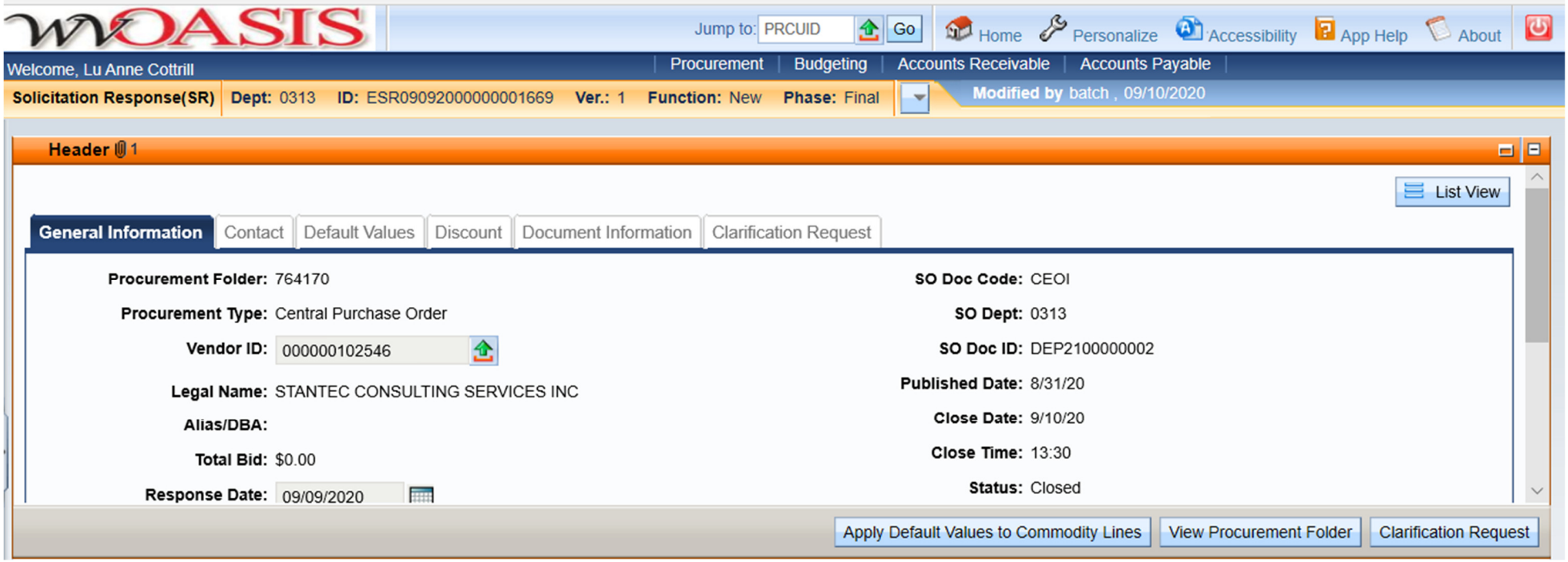
NOTICE

Please note this bid from Stantec Consulting for the solicitation DEP2100000002 was received at the Purchasing Division office prior to the established bid-opening date and time on September 10, 2020, but did not load properly at the public bid opening. This response has since been loaded and is now posted.

Frank Whittaker

Assistant Purchasing Director

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
Jump to: PRCUID Go
Home
Personalize
Accessibility
App Help
About
Welcome, Lu Anne Cottrill
Procurement
Budgeting
Accounts Receivable
Accounts Payable
Solicitation Response(SR) Dept: 0313 ID: ESR09092000000001669 Ver.: 1 Function: New Phase: Final
Modified by batch , 09/10/2020
Header 1
List View
General Information
Contact
Default Values
Discount
Document Information
Clarification Request
Procurement Folder: 764170
Procurement Type: Central Purchase Order
Vendor ID: 000000102546
Legal Name: STANTEC CONSULTING SERVICES INC
Alias/DBA:
Total Bid: $0.00
Response Date: 09/09/2020
SO Doc Code: CEOI
SO Dept: 0313
SO Doc ID: DEP2100000002
Published Date: 8/31/20
Close Date: 9/10/20
Close Time: 13:30
Status: Closed
Apply Default Values to Commodity Lines
View Procurement Folder
Clarification Request

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:	764170
Solicitation Description:	CEOI - Kempton Refuse Rehabilitation Project
Proc Type:	Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2020-09-10 13:30	SR 0313 ESR09092000000001669	1

VENDOR

000000102546
STANTEC CONSULTING SERVICES INC

Solicitation Number: CEOI 0313 DEP2100000002

Total Bid: 0 **Response Date:** 2020-09-09 **Response Time:** 16:28:23

Comments:

FOR INFORMATION CONTACT THE BUYER
Guy Nisbet
(304) 558-2596
guy.l.nisbet@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	EOI Engineering Design Services				0.00

Comm Code	Manufacturer	Specification	Model #
81100000			

Commodity Line Comments: Qualifications package only

Extended Description:

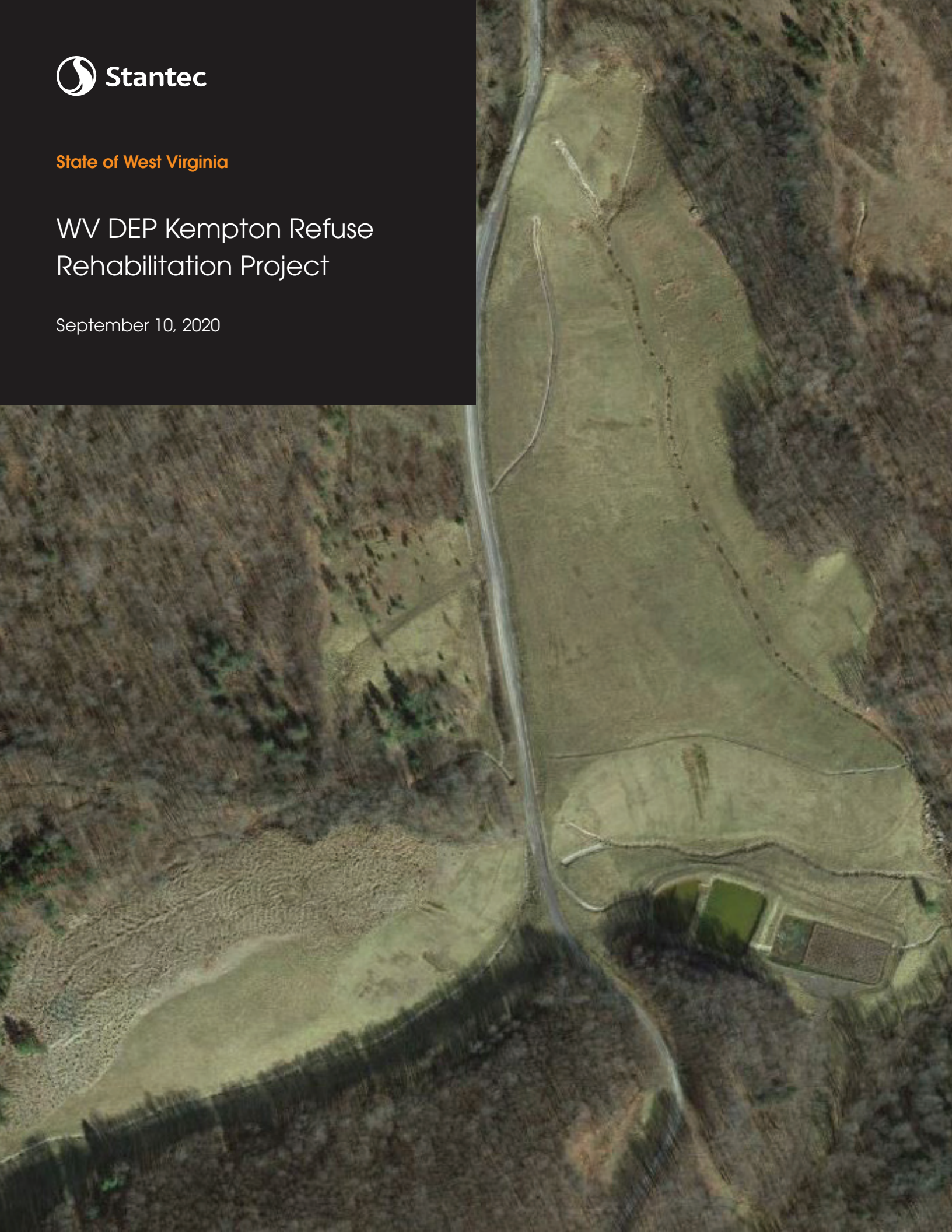
*Dates of Service are estimated for bidding purposes only.

Stantec

State of West Virginia

WV DEP Kempton Refuse Rehabilitation Project

September 10, 2020



Stantec

September 10, 2020

Stantec Consulting Services Inc.
111 Elkins Street
Fairmont, WV 26554-4021
Office 304-367-9401

Reference
WV DEP Kempton Refuse Rehabilitation Services

Attention
Department Administration,
Purchasing Division
2019 Washington Street East
Charleston, WV 25305-0130

Dear Purchasing Division:

Stantec Consulting Services Inc. (**Stantec**) is pleased to respond to the WV DEP Kempton Refuse Rehabilitation Services solicitation to provide professional engineering services.

We trust our enclosed statement of qualifications will reveal Stantec's commitment to doing things right in everything we do, from professional excellence in our project work to taking responsibility for projects within our communities. We focus on delivering comprehensive consulting services, recognizing that true value is measured in adaptability to need, comprehensiveness, and quality of service delivery.

We understand the importance of this project for the WV DEP Kempton Refuse Rehabilitation. We have worked on several projects providing construction and technical specifications to rehabilitate and retrofit passive treatment facilities.

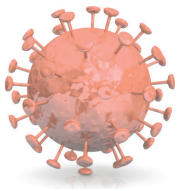
How Can We Help Reach Your Goal?

- We are committed to providing you with rapid response and necessary resources from our Fairmont office.
- We offer you streamlined communications with a single point of contact. As the principal-in-charge, I will always strive to deliver surprise-free management on assignments delivered by the Stantec team.
- You can rest assured knowing our in-house quality controls are in place so you can count on getting deliverables on time and completed correctly.
- The Stantec engineering and construction professionals assembled for this project form a well-seasoned, cohesive team that has worked together before.

We look forward to serving the **WV DEP Kempton Refuse Rehabilitation Service**! Please feel free to contact me should you have any questions, and thank you for your consideration.

Regards,

Richard Gaines PE
Principal
Direct 304-816-5190
Mobile 681-209-0709
Email richard.gaines@stantec.com



As we are all aware, we are all working in unprecedented times as a result of the COVID-19 pandemic. The situation is a very fluid one. Our proposal is based on what we understand as of today but may change as conditions change. We would be pleased to have a further discussion with you to share our respective plans and efforts to help manage and mitigate the impact of this evolving situation on your proposed project.

Table of Contents

We're active members of the communities we serve.
That's why at Stantec, **we always design with community in mind.**

Stantec

The Stantec community unites more than 22,000 employees working in over 350 locations across 6 continents. We collaborate across disciplines and industries to bring projects to life. Our work—professional consulting in planning, engineering, architecture, interior design, landscape architecture, surveying, environmental sciences, project management, and project economics—begins at the intersection of community, creativity, and client relationships.

Locally, Stantec is recognized as an industry expert in architectural/engineering, landscape architecture, and urban design and planning services for neighborhoods and commercial areas. We have been part of the community in this region since 1954 and currently serve our local clients from our offices in Fairmont and Charleston. We have more than 300 professionals in this region and they are available to provide their services to successfully complete all required design services. With a long-term commitment to the people and places we serve, Stantec has the unique ability to connect to projects on a personal level and advance the quality of life in communities across the globe.

More than our services, we are defined by what we stand for, what we believe, and why we do what we do.

By connecting the focus of our work with our deep commitment to community and the unique insight we bring to every project, our promise lets employees, clients, and investors know exactly what we do and what we stand for.

We put people first

Our people remain at the core of what we do. We want our employees to succeed, however they define it—from accomplishing stimulating, challenging work to becoming leaders in their fields and communities. We are committed to support, foster, and invest in individual success through a culture of opportunity, mentorship, and innovation.

We do what is right

A company's reputation centers on its integrity. The way we treat our people, clients, and neighbors reflects who we are, what we believe in, and how we do our work. Our commitment to doing things right is evident in everything we do, from professional excellence in our project work to taking responsibility for projects within our communities.

We are better together

Strong, long-lasting relationships directly impact the success of our employees, clients, projects, and communities. We will reach our full potential as an organization and as trusted advisors for our clients only when we combine our unique strengths and passion.

We are driven to achieve

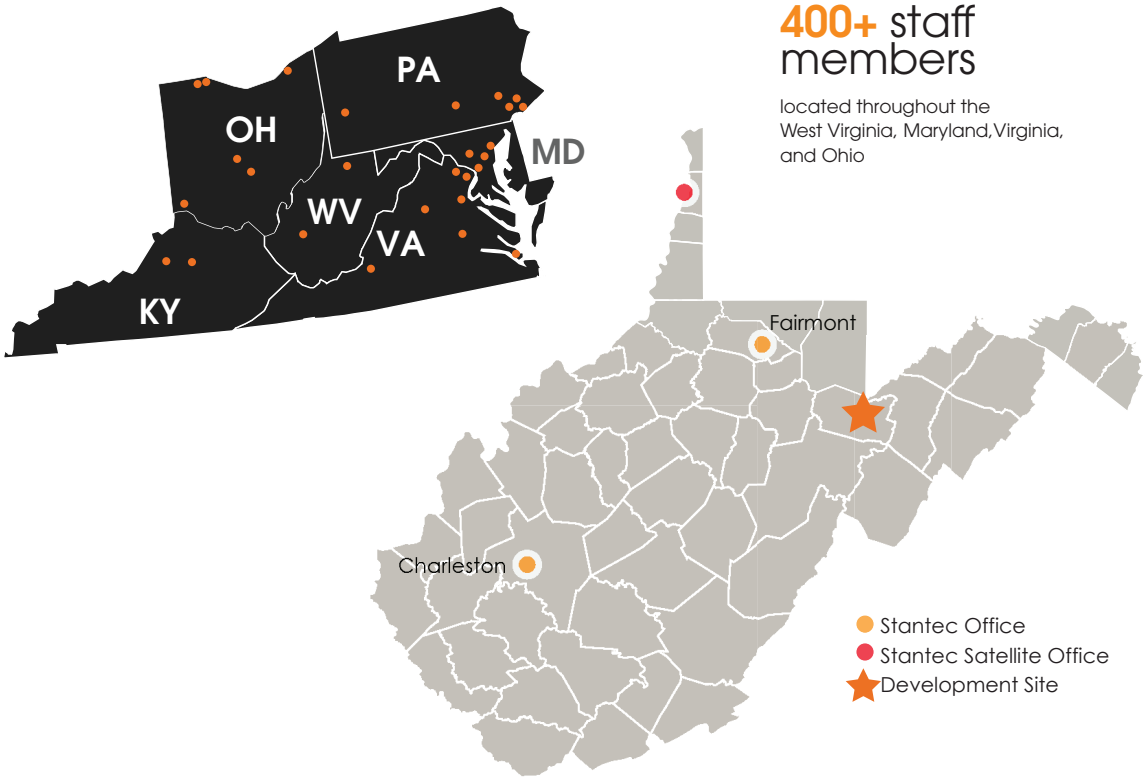
Achievement at every level begins and ends with a firm commitment to being the best we can be. We are committed to becoming and remaining a top10 global design firm. It's an ambitious goal, but it's one we take seriously. In order to achieve our Top 10 objective, we recognize our key challenge is to maintain the stability and strength of our local relationships while balancing the management of growth projections.

Local Capabilities

The West Virginia offices of Stantec has approximately forty employees combined. We believe we have the required professionals to meet your needs here in West Virginia. However, at Stantec we also have the experience of over 22,000 professionals available as well.

Subconsultants

Stantec is a full service firm but have partnered with two subconsultants to expand our capabilities and provide you with the best team for your project. We have brought Smith Land Surveying on our team to provide survey services as needed. Additionally, AllStar Ecology will provide additional support for environmental services. We have worked with both subconsultants on numerous successful projects.



WEST VIRGINIA BOARD OF PROFESSIONAL SURVEYORS

Certificate of Authorization

Stantec Consulting Services, Inc.

Fairmont, West Virginia

CERTIFICATE OF AUTHORIZATION # 20-5694

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, 2020 through December 31, 2020

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

In witness whereof, I have put my hand, this 31st day of December 2019

2020

Sefton R. Stewart, P.S., Chairman

James T. Rayburn, P.S., Secretary

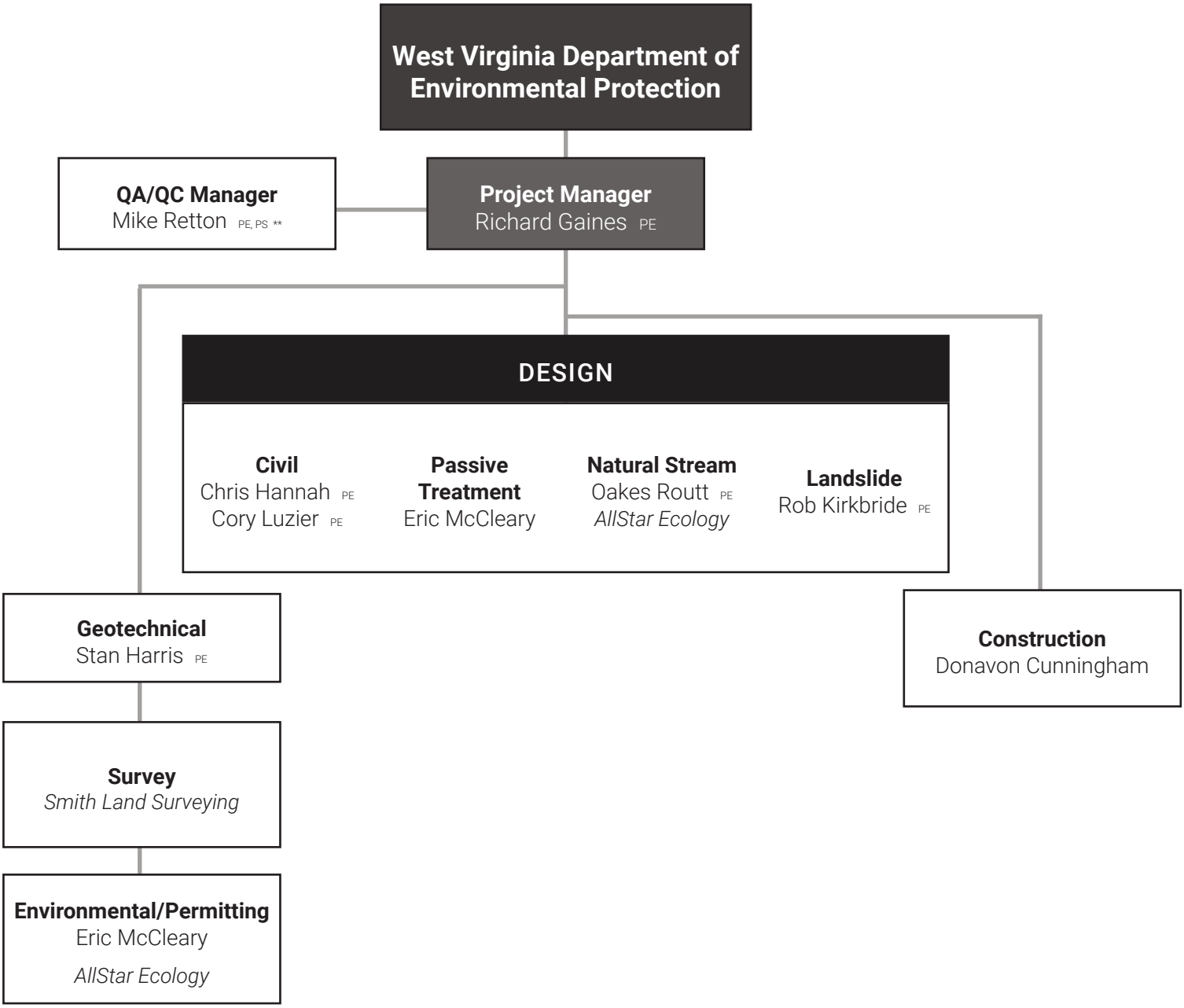
Lantz G. Rankin, P.S., Member

Gary D. Facemyer, P.E, P.S., Member

Douglas C. McElwee, *Esq.*, Public Member

Organizational Chart

Below is our proposed project team for the completion of the project. Resumes are included on the following pages.



Richard Gaines PE

Project Manager

Richard has 33 years of experience in project management and civil engineering related to oil and gas, land development, sanitary sewer collection and treatment, and water systems and treatment. His design experience includes layout, grading, drainage, erosion control and permitting for road entrances, access roads, well pads, pits, and impoundments for multiple well pads and developments. He is currently a senior civil engineer in charge of Stantec's Fairmont office.

EDUCATION

Bachelor of Science/Civil Engineering // Fairmont State College // 1987
Associate's Degree/Mechanical Engineering // Fairmont State College // 1987

REGISTRATIONS

West Virginia // Professional Engineer [redacted] // 2007
Virginia // Professional Engineer [redacted] // 2002

RELEVANT EXPERIENCE

Greendale Coals, Inc. (Permit S-57-83)

Richard was project manager for the collection of multiple mine seeps with AMD and directed the flow into six (6) lift stations which pumped flow to a treatment plant. The surface water in the project area seeps consisted of various levels of high in ferric and ferrous iron, aluminum and low PH. The project also included the design of an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, sediment pond, treated effluent pond, 100 Ton lime silo, and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Removal and restoration of old passive treatment ponds were completed when the seep area flows were harnessed and pumped to the treatment plant.

Preston County PSD #4 // Hudson to State Line Water System // Bruceton Mills, Preston County, West Virginia

Richard was the project manager to design, permit, bid, and inspect the construction of an 81-mile water system extension to serve about 400 new customers in the Hudson to the State Line area. The project includes the design of the water distribution system, which includes four water storage tanks, two booster pump stations, and one pressure-reducing valves. Funding for the project is provided by the Abandoned Mine Lands division of the West Virginia Department of Environmental Protection (WVDEP/AML), Drinking Water Treatment Revolving Fund and the West Virginia Infrastructure and Jobs Development Council. The project was initiated by the WVDEP/AML because the areas water sources were significantly impacted by coal mining operations prior to permitting requirements enacted in 1977.

Preston County PSD #4 // Lenox/Cuzzart Water System // Bruceton Mills, Preston County, West Virginia // Project Manager

Richard was the project manager to design, permit, bid, and inspect the construction of a 42-mile water system extension to serve about 400 new customers in the Lenox and Cuzzart area. The project includes the design of the water distribution system, which includes four water storage tanks, five booster pump stations, and three pressure-reducing valves. Funding for the project is provided by the Abandoned Mine Lands division of the West Virginia Department of Environmental Protection (WVDEP/AML) and the West Virginia Infrastructure and Jobs Development Council. The project was initiated by the WVDEP/AML because the areas water sources were significantly impacted by coal mining operations prior to permitting requirements enacted in 1977.

East Lynn Elementary School // Design of Wastewater Treatment Plant (WWTP) // Wayne County, West Virginia

Richard is the project manager to complete preliminary final design and permitting of a 0.20 MGD WWTP and lift station. Work includes the removal and replacement of an existing 0.30 MGD package wastewater treatment plant and lift station.

Lincoln Apartments // Design of Lift Station // Shinnston, West Virginia

Richard is the project manager to complete preliminary final design and permitting of a lift station to replace an existing package WWTP. Work includes the removal of an existing package WWTP with a lift station.

Sewer Replacement // Town of Franklin, Pendleton County, West Virginia

Richard was the project manager to complete final design, permit, bid, and inspect the construction of a gravity sewer replacement and lining effort. Work included the removal and replacement or insertion of 53 new manholes; 10,000 feet of sewer line replacement; and 1,300 feet of pipe lining. A second contract included replacement of the lagoon liners at the wastewater treatment plant and upgrades to the chlorination system, SCADA updates, addition of a headworks conveyor, and pump station upgrades.

8/31/2020

Search: Details

Name:	RICHARD L. GAINES
WV Professional Engineer:	**PE License Number:** [redacted]
	PE License Status: Active
	PE Issue Date: 05/10/2007
	PE Expiration Date: 12/31/2020
Continuing Education Claim:	**Qualifying Hours from Last Renewal or Reinstatement:** 39.25
	Carryover Hours for Next Renewal: 9.25
	Last Renewal or Reinstatement Date*: 12/14/2018
WV Engineer Intern:	**EI Certification Number:**
	EI Issue Date:
Primary Address of Record:	[redacted]
Primary Employer of Record:	STANTEC CONSULTING SERVICES, INC. 111 ELKINS STREET FAIRMONT, WV 26554
	* This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may **not** be used for future renewals.

1/2

Eric McCleary

Senior Environmental Scientist/Remediation Specialist

Eric C. McCleary was a general partner (with Douglas Kepler) in the company they founded (Damariscotta) from 1991-2007, a company that specialized in stream assessments, watershed restoration, and mine drainage design and construction projects. Damariscotta has worked extensively with industry, watershed organizations, and government in a variety of circumstances; and was considered a leader in developing applied passive treatment technologies.

Eric's experiences include involvement with federal restoration initiatives, pilot studies on U.S. Superfund sites and for industry, organizing watershed restoration programs in mine drainage impacted areas, developed/contributed to operation and maintenance guidance manuals for the USDA and the Pennsylvania Department of Environmental Protection, projects with well known industry leaders such as CONSOL Energy, ALCOA, and the Electric Power Research Institute; and have spanned the coal, oil and gas, and mineral mining industries throughout the country and around the world.

Eric has worked in 13 states and 7 countries and helped developed technology that has been instrumental in restoring mine drainage damaged watersheds. Significant contributions of Damariscotta include the invention of the SAPS (Successive Alkalinity Producing System) treatment concept; and the second generation SAPS, the Aluminator©. SAPS have arguably become the most widely and successfully used passive treatment technology in dealing with acid mine drainage and are commonly referred to as vertical downflow treatment systems. The Aluminator© is following the same role with the proven capability of treating aluminum contaminated waters and in recovering that aluminum as a recoverable resource.

EDUCATION

BS, Biology, Clarion University of Pennsylvania, Clarion, Pennsylvania, 1984

MS, Evolutionary Ecology/Herpetology, Kent State University, Kent, Ohio, 1989

Certification, Operator Class 2 Industrial Wastewater Works, State of Maryland, 2012

Certification, Wild Plant Management Permit, Commonwealth of Pennsylvania, 2011

RELEVANT EXPERIENCE

West Virginia Department of Environmental Protection - selected

As a senior scientist Eric would be involved in the evaluation and design of water treatment and conveyance system(s) to treat discharge from nine (9) known groundwater outlet points to insure discharge is in compliance with the NPDES permit. The treatment will be accomplished using both active and passive treatment techniques in an effort to make the system as easy to operate as possible while maintaining the lowest possible operation and maintenance costs.

Treatment System Design & Monitoring* // Baltimore, Maryland

As senior ecologist Eric was responsible for monthly monitoring (including sampling of the treatment system and analysis of the field water chemistry) of the passive treatment system he designed in 2003 and an annual macroinvertebrate report to determine the impact the passive treatment system has on the receiving stream. He also provided design consultation for additional treatment needs at this location in 2014 for Constellation Energy (now Exelon Power).

Camp Hope Run AMD Passive Treatment System // Boggs Township, Clearfield County, PA

Eric completed treatment system designs for AMD that emanated from landfill leachate on a previously mined area and a mitigation wetland for impacts associated with the construction of the landfill.

AMD evaluation for the Arnot Discharge in Bloss Townships, Tioga County, PA

As a senior ecologist, Eric completed a treatment system evaluation for Seneca Resources Incorporated for the potential abatement of the Arnot Mine Discharge to the Tioga River.

Clermont Wild Trout Restoration Project // Elk and McKean Counties, Pennsylvania

As senior ecologist, Eric is developing, with industry, a restoration project centered around the restoration of wild brook trout streams that have been impacted by acid deposition. This involves a water quality type trading that is based on functional assessment of ecological lift generated by strategically placed treatment systems in the headwaters of affected streams.

Lyons Run Pilot Demonstration Project* // Wetmoreland County, Pennsylvania

As senior ecologist Eric is developing a pilot demonstration project with the Pennsylvania Department of Environmental Protection that focuses on developing credits based ecological lift resulting from the treatment of Acid Mine Drainage to Lyons Run.

Chris Hannah PE

Civil Engineering Designer

Chris started his career as an intern with Stantec in 2008, when he served as construction inspector on the Corridor H project in Scheer, West Virginia. Chris has also worked as a utility inspector on various projects. In 2012, Chris began serving as an engineer and CADD technician in the Fairmont office. In 2016, Chris obtained his PE license in West Virginia where he has been practicing design engineering since.

EDUCATION

Fairmont State University // BS, Civil Engineering // 2009

REGISTRATIONS

West Virginia // Professional Engineer [redacted] // 2009

Pennsylvania // Professional Engineer [redacted]

West Virginia Department of Transportation // Transportation Engineer Technician // 2009

RELEVANT EXPERIENCE

Greendale Coals, Inc. (Permit S-57-83)

Chris was the project engineer for the collection of multiple mine seeps with AMD and directed the flow into six (6) lift stations which pumped flow to a treatment plant. The surface water in the project area seeps consisted of various levels of high in ferric and ferrous iron, aluminum and low PH. The project also included the design of an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, sediment pond, treated effluent pond, 100 Ton lime silo, and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Removal and restoration of old passive treatment ponds were completed when the seep area flows were harnessed and pumped to the treatment plant.

East Lynn Elementary School // Design of Wastewater Treatment Plant (WWTP) // Wayne County, West Virginia

Chris is the project engineer to complete preliminary final design and permitting of a 0.20 MGD WWTP and lift station. Work includes the removal and replacement of an existing 0.30 MGD package WWTP and lift station.

Preston County PSD #4 // AML #2 Hudson to State Line // Bruceton Mills, Preston County, West Virginia // CADD Technician and Engineer

Chris laid out waterline design, drafted plans, completed quantities, and cost estimates. The project consists of a 73-mile water system extension to serve about 650 new customers in multiple areas. The project included the design of the water distribution system which includes four water storage tanks, two booster pump stations, and one pressure reducing valve. Funding for the project was primarily provided by the Abandoned Mine Lands (AML) division of the West Virginia Department of Environmental Protection (WVDEP). The project was also funded by the West Virginia Bureau for Public Health Drinking Water Treatment Revolving Fund and the West Virginia Infrastructure and Jobs Development Council. The project was initiated by the WVDEP/AML because the areas' water sources were significantly impacted by coal mining operations prior to permitting requirements enacted in 1977.

Town of Monongah // Water Loss Assessment // Marion County, West Virginia

Chris worked with the Town to identify and assess water loss throughout its system. He compiled billing records, pumping records, and plant records to identify discrepancies. He recommended the Town begin to replace water meters to capture revenue for water sold, and as the Town did, unaccounted-for water loss numbers dropped.

Preston County PSD #4 // Lenox-Cuzzart Waterline Extension // Preston County, West Virginia // CADD Technician and Engineer

Chris was a CADD technician and engineer to design the construction of a 42-mile water system extension to serve about 400 new customers in the Lenox and Cuzzart area. The project included the design of the water distribution system, which involved four water storage tanks, four booster pump stations, and three pressure-reducing valves. Funding for the project was provided by the Abandoned Mine Lands division of the West Virginia Department of Environmental Protection (WVDEP/AML) and the West Virginia Infrastructure and Jobs Development Council. The project was initiated by the WVDEP/AML because the areas' water sources were significantly impacted by coal mining operations prior to permitting requirements enacted in 1977.

Town of Grant Town // Water System Improvements Project // Marion County, West Virginia // Construction Inspector

Chris provided the Town with project inspection. He compiled and tracked all daily quantities, resolved customer complaints, put together a punchlist for the two contracts, and ensured substantial completion. Improvements inspected in this project included 23,000 feet of waterline replacements, waterline extensions rehabbing a 200 gpm booster pump station, installing a new booster station on a line extension, and the cleaning and painting of an existing 200,000-gallon tank.

Search: Details

Name:	CHRISTOPHER SHAWN HANNAH
WV Professional Engineer:	**PE License Number:** [redacted]
	PE License Status: Active
	PE Issue Date: 01/11/2016
	PE Expiration Date: 12/31/2020
Continuing Education Claim:	**Qualifying Hours from Last Renewal or Reinstatement:** 33.50
	Carryover Hours for Next Renewal: 3.50
	Last Renewal or Reinstatement Date*: 12/12/2018
WV Engineer Intern:	**EI Certification Number:** [redacted]
	EI Issue Date: 06/04/2013
Primary Address of Record:	111 ELKINS STREET FAIRMONT, WV 26554
Primary Employer of Record:	STANTEC CONSULTING SERVICES, INC. 111 ELKINS STREET FAIRMONT, WV 26554
	* This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may **not** be used for future renewals.

Cory Luzier PE

Civil Engineering Designer

Cory is a professional civil engineer from Arthurdale, West Virginia, with 7 years of professional experience in site development, environmental permitting, and surveying. Cory's design experience includes erosion and sediment control, stormwater drainage and management, layout, grading, access roads, and well pads. He is based out of Fairmont.

EDUCATION

West Virginia University // Bachelor of Science in Civil Engineering // 2012

REGISTRATIONS

West Virginia // Professional Engineer [redacted]

Maryland // Professional Engineer [redacted]

Ohio // Professional Engineer [redacted]

Pennsylvania // Professional Engineer [redacted]

RELEVANT EXPERIENCE

East Lynn Elementary School // Design of a WWTP // Wayne County, West Virginia

Chris is the civil design engineer to complete preliminary final design and permitting of a 0.20 MGD WWTP and lift station. Work includes the removal and replacement of an existing 0.30 MGD package WWTP and lift station.

Sunrise Gardens Stormwater Master Plan // Sunrise Gardens LP // Romney, West Virginia

Cory was a civil engineer on this 2018 project, which involved the development of a proposed apartment complex site in Hampshire County. Cory's duties included the design of erosion and sediment control and stormwater management practices, construction document preparation of E&S and SWM plans, necessary hydraulic computations of proposed stormwater management facilities, and project coordination with the client and applicable agencies.

Warwick AMD Water Treatment Plant // Individual Experience // Mapletown, Pennsylvania // Project Engineer/Field Surveyor

The project scope included the field survey of wells and other site features adjacent to the treatment plant and feasibility studies and estimates for plant upgrades. Cory's duties on this project were the field surveying site features using GPS and Total Station survey equipment and developing cost estimates and drawings for plant upgrades.

Kingwood Pizza Hut, Individual Experience // Kingwood, West Virginia // Project Engineer

The project consisted of the development and construction of a chain restaurant. Cory's duties included development of the site plan drawings, associated details, erosion and sediment control, and stormwater management design.

City of Shinnston Water System Improvements // Shinnston, West Virginia // Construction Inspector

The project consists of the expansion of a local municipal water system, which includes mainline water construction and water plant and pump station upgrades. Cory's duties on this project include construction inspection.

Hudson to State Line Waterline Extension // Bruceton Mills, West Virginia // Construction Inspector /Site Engineer

The project consists of the large expansion of a local public service districts water system, which includes mainline water construction, water storage tank construction, booster pump station, pressure-reducing station construction, and telemetry upgrades. Cory's duties on this project included field inspection of construction, design and plan preparation of waterline extensions, performing hydraulic calculations for testing and design, and assisting with change orders and cost estimates.

Warwick Surface Mine Site, Individual Experience // Greensboro, Pennsylvania // Project Engineer / Field Surveyor

The project consisted of the field survey of a surface mine site and water quality testing. Cory's duties on this project included the field surveying site features using GPS and Total Station survey equipment, taking water samples, and performing water quality analysis.

Jeannette Retaining Wall, Individual Experience // Jeannette, Pennsylvania // Project Engineer

The project scope included the demolition of an existing retaining wall and the design of new retaining wall in its place. Cory's duties included coordination with geotechnical engineers to develop retaining wall construction plan drawings and associated construction details, developing erosion control and stormwater management plans, and preparing bid documents and project specifications.

CONE Slip Repair, Individual Experience // Wheeling, West Virginia // Project Engineer

The project consisted of the repair of a slope failure on an access road. Cory's duties included coordination with the geotechnical engineer to generate a site plan package including layout and grading plan drawings, the development of an erosion and sediment control plan, stormwater drainage analysis, and the development of associated details necessary for construction.

Search: Details

Name:	CORY ANDREW LUZIER
WV Professional Engineer:	**PE License Number:** [redacted]
	PE License Status: Active
	PE Issue Date: 07/03/2018
	PE Expiration Date: 12/31/2020
Continuing Education Claim:	**Qualifying Hours from Last Renewal or Reinstatement:** 15.00
	Carryover Hours for Next Renewal: 15.00
	Last Renewal or Reinstatement Date*: 12/18/2018
WV Engineer Intern:	**EI Certification Number:**
	EI Issue Date:
Primary Address of Record:	[redacted]
Primary Employer of Record:	STANTEC CONSULTING SERVICES, INC. 111 ELKINS STREET FAIRMONT, WV 26554
	* This date reflects the most recent license renewal (or reinstatement) date for this licensee. Continuing education hours earned prior to this date may **not** be used for future renewals.

Oakes Routt PE

Natural Stream Restoration

Oakes has experience as a project engineer in a broad range of project types, working with people from various offices, and meeting the needs of many of the region's top clients. The types of projects include watershed and stream assessments, stream restoration design and construction management, cost estimation of construction projects, stream restoration construction methods and structure placement techniques, monitoring of stream restoration projects, geotechnical exploration for roadways, roadway structures, and levees, erosion prevention and sediment control structures and design, best management practices (BMP) management, stormwater permitting for construction sites, municipal water distribution design, sanitary sewer evaluation studies, as well as water quality studies and sampling. He has led and worked with teams comprising of project managers, project engineers, geologists, biologists, environmental scientists, drillers, construction crews, technicians, and surveyors from over 30 Stantec offices representing 18 states and 3 Canadian provinces. Oakes' experience demonstrates his knowledge of various disciplines, willingness to pursue work in any location, and the ability to successfully work with a diverse team.

EDUCATION

BS, Biosystems and Agricultural Engineering, University of Kentucky, Lexington, Kentucky, 2006

MS, Biosystems and Agricultural Engineering, University of Kentucky, Lexington, Kentucky, 2009

River Restoration and Natural Channel Design (NCD) Course, Wildland Hydrology

MS4 Permits Training Seminar

Applied Fluvial Geomorphology, Wildland Hydrology

River Morphology and Applications, Wildland Hydrology

River Assessment and Monitoring, Wildland Hydrology,

REGISTRATIONS

Professional Engineer [redacted] State of Missouri

Professional Engineer [redacted] State of Arkansas

Professional Engineer [redacted] Commonwealth of Kentucky

Professional Engineer [redacted] State of Tennessee

RELEVANT EXPERIENCE

Upper Licking River Service Area Stream and Wetland Mitigation Identification //Various Counties, Kentucky

The Kentucky Department of Fish and Wildlife Resources requested assistance in the identification of suitable wetland mitigation sites in the Upper and Lower Cumberland River Service Areas of Kentucky. Oakes served as project manager and led the development of the scope and fee estimate to support the project contract. An understanding of the level of effort needed to identify degraded wetland resources via remote sensing and to complete the associated tasks that are required to successfully attain suitable mitigation were central to the development of this contract. Oakes oversaw staff remotely identifying suitable mitigation sites, contacting the landowners, determining their level of interest and gauging the restoration potential of the site. After viable mitigation opportunities were determined, Mr. Routt oversaw and assisted with development of preliminary mitigation assessments to aid the client's regulatory approval process. The preliminary mitigation assessments included collection of topographic data, production and analysis of three-dimensional surfaces in Civil 3D, approximation of mitigation credit generation, and completion of habitat assessments and wetland delineations. Over the course of the project,25,000 feet of stream mitigation opportunity and over 8 acres of wetland mitigation opportunity were identified.

Otter Creek Stream Restoration Project // Meade County, Kentucky

Oakes assisted the lead designer in the early phases of this project located on the state owned Otter Creek Recreation Area. This work consisted of completing existing geomorphic survey and analyzing collected data. This included longitudinal profiles, riffle cross sections, and bar samples. From this data, Oakes helped determine design channel dimensions, dimensionless ratios, and completed a design alignment for over 10,000 feet of high bedload main channel having a contributing watershed area of over 100 square miles.

Piner Site: Stream Restoration Project // Boone County, Kentucky

Oakes assisted in the assessment and design of approximately 8,000 feet of stream on property destined to be donated to the Big Bone Lick State Park. The channel was previously impacted primarily by poor grazing management. The design consisted of relocating 475 feet of a B stream type with a 6.3 percent slope, 2,100 feet of Bc stream type, 1,800 feet of C stream type, enhancing 2,600 feet of B stream type, and preserving 1,000 feet of B stream type. Oakes assisted in the gathering of existing geomorphic data, data analysis, determining design channel dimensions, dimensionless ratios, design alignment, site grading, and plan production. During grading operations within Civil 3D Oakes identified several locations on site that, by needing to reduce the expansion/contraction rate of the floodplain, he could raise the floodplain grade and promote a hydrology flavorful for wetland development. Although wetland development was not a primary goal of the project, development of wetlands would enable the client to claim wetland credits and thereby lower the cost per stream credit.

Rob Kirkbride PE

Landslide

Rob has over 26 years of civil engineering experience that includes the investigation, engineering, design, permitting, construction management, and implementation of a wide variety of projects. He has experience performing and managing complex civil engineering projects, including dams and reservoirs, buildings, levees, hydraulic and hydrologic design, slope stabilization, plan and specification development and review, mine reclamation, and landfills.

EDUCATION

BS // Civil Engineering // The Ohio State University // 1994

REGISTRATIONS

Professional Engineer [redacted] // State of Ohio

Professional Engineer [redacted] // Commonwealth of Pennsylvania

Professional Engineer [redacted] // State of North Carolina

RELEVANT EXPERIENCE

Marietta Wastewater Treatment Plant // Marietta, Ohio

Rob was the Senior Geotechnical Engineer for this project during each of the three phases of design and construction. The geotechnical engineering performed for this 3.3 MGD wastewater treatment plant included investigation and design at the site for numerous structures. Recommendations included bearing capacity, settlement and stabilization during construction. Large mat foundations were designed to spread out the applied building loads and to minimize settlement. Additional recommendations included the use of a geogrid / aggregate system to stabilize the saturated granular materials that were encountered at the foundation bearing elevation of several structures. Rob worked directly with the City Engineer and his structural subconsultant to investigate concerns and develop solutions. Part of this project included working with the City of Marietta's value engineering subconsultant, during which numerous design modifications were evaluated. During construction, additional geotechnical guidance was provided.

O'Shaughnessy Pump Station // Delware County, Ohio

A geotechnical evaluation was performed to establish foundation recommendations for this wastewater pump station. The site included shallow bedrock that was encountered two feet below the ground surface. The borings were extended to depths of over 20 feet to reach the proposed bearing elevation. Recommendations were also provided for lateral earth pressures and buoyancy conditions since the site is located directly adjacent to the Scioto River.

Jackson Dewatering Building // Jackson, Ohio

A geotechnical evaluation was performed for the proposed single-story sludge dewatering building at the Jackson Water Treatment Plant. This site included relatively weak soils at depths of 15 feet below the existing ground surface. Foundation recommendations included the use of a mat to spread out the overall load applied to the subgrade soils and to reduce the potential for differential settlement. In addition, it was recommended that a lightweight material (aggregate, concrete, etc.) be used for locations requiring fill to be placed to reduce the total settlement.

Mobley Plant Slope Stability // Mobley, West Virginia

Project Manager of the Geotechnical Evaluation performed to evaluate slope instabilities along a high priority roadway servicing portions of the plant. A stability analysis was performed based on the geotechnical fieldwork, lab testing and survey performed. Based on the results of the analysis, alternatives were developed to stabilize the slope including mechanically stabilized earthen (MSE) wall, a pile and lagging wall, a reinforced soil slope and a conventional reinforced concrete retaining wall. A presentation was made to the client discussing each alternative with the pro's and con's to allow for selection of the appropriate design.

High-Pressure Gas Line Design // Various Locations, West Virginia

Senior Project Engineer performing site visits at multiple, steep sloped, pipeline projects to evaluate instabilities and provide recommendations for stabilization. The project also included new design recommendations for future pipeline installation locations. Based on the observations made, recommendations included the use of geogrid, stone and grade changes to stabilize slopes and provide proper drainage systems.

Delphos Reservoir // Delphos, Ohio

Senior Engineer and Construction Manager for this reservoir which has water storage capacity of 430-million-gallons. Duties included site selection, site investigation, permitting, engineering analysis, design, specifications, cost estimating, and construction management. Each of the sites were designed using three-dimensional CAD modeling. Numerous scenarios were evaluated to maximize the reservoir storage, minimize construction costs and optimize hydraulic characteristics. Plans and specifications were developed for permitting and construction.

Stan Harris PE

Geotechnical

Stan has over 39 years of broad experience in the field of geotechnical engineering. His past work includes performance of geotechnical explorations for buildings, bridges, dams, landfills, highways, water and waste water treatment plants, and manufacturing facilities. Duties on these projects include development of boring plans, supervision of drilling operations, direction of laboratory testing programs, and performance of engineering analysis and design. He is also responsible for preparation of final geotechnical reports. Stan reviews and performs engineering analysis for settlement, bearing capacity, and slope stability, and he is experienced in the analysis and design of foundation systems and retaining walls. Stan is responsible for the supervision of Project Engineers along with numerous Drill Crews, and Field and Laboratory Technicians. He is also responsible for directing efforts of Field Technicians performing quality control testing on major earthwork projects.

EDUCATION

Foundations and Ear Retaining Structures // University of Akron // 2006

MS // Civil Engineering // University of Kentucky //1982

BS // Civil Engineering // University of Kentucky // 1980

REGISTRATIONS

Professional Engineer [redacted] // State of Ohio

Professional Engineer [redacted] // Commonwealth of Kentucky

Professional Engineer [redacted] // Commonwealth of Virginia

Professional Engineer [redacted] // State of Tennessee

Professional Engineer [redacted] // State of North Carolina

Professional Engineer [redacted] // State of South Carolina

Professional Engineer [redacted] // State of Georgia

RELEVANT EXPERIENCE

Tennessee Valley Authority // Cumberland Fossil Plant Gypsum Stack and Dry Ash Stack // Cumberland City, Tennessee

Principal in Charge for the geotechnical exploration and analysis for this 200 acre coal combustion byproduct (CCB) disposal facility at the Tennessee Valley Authority (TVA) Cumberland Fossil Plant in western Tennessee. As part of the overall project 74 conventional borings and 16 Cone Penetrometer Test (CPT) borings were advanced. Soil samples were obtained and subjected to laboratory testing for strength, permeability and engineering classification. Piezometers and Slope Inclinometer casing were installed in many of the borings. Directed the geotechnical engineers who performed slope stability and seepage calculations for the disposal areas. Recommendations were developed to improve the slope stability factor of safety in several areas using earth and rock berms.

National Emergency Airborne Command Post Facility // Wright-Patterson Air Force Base // Ohio

Stantec developed and implemented the geotechnical exploration for the new operations and entry control building, utility tunnel and aircraft apron pavement expansion. Supervised field drilling efforts and laboratory testing. He also prepared a report with recommendations regarding bearing capacity, settlement, lateral earth pressures, subsurface drainage, earthwork and pavement design.

Lakota West High School // Butler County, Ohio

Project Manager for the geotechnical exploration for a new, 250,000-square-foot high school facility built on a 59 acre site. He worked with project designers to develop the boring layout, supervised boring operations, and oversaw laboratory testing program. Performed settlement and bearing capacity analyses and prepared geotechnical report with recommendations for design and construction. He also developed alternatives for stabilization of soft subgrade, including use of geogrids.Jackson Dewatering Building // Jackson, Ohio

Human Performance Wing // Wright Patterson Air Force Base // Ohio

Project Manager for the geotechnical exploration for the new 600,000 square foot development. Stantec performed a two phase geotechnical exploration on the 50-acre site. Eighty four borings were drilled across the site. The borings were used to develop recommendations for foundations, underground utilities and pavement.

Fine Arts Center Expansion // Northern Kentucky University // Kentucky

Prepared the boring layout and supervised the drilling crew for this project. Responsible for directing laboratory testing and preparing the Geotechnical Engineering Report. He developed the recommendations for foundation design and construction.

Donavon Cunningham

Construction Manager

Donavon is an experienced construction/coatings and corrosion manager with special experience in onsite and design project management. His numerous construction projects range from water and wastewater improvements, to roadway and bridge construction, and coatings inspection and corrosion assessments. He also has numerous material testing certifications that are valuable for ensuring quality inspection and management for highway construction.

EDUCATION

Level III Transportation Engineering Technician Associate // BridgeValley Community & Technical College (Formerly Bridgemont College) // 2014

Associates of Science/Electronic Technician // Fairmont State University (Formerly Fairmont State College) // 2004

CADD and Design Certificate // United Technical Center // 1999

REGISTRATIONS

OSHA // 10-Hour Construction Safety and Health // 2015

Foundation Concepts in GIS // West Virginia University // 2014

Asphalt Field Technician // 2012

Level III CIP National Association of Corrosion Engineers #14613 // NACE International // 2012

Aggregate Sampling Inspector Certification // 2009

Nuclear Compaction Inspector Certification // 2009

Portland Cement Concrete Inspector // 2008

RELEVANT EXPERIENCE

Fairmont Sanitary Sewer Project // Fairmont, West Virginia

Donavon was the instrument person/surveyor for this sanitary sewer replacement project including topographic and location surveys, survey and mapping control, property research and boundary control, and the preparation of right-of-way plats and descriptions suitable for recordation. Aero-Metric (Air Survey) performed mapping services on the contract.

Resident Inspection Services for the Proposed Construction Activities and Similar Projects // Morgantown, Monongalia County, West Virginia

Donavon was the surveyor for activities that included stream channels, stream bank, wetland, sanitary sewer, and waterline construction. Funding for the project was provided by the West Virginia Division of Highways, the West Virginia Department of Environmental Protection, and the United States Environmental Protection Agency.

Holiday Detection at Morgantown Utilities Board (MUB) Water Treatment Plant // Morgantown, West Virginia

Donavon's inspection duties included taking daily conditions to ensure proper conditions for painting, performing blast inspections to ensure the surface preparation met the specification, performing surface profile tests using Testex tape to ensure the surface profile met the specification, observing all mixing, thinning, and painting processes to ensure the contractor observed the specification and/or the product data sheets for the coatings, and performing Dry Film Thickness (DFT) measurements for each coat to ensure the coating thickness met the specification using a Positector 6000 DFT gauge.

MUB Water/Sewer Inspection Services // Morgantown, West Virginia

Donavon was the construction inspector for providing expansion and upgrades to various components of MUB's water and wastewater systems. Funding for the project will be provided by the West Virginia Department of Health and Human Resources, the West Virginia Department of Environmental Protection, and by a municipal bond issued by the City of Morgantown.

Alpine Lake Water System Improvements Project // Alpine Lake, West Virginia

Donavon was the inspector for a water system improvements and upgrade project for a 360-resident, 2,000-acre private community. Services include providing preliminary engineering, and construction inspection for improvements and upgrades to the water treatment facilities, water booster pump stations, water storage tanks, radio telemetry, and production well development.

Water Improvements Project // Shinnston, West Virginia

Donavon provided inspection services for installation of 73,000 feet of new water lines, booster pump stations, and fire hydrants and renovation and upgrading of the existing potable water treatment plant and construction of one new 88,000-gallon water storage tank, and one new 276,000-gallon water storage tank with all necessary appurtenances.

Similar Experience

Tub Run Highwall and Refuse Phase II // Tucker County, West Virginia

Stantec was contracted by the WVDEP to provide reclamation of 12,500 Linear Feet of Highwall with 307,000 C.Yds. of balanced earthwork; refuse regrading and soiling; revegetation of 87.0 Acres, 27.0 Acres on Forest Service; drainage: hydrologic and hydraulic studies for design of eighteen ditches (11,450 LF), four (4) wet mine seals; and surveying and mapping. Services also included subsurface investigation (12 holes, 1 Piezometer Set); clearing and grubbing of 87.0 Acres and 27.0 acres on forest service; surface and ground water testing and reporting; Debris Removal Plan; subsurface drain; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Tub Run Highwall and Refuse Phase I // Tucker County, West Virginia

Stantec was contracted by the WVDEP to provide reclamation of 10,000 LF of highwall with 265,000 C.Yds of balanced earthwork; refuse regrading and soiling; revegetation of 74.0 Acres; drainage: hydrologic and hydraulic studies for design of nine ditches (9,805 LF); stream bank protection; five pipes (244 LF); 8-Foot by 8-Foot box culvert, and surveying and mapping. Services also included: subsurface investigation (15 holes); clearing and grubbing of 74 Acres; surface and ground water testing and reporting; debris removal plan; subsurface drain; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Greenbrier Hollow Refuse // McDowell County, West Virginia

Stantec was selected by the WVDEP to provide reclamation of Cast-Over-The-Hill refuse pile and mine seal reclamation totaling 51,500 C.Yds of balanced earthwork; refuse regrading and soiling; revegetation of 8.0 Acres; drainage: hydrologic and hydraulic studies for design of six ditches (1,011 LF); two manholes; three pipes (open-cutting McDowell County Route 17/10); three wet mine seals; and surveying and mapping. Services also included: utility relocations and coordination, clearing and grubbing of 8 Acres; surface and ground water testing and reporting; mine dewatering and treatment plan; debris removal plan; subsurface drain; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Greendale Coals, Inc. (Permit S-57-83)

Collection of multiple mine seeps with AMD and directed the flow into six (6) lift stations which pumped flow to a treatment plant. The surface water in the project area seeps consisted of various levels of high in ferric and ferrous iron, aluminum and low PH. The project also included the design of an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, sediment pond, treated effluent pond, 100 Ton lime silo, and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Removal and restoration of old passive treatment ponds were completed when the seep area flows were harnessed and pumped to the treatment plant.

Pageton (Lambert) Portals // McDowell County, West Virginia

Stantec was selected to provide the WVDEP with reclamation of Cast-Over-The-Hill refuse pile and mine seal reclamation totaling 60,000 C.Yds of balanced earthwork; refuse regrading and soiling; revegetation of 24 Acres; drainage: hydrologic and hydraulic studies for design of four ditches (829 LF); stream bank protection; 1 pipe; and seventeen splash pads; twenty three wet mine seals; one dry seal, and surveying and mapping. Services also included were utility coordination; clearing and grubbing of 24 acres; surface and ground water testing and reporting; mine dewatering and treatment plan; debris removal plan; subsurface drain; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Birds Creek #4 // Preston County, West Virginia

Stantec was selected by the WVDEP to provide reclamation of a 4,300 LF highwall with 34,500 C.Yds of balanced earthwork; refuse regrading and soiling; revegetation of 28 acres; drainage: hydrologic and hydraulic studies for design of ten ditches (5,860 LF) and one pipe; four wet mine seals; four bat gate installations, and surveying and mapping. Services also included subsurface geological investigation (5 piezometers installed); clearing and grubbing of 28 acres; surface and ground water testing and reporting; mine dewatering and treatment plan; debris removal plan; subsurface drain; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Church Creek/Manown Highwall // Preston County, West Virginia

Stantec was contracted by the WVDEP to provide reclamation of a 15,500 LF highwall with 220,400 C.Yds of balanced earthwork; refuse regrading and soiling; reforestation of 8 acres; revegetation of 63 Acres; drainage: hydrologic and hydraulic studies and design of thirty three ditches (14,882 LF) and two pipes; twenty one wet mine seals; two bat gate installations; one dry mine seal, and surveying and mapping. Other services included: subsurface geological investigation (6 piezometers installed); clearing and grubbing of 71 acres; surface and ground water testing and reporting; mine dewatering and treatment plan; debris removal plan; subsurface drains; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Howesville Sites and Sandy Run Highwall and Portals // Preston County, West Virginia

Stantec was selected by the WVDEP to provide reclamation of 5,900 LF highwall with 110,200 C.Yds of balanced earthwork; refuse regrading and soiling; 52 acres of revegetation ; drainage: hydrologic and hydraulic studies and design of thirty two ditches (9,824 LF)and five pipes; seventeen wet mine seals; four bat gate installations; and surveying and mapping. Services also included subsurface geological investigation (5 piezometers installed); clearing and grubbing of 52 acres; surface and ground water testing and reporting; mine dewatering and treatment plan; debris removal plan; stream bank protection; subsurface drains; access road design and improvement; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Weaver Portals and Highwall, Phase I and II // Randolph County, West Virginia

Stantec was selected by the WVDEP to provide reclamation of a 4,200 LF highwall with 97,200 cubic yards of balanced earthwork; refuse regrading and soiling; 35 acres of revegetation; drainage: hydrologic and hydraulic studies and design of twenty five ditches (4,148 LF) and ten pipes; twenty wet mine seals including modified seals; and surveying and mapping. Services also included subsurface geological investigation (6 piezometers installed); clearing and grubbing of 35 acres; ACOE Permit; sediment control plan; surface and ground water testing and reporting; mine dewatering and treatment plan; six AMD passive treatment limestone beds; subsurface drains and manholes; access road design and improvement; debris removal plan; sediment control design; construction plans and specifications; engineers cost estimate, bid schedule and calculation brief; initial on-site meeting, preliminary design, pre-bid and pre-construction meetings; and monthly reports and invoicing.

Abandoned Underground Mine Inventory and Risk Assessment Statewide Database Population //Various Counties, Ohio

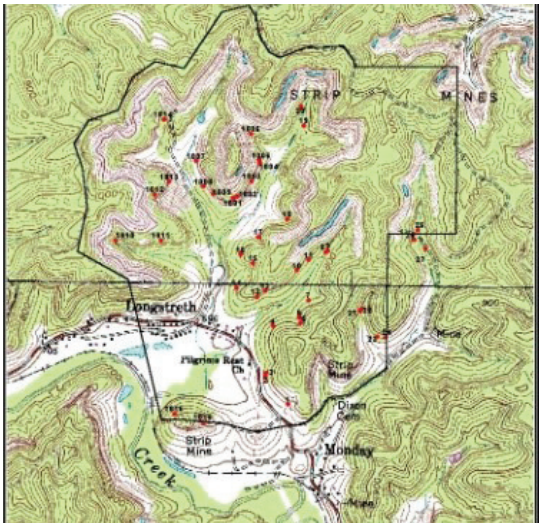
Stantec performed mine inventory and risk assessment of state roadways underlain by abandoned underground mines.

The Ohio Department of Transportation (ODOT) Office of Geotechnical Engineering developed the Abandoned Underground Mine Inventory and Risk Assessment (AUMIRA) process to prioritize sites with regard to the potential threat to public safety and need for a more detailed investigation, monitoring or remediation. Stantec was selected to populate the AUMIRA database for Districts 3, 8, 10 and 11, which totaled approximately 675 sites. Sites were identified by overlaying Ohio Department of Natural Resources (ODNR) abandoned mine mapping on state roadway mapping.

Prior to field work, Stantec reviewed information sources, such as available mapping, historical information, roadway and right-of-way plans, previous subsurface investigations and maintenance records. The information gathered included locations of mapped mine openings, elevation of the mine, overburden composition, coal seam thickness, traffic volumes and hydrogeologic setting.

Stantec's field team consisting of four engineers and geologists, performed a reconnaissance of each site identifying features indicating past underground mining activity, such as surface deformations, sinkholes, seeps, acid mine drainage, drift and slope entries, and vertical mine shafts. Handheld GPS units were used to collect locations of these points. Digital photographs were collected of the mining features.

The AUMIRA database was populated and a score was assigned to each site indicating the potential for subsidence. Stantec prepared cost estimates for remediation for the ten highest ranking sites in each county.



Wayne National Forest Abandoned and Inactive Mine Lands // Athens, Ohio

The project site is situated in east central Ohio within the boundaries of the Athens District of the Wayne National Forest. Numerous areas within the forest have been disturbed by surface and underground coal mining operations which did not include proper reclamation measures.

The objective of the project was to identify abandoned and inactive coal mine sites, their associated features, collect required field data, prepare a database and merge it with the database of the Ironton Ranger District of the forest.

Efforts were initially focused within the Monday Creek Watershed. Additional inventory followed in the Sunday and Raccoon Creek Watersheds. The Abandoned and Inactive Mine (AIM) search and discovery focused on areas with known underground mines, and areas with a combination of known underground and strip mines. U.S. Forestry Service prioritized areas for inventory based on ODNR-Division of Geologic Survey underground mine maps, and underground mine locations known to Forest Service personnel. The work encompassed a total area of 31,000 acres.

Stantec provided two-person teams to perform discovery and field inventory work by walking up drains (hollows) and along hillside elevation contours of known coal seams and benches in specified areas. Data was collected in accordance with the "Wayne National Forest AIM Data Dictionary". The data dictionary was installed into a GPS field data recorder, which was also used to store the position of the different AIM features. GPS-obtained location information was differentially corrected by downloading base station data from an internet web site.

Any pond, seep or stream encountered along the selected drains was subjected to water quality monitoring. The monitoring was accomplished by using portable water quality instruments that measured multiple parameters simultaneously including: temperature, pH, conductivity, dissolved oxygen, oxygen reduction potential and turbidity.

Upper Coldwater Fork Stream Restoration // Martin County, Kentucky

Following initial clean-up efforts of a coal slurry release, Stantec was retained to lead the stream and ecosystem rehabilitation of nearly 6,000 LF of Upper Coldwater Fork in Eastern Kentucky.

In October 2000 a coal slurry impoundment breached into underlying mineworks, releasing more than 250 million gallons of slurry into the Coldwater Fork and Wolf Creek valleys. Called one of the worst mining disasters on the environment by the EPA, clean-up efforts were begun immediately for the Coldwater Fork and Wolf Creek(s) and continued for several months. During clean-up efforts, portions of Coldwater Fork were realigned as up to eight feet of debris and slurry was removed. Following this initial clean-up, the channel was unstable and the riparian and aquatic habitats destroyed.

Stantec was contracted to lead the stream and ecosystem rehabilitation on Upper Coldwater Fork. The scope of work included collection of field data on impacted reaches and reference reaches; preparation of natural channel design stream restoration plans; construction assistance, and post-construction monitoring. The urgency of the project required a streamlined approach to design, permitting and construction. Stantec worked closely with the owner, regulatory agencies, and property owners to meet critical timelines and maximize construction and planting seasons. Construction was completed within five months.

Nearly 6,000 LF of stream was designed, consisting of a C-type stream with step pools, cross vanes, and j-hooks; bioengineering treatments such as live staking were utilized throughout the project. Three years of post-construction monitoring have been completed with results demonstrating excellent recovery from both a geomorphology perspective as well as a biological function perspective.

Oxford Mine Mitigation Monitoring // Multiple Sites, Ohio

Stantec monitored various mitigation sites resulting from impacts by coal mining activities. Impacts to resources included streams and wetlands which were "waters of the United States" (WOUS). Mitigation measures included stream reclamation and relocation and wetland creation. Mitigation streams and wetlands were monitored to ensure the restoration of pre-mining ecological functions.

Stantec provided services for 16 mine sites ranging from 18 to 775 acres in Belmont, Coshocton, Guernsey, Harrison, Jefferson, Muskingum, Perry, and Tuscarawas counties. Mitigation sites were assessed according to performance criteria specified in the Coal Mining and Reclamation Permit, Section 404 Permit, and the 401 Water Quality Certification. Streams and wetlands were assessed using standard procedures outlined in Ohio EPA's Qualitative Habitat Evaluation Index (QHEI) and Ohio Rapid Assessment Method for Wetlands (ORAM).

Project highlights included field investigations and reporting. Field investigations included an evaluation of the physical characteristics and function of constructed wetlands and streams. Monitoring was performed for a total of 70 streams and 23 wetlands. Sites are to be monitored for at least five years and are in various stages of monitoring. A report is prepared and submitted to the Ohio EPA and U.S. Army Corps of Engineers for approval at the end of each monitoring year.

Little Coal River Stream Restoration // Boone and Lincoln Counties, West Virginia

Stantec was contracted to provide restoration design and construction services of approximately 16.5 miles along the Little Coal River in southern West Virginia. The project was funded through the West Virginia Department of Environmental Protection to mitigate for coal mining impacts in the Appalachian Plateau.

Stantec worked with the West Virginia Conservation Agency, Patriot Coal Company, Green Rivers LLC, and North State Environmental through multiple phases of the project. Stantec completed all phases of the design including a 16.5 mile geomorphic assessment and survey.

As part of this restoration work, fish and habitat surveys were conducted to determine appropriate design parameters and construction techniques and establish baseline conditions for fish populations prior to construction. Deep water habitats were sampled from a boat using a Smith-Root GPP 5.0 electrofisher. Wadeable habitats were sampled with a Smith-Root LR24 backpack electrofisher and a 6-foot by 10-foot seine. Surveyors attempted to equalize fishing efforts between gear types and macrohabitats by shocking for approximately 200 seconds. Survey areas were stratified by observable macrohabitat types and by position on the channel margin or in mid-channel. Within the discrete limits of each macrohabitat type, surveyors measured depth and velocity at three physical habitat stations using a Marsh-McBirney FloMate. Surveyors also visually assessed the proportion of substrates present at these stations using a modified Wentworth scale and visually assessed cover type and availability.

The first 1.5 miles of restoration was constructed in the winter of 2011/2012 in which Stantec provided construction support. The remaining 15 mile restoration design will be completed in the summer of 2012 and construction for the 15 miles will be implemented in the fall of 2012.

Little Coal Fish and Habitat Surveys // Boone & Lincoln Counties, West Virginia

Stantec was contracted by the West Virginia Conservation Agency (WVCA), Guyan District to assess conditions and develop restoration designs for approximately 15 miles of the Little Coal River in Boone and Lincoln Counties, West Virginia. The objectives of this study were to complete fish and habitat surveys to aid in determining appropriate design parameters and construction techniques, and establish baseline conditions for fish populations prior to construction.

A total of 6 sites and 29 macrohabitats were surveyed for fish in the fall of 2011. Deep water habitats were sampled from a boat using a Smith-Root GPP 5.0 electrofisher and wadeable habitats were sampled with a Smith-Root LR24 backpack electrofisher and a 6-foot x 10-foot seine. Physical habitat was measured and visually assessed at 86 stations within the macrohabitats. Within the discrete limits of each macrohabitat type, surveyors measured depth and velocity at three physical habitat stations using a Marsh-McBirney FloMate. Surveyors also visually assessed the proportion of substrates present at these stations using a modified Wentworth scale and visually assessed cover type and availability.

Runs, pools, eddies, and backwaters were dominated by fine grained substrates (i.e., silt and sand). Sand was observed at 73 of 86 locations, and some form of cover was observed in 55 of 86 physical habitat stations. Over 500 fish comprising 29 species were collected in the sampling effort. Species density and richness was highest in coarse-grained substrates. Fish were most frequently associated with large wood and boulder cover types. Fish densities were high in mid-channel units sampled with backpack electrofisher but species per unit effort was low suggesting the presence of a small number of specialized species. Species richness was highest in the margin habitats and fourteen of the 29 species collected were found exclusively in margin habitats.

These observations informed restoration design and implementation regarding substrate composition, instream cover, availability of off-channel habitats, glide dimensions, riffle slopes, and pool dimensions.

Exelon Corporation, 1005 Brandon Shore Road, Baltimore, MD

Project and Location: BBSS wetland treatment system for contaminated groundwater capture from an unlined fly ash landfill. Location is near Waugh Chapel, MD

System size: SAPS system 2003 – 2,000 tons of limestone, SAPS system 2015 – 1,800 tons of limestone. With settling basin and polishing aerobic wetland (1.3 acres)

Influent/Effluent water chemistry: Influent – pH 3.5-3.7, alkalinity 0 mg/L, acidity 120+ mg/L, iron 4-8 mg/L, aluminum 6-12 mg/L, flow 150+ GPM. Effluent – pH 6.5-7.2, alkalinity 100-180 mg/L, acidity 0 mg/L, iron <0.1 mg/L, aluminum <0.1 mg/L. This system has consistently meet the NPDES permit requirements since startup in early 2004.

Keystone Industries, 1915 Wigmore Street, Jacksonville, FL,

Project and Location: Passive treatment systems for two discharges emanating from areas mined by Keystone Industries. Location is Centre County, PA.

System size: SAPS system 2001 – 1,200 tons of limestone, SAPS system 2006 – 1,000 tons of limestone. With settling basin and remaining passive treatment wetland (1.1 acres)

Influent/Effluent water chemistry: Influent – pH 3.6-3.9, alkalinity 0 mg/L, acidity 140+ mg/L, iron 6-10 mg/L, aluminum 7-12 mg/L, manganese 30-40 mg/L, flow 50+ GPM. Effluent – pH 6.3-7.0, alkalinity 60-110 mg/L, acidity 0 mg/L, iron <0.1 mg/L, aluminum <0.1 mg/L, manganese <1 mg/L. This system has consistently meet the NPDES permit requirements since startup in 2001.

Marc T. Valentine & Associates, P.C., 118 North Center Avenue, Somerset, PA

Project and Location: Passive treatment system for a discharge emanating from an area mined by Big Mack Leasing Company. Location is Indiana County, PA

System size: SAPS system (two SAPS) combined for a total of 1,000 tons of limestone. With settling basins and remaining passive treatment wetland (0.8 acres). Design flow of 25-35 gallons per minute.

Influent/Effluent water chemistry: Influent – pH 3.0-3.3, alkalinity 0 mg/L, acidity 220+ mg/L, iron 8-12 mg/L, aluminum 15-20 mg/L, flow 25+ GPM. Effluent – pH 6.2-6.8, alkalinity 100-140 mg/L, acidity 0 mg/L, iron <0.1 mg/L, aluminum <0.1 mg/L. This system has consistently meet the NPDES permit requirements since construction in 2015.

Ohio Emergency Program (2005-2011) // Various Counties, Ohio

The Ohio Department of Natural Resources, Division of Mineral Resources Management, administers the Emergency AML Program for OSM in the State of Ohio. Projects which pose an immediate threat to the health and safety of the public are handled with quick turnaround. These projects vary in size and location, but often consist of landslides or mine subsidence problems.

Stantec was one of three firms retained by Ohio AML to respond to these emergency projects on short notice. Initial efforts consisted of a senior project engineer visiting the site and assessing the damage and potential for future damage. When warranted, a geotechnical exploration is performed to determine the subsurface conditions and whether or not the problem is mining related. If the problem is mining related, Stantec engineers prepared plans and specifications to remediate the situation.

Stantec also provides construction inspection services when requested by ODNR. On these projects, Stantec inspectors monitor the contractor's work for compliance with plans and specifications and keep track of pay quantities.

Services provided depended on the specific project needs. On the Tolotti Landslide project, an as-built survey was needed of a previous reclamation project. Stantec's survey crew performed a topographic survey of the site including an adjacent pipe yard. A baseline was established and the survey crew located such features as edge of pavement, major trees, utilities and the landslide limits. Later, Stantec was engaged to prepare construction drawings to improve surface and subsurface drainage at the site. Technical specifications and a cost estimate were also prepared.

At the Tarr Hill Landslide Project, Stantec prepared a topographic survey and also performed a subsurface exploration with ten soil borings. SPT samples and rock core was obtained from the borings. Samples were returned to our laboratory for engineering classification testing. Using the survey and geotechnical data gathered from the field, cross sections of the site were developed and different remediation schemes were analyzed. The recommended repair scheme consisted of removal of most of the sliding soil mass and the installation of subsurface drainage.

For the Ocsenbein Subsidence Project Stantec initially surveyed and prepared drawings of the affected area. Once this was complete, Stantec prepared construction drawings for subsurface remediation (drilling and grouting) and provided an engineer's cost estimate and technical specifications. This project was unique in that it affected five individual residences.

Ohio Emergency Program (1995-2003) // Various Counties, Ohio

The Ohio Department of Natural Resources, Division of Mineral Resources Management, administers the Emergency AML Program for OSM in the State of Ohio. Projects which pose an immediate threat to the health and safety of the public are handled with quick turnaround. These projects vary in size and location, but often consist of landslides or mine subsidence problems.

Stantec was one of four firms retained by Ohio AML to respond to these emergency projects on short notice. Initial efforts consisted of a senior project engineer visiting the site and assessing the damage and potential for future damage. When warranted, a geotechnical exploration is performed to determine the subsurface conditions and whether or not the problem was mining related. If the problem was mining related, Stantec engineers prepared plans and specifications to remediate the situation.

Stantec also provides construction inspection services when requested by ODNR. On these projects, Stantec inspectors monitor the contractor's work for compliance with plans and specifications and keep track of pay quantities. These are just a few examples of the projects that Stantec was involved under the Emergency Program:

- The first step on some projects is the performance of a geotechnical exploration to determine if damage is mining related. At the Glass Road site in Guernsey County, it was found that settlement of the road was due to the presence of soft, normally-consolidated soil and vibrations from heavy truck traffic.
- At the Oliphant Reclamation project in Meigs County, one basement wall of a residence collapsed under the weight of soil saturated by mine drainage. Stantec prepared plans and specifications to replace the wall, and also incorporated plans prepared by DMR personnel to address mine drainage.
- At the Doneghan Shaft project in Trumbull County, a large diameter, deep shaft opened up near a residence. Stantec engineers designed a shaft closure consisting of pre-cast concrete beams covered by vegetated earth. By casting the beams at the surface, the amount of time workers spent in the sinkhole was minimized.
- The Huffman Subsidence project in Summit County required a different approach. The bottom of the mine at this site was only 8-10 feet below the surface. An excavation was made from the surface down to the bottom of a sinkhole. Next, a tremie pipe was inserted as far as possible into the mine voids, which were then filled with concrete.
- On the Niemann Sinkhole project, Stantec performed a geotechnical exploration to determine if mine voids extended under a house. After encountering mine voids while drilling, Stantec prepared plans and specifications for grouting the mine voids and fractures in the overlying bedrock. The project was successfully completed in early 1996.

Little Storms Creek Road Reclamation Project // Upper Township, Lawrence County, Ohio

Little Storms Creek Road (CR 22) was frequently flooded for several days after storms because of sedimentation of adjacent Little Storms Creek. The sediment originated from nearby strip mines, now reclaimed. A natural channel design approach to remediation was desired by the project owner, in lieu of dredging of the creek. Several low bridges and abandoned wooden railroad trestles cross the creek and were to remain.

After a review of the site and study of related information, Stantec submitted a design scope of work and performed a two-phase study. Phase I involved a site investigation including a watershed analysis, a general stream inventory, topographic mapping, a geotechnical exploration, a description of problem areas and a list of recommendations. Phase II involved production of a biddable set of design drawings and specifications. An engineer's estimate of the project cost was also produced. Review meetings with ODNR were held after the site review, preliminary design stage and at the 50%, 70% and 90% design completion stages.

Final Design. The 2-year storm level of protection for road raising was chosen by the project owner. Approximately 1,900 feet of roadway was raised two feet. Numerous minor pipe culverts were replaced and some residential driveways were transitioned to the new grades. Roadside ditches in the raised road areas were improved. One major culvert was replaced with an aluminum pipe arch. Over 1,100 feet of stream channel was restored using natural channel design techniques including rock cross vanes, rock J-hook vanes, log vanes, root wads, live staking, erosion control mat and crushed limestone channel protection. The soil bioengineering applications along the banks also provided erosion resistance until planted vegetation could establish.

Construction inspection by Stantec was only performed in the portion of the project that was to receive the bulk of the soil bioengineering applications. The inspection included observation of clearing and grubbing, soil excavation, soil fill placement, mat and vegetation placement, rock vane installation and planting.

Doneghan Shaft Project TR-VN-07-E // Vienna Township, Trumbull County, Ohio

Subsidence above an abandoned mine shaft created a sinkhole within the front yard of the Doneghan residence on Smith-Stewart Road. A Stantec engineer met with the DMRM representative and the property owner at the site. Scant site information could be gathered in the field other than dimensions of the opening and apparent depth. Stantec compiled construction plans that were flexible enough to be applied to the project almost regardless of the actual configuration of the mine shaft once known through excavation of the surface.

The plans showed the opening in plan and cross-section with assumed dimensions. During construction, the shaft was exposed to the rockline and the excavation laid back at 1H:1V slopes. The shaft was filled with crushed gravel. To immediate render the site safe and prevent another sinkhole in the event the gravel fill settled, the opening was overlaid with 12-inch wide steel-reinforced concrete beams. The beams were topped with a concrete slab as an extra measure. The excavation was then filled with soil and the surface restored.

The construction plans contained a table to be consulted by the constructor that showed the required beam length and a steel reinforcing schedule for a range of shaft spans. Using these plans the beams could be cast on the site in makeshift excavated forms and almost immediately used to cover the opening. Alternately, the beams could be cast in the constructor's shop and brought to the site.

The plans were prepared within a few weeks of the initial site visit and submitted to DMRM as a biddable set. This method was used by DMRM on other deep shaft projects because of its flexibility, economy and capability to quickly eliminate the hazard

K&R (D-105) Forfeiture Reclamation Project // Osnaburg Township, Stark County, Ohio

Stantec provided mine reclamation services for an abandoned, unreclaimed strip mine situated on 78 acres of land in Stark County, Ohio. A hazardous, horseshoe-shaped, 90-foot highwall bounded a lake that formed behind a 40-foot tall spoil pile that blocked drainage of the valley. During wet weather, the lake water was flooding an adjacent landowner's property. Reclamation of the mine included highwall elimination, establishment of proper drainage for the lake and other disturbed land, erosion control and revegetation.

After a review of the site, Stantec submitted a design scope of work. A topographic survey was arranged to accurately map the surface of the site. A geotechnical exploration, consisting of eight borings including disturbed soil sampling and rock core, was also performed in order to ascertain subsurface conditions. Stantec conducted a hydrologic analysis of the watershed to gauge the flow of storm water runoff.

The firm submitted several alternatives, including an alternative that would allow blasting to be used to eliminate the highwall. Once the final design was chosen by the project owner, the design was completed, specifications developed and an engineer's cost estimate was produced. The design was submitted at 50%, 90% and 100% completion for project owner's comments. The specifications followed DMRM master specification format. Stantec worked closely with DMRM to help settle the sensitive issues of landowners and to their land use needs.

The deliverables for the design phase of the work were a 25-sheet set of plans with specifications and engineer's cost estimate. The design contained details for restoration of an existing sediment pond, a 2,000 l.f., 40-foot deep drainage channel through the spoil pile, a hollow fill for excess cut, and a reduction in the size and level of the lake. The plans also showed the fill and drainage ditches in the highwall area, cut slopes eliminating the highwall as well as sediment and erosion control and construction limits.

Kimberly Road Drainage Project AT-YK-57 // York Township, Athens County, Ohio

This project improved the residents' site conditions the season after the completion of a DMRM reclamation project. The prior project stabilized a hillside behind the Newlun Residence which is about 3 miles south of Nelsonville, Ohio, just off SR 691. The 2-acre reclamation project involved the placement of soil nails, an underdrain system, and surface drainage ditches. The site was regraded in order to direct and collect storm water runoff to adjacent natural drainage features. The surface was vegetated as a lawn with grass.

The next season after the reclamation DMRM found that some new ditches had filled with sediment, water was ponding on the soil benches and ground water from seeps wasn't being collected. Erosion rills had formed on the slopes and surface water was creating pathways not along the ditch lines. The temporary silt control measures placed during the project were still in place. The owner had land use problems because of the saturated areas. Soil saturation probably reduced the effectiveness of soil nail remedy thereby threatening the stability of the slope.

The problems were discussed with a Stantec engineer during a field meeting with the DMRM AML representative. The only directions given to Stantec were to prepare plans to restore the site to a more usable status using the minimum of materials and effort. During the same site visit, the Stantec engineer gathered suitable field information using only photography, tape measurements and sketches. No conventional land surveying was performed.

Stantec created project plans and specifications in accordance with ODNR guidelines from the field data. The plans indicated areas to be regraded for positive drainage or otherwise restored. Regraded areas and areas found not supporting vigorous vegetation were shown to be scarified, seeded and mulched toward the re-establishment of vegetation. The plan details showed the manner of re-shaping ditches and creation of addition drainage swales and berms. While some new rock channel lining was specified, the plans included directions to reclaim existing silted rock and re-use it.

Midvale Burning Gob Project TS-GO-32 // Goshen Township, Tuscarawas County, Ohio

Background. Stantec was selected by the ODNR Division of Mineral Resources Management to create bid documents for the proposed reclamation project near Midvale, Ohio. As part of this project, Stantec performed a geotechnical exploration, obtained topographic mapping and developed design alternatives for reclamation of the land.

Geotechnical Exploration. Stantec used a track excavator to dig a series of test pits across the site in order to expose the substrata for logging and sampling. The logging and sampling of the exposed strata were performed in order to determine the volume of exposed coal refuse as well as the volume of available mine spoil to be used as fill. Agronomic soil samples were tested to determine the capability of the soil for amendment to a useful state for re-vegetation of the site. Engineering classification testing yielded physical characteristics of the prevalent soils.

Agronomic Soil Analysis. Agronomic soil analysis yielded results important for determining the potential of the on-site mine spoil for re-vegetation. From the testing, the proper amounts of fertilizer and lime were determined for immediate, initial re-vegetation as well as maintenance of the plantings after reclamation.

Hydraulic and Hydrologic Analyses. A set of simple calculations were used to gauge the amount of stormwater runoff produced by the 25-year, 24-hour design storm. The Rational Method and Manning's equation were used to obtain peak runoff rates and determine the size of ditches and culverts. An NRCS computer program and ODNR guidelines were also used to size ditches and to choose the size of rock channel protection.

Surface Mine Reclamation Recommendations. The ODNR specification for standard re-vegetation of previously mined sites was incorporated into the design plans. Temporary sediment control, such as straw bale silt checks and silt fences were also part of the plans. A temporary sediment control structure, to be reclaimed at the end of the project, was designed to clarify all stormwater runoff from the project site. Special consideration was given to eliminating loose, de-laminated rock present on the existing rock highwall with project limits. The project was specified to be sequenced to address silt control first, then burning coal refuse, then the exposed coal refuse, and then the demolition of a large coal tipple foundation before regrading and re-vegetation.

Burning Gob Extinguishment and Disposal. The plans and specifications detail the creation and use of a quenching area to be excavated near the area of burning gob. The area, a wide, shallow trench excavated in incombustible soil materials, is emptied when full and controls quenching water runoff.

Alternatives Analysis. Stantec conducted analyses on several alternatives in order to investigate the effect of different cut-and-fill schemes on post-reclamation land use, aesthetics and access. These analyses considered stormwater runoff, structure removal, cut-and-fill volumes, road creation, drainage, and possible harm to the environment. The final design minimizes disturbance of wooded areas, creates additional wildlife habitat and eliminates acid mine drainage from the site.

References

Preston County PSD#4
Mr. Al Bailey
PO Box 370
Bruceton Mills, WV 26525
(304) 379-3130

WVDEP
Mr. Gregg Smith, PE
101 Cambridge Place
Bridgeport, WV 26330
(304) 842-1900

WV Conservation Agency
Mr. Gene Saurborn, PE
4720 Brenda Lane, Building 5
Charleston, WV 25305
(304) 367-2770

Ohio Department of National Resources
Ms. Nancy Seger, PE
2045 Morse Rd, Building 5
Columbus, OH 43229
(614) 265-6633

Required Forms

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

State of West Virginia
Centralized Expression of Interest
02 — Architect/Engr

Proc Folder: 764170
Doc Description: CEOI - Kempton Refuse Rehabilitation Project
Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2020-08-12	2020-09-10 13:30:00	CEOI 0313 DEP2100000002	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:

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
(304) 558-2596
guy.l.nisbet@wv.gov

Signature X **FEIN #** 11-2167170 **DATE** 9/9/2020

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

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.

Richard Gaines, Principal

(Name, Title)

(Printed Name and Title)

111 Elkins Street, Fairmont, WV 26554

(Address)

304-816-5190 / 304-367-9403

(Phone Number) / (Fax Number)

Richard.gaines@stantec.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.

Stantec Consulting Services Inc.

(Company)

(Authorized Signature) (Representative Name, Title)

Richard Gaines, Principal

(Printed Name and Title of Authorized Representative)

9/9/2020

(Date)

304-816-5190 / 304-367-9403

(Phone Number) (Fax Number)

Revised 01/09/2020

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:
(Check the box next to each addendum received)

- [x] Addendum No. 1
- [ ] Addendum No. 2
- [ ] Addendum No. 3
- [ ] Addendum No. 4
- [ ] Addendum No. 5
- [ ] Addendum No. 6
- [ ] Addendum No. 7
- [ ] Addendum No. 8
- [ ] Addendum No. 9
- [ ] 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.

Stantec Consulting Services Inc.
Company

Authorized Signature

9/9/2020
Date

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

Revised 01/09/2020

Attachment "C"

OMB # 1029-0119
Expiration Date: 10/31/2021

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ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

You must complete this form for your AML contracting officer to request an eligibility evaluation from the Office of Surface Mining Reclamation and Enforcement (OSMRE) to determine if you are eligible to receive an AML contract. This requirement applies to contractors and their sub-contractors and can be found under OSMRE's regulations at 30 CFR 874.16. **NOTE:** This form must be signed and **dated within 30 days** of submission to be considered for a current bid.

Part A: General Information

Business Name:	Stantec Consulting Services Inc.
Tax ID #:	11-2167170
Address:	111 Elkins Street
City, State, & Zip:	Fairmont, WV 26554
Phone Number:	304-367-9401
Email Address:	richard.gaines@stantec.com

Part B: Obtain an Organizational Family Tree (OFT) from the Applicant Violator System (AVS)

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. To obtain an OFT, you may contact the AVS Office at 800-643-9748 or from the AVS website at: https://avss.osmre.gov/. Instructions for how to download an OFT from the AVS can be found at: https://www.osmre.gov/programs/AVS/aml-instructions.pdf.

Part C: Certifying and updating information in the AVS

Select only one of the following options, follow the instructions for that option, and sign and date below.

I, Richard Gaines, have express authority to certify that:
(Print Name)

○ 1. Our business is in the AVS and is accurate, complete, and up-to-date. If you select this option, you must attach an Entity OFT from the AVS to this form. Do not complete Part D.

○ 2. Our business is in the AVS but needs to be updated. If you select this option you must attach an Entity OFT from the AVS to this form. Use Part D to provide the missing or corrected information.

(X) 3. Our business is not in the AVS and needs to be added. Complete Part D.

9/9/2020		Principal
Date	Signature	Title

11-2167170

OMB # 1029-0119
Expiration Date: 10/31/2021

Part D: OFT Information

Contractor's Business Name: Stantec Consulting Services Inc.

If the current Entity OFT information for your business is incomplete in the AVS, or if there is no information in the AVS for your business, you must provide all of the following information as it applies to your business. Please include additional copies of this page if the space below is not sufficient to capture all information.

- Every officer (President, Vice President, Secretary, Treasurer, etc.); Please see attached after this page
- All Directors, Partners, and Members;
- All persons performing a function similar to a Director;
- Every person or business that owns 10% or more of the voting stock in your business;
- Any other person(s) who has the ability to determine the manner in which the AML reclamation project is being conducted.
- **Please list an end date for any person no longer with your business.**

Name:	Richard Gaines
Address:	111 Elkins Street, Fairmont, WV 26554
Begin Date:	9/9/2020
End Date:	NA
% Ownership:	0%
Position/Title:	Principal
Phone Number:	304-816-5190

Name:	Michael Retton
Address:	6110 Frost Place, Laurel, MD 20707
Begin Date:	9/9/2020
End Date:	NA
% Ownership:	0%
Position/Title:	Senior Principal
Phone Number:	301-220-1887

Name:	
Address:	
Begin Date:	
End Date:	
% Ownership:	
Position/Title:	
Phone Number:	

Name:	
Address:	
Begin Date:	
End Date:	
% Ownership:	
Position/Title:	
Phone Number:	

PAPERWORK REDUCTION STATEMENT

The Paperwork Reduction Act of 1995 (44 U.S.C 3501) requires us to inform you that: Federal Agencies may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a current valid OMB control number. This information is necessary for all successful bidders prior to the distribution of AML funds, and is required to obtain a benefit.

Public reporting burden for this form is estimated to range from 15 minutes to one hour, with an average of 30 minutes per response, including time for reviewing instructions, gather and maintaining data, and completing and reviewing the form. You may direct comments regarding the burden estimate or any other aspect of this form to the Information Collection Clearance Officer, Office of Surface Mining Reclamation and Enforcement, 1849 C Street, NW, Room 4559, Washington, DC 20240.

STANTEC CONSULTING SERVICES INC.

SHAREHOLDERS: Mustang Acquisition Holdings Inc. (100%)

DIRECTORS:

Stuart E. Lerner
Jeffrey P. Stone

OFFICERS:

President	Gordon A. Johnston
Chief Operating Officer – North America & Executive Vice President	Stuart E. Lerner
Chief Operating Officer – Global & Executive Vice President	Catherine Schefer
Chief Business Officer & Executive Vice President	Valentino DiManno
Chief Innovation Officer & Executive Vice President	Marshall W. Davert Jr.
Chief Practice and Project Officer & Executive Vice President	Steve Fleck
Chief Human Resources Officer & Senior Vice President	Emree Siaroff
Executive Vice President	Leonard Castro
Executive Vice President	Mario Finis
Executive Vice President	Michael A. Kennedy
Executive Vice President	Kirk M. Morrison
Executive Vice President	Eric Nielsen
Executive Vice President	Robert Seager
Executive Vice President	John Take
Executive Vice President	Susan Walter
Executive Vice President	Russ Wlad
Senior Vice President & CEO - Engineering	Brian Larson
Senior Vice President & CIO	Chris McDonald
Senior Vice President	Paul J.D. Alpern
Senior Vice President	Richard Andrachek
Senior Vice President	Donal J. Bassett
Senior Vice President	David R. Bernier
Senior Vice President	Clayton A. Bock
Senior Vice President	Patrick G. Corser
Senior Vice President	Paul J. DeKeyser
Senior Vice President	Joseph Geller
Senior Vice President	Anton Germishuizen
Senior Vice President	James Grasty
Senior Vice President	John J. Hanula

STANTEC CONSULTING SERVICES INC.

Senior Vice President	David Haywood
Senior Vice President	Fay (Skip) L. Holland
Senior Vice President	David Irvine
Senior Vice President	Dave Lamontagne
Senior Vice President	Jon Lessard
Senior Vice President	James E. Lindell
Senior Vice President	John S. Montgomery
Senior Vice President	Bjorn Morisbak
Senior Vice President	Robert Mullins
Senior Vice President	Michael Newbery
Senior Vice President	James (Jim) R. Obermeyer
Senior Vice President	Eric Overton
Senior Vice President	Dean Palumbo
Senior Vice President	Philip R. Perciavalle
Senior Vice President	Marilynn F. Robinson
Senior Vice President	Chander K. Sehgal
Senior Vice President	Constantino Senon
Senior Vice President	William F. Shelley
Senior Vice President	Robert A. Simm
Senior Vice President	David Smith
Senior Vice President	Donald J. Spiegel
Senior Vice President	Scott Storlid
Senior Vice President	Glenn S. Tarbox
Senior Vice President	Jonathan R. Treen
Senior Vice President	Arthur Umble
Senior Vice President	Mike Watson
Senior Vice President	Christopher Williams
Vice President	Frank Aceto
Vice President	Becky Hachenburg
Vice President	Michael Reagan
Vice President	Alfonso Rodriguez
Vice President	Jeffrey P. Stone
Senior Principal	Scott Buttari
Principal	Robert R. Cunningham
Senior Associate	Steve Shadix
Associate	Jason Schneider
Associate	Kelly VanElders
Associate & CEO – Surveying	Jerome Means
Right of Way Officer	Linda Brown
Right of Way Officer	Geraldine V. Webb
Corporate Counsel	David Archer
Corporate Counsel	Donald Blackwell
Corporate Counsel	William A. Butler
Corporate Counsel	Thomas Curran
Corporate Counsel	William J. Edwards
Corporate Counsel	Cate Hite

STANTEC CONSULTING SERVICES INC.

Corporate Counsel	Katharine LaFrance
Corporate Counsel	Christy J. Leonard
Corporate Counsel	Amy Oygen
Corporate Counsel	Marissa Johnson Prakash
Corporate Counsel	Robert J. Ray
Corporate Counsel	Corey Sanchez
Corporate Counsel	Matthew Storey
Secretary	Christopher O. Heisler
Assistant Secretary	Jeffrey P. Stone
Treasurer	Theresa Jang

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

Pursuant to *W. Va. Code* § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of $1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation, but does not include publicly traded companies listed on a national or international stock exchange.

"Interested party" or *"Interested parties"* means:

(1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
(2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
(3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

Revised June 8, 2018

West Virginia Ethics Commission

Disclosure of Interested Parties to Contracts

(Required by *W. Va. Code* § 6D-1-2)

Name of Contracting Business Entity: Stantec Consulting Services Inc **Address:** 111 Elkins Street, Fairmont, WV 26554

Name of Authorized Agent: Richard Gaines **Address:** 111 Elkins Street, Fairmont, WV 26554

Contract Number: CEOI 0313 DEP2100000002 **Contract Description:** CEOI - Kempton Refuse Rehabilitation Project

Governmental agency awarding contract: WV. Department of Environmental Protection

☐ **Check here if this is a Supplemental Disclosure**

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below *(attach additional pages if necessary)*:

1. **Subcontractors or other entities performing work or service under the Contract**
   ☐ Check here if none, otherwise list entity/individual names below.
   Smith Land Surveying
   AllStar Ecology

2. **Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**
   ☒ Check here if none, otherwise list entity/individual names below.

3. **Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding lega services related to the negotiation or drafting of the applicable contract)**
   ☒ Check here if none, otherwise list entity/individual names below.

Signature: _____ Date Signed: 9/9/2020

Notary Verification

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Irene Denise Martello-Burton
89 Big Sky Ln.
Rivesville, WV 26588
My Commission Expires February 20, 2024

State of West Virginia, County of Marion:

I, Irene Denise Martello-Burton, the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this 9th day of September, 2020

Irene Denise Martello Burton
Notary Public's Signature

To be completed by State Agency:

Date Received by State Agency: _____

Date submitted to Ethics Commission: _____

Governmental agency submitting Disclosure: _____

Revised June 8, 2018

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: 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: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, 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: Stantec Consulting Services Inc.

Authorized Signature: _____ Date: 9/9/2020

State of West Virginia

County of Marion, to-wit:

Taken, subscribed, and sworn to before me this 9th day of September, 2020.

My Commission expires Feb 20, 2024.

AFFIX SEAL HERE

OFFICIAL SEAL
NOTARY PUBLIC
STATE OF WEST VIRGINIA
Irene Denise Martello-Burton
89 Big Sky Ln.
Rivesville, WV 26588
My Commission Expires February 20, 2024

NOTARY PUBLIC Irene Denise Martello-Burton

Purchasing Affidavit (Revised 01/19/2018)

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
OSR CONSULTANT QUALIFICATION QUESTIONNAIRE Attachment "B"

PROJECT NAME: DEP 16552 1 Permit Design	DATE (DAY, MONTH, YEAR) 19 June 2014		FEIN NUMBER 11-2167170
1.FIRM NAME Stantec Consulting Services Inc.	2.HOME OFFICE BUSINESS ADDRESS 10160-112 Street, Edmonton, Alberta, Canada, T5K 216		3.FORMER FIRM NAME
4.HOME OFFICE TELEPHONE 304-367-9401	5.ESTABLISHED (YEAR) 1954	6.TYPE OWNERSHIP INDIVIDUAL **CORPORATION** PARTNERSHIP JOINT-VENTURE	6A. WV REGISTERED DBE (Disadvantaged Business Enterprise) YES **NO**

7. PRIMARY OSR DESIGN OFFICE: ADDRESS/TELEPHONE /PERSON IN CHARGE/ NO. OSR DESIGN PERSONNEL EACH OFFICE

Fairmont, WV (32)
111 Elkins Street
Fairmont, WV 26554-4021
(304) 367-9401
Richard Gaines, PE

8. PRINCIPAL OFFICERS OR MEMBER OF FIRM Gordon A. Johnston – President Stuart E. Lerner – COO & Executive Vice President	8A. NAME, TITLE, & TELEPHONE – OTHER PRINCIPALS Christopher O. Heisler – Secretary Jeffrey P. Stone – Assistant Secretary Theresa Jang - Treasurer

9. PERSONNEL BY DISCIPLINE

3121 ADMINISTRATIVE	__ ECOLOGISTS	364 LANDSCAPE ARCHITECTS	763 STRUCTURAL ENGINEERS
909 ARCHITECHS	__ ECONOMISTS	630 MECHANICAL ENGINEERS	__ **SURVEYORS**
298 **BIOLOGISTS**	736 ELECTRICAL ENGINEERS	463 **MINING ENGINEERS**	__ TRAFFIC ENGINEERS
630 **CADD OPERATORS**	1404 ENVIRONMENTALISTS	__ PHOTOGRAMMETRISTS	4215 OTHER
__ CHEMICAL ENGINEERS	__ ESTIMATORS	289 PLANNERS: URBAN REGIONAL	
2447 **CIVIL ENGINEERS**	__ **GEOLOGISTS**	__ SANITARY ENGINEERS	
292 CONSTRUCTION INSPECTORS	__ HISTORIANS	__ SOILS ENGINEERS	
__ DESIGNERS	__ HYDROLOGISTS	__ SPECIFICATION	16567 TOTAL PERSONNEL
__ DRAFTSMEN		WRITERS	

TOTAL NUMBER OF WV REGISTERDD PROFESSIONAL ENGINEERS IN PRIMARY OFFICE: __9_____

*RPEs other than Civil and Mining must provide supporting documentation that qualifies them to supervise and perform this type of work.

10. HAS THIS JOINT-VENTURE WORKED TOGETHER BEFORE? YES NO **N/A**

11. OUTSIDE KEY CONSULTANTS/SUBCONSULTANTS ANTICIPATED TO BE USED. Attach OSR "Consultant Qualification Questionnaire "

NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
AllStar Ecology 1582 Meadowdale Road Fairmont, WV 26554	Full services environmental consulting and contracting firm.	___X____ YES _____ NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
Smith Land Surveying, Inc. 5036 Washington Street W Cross Lanes, WV 25313	Land surveying services	___X__ YES _____ NO
NAME AND ADDRESS:	SPECIALTY:	WORKED WITH BEFORE
		_____ YES _____ NO

12. A. Is your firm experienced in Acid Mine Drainage water treatment and remediation?

YES Description and number of projects: 10+ WVDEP AML Projects, Six (6) Ohio AML Projects; One (1) Ohio Watershed; Recent projects include: *Glady Fork Mining, Inc. (Permit D-35-82) Bond Forfeiture:* Active AMD Treatment Facility – Involved the design of a $3,000,000.00 AMD plant design that incorporated a single treatment train capable of handling 1,000 gallons per minute of alkaline mine drainage with 15 ppm of total iron and included necessary piping and seating for a second treatment train if future needs arise. The project also involved relining existing boreholes to eliminate mine discharge interruptions, design and construction of 2,500 linear feet of gravity fed plant intake line from the boreholes to the plant site, and an active chemical treatment plant. The treatment plant included an rapid mix tank for chemical introduction (concrete), clarifier with tube settlers and flocculator (concrete), chemical feed building, settling basin (concrete), sludge thickener (concrete), and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Treated water limits are 0.50 ppm iron average, 0.75 ppm iron maximum.

Greendale Coals, Inc. (Permit S-57-83): Collection of multiple mine seeps with AMD and directed the flow into six (6) lift stations which pumped flow to a treatment plant. The surface water in the project area seeps consisted of various levels of high in ferric and ferrous iron, aluminum and low PH. The project also included the design of an active chemical treatment plant. The treatment plant included an aeration basin (concrete), flocculator (concrete), chemical feed building, sediment pond, treated effluent pond, 100 Ton lime silo, and geo-tube sludge disposal system with overflow catchment and re-treatment capabilities. Removal and restoration of old passive treatment ponds were completed when the seep area flows were harnessed and pumped to the treatment plant.

Weaver Portals and Highwall, Phase I & II: Twenty (20) collapsed portals contribute approximately 95 gpm of pH 3.2, 200 mg/l acidity, 10 mg/l iron, 20 mg/l aluminum, and 2 mg/l manganese to Beaver Creek. Designed passive acid mine drainage treatment systems consisting of Open Limestone Channels and six (6) Limestone Beds with engineered "Aluminator" piping systems. The project also included 97,000 Yards Earthwork, 20 Wet Mine Seals, 25 Ditches, 10 Pipes, Sediment Control Plan, and 35-acre Revegetation Plan. Construction Plans and Specifications; Engineers Cost Estimate, Bid Schedule, and Calculation Brief; Initial On-Site, Preliminary Design, Pre-Bid, and Pre-Construction Meetings; Monthly Reports and Invoicing.

Designed Mine Dewatering and AMD Discharge Treatment Plans for the following Projects: Norton Highwall #1; Tub Run Highwall and Refuse Phase I and II; Greenbrier Hollow Refuse; Pageton (Lambert) Portals; Birds Creek Number Four, Church Creek / Manown Highwall, Racine, Howesville Sites, Sandy Run Highwall and Portals, Price Hill Airshaft / Buildings (Price Hill Complex), Nixon Run AMD, Old Bridgeport Hill, and Arlington (Cox) Drainage

NO

B. Is your firm experienced in soil analysis and coal refuse analyses?

YES Description and number of projects: Stantec has successfully completed over 200 soil analysis projects, ranging in size and complexity. In addition, Stantec has completed 30+ AML and AML related Soil Analysis projects.

Numerous Projects Involving Physical Properties of Soil Including Soil Stability Investigations, Design of Soil Fill Slopes, as well as Chemical Properties of Soils including Revegetation Plans: Sauls Run (Carpenter) Landslide; Laurel Valley (Daniels) Landslide; Price Hill Airshaft/Buildings; Fairmont (Hendrickson) Subsidence; Tunnelton (Dillsworth) Landslide; Sauls Run Strip and Landslide; Nutters Tipple D-716; Danehart Acid Mine Drainage; Lake Milton Investigation. **WVCA –** Fisher-Mill Creek Bank Stabilization; Harmons Creek Bank Stabilization; Parchment Valley Bank Stabilization; North Fork Hughes River Bank Stabilization. **Landfills –** Franklin County Sanitary Landfill Capping and Closure Plan; Bobmeyer Landfill Capping and Closure Plan; Fayette County Sanitary Landfill #3 Capping and Closure Plan; Hardin County Sanitary Landfill Capping and Closure Plan; Allied Sanitary Landfill Capping

and Closure Plan; Triangle Landfill Capping and Closure Plan; Coshocton Landfill Capping and Closure Plan; B & E Landfill Capping and Closure Plan; Westerville Landfill Capping and Closure Plan. **Road Design –** U.S. Route 35 Couch to Coast Guard Station; Lawrence County Route 7; Corridor H, Section 6 Davis to Bismark; Williams Road Widening; Journal Street Extension; Frantz Road; Maxtown Road; Alum Creek Drive. **Quality Control / Quality Assurance Projects –** Glady Fork Permit D-35-82 Bond Forfeiture; ODNR Racine Docks; Fisher Mill Creek bank Stabilization; Hazelton Federal Prison; Clifford Hollow Bridge; Corridor H Job 123; Corridor H Job 125; Corridor H at Baker; Mon-Fayette Bridge; Glenville Federal Prison.

NO

C. Is your firm experienced in hydrology and hydraulics for handling mine water discharges on mining sites?

YES Description and number of projects: Corporate Experience: 80+ projects, including 50+ AML and AML Related Projects; Stantec has successfully completed 100+ hydrology and hydraulics projects, including studies associated with mine water discharges, sediment and other ponds, bridges, box culverts, pipes, and ditches.

NO

D. Does your firm produce its own aerial photography for development of contour mapping and have your own surveying crew?

YES Description and number of projects: 90+ projects, including 75+ AML and AML Related Projects; Stantec subcontracts development of aerial photography to Aerocon Photogrammetric Services and has successfully set aerial photographic control points on numerous engineering projects by GPS and Conventional Surveying techniques. Stantec has also developed topographic and planimetric maps from GPS and Conventional Surveying techniques and supplemented topographic and planimetric features on mapping developed by aerial mapping firms. Stantec has three survey crews that can be assigned to this project.

NO

E. Is your firm experienced in design of highwall elimination, grading and material handling plans for land reclamation?

YES Description and Number of Projects: Stantec has successfully completed 40+ AML Reclamation projects that included highwall elimination, grading and material handling plans. Some of our most recent projects include: Norton Highwall #1, Tub Run Highwall and Refuse Phase I and II, Town of Newburg waterline extension, Greenbrier Hollow Refuse, Sauls Run, Pageton (Lambert) Portals, Birds Creek Number 4, Church Creek/Manown Highwall, Racine (Bradshaw) Portals, Hampton Number Four Maintenance, Howesville Sites, Sandy Run Highwall and Portals, Laurel Valley (Daniels) Landslide Emergency AML project, Price Hill Airshaft/Buildings (Price Hill Complex), Weaver Portals and Highwall, Phases I and II, Old Bridgeport Hill Mine Drainage, Phase II, Nixon Run AMD, Arlington (Cox) Drainage, Murray City AMD and Art Project, Nutters Tipple D-716, Flint Run East Acid Mine Drainage Reclamation, Tunnelton (Dillsworth) Landslide, and Sauls Run Strip and Landslide. West Virginia Conservation Agency projects include: Fisher-Mill Creek Bank Stabilization, Laurel Lake Sediment Removal, Krout Creek H&H Investigation, Harmons Creek Bank Stabilization, Parchment Creek Bank Stabilization, North Fork Hughes River Bank Stabilization, Spencer Flood Plain Improvement Study, Logan County Flood Plain Improvement Project, Coalwood Floodplain Improvement Project, Rachel Floodplain Improvement Project, Barkers Creek Stream Bank Protection Project, Reedsville Equipment

Storage Building, Jackon's Mill Livestock Arena, Edgewood Stream Bank Stabilization Project, Pringle Road Landslide Remediation, Back Creek Natural Stream Restoration Project, Bunnell Run Stream Bank Stabilization Project, Deckers Creek Stream Bank Stabilization Project.

NO

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)

NAME & TITLE (Last, First, MI)	YEARS OF EXPERIENCE	
	YEARS OF OSR DESIGN EXPERIENCE	YEARS OF OSR RELATED DESIGN EXPERIENCE
Gaines, Richard, L., P.E. **Principal - Project Manager**	10	33

Brief explanation of responsibilities: Project Manager- Will oversee all tasks under this contract.

WVAML Experience: Lenox/Cuzzart Waterline Extension Project ; Hudson to Stateline Waterline Extension Project and Greendale Coal, Inc.

EOI Experience: Mr. Gaines has 33 years of experience in project management and civil engineering related to oil and gas development, land development, water systems and treatment, and sanitary sewer collection and treatment projects. His design experience includes layout, grading, drainage, erosion control and permitting for road entrances, access roads, well pads, pits and impoundments for multiple well pads and developments.

EDUCATION (Degree, year, specialization)
B.S./Civil Engineering/Fairmont State College
A.S./Mechanical Engineering/Fairmont State College

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state)
American Society of Civil Engineers	Registered Professional Engineer/[redacted]–WV/2007
American Council of Engineering Companies	Registered Professional Engineer[redacted]–VA/2002

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)

NAME & TITLE (Last, First, MI)	YEARS OF EXPERIENCE	
	YEARS OF OSR DESIGN EXPERIENCE	YEARS OF OSR RELATED DESIGN EXPERIENCE
McCleary, Eric **Environmental Scientist/Fisheries Biologist**	7	36

Brief explanation of responsibilities: Planning and Design Support for passive treatment systems - Eric has been responsible for dozens of mitigation / restoration plans and associated monitoring, which involved mitigation / restoration plan development, DEP meetings, construction oversight, planting, and monitoring for both physical and water quality results post-construction. Eric's work experiences include wetland delineation and mitigation, acid drainage abatement, environmental assessments, environmental impact statements, watershed restoration, and threatened and endangered plant and animal identification associated with various environmental projects.

WVAML Experience: Greendale Coal, Inc.

EDUCATION (Degree, year, specialization)
BS, Biology, Clarion University of Pennsylvania, Clarion, Pennsylvania, 1984
MS, Evolutionary Ecology/Herpetology, Kent State University, Kent, Ohio, 1989
Certification, Operator Class 2 Industrial Wastewater Works, State of Maryland, 2012
Certification, Wild Plant Management Permit, Commonwealth of Pennsylvania, 2011

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state)
member, National Association of Environmental Professionals member, Society of Wetland Scientists member, Society for Ecological Restoration	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)

NAME & TITLE (Last, First, MI)	YEARS OF EXPERIENCE	
	YEARS OF OSR DESIGN EXPERIENCE	YEARS OF OSR RELATED DESIGN EXPERIENCE
McCleary, Eric **Environmental Scientist/Fisheries Biologist**	7	36

Brief explanation of responsibilities: Planning and Design Support for passive treatment systems - Eric has been responsible for dozens of mitigation / restoration plans and associated monitoring, which involved mitigation / restoration plan development, DEP meetings, construction oversight, planting, and monitoring for both physical and water quality results post-construction. Eric's work experiences include wetland delineation and mitigation, acid drainage abatement, environmental assessments, environmental impact statements, watershed restoration, and threatened and endangered plant and animal identification associated with various environmental projects.

WVAML Experience: Greendale Coal, Inc.

EDUCATION (Degree, year, specialization)
BS, Biology, Clarion University of Pennsylvania, Clarion, Pennsylvania, 1984
MS, Evolutionary Ecology/Herpetology, Kent State University, Kent, Ohio, 1989
Certification, Operator Class 2 Industrial Wastewater Works, State of Maryland, 2012
Certification, Wild Plant Management Permit, Commonwealth of Pennsylvania, 2011

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state)
member, National Association of Environmental Professionals member, Society of Wetland Scientists member, Society for Ecological Restoration	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)

NAME & TITLE (Last, First, MI)	YEARS OF EXPERIENCE	
	YEARS OF OSR DESIGN EXPERIENCE	YEARS OF OSR RELATED DESIGN EXPERIENCE
Harris, Stan, P.E. **Senior Principal - Geotechnical**	17	39

Brief Explanation of Responsibilities: Staff Engineer and Signatory – Hydrology, Site Design. Designer – AutoCAD, SurvCAD, and Haestads Operator. Specification Writer, Calculation Brief, Bid Estimate, Microsoft Word and Excel Operator.

AML Experience: Ohio AML Emergency Program; Little Storms Creek Road Reclamation Project, River Road Bank Stabilization; Center Hill Landfill Bank Stabilization

Related AML Design: Upper Creek WWTP; Symmes Road Extension

EDUCATION (Degree, year, specialization)
M.S., 1982, Civil Engineering
B.S., 1980, Civil Engineering

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state)
BS in Civil Engineering, University of Kentucky, Lexington, Kentucky, 1980 MS in Civil Engineering, University of Kentucky, Lexington, Kentucky, 1982 Foundations and Earth Retaining Structures, University of Akron, Akron, Ohio, 2006 ODOT Office of Geotechnical Engineering Workshop, Columbus, Ohio, 2008 Ohio River Valley Soils Seminars, Various Topics, Cincinnati, Ohio, 2007 Point of Contact, Society of American Military Engineers, Kittyhawk Post Member, American Society of Highway Engineers Member, American Society of Civil Engineers	Professional Engineer [redacted] State of Ohio / 1989 Professional Engineer [redacted] Commonwealth of Kentucky / 1984 Professional Engineer [redacted] Commonwealth of Virginia / 1989 Professional Engineer [redacted] State of Tennessee / 2009 Professional Engineer [redacted] State of North Carolina / 2011 Professional Engineer [redacted] State of South Carolina / 2011 Professional Engineer [redacted] State of Georgia / 2011

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)

NAME & TITLE (Last, First, MI)	YEARS OF EXPERIENCE	
	YEARS OF OSR DESIGN EXPERIENCE	YEARS OF OSR RELATED DESIGN EXPERIENCE
Routt, Oakes, P.E. **Principal – Ecosystem Restoration**	0	14

Brief Explanation of Responsibilities: Planning and design support for natural stream design - Oakes is a lead stream restoration designer with experience in a broad range of project types and working with people from over 30 Stantec offices. The types of projects include watershed and stream assessments, stream restoration design and construction management, geotechnical exploration for roadways, roadway structures, and levees, erosion prevention and sediment control structures and design, as well as water quality studies and sampling. Oakes' experience demonstrates his knowledge of various disciplines and the ability to successfully work with a diverse team.

AML Experience – Middle Fork Watershed AMD Abatement, Floyd County, KY

EDUCATION (Degree, year, specialization)
B.S., Biosystems and Agriculture Engineering, 2006
MS, Biosystems and Agriculture Engineering, 2009
Wildland Hydrology. River Restoration and Natural Channel Design (NCD) Course, Breckenridge, CO, 2013
MS4 Permits Training Seminar, Lexington, Kentucky, 2008
Wildland Hydrology, Applied Fluvial Geomorphology, Shepherdstown, West Virginia, USA, 2010
Wildland Hydrology, River Morphology and Applications, Shepherdstown, West Virginia, 2011
Wildland Hydrology, River Assessment and Monitoring, Shepherdstown, West Virginia, 2012
Tennessee Department of Environment & Conservation, Tennessee Erosion Prevention and Sediment Control Level I,Nashville, Tennessee, 2018

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state)
	Professional Engineer [redacted] State of Missouri Professional Engineer [redacted] State of Arkansas Professional Engineer [redacted] State of Kentucky Professional Engineer [redacted] State of Tennessee

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)		
NAME & TITLE (Last, First, MI) **Hannah, Chris, E.I.** **Civil Engineer**	YEARS OF EXPERIENCE YEARS OF OSR DESIGN EXPERIENCE 8	 YEARS OF OSR RELATED DESIGN EXPERIENCE 12
Brief Explanation of Responsibilities: Design support for civil engineering. WVAML experience: Lennox/Cuzzart Waterline Extension project; Hudson to Stateline Waterline Extension project and Greendale Coal, Inc.		
EDUCATION (Degree, year, specialization) BS/Civil Engineering/Fairmont State University/2009		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state) Professional Engineer [redacted] West Virginia / 2016 Professional Engineer [redacted], Pennsylvania / 2018 Asbestos Inspector/WV [redacted]	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)		
NAME & TITLE (Last, First, MI) **Luzier, Cory, PE** Civil Engineer	YEARS OF EXPERIENCE YEARS OF OSR DESIGN EXPERIENCE 3	 YEARS OF OSR RELATED DESIGN EXPERIENCE 7
Brief Explanation of Responsibilities: Design support for civil engineering services. WVAML experience: Hudson to Stateline Waterline Extension project		
EDUCATION (Degree, year, specialization) B.S., Civil Engineering, 2012		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state) Professional Engineer #23042, West Virginia / 2018 Professional Engineer #53482, Maryland / 2018 Professional Engineer #84153, Ohio / 2019 Professional Engineer #08954, Pennsylvania / 2019	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)

NAME & TITLE (Last, First, MI)	YEARS OF EXPERIENCE	
	YEARS OF OSR DESIGN EXPERIENCE	YEARS OF OSR RELATED DESIGN EXPERIENCE
Kirkbride, Rob, PE Principal - Geotechnical	3	7

Brief Explanation of Responsibilities: Geotechnical analysis and design including landslide investigation and design.

EDUCATION (Degree, year, specialization)
B.S., Civil Engineering, 1994

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS	REGISTRATION (Type, year, state)
Member, American Council of Engineering Companies	Professional Engineer [redacted] State of Ohio / 1999
Past President and Member, Ohio Dam Safety Organization	Professional Engineer [redacted] Commonwealth of Pennsylvania / 2019
Member, Association of State Dam Safety Officials	Professional Engineer [redacted] State of North Carolina / 2014
Member, American Society of Civil Engineers	
Member, Water Management Association of Ohio	

13. PERSONAL HISTORY STATEMENT OF PRINCIPALS AND ASSOCIATES RESPONSIBLE FOR OSR PROJECT DESIGN (Furnish complete date but keep to essentials)		
NAME & TITLE (Last, First, MI) **Cunningham, Donavon** **Field Services Manager**	YEARS OF EXPERIENCE YEARS OF OSR DESIGN EXPERIENCE 10	YEARS OF OSR RELATED DESIGN EXPERIENCE 17
Brief Explanation of Responsibilities: Construction administration and inspection		
EDUCATION (Degree, year, specialization) Level III Transportation Engineering Technician Associate, 2014 Associates of Science/Electronic Technician, 2004 CADD and Design Certificate, 1999		
MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS Member, NACE International Member, Society for Protective Coatings Member, American Council of Engineering Companies	REGISTRATION (Type, year, state)	

14. PROVIDE A LIST OF SOFTWARE AND EQUIPMENT AVAILABLE IN THE PRIMARY OFFICE WHICH WILL BE USED TO COMPLETE OSR DESIGN SERVICES:

39 Computer Workstations
1 Robotic Total Stations and 1Surveying Electronic Total Stations
3 Field Survey Data Collectors
2 Survey Grade GPS Survey Instruments (complete with base and 2 rovers each)
AutoCAD Version 2019 and older
Eagle Point Engineering Software
AutoCAD Land Development
Bentley MicroStation with InRoads
ESRI ArcView GIS and Mapping Software
KY Pipe Water and Sewer Line Software
Haestads Water CAD Water and Sewer Line Software
Haestads Culvert Master, Flow Master, Storm CAD
Terrain Navigator with seamless WV 7.5' USGS Quads and Sure Maps by Titan Systems
North American Green Erosion Control Blanket Software
Microsoft Office, including Word and Excel
Microsoft Project Scheduling Software
Primavera P3 Scheduling Software
Three Canon Printers and two HP plotters
XSTABL Slope Stability Software

15. CURRENT **AML** ACTIVITIES ON WHICH YOUR FIRM IS THE DESIGNATED ENGINEER OF RECORD

PROJECT NAME, TYPE & LOCATION	NAME & ADDRESS OF OWNER	NATURE OF YOUR FIRM'S RESPONSIBILITY	ESTIMATED CONSTRUCTION COST	PERCENT COMPLETE

TOTAL NUMBER OF PROJECTS:	TOTAL ESTIMATED CONSTRUCTION COSTS: $

16. CURRENT **AML** ACTIVITIES ON WHICH YOUR FIRM IS SERVING AS A SUBCONSULTANT TO OTHERS

PROJECT NAME, TYPE & LOCATION	NATURE OF FIRMS RESPONSIBILITY	NAME & ADDRESS OF OWNER	ESTIMATED COMPLETION DATE	ESTIMATED CONSTRUCTION COST	
				ENTIRE PROJECT	YOUR FIRMS RESPONSIBILITY

17. COMPLETED **AML** WORK WITH IN LAST 5 YEARS ON WHICH YOUR FIRM WAS THE DESIGNATED ENGINEER OF RECORD				
PROJECT NAME, TYPE & LOCATION	NAME & ADDRESS OF OWNER	ESIMATED CONSTRUCTION COST	YEAR	CONSTRUCTED (YES OR NO)
Preston County – Hudson to State Line Waterline Extension Bruceton Mills, WV	Preston County PSD #4 P.O. Box 370 Bruceton Mills, WV 26525	$16,669,833.00	Completed 2019	Yes
Greendale Coals, Inc. – Special Reclamations Greendale, WV	WVDEP-OSR 601 57th St. SE Charleston, WV 25304	$9,974,717.00	Completed 2019	Yes

18. COMPLETED **AML** WORK WITHIN LAST 5 YEARS ON WHICH YOUR FIRM HAS BEEN A SUB-CONSULTANT TO OTHER FIRMS (INDICATE PHASE OF WORK WHICH YOUR FIRM WAS RESPONSIBLE)

PROJECT NAME, TYPE & LOCATION	NAME & ADDRESS OF OWNER	ESTIMATED CONSTRUCTION COST OF YOUR FIRM'S PORTION	YEAR	CONSTRUCTED (YES OR NO)	FIRM ASSOCIATED WITH

19. Use this space to provide any additional information or description of resources supporting your firm's qualifications to perform work for the West Virginia Office of Special Reclamation.

Stantec can provide one-stop shopping for the West Virginia Abandoned Mine Lands Program. Work, including surveying, development of mapping from field surveys, site design, CADD operations, water testing, hazmat testing, calculations, plans, and specifications associated with this task order contract completed in-house. Stantec carefully selected sub-contractors, successfully used in the past, to perform drilling and chemical testing of soils, rock, and coal that have experience and are extremely familiar with WVAML Projects. Stantec has EOI-specific corporate and employee experience with highwall reclamation engineering, mine seals, drainage control structures and facilities, passive treatment of AMD, debris and waste handling and disposal plan, and revegetation of drastically disturbed areas. Stantec also has EOI-experience in surveying and mapping, subsurface investigations, H & H studies, construction plans and specifications, calculations, conducting associated bid meetings, and necessary reports and invoicing procedures. Stantec has corporate experience on 45+ WVAML Projects, and 10+ ODNR AML projects. In addition, Stantec has completed 8 AML Related projects for the West Virginia Conservation Agency. Stantec personnel stay abreast of current developments and technological advances in Abandoned Mine Lands reclamation and acid mine drainage by attending seminars and symposiums on the subjects. In the past, Stantec has attended the WV Surface Mining Task Force Symposium in Morgantown, WV; the National Association of Abandoned Mine Lands Symposium in Athens, OH; West Virginia University Natural Stream Restoration Program in Morgantown, WV; 404/401 Permit Training in Charleston, WV; and State and Local Mitigation Planning in Buckhannon, sponsored by FEMA and WVOES.

20. The foregoing is a statement of facts

Signature:  Title: Principal/Project Manager Date: September 10, 2020

Printed Name: Richard L. Gaines, PE

OSR and RELATED PROJECT EXPERIENCE MATRIX

PROJECT	Exp. Basis C-Corp P-Personal *	Additional info provided in Section (s) **	PROJECT EXPERIENCE REQUIREMENTS																Primary staff participation/capacity *** M-Management P-Professional							
			Forfeited Surface Mine Reclamation	Forfeited Deep Mine Reclamation	Portal/shaft closure	Hydrologic/Hydraulic design/ Eval.	Remining Evaluation	Mine / refuse fire abatement	Subsidence investigation/ mitigation	Hazardous waste disposal	Project specifications	Water quality evaluation /mitigation replacement	Construction inspection / management	Water treatment	Equipment/structure removal	Stream restoration	Geotechnical/stability	NPDES/ Stormwater preparation	Richard L. Gaines, PE	Chris Hannah, PE	Eric McCleary	Cory Luzier, PE	Stan Harris, PE	Rob Kirkbride, PE	Oakes Routt , PE	
Tub Run Highwall and Refuse Phase II	C	2	X		X	X			X		X	X	X				X	X								
Tub Run Highwall and Refuse Phase I	C	2	X		X	X			X		X	X	X				X	X								
Greenbrier Hollow Refuse	C	2	X		X	X			X		X	X	X				X	X								
Pageton (Lambert) Portals	C	2	X		X	X			X		X	X	X	X			X	X								
Birds Creek #4	C	2	X		X	X			X		X	X	X	X			X	X								
Church Creek/Manown Highwall	C	2	X	X	X	X			X		X	X	X	X			X	X								
Howesville Sites & Sandy Run Highwall & Portals	C	2	X	X	X	X			X		X	X	X	X			X	X								
Weaver Portals and Highwall, Phase I & II	C	2	X	X	X	X			X		X	X	X	X			X	X								
Abandoned Underground Mine Inventory and Risk Assessment Statewide Database Population	C	2					X		X								X	X					M			
Wayne National Forest Abandoned & Inactive Mine Lands	C	2					X		X			X					X	X					M			
Upper Coldwater Fork Stream Restoration	C	2								X		X	X	X		X		X								
Oxford Mine Mitigation Monitoring	C	2					X		X	X				X		X							M			
Little Coal River Stream Restoration	C	2								X		X	X	X		X		X			P					
Little Coal Fish & Habitat Surveys	C	2										X	X	X		X					P					
Sauls Run Landslide	C	2				X					X		X				X	X			P	P				

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Town of Newburg Waterline Extension Feasibility Study	C	2				X						X						X								
Racine (Bradshaw) Portals	C	2	X		X	X					X		X				X	X								
Hampton #4 Maintenance	C	2	X	X		X			X		X		X				X	X								
Lennox/Cuzzart Waterline Extension Project	C	2									X		X	X				X	M	P						
Hudson to Stateline Waterline Extension Project	C	2									X		X	X				X	M	P		P				
Greendale Coal, Inc. Surface Reclamation and Acid Mine Treatment	C	2				X					X	X		X					M	P	P					
Ohio Emergency Program (2005-2011) Various Counties, Ohio	C					X	X			X		X						X						P		
Little Storms Creek Road Reclamation Project Upper Township, Lawrence County, Ohio	C						X					X					X		X					P		
K&R (D-105) Forfeiture Reclamation Project Osnaburg Township, Stark County, Ohio	C		X				X					X						X	X					P		
Kimberly Road Drainage Project AT-YK-57 York Township, Athens County, Ohio	C						X					X						X	X					P		
Midvale Burning Gob Project TS-GO-32 Goshen Township, Tuscarawas County, Ohio	C						X		X			X						X	X					P		
Doneghan Shaft Project TR-VN-07-E Vienna Township, Trumbull County, Ohio	CX					X				X		X						X						P		

*List whether project experience is corporate or personnel based or both
** Use this area to provide specific sections or pages if needed for reference
*** List primary design personnel and their functional capacity for the projects listed.

Attachment "C"