meadow, shrub wetlands, and forested riparian wetlands can provide habitat elements for these species.

- American Woodcock
- Great Blue Heron
- Green Heron
- Rusty Blackbird
- Virginia Spiraea
- Meadow River mudbug

Materials

The construction materials will consist of those typical of an ecological restoration project. Channel work will be completed with large woody debris to the maximum extent practicable using techniques such as toe wood and woody debris grade controls. Some quarried stone may have to be obtained and incorporated into the woody structures both for habitat stability and to limit the on-site wood harvesting to removing only those trees necessary to achieve stabilization. Outside of the channel, fully biodegradable coconut coir matting, seed, and straw will be used to stabilize the site, followed by live staking and tree planting for long-term stability purposes.

Erosion Prevention and Sediment Control (EPSC) Measures

Although wetland restoration projects do not necessarily fall neatly into the mold of typical EPSC measures, there are mechanisms that will be used to prevent impacts to Meadow River.

5 | Required Forms

Subcontractor List Submission (Construction Contracts Only)

Bidder's Name: Rummel, Klepper & Kahl, LLP

☑ Check this box if no subcontractors will perform more than $25,000.00 of work to complete the project.

Subcontractor Name	License Number if Required by W. Va. Code § 21-11-1 et. seq.
N/A	N/A

Attach additional pages if necessary

Revised 8/24/2023

ADDITIONAL TERMS AND CONDITIONS
(Architectural and Engineering Contracts Only)

1. PLAN AND DRAWING DISTRIBUTION: All plans and drawings must be completed and available for distribution at least five business days prior to a scheduled pre-bid meeting for the construction or other work related to the plans and drawings.

2. PROJECT ADDENDA REQUIREMENTS: The Architect/Engineer and/or Agency shall be required to abide by the following schedule in issuing construction project addenda. The Architect/Engineer shall prepare any addendum materials for which it is responsible, and a list of all vendors that have obtained drawings and specifications for the project. The Architect/Engineer shall then send a copy of the addendum materials and the list of vendors to the State Agency for which the contract is issued to allow the Agency to make any necessary modifications. The addendum and list shall then be forwarded to the Purchasing Division buyer by the Agency. The Purchasing Division buyer shall send the addendum to all interested vendors and, if necessary, extend the bid opening date. Any addendum should be received by the Purchasing Division at least fourteen (14) days prior to the bid opening date.

3. PRE-BID MEETING RESPONSIBILITIES: The Architect/Engineer shall be available to attend any pre-bid meeting for the construction or other work resulting from the plans, drawings, or specifications prepared by the Architect/Engineer.

4. AIA DOCUMENTS: All construction contracts that will be completed in conjunction with architectural services procured under Chapter 5G of the West Virginia Code will be governed by the attached AIA documents, as amended by the Supplementary Conditions for the State of West Virginia, in addition to the terms and conditions contained herein. The terms and conditions of this document shall prevail over anything contained in the AIA Documents or the Supplementary Conditions.

5. GREEN BUILDINGS MINIMUM ENERGY STANDARDS: In accordance with West Virginia Code § 22-29-4, all new building construction projects of public agencies that have not entered the schematic design phase prior to July 1, 2012, or any building construction project receiving state grant funds and appropriations, including public schools, that have not entered the schematic design phase prior to July1, 2012, shall be designed and constructed complying with the ICC International Energy Conservation Code, adopted by the State Fire Commission, and the ANSI/ASHRAE/IESNA Standard 90.1-2007: Provided, That if any construction project has a commitment of federal funds to pay for a portion of such project, this provision shall only apply to the extent such standards are consistent with the federal standards.

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.

(Printed Name and Title) John Cole, Director

(Address) 159 Plaza Drive | Keyser, WV 26726

(Phone Number) / (Fax Number) 304.788.3370

(email address) jcole@rkk.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through *wv*OASIS, I certify that: I have reviewed this Solicitation/Contract 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/Contract 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 this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; 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.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Rummel, Klepper & Kahl, LLP

(Company)

(Signature of Authorized Representative)

Nathan Atkinson, Partner | 12/3/25

(Printed Name and Title of Authorized Representative) (Date)

+1 (410) 462-9205

(Phone Number) (Fax Number)

natkinson@rkk.com

(Email Address)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.:

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: **N/A**
(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.

Rummel, Klepper & Kahl, LLP
Company

Authorized Signature

12/3/25
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

Revised 8/24/2023

State of West Virginia

Certificate

I, Kris Warner, Secretary of State of the State of West Virginia, hereby certify that

RUMMEL, KLEPPER & KAHL, LLP

Control number: 99NO1

has filed its application for "Certificate of Registration of a Foreign Limited Liability Partnership" in my office according to the provisions of the West Virginia Code. I hereby declare the organization to be registered as a foreign limited liability partnership from its effective date of February 08, 2011 until a certificate of cancellation has been filed with Secretary of State.

Therefore, I issue this

CERTIFICATE OF REGISTRATION OF A FOREIGN LIMITED LIABILITY PARTNERSHIP

to the partnership, authorizing it to transact business in West Virginia under the name of

RK&K ENGINEERS

Given under my hand and the Great Seal of the State of West Virginia on this day of March 25, 2025

Secretary of State

294937

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Business Organization Detail

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RUMMEL, KLEPPER & KAHL, LLP

Organization Information

Org Type	Effective Date	Established Date	Filing Date	Charter	Class	Sec Type	Termination Date	Termination Reason
LLP | Limited Liability Partnership	2/8/2011		3/25/2025	Foreign	Profit		4/20/2027	

Organization Information

Business Purpose		Capital Stock	
Charter County		Control Number	99NO1
Charter State	MD	Excess Acres	
At Will Term		Member Managed	
At Will Term Years		Par Value	
Authorized Shares		Young Entrepreneur	Not Specified

Addresses

Type	Address
Local Office Address	5098 WASHINGTON ST. W., STE 407 CHARLESTON, WV, 25313-1561 USA
Notice of Process Address	C T CORPORATION SYSTEM 5098 WASHINGTON ST. W., STE 407 CHARLESTON, WV, 25313-1561 USA
Principal Office Address	700 EAST PRATT STREET, SUITE 500 BALTIMORE, MD, 21202 USA
Type	**Address**

Officers

Type	Name/Address
General Partner	PETER PATRONE 700 EAST PRATT ST., STE. 500 BALTIMORE, MD, 21202
Partner	PETER PATRONE, PARTNER 700 EAST PRATT STREET, SUITE 500 BALTIMORE, MD, 21202 USA
Type	**Name/Address**

DBA

DBA Name	Description	Effective Date	Termination Date
RK&K	TRADENAME	8/13/2018	
RK&K ENGINEERS	TRADENAME	2/8/2011	
DBA Name	**Description**	**Effective Date**	**Termination Date**

File Your Current Year Annual Report Online Here

For more information, please contact the Secretary of State's Office at 304-558-8000.

Thursday, November 13, 2025 — 3:08 PM

CERTIFICATE OF *Authorization*

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

The West Virginia State Board of Registration for Professional Engineers having verified the person in responsible charge is registered in West Virginia as a professional engineer for the noted firm, hereby certifies

RK&K ENGINEERS, LLP
C01505-00

Engineer in Responsible Charge: MELINDA BOGLEY PETERS - WV PE 022162

has complied with section §30-13-17 of the West Virginia Code governing the issuance of a Certificate of Authorization. The Board hereby notifies you of its certification with issuance of this Certification of Authorization for the period of:

January 1, 2024 - December 31, 2025

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE, PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.

IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA UNDER ITS SEAL, AND SIGNED BY THE PRESIDENT OF SAID BOARD.

Scott E. Thomas Jr.

BOARD PRESIDENT

WEST VIRGINIA BOARD OF PROFESSIONAL SURVEYORS

Certificate of Authorization

Rummel, Klepper & Kahl, LLP
Keyser, WV

CERTIFICATE OF AUTHORIZATION # 25-5554

This certificate is issued by the West Virginia Board of Professional Surveyors in accordance with W.Va. Code §30-13A-20
The person or organization identified on this certificate is licensed to conduct professional surveying and mapping services in the State of West Virginia for the period

January 1, 2025 through December 31, 2025

This certificate is not transferable and must be displayed at the office location for which issued.

In witness whereof, I have put my hand, this 24 day of January 25

2025

Sefton R. Stewart, P.S., Chairman
Lantz G. Rankin, P.S., Member

James T. Rayburn, P.S., Secretary
Gary Facemyer, P.E, P.S., Member

Douglas C. McElwee, Esq.

Public Member

Primary Point of Contact

John Cole, PE | Director

304.788.3370 | jcole@rkk.com

159 Plaza Drive | Keyser, WV 26726

www.rkk.com

RK&K

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