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## Header 1

List View

### General Information

Contact

Default Values

Discount

Document Information

Clarification Request

Procurement Folder: 838477

SO Doc Code: CE01

Procurement Type: Central Purchase Order

SO Dept: 0506

Vendor ID: 000000102546

SO Doc ID: BHS2100000003

Legal Name: STANTEC CONSULTING SERVICES INC

Published Date: 3/9/21

Alias/DBA:

Close Date: 3/25/21

Total Bid: \$0.00

Close Time: 13:30

Response Date: 03/19/2021

Status: Closed

Response Time: 9:49

Solicitation Description: BARBOURSVILLE SCHOOL WASTEWATER TREATMENT PLANT REPLACEMENT

Responded By User ID: aoldaker

Total of Header Attachments: 1

First Name: Amanda

Total of All Attachments: 1

Last Name: Oldaker

Email: Amanda.Oldaker@Stantec.c

Phone: 304-816-5181



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:** 838477  
**Solicitation Description:** BARBOURSVILLE SCHOOL WASTEWATER TREATMENT PLANT REPLACEMENT  
**Proc Type:** Central Purchase Order

Solicitation Closes	Solicitation Response	Version
2021-03-25 13:30	SR 0506 ESR03192100000006413	1

**VENDOR**  
 000000102546  
 STANTEC CONSULTING SERVICES INC

**Solicitation Number:** CEOI 0506 BHS2100000003  
**Total Bid:** 0  
**Response Date:** 2021-03-19  
**Response Time:** 09:49:11  
**Comments:**

**FOR INFORMATION CONTACT THE BUYER**  
 Crystal G Husted  
 (304) 558-2402  
 crystal.g.husted@wv.gov

**Vendor Signature X** **FEIN#** **DATE**

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

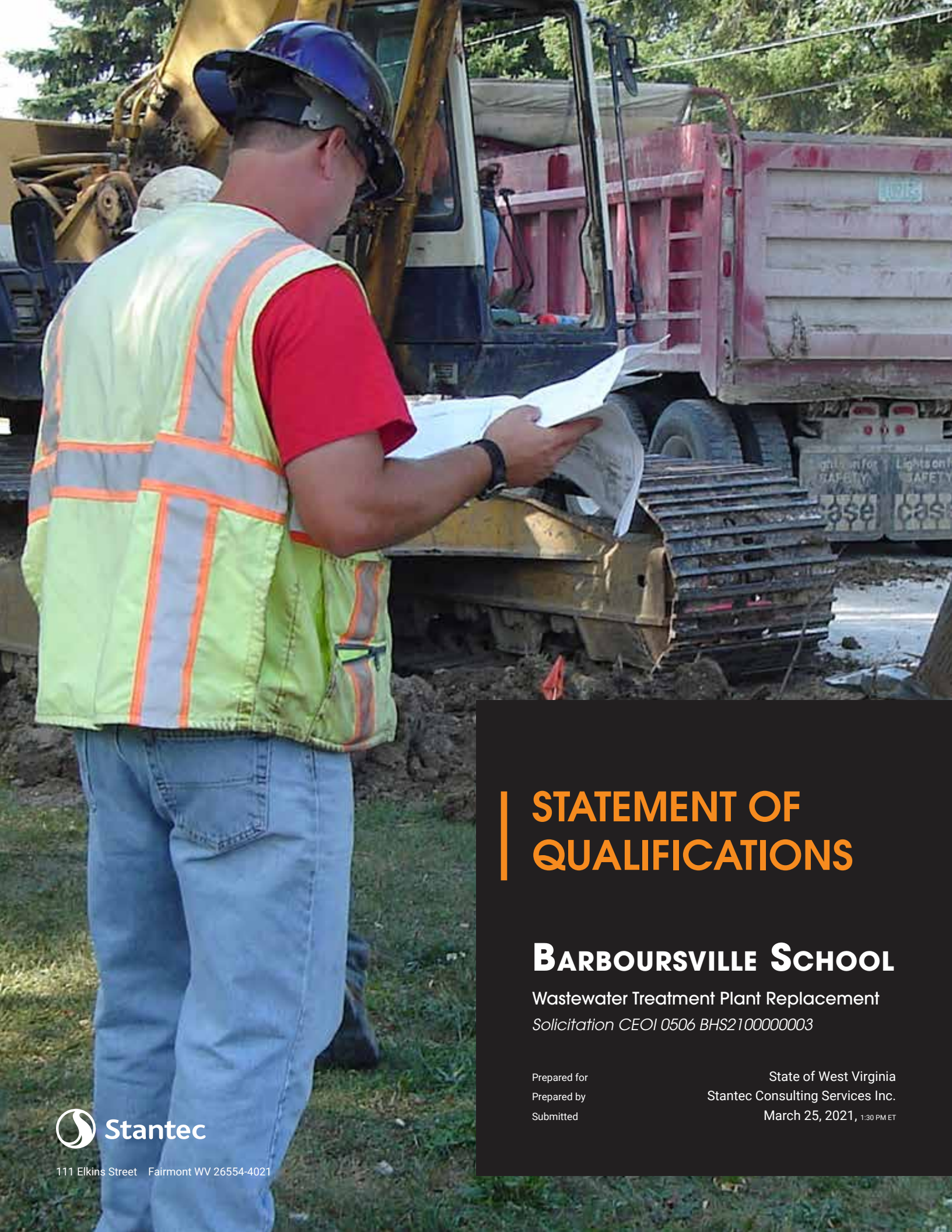
Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Barboursville School Wastewater Treatment Plant Replacement				

Comm Code	Manufacturer	Specification	Model #
72121505			

**Commodity Line Comments:** Letter of Qualifications is attached.

**Extended Description:**

Complete design for the installation of a new wastewater treatment facility with design to include shutdown and removal of existing wastewater treatment plant:  
 Barboursville School  
 1535 Martha Rd.  
 Barboursville, WV 25504



# STATEMENT OF QUALIFICATIONS

## BARBOURSVILLE SCHOOL

Wastewater Treatment Plant Replacement

Solicitation CEOI 0506 BHS2100000003

Prepared for  
Prepared by  
Submitted

State of West Virginia  
Stantec Consulting Services Inc.  
March 25, 2021, 1:30 PM ET





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

State of West Virginia  
 Centralized Expression of Interest  
 Architect/Engr

<b>Proc Folder:</b> 838477		<b>Reason for Modification:</b>	
<b>Doc Description:</b> BARBOURSVILLE SCHOOL WASTEWATER TREATMENT PLANT REPLACEMENT			
<b>Proc Type:</b> Central Purchase Order			
<b>Date Issued</b>	<b>Solicitation Closes</b>	<b>Solicitation No</b>	<b>Version</b>
2021-02-22	2021-03-25 13:30	CEOI 0506 BHS2100000003	1

**BID RECEIVING LOCATION**

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

**VENDOR**

**Vendor Customer Code:** 000000102546

**Vendor Name :** Stantec Consulting Services Inc.

**Address :** Stantec Consulting Services Inc.

**Street :** 111 Elkins Street


**City :** Fairmont

**State :** WV **Country :** USA **Zip :** 26554-4021

**Principal Contact :** Richard L. Gaines, PE

**Vendor Contact Phone:** 681-209-0709 **Extension:**

**FOR INFORMATION CONTACT THE BUYER**  
 Crystal G Husted  
 (304) 558-2402  
 crystal.g.husted@wv.gov

**Vendor Signature X**  **FEIN#** 11-2167170 **DATE** March 25, 2021

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



**ADDITIONAL INFORMATION**

THE WEST VIRGINIA PURCHASING DIVISION FOR THE AGENCY, WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES, IS SOLICITING EXPRESSIONS OF INTEREST FROM QUALIFIED FIRMS TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR THE DESIGN OF A REPLACEMENT WASTEWATER TREATMENT PLANT AT THE BARBOURSVILLE SCHOOL PER THE ATTACHED DOCUMENTATION.

INVOICE TO	SHIP TO
HEALTH AND HUMAN RESOURCES BBH/HF 350 CAPITOL ST, RM 350 CHARLESTON WV 25301-3702 US	STATE OF WEST VIRGINIA JOBSITE - SEE SPECIFICATIONS  No City WV 99999 US

Line	Comm Ln Desc	Qty	Unit Issue
1	Barboursville School Wastewater Treatment Plant Replacement		

Comm Code	Manufacturer	Specification	Model #
72121505			

**Extended Description:**

Complete design for the installation of a new wastewater treatment facility with design to include shutdown and removal of existing wastewater treatment plant:

Barboursville School  
1535 Martha Rd.  
Barboursville, WV 25504

**SCHEDULE OF EVENTS**

Line	Event	Event Date
1	VENDOR QUESTION DEADLINE	2021-03-09





March 25, 2021

**From**

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

**Reference**

Solicitation No. CE01 0506  
BHS2100000003

Statement of Qualifications (SQ)  
to Provide Professional Engineering  
Services Related to the  
Barboursville School WWTP  
Replacement

**Attention**

Crystal G. Husted  
304-558-2402  
crystal.g.husted@wv.gov

Submitted electronically via wvOASIS

Dear Reviewers:

Stantec Consulting Services Inc. (Stantec) is pleased to provide the State of West Virginia with our enclosed statement of qualifications (SOQ) to provide professional engineering services related to the replacement of the wastewater treatment plant (WWTP) at the Barboursville School.

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. Stantec focuses on delivering comprehensive services, recognizing that true value is measured in adaptability to need, comprehensiveness, and quality of service delivery.

We acknowledge the importance of this project for the Barboursville community. We have worked throughout the state, and we understand the complexities in Cabell County. Our nearby office in Charleston will provide rapid access to the site.

**How Can We Help the Barboursville School Reach Their Goal?**

- We are committed to providing the State with rapid response from Charleston and necessary wastewater expertise from our Fairmont office.
- We offer you streamlined communication with a single point of contact. We aim for *surprise-free* management on all assignments.
- 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.

We look forward to serving the State and helping improve the wastewater system at the Barboursville School. 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





# CERTIFICATE OF *Authorization*

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

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

**STANTEC CONSULTING SERVICES, INC.**

**C00438-00**

**Engineer in Responsible Charge: RICHARD L. GAINES - WV PE 017220**

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

**January 1, 2020 - December 31, 2021**

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

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



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

A handwritten signature in black ink, appearing to read "Bryan S. Caldwell".

BOARD PRESIDENT

# State of West Virginia



## Certificate

*I, Betty Ireland, Secretary of State of the State of West Virginia, hereby certify that*

**STANTEC CONSULTING SERVICES INC.**

**Control Number: 94796**

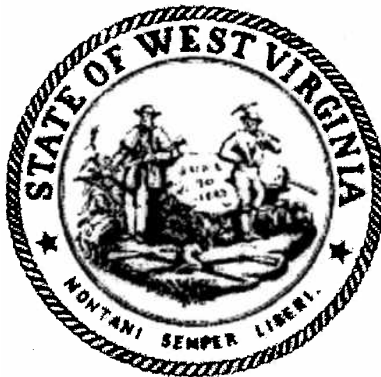
a corporation formed under the laws of New York

has filed its "Application for Certificate of Authority" to transact business in West Virginia as required by the provisions of the West Virginia Code. I hereby declare the organization to be registered as a foreign corporation from its effective date of June 25, 2007

Therefore, I issue this

### **CERTIFICATE OF AUTHORITY**

to the corporation authorizing it to transact business in West Virginia



*Given under my hand and the  
Great Seal of the State of  
West Virginia on this day of  
June 25, 2007*

*Betty Ireland*

*Secretary of State*



By viewing water as an integrated system, Stantec delivers solutions to wastewater and water treatment, water resources, conveyance, wet weather flow, and urban stormwater projects that minimize cost and maximize the sustainability of the resource.

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Stantec strives to deliver the right solution the first time—every time.



# 1 Firm Qualifications— Why Stantec?

## Roots in West Virginia

**Stantec first opened our Fairmont, West Virginia, office in 1999,** and we have since had a significant role in development of wastewater, water, and stormwater infrastructure in the region. Whether it is an urban park, a commercial center, or a residential neighborhood, we bring together the places that make communities feel like home. We develop spaces of distinct and local character through the following suite of in-house services: planning, civil engineering, landscape architecture, surveys/geomatics, urban design, public consultation, real estate and economic development analysis, architecture and building engineering, construction administration, environmental management and infrastructure, geotechnical engineering, and transportation planning and traffic engineering. **Stantec offers these in-house services throughout West Virginia.** Top engineering and construction management professionals comprise our team and work as an integrated crew to overcome design and construction challenges with creative problem solving.

We look forward to building a strong relationship with the State and Barboursville School, and our presence and experience mean you get:

- An engaged team that serves as your team extension
- Professional, local staff who respond to your needs
- One-on-one meetings to discuss challenges and solutions specific to your project
- Staff members who are eager to build a relationship with you

Most importantly, we care about this community as much as you do. When you need us, we will respond immediately.

## Sanitary Sewage Conveyance and Wastewater Pumping

Stantec can help ensure Barboursville School's wastewater gets to where it needs to go. And since the best solutions are built when we work as a team, we share our experiences as scientists, engineers, planners, construction managers, and operators for communities across North America.

Our team of conveyance specialists thinks a lot about where water comes from, where it goes, and how it gets there. Systems to move, treat, and store the wastewater we generate are increasingly more complex as our communities grow. We focus on delivering reliability for the present and capacity for the future. This applies to all parts of the system, be it the pipelines, pumping stations, or storage facilities along the route.

RANKING	DESCRIPTION	PUBLICATION/DATE
#8	Top 500 Design Firms	ENR May 2020
#1	Top 10 International Design Firms by Market—Sewer/Waste	ENR August 2020
#8	Top 20 Design Firms by Sector—Sewer and Waste	ENR May 2020
#2	Top 10 International Design Firms by Market—Water	ENR August 2020
#5	Top 20 Environmental Firms by Market Segment—Wastewater Treatment	ENR July 2020
#7	Top 25 Design Firms in Environment—Wastewater Treatment Plants	ENR June 2020
#2	Top 25 Design Firms in Environment—Sanitary and Storm Sewers	ENR June 2020
#3	Top 50 Trenchless Engineering Firms	Trenchless Technology December 2017



Our expertise includes:

- Assessment and rehabilitation
- Construction support services
- Flow monitoring / micromonitoring
- Hydrologic and hydraulic modeling
- Infiltration and inflow / sanitary sewer overflows
- Master planning
- Odor and corrosion control
- Pumping stations
- Storage
- System evaluation
- Trenchless technologies / (micro)tunneling

## Construction Services

Stantec provides construction management services to public agencies and private developers on both large and small projects of all types.

Limited construction administration programs are often referred to as *construction management* because the consultant manages project field activities during the construction period. Under these programs, the manager has limited authority to modify the scope of the project without owner approval. We can integrate our project management specialists seamlessly into an agency or a developer

organization, actually integrating into the project control team. Local government agencies use Stantec's construction management specialists to handle field activities while maintaining project finance control internally.

The quality control/assurance group provides construction management on all types of projects, including urban land development, industrial, environmental, buildings, and transportation projects. Services include: constructability review; processing pay reviews; schedule review and monitoring; submittal review and processing; complete quality assurance and quality control programs; resident engineer services; claims review and processing; and project closeout.





## WASTEWATER FACILITY OPERATIONS & MAINTENANCE (O&M) ASSESSMENTS

Increasing environmental concerns in the United States and other countries force federal and state water quality regulators to impose more stringent standards for wastewater treatment. Stantec is committed to improving treatment plant efficiency through comprehensive plant evaluations. Our three-phase program identifies and develops solutions for each problem identified.

In **Phase 1**, we conduct diagnostic evaluations and determine the kind of site-specific assistance needed to correct deficiencies. In **Phase 2**, we provide O&M assistance for those deficiencies found in Phase 1 to be operational in nature and prepare site-specific O&M manual and training of plant operators and laboratory technicians. Finally, in **Phase 3**, we provide follow-up onsite evaluations within 6 to 8 months after completion of Phase 2 to determine the effectiveness of the assistance given in Phase 2 and provide remedial assistance as required.



## Capacity to Deliver

In addition to our local team of engineering design and construction management experts, Stantec has 22,000 specialists who work in over 350 locations across 6 continents. We are very familiar with the unique aspects of on-call type contracts as a result of our completion of hundreds of task orders assignments for municipalities throughout West Virginia. For example, we hold open-end contracts locally with the City of Shinnston, City of Clarksburg, Preston County PSD #4, West Virginia Department of Transportation, West Virginia Department of Environmental Protection, and Upper Ohio Conservation District. Many of these contracts have been renewed multiple times. The length of these contracts/projects speaks to client satisfaction in our quality of work and lasting trusted relationships.



# 2 Technical Expertise

## **STANTEC'S FAIRMONT STAFF HAS SUCCESSFULLY COMPLETED MORE THAN \$100 MILLION IN WASTEWATER AND WATER UTILITY DESIGN AND CONSTRUCTION SERVICES.**

Our experience in these areas covers the full spectrum of engineering design including: preliminary design, assistance with securing funding, permitting, technical expertise, and construction management.

In 2016, Stantec acquired MWH and, together, we have become one of the world's largest and most capable water and wastewater infrastructure firms. Stantec has a full-service engineering team based in northern Virginia, the global expertise, and proven track record to provide an exceptional array of wastewater and water engineering services, should our West Virginia team need any assistance.

## **FOR THE BARBOURSVILLE SCHOOL PROJECT, WE ANTICIPATE THAT OUR FAIRMONT TEAM WILL PERFORM ALL ASPECTS WITH NEARBY AS-NEEDED ASSISTANCE FROM OUR CHARLESTON OFFICE.**

Stantec also knows that there is more to a successful project than just good design. With this in mind, Stantec offers assistance with bidding projects, engineering during construction, and construction management to ensure projects proceed according to plan.

Stantec is proud to offer technical expertise that encompasses proposed wastewater system improvements. From our Fairmont office, Stantec can provide the ultimate team of experienced professionals for each project anticipated under this contract.

We offer our clients significant expertise in civil engineering starting with high-level master planning for all components necessary to ensure the system functionality and reliability required to consistently deliver a high-quality and sufficient service to customers in the face of continual use each year and changing regulatory requirements. Stantec has the tools and knowledge to develop a complete model of the system using existing records or data acquired through field investigations. Our commitment to enhancing our services by implementing contemporary, innovative technologies for both the new construction and existing system rehabilitation often realizes significant cost benefits for our clients while ensuring long-term system integrity. In addition, we understand that immediate needs arise during the operation and maintenance of facilities and systems that require quick response and straightforward solutions and graphics or sketches to guide the maintenance and/or repair activity.

At Stantec, we're focused on finding the solutions that best meet the needs of our clients and our communities. By making strategic infrastructure improvements, we help everyone enjoy cleaner water delivered faster. It's how we create communities . . .

## **Industry Leadership in Wastewater Treatment**

In addition to our local team of engineering design and construction management experts, Stantec has 22,000 employees working in more than 350 locations across 6 continents. We have become one of the world's largest and most capable water and wastewater infrastructure firms in the industry. Stantec is at the forefront of advanced wastewater treatment and can help satisfy even the most stringent discharge limits.

## **STANTEC HAS PROVIDED A WIDE ARRAY OF SERVICES FOR ALMOST 800 WASTEWATER TREATMENT FACILITY PROJECTS RANGING FROM 0.010 MGD TO MORE THAN 800 MGD.**

Stantec also knows that there is more to a successful project than just good design. With this in mind, Stantec offers assistance with bidding projects, engineering during construction, and construction management to ensure projects proceed according to plan. Stantec is proud to offer technical expertise that encompasses proposed sanitary sewer system improvement projects. From the Fairmont office, Stantec will provide the ultimate team of experienced professionals for each project anticipated under this contract.

We offer our clients significant expertise in civil engineering, starting with high level master planning for all components necessary to ensure the system functionality and reliability required to consistently deliver a high quality and sufficient service to customers in the face of continual use each year and changing regulatory requirements. Stantec has the tools and knowledge to develop a complete model of the system using existing records or data acquired through field investigations. Our commitment to enhancing our services by implementing contemporary, innovative technologies for both the new construction and existing system rehabilitation often realizes significant cost benefits for our clients while ensuring long-term system integrity. In addition, we understand that immediate needs arise during the operation and maintenance of facilities and systems that require quick response and straightforward solutions and graphics or sketches to guide the maintenance and/or repair activity.

## **Sanitary Sewer Systems**

Stantec has decades of expertise and experience in designing and evaluating wastewater treatment facilities (including lagoon systems), gravity sewer mains, force mains and lift stations of all types, as well as providing hydraulic/environmental, regulatory, transportation, and protection design services to ensure that the project is completed successfully.





At Stantec, we design with community in mind. For sanitary systems, that includes designing to address the specific capacity needs at the core, there are numerous other factors to consider in determining the most effective projects including permit requirements, cost, project location, community impact, schedule, and redundancy to name a few. Stantec will work with the State and the Barboursville School to determine the criteria most important to defining this project's success and use these criteria in evaluating project alternatives. Capital cost of the project is important, straightforward, and provides a large amount of influence on selecting appropriate project scope.

### Process Optimization for Lagoons and Other Treatment Systems

Our team is an industry leader in performing facility evaluations and process optimization studies at wastewater treatment facilities. We have performed this work locally within the Chesapeake Bay watershed and throughout the country. We have engineers, construction professionals and research scientists that enable our firm to troubleshoot and maximize the performance of existing wastewater treatment facilities. We have staff that prepare biological models to represent the performance of treatment plants and assess practical and affordable methods to enhance performance prior to field implementation.

### Sanitary Sewer Engineering

Our sanitary sewer conveyance experience includes the planning and design of more than 330,000 miles of wastewater, planning and design, sewer condition assessment and inspections, sewer route alignments, sewer replacement/ rehabilitation, trunk/interceptor sewer rehabilitation, infiltration and inflow (I/I) analysis and abatement, hydraulic and transient analysis; hydrogen sulfide modeling, corrosion and odor control, sewer manhole and sewer lateral upgrades/rehabilitation, and hydraulic modeling.

Stantec's experience in design and refurbishment of pipeline infrastructure makes us a leading expert in condition assessment and inspection. We have developed proven models that combine the available information of the industry with our own knowledge and experience to predict failure of pipeline materials. By modeling the probability and consequence of pipeline failure through a GIS, statistical, and engineering approach, we can provide a cost-benefit analysis for cost-effective scheduling of renewal/replacement.

### Asset Management and Financial Planning

Stantec is recognized as one of the world's leading asset management planning and implementation firms. Over the decades, we have expanded our core competencies from water, wastewater, and power into a wide range of global environmental and business services. All these services complement and build on the high level of technical and financial expertise that we offer our clients. Our industry



contributions have earned world-wide recognition. Our financial services team supports municipalities with the development of a sustainable strategy for budgeting and financial support to enable a long-term capital and operational plan to be developed.

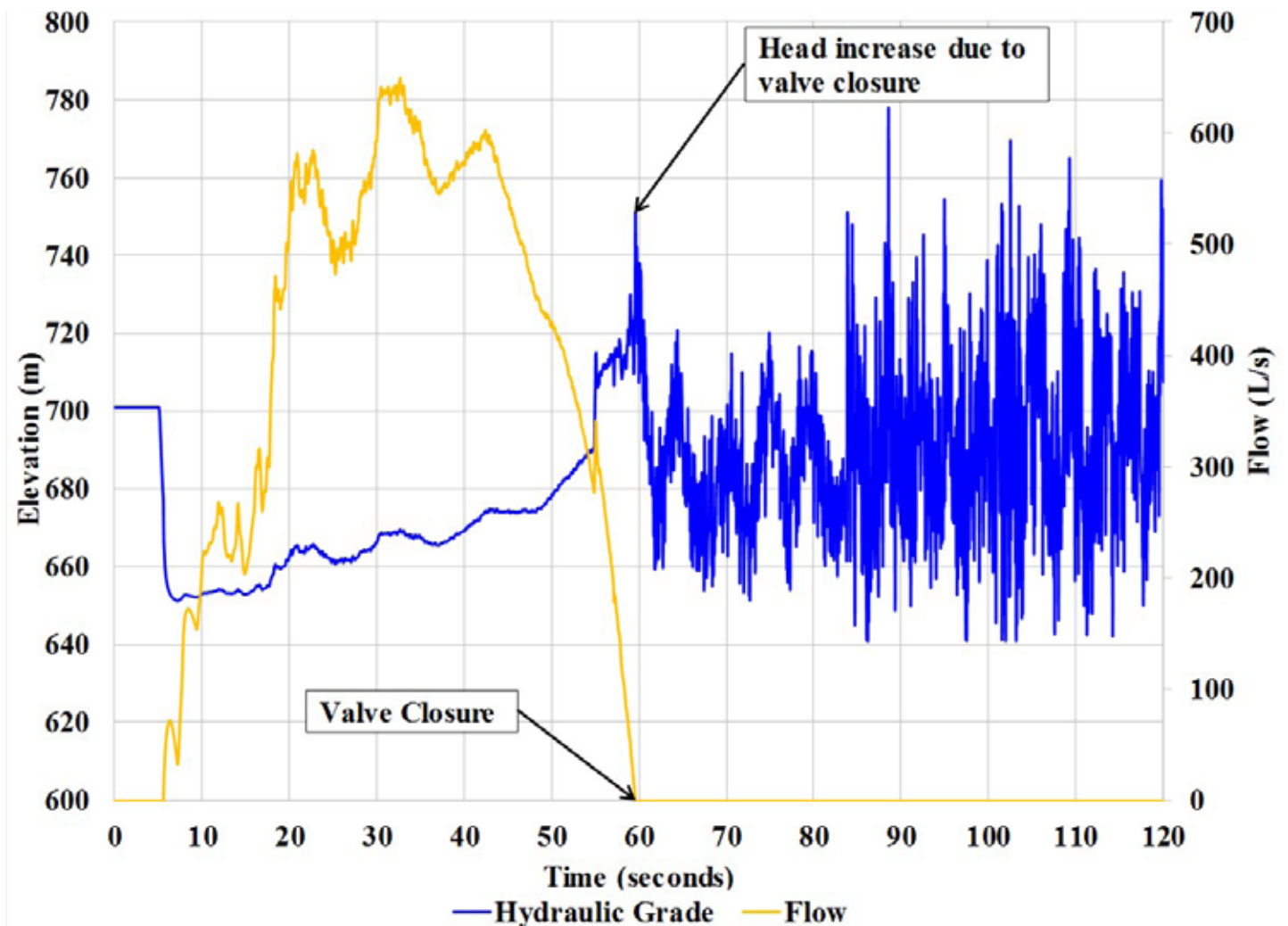
Stantec's asset management team includes professional staff with backgrounds in engineering, finance, economics, organizational change, information technology and customer service—all skills required to deliver a comprehensive asset management strategy.

Stantec's asset management team uses a comprehensive, proven approach that has helped many utility and municipal clients throughout the world effectively manage their assets and operations. We focus on building and uniting the three core elements of our client's knowledge including Finance and Enterprise Resource Planning, CMMS and the GIS system to make a comprehensive and progressive planning and knowledge management tool.

## Regulatory Assistance

It is critical in all wastewater utility planning and design projects to have the understanding and advocacy of the regulatory community, a thorough understanding of the regulations, and the ability to develop solutions that provide the best value and enable the utility to fully and continuously comply with regulations. Over the years, our local team brings several decades of successful coordination and collaboration with the West Virginia Department of Health, the West Virginia Department of Environmental Protection, the EPA, and other federal and local regulators.

Recently, a Stantec office in northern Virginia supported activities such as the renewal of local treatment plant permits, the approval of several wastewater pumping stations, an instrumentation and control upgrade to a water treatment plant and an enhancement of a chemical feed system at a water plant. Each of these projects were coordinated, approved and permitted by the regulators and implemented successfully in a timely fashion.





## Commitment to Delivery

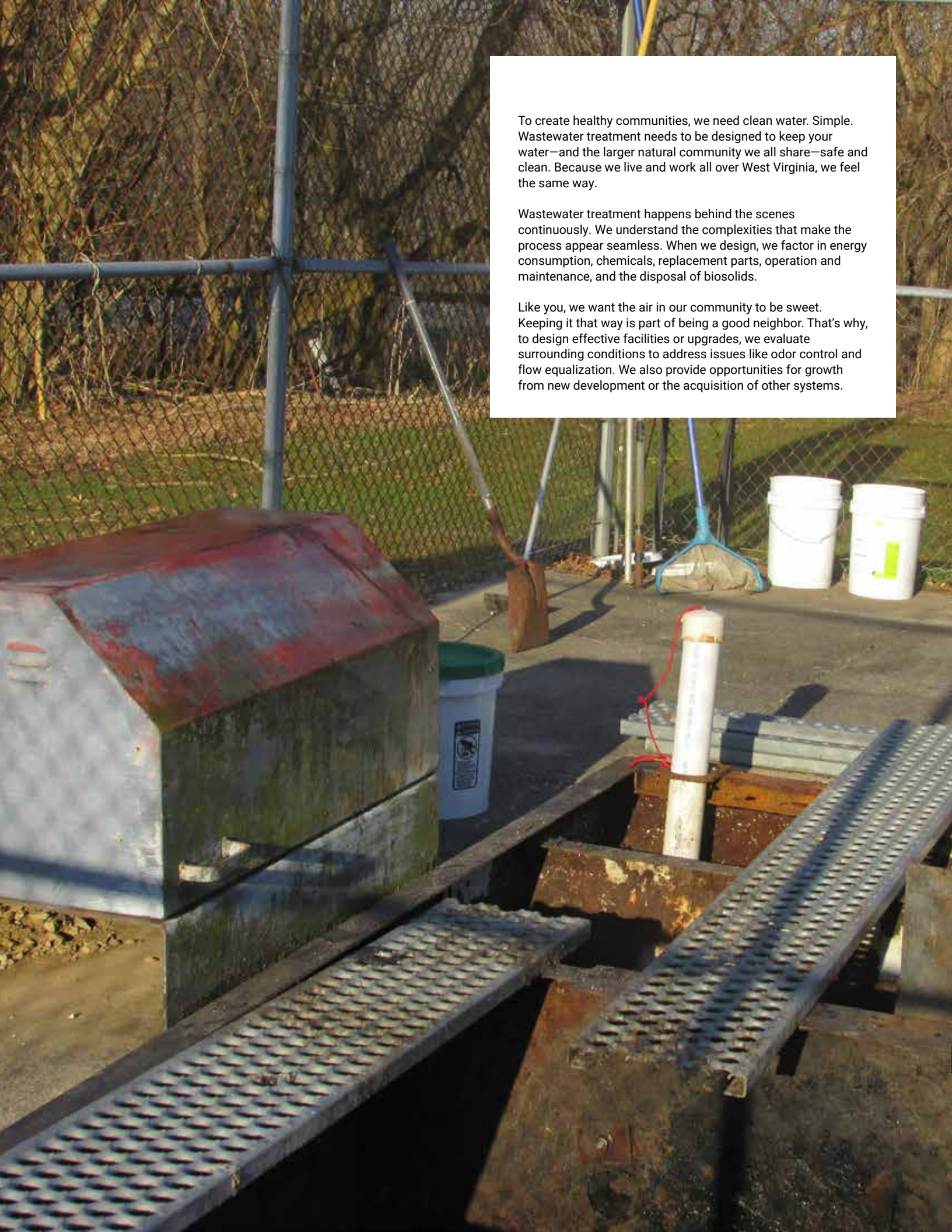
Upon notice to proceed (NTP), Stantec will begin a comprehensive look at the Barboursville School's existing wastewater system, which will involve talking with school staff to understand operating concerns, deficiencies, and any current violations. I&I studies will be performed to analyze the condition of the existing systems and determine the most practical and economical repair or replacement plan. Stantec's preliminary engineering report (PER) will outline the school's existing wastewater system and thoughtfully evaluate proposed improvements, including expected costs and schedules. Stantec will develop final design engineering plans and specifications, obtain permits, and assist with bids from contractors. We have vast experience in WWTP permitting and in navigating the ever-changing regulator system. The final part of the project will be actual construction, in which Stantec will provide professional construction observation and construction management, including developing as-built drawings and assisting with project close-out.

# The best surprise?

## *No surprise...*

Escalating costs, schedule delays, and scope creep are just a few of the “surprises” your project may encounter. But by treating your project as our own and seamlessly integrating our business, technical, and project management experts into your team, we’re better equipped to help you achieve predictable and successful project outcomes. *No surprises necessary.*





To create healthy communities, we need clean water. Simple. Wastewater treatment needs to be designed to keep your water—and the larger natural community we all share—safe and clean. Because we live and work all over West Virginia, we feel the same way.

Wastewater treatment happens behind the scenes continuously. We understand the complexities that make the process appear seamless. When we design, we factor in energy consumption, chemicals, replacement parts, operation and maintenance, and the disposal of biosolids.

Like you, we want the air in our community to be sweet. Keeping it that way is part of being a good neighbor. That's why, to design effective facilities or upgrades, we evaluate surrounding conditions to address issues like odor control and flow equalization. We also provide opportunities for growth from new development or the acquisition of other systems.

# 3 Management and Staffing Capabilities

## We Hold Quality to a Higher Standard

Your contract truly can be exceptional. You envisioned it that way, and with strong project management, that vision can be realized. That's where project manager **Richard Gaines, PE**, brings his expertise to your contract. We share your vision, and we have well-defined project approaches that can keep your contract on track and manage any unforeseen events.

Some of our key tools include:

**Critical Path Method (CPM) Scheduling**—Stantec will develop a CPM schedule outlining each assignments major activities and related durations.

**Budget Control**—We know it's important to come in on budget. Our enterprise software application allows management of project design expenditures through close monitoring and earned value analysis reporting. We draw on our extensive project knowledge base to provide early project scoping costs, updates, and final construction estimates. In addition, we will develop monthly invoices for each task that has incurred charges.

**Quality Control/Quality Assurance**—At Stantec, we like to raise the bar on excellence. With our comprehensive quality program, we deliver services that have been through a detailed review, thereby limiting errors and omissions to provide you with high-quality products. Stantec has the depth and breadth of staff on hand to address any situation that may arise from a task order issued under this contact. In addition to our depth of capacity, Stantec has a formal Quality Management System in use across the organization that is registered to the International Organization for Standardization (ISO) 9001:2008 Quality Management standard. The quality management system promotes quality practices across the organization with the goal of:

- Reducing the risk and consequences of design errors
- Helping us grow by promoting reliable processes
- Improving productivity and efficiency
- Promoting the quality and reliability of our services
- Increasing client confidence and loyalty
- Supporting regulatory compliance.

## We Deliver on Schedule and on Budget

**On schedule and on budget.** The words every client wants to hear. It's all in the planning and preparation and, of course, having the right people and the right tools for the job. Stantec's project managers have established systems for maintaining tight control on budgets. As work is initiated, we will capture actual costs with Stantec's state-of-the-art accounting system; where each project manager has access to a project dashboard that captures real time project costs. We are able to generate monthly performance reports that include a performance measurement system encompassing budgeted cost of work scheduled, budgeted cost of work performed, actual cost of work performed, cost and schedule variance analysis, and estimate-to-complete calculations.

Because we understand it's important to be able to track costs in real time, these elements allow monitoring of each task order in a structured process that provides real-time identification of potential problems and supports corrective actions to be developed.

Another critical aspect of cost control lies in the construction phase. We accomplish this by delivering high-quality plans and specifications, closely tracking contractor pay-item quantities, and coordinating early and often with private utilities and local permitting agencies. We all like to keep our costs in check, and, at Stantec, we help you deliver on that goal.



# A Strong Project Manager



**Project manager Richard Gaines, PE**, has more than 33 years of experience in project management and civil engineering related to sanitary sewer collection and treatment, stormwater evaluation and design, water systems and treatment, and land development. His design experience includes layout, grading, drainage, stream modeling, erosion control and permitting for road entrances, access roads, well pads, pits and impoundments for multiple well pads and developments. He is a principal

and a senior civil engineer in charge of Stantec's Fairmont office.

Richard has a vibrant history of working in land and community development, but throughout his engineering career, he has diligently worked to diversify his portfolio. Whether working with local municipalities on wastewater conveyance and treatment or helping the private sector convey oil and natural gas, Richard values his experience in multiple engineering disciplines.

Richard uses a diversity of practice to take a comprehensive approach to project management as well as cross-training for his team in Stantec's Fairmont office. Our clients depend upon his seasoned design experience, tenacity to finish projects, and keen eye for quality.

**STANTEC PROJECT MANAGEMENT FRAMEWORK**

The **Stantec Project Management Framework** identifies the key tasks that will help you and your Project Team to manage risks and quality on a total project. These tasks also represent the project requirements of our ISO 9001 Quality Management System. Click on the **Print** icon to access the **Print's Best Practices**.

- 1 Prepare a proposal that includes a preliminary Project Plan including scope, project budget, resources, deliverables and schedule. Conduct and document an independent review of the final proposal. Conduct and document a hazard assessment and safety evaluation complete if a field site visit is required during the proposal phase. Obtain written instructions to proceed and execute an approval written contract. Obtain written subcontractor agreements (if applicable).
- 2 Prepare a Project Plan to an appropriate level of detail. Conduct and document an independent review.
- 3 Establish hard copy and/or electronic project record directories and the project records accordingly.
- 4 Complete a Health, Safety, Security & Environment (HSSE) risk management assessment and documentation for all projects involving field work.
- 5 Monitor the Project Management Dashboard on a regular basis. Follow best practices for managing project resources, including time, design, work in progress (WIP), accounts receivable (AR), and estimates to complete (ETC).
- 6 Obtain the client's written approval on scope of service changes in a timely manner.
- 7 Conduct and document a quality review of all final deliverables prior to issue.
- 8 Conduct and document an independent review of all final deliverables prior to issue.
- 9 Quality versus Independent review.
- 10 Close out the project financially and close out the project file.

\*Note: A final deliverable is defined as any record (written or graphic) based on professional expertise or judgment that is intended to be relied on by others and that provides direction to others as part of a service to the public (e.g., professional reports, documentation issued for construction, permit submissions, and maps).

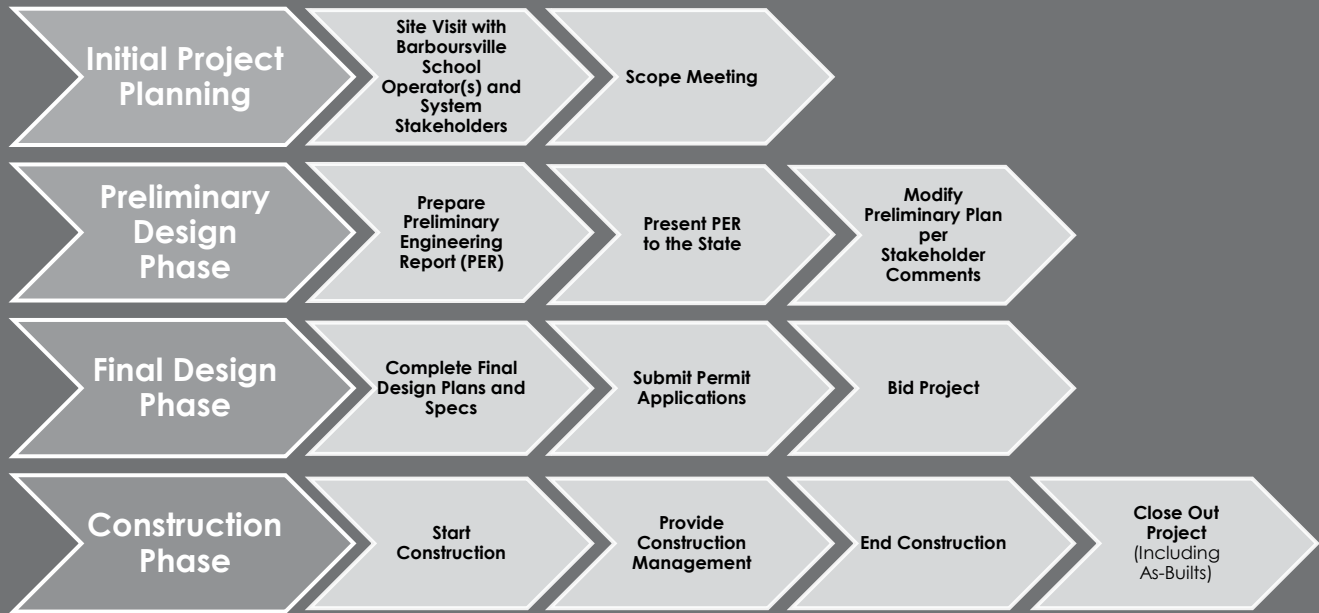
**7&8**  
PM Framework: Best Practices  
**QUALITY VS INDEPENDENT REVIEW**

PM Framework	Quality Review	Independent Review
Nomenclature	Professional of Record Technical Reviewer	Independent Reviewer Peer Reviewer Senior Reviewer
Overall Role	Fulfilling professional obligations Joint responsibility for final deliverables	Proxy for client Senior independent review
Project Roles	Review specific sub-sets of deliverables Provide oversight on design deliverables Check calculations Confirm appropriate standard operating procedures and standards of care are used Sign, stamp or make final deliverables	Provide overarching review to PM and Project Team Provide reports, independent review of concepts, system design, and completeness Check completeness and consistency of all final deliverables
Position on Project Team	Integral part of Project Team	Independent from Project Team
Resource Allocation	With a reasonable amount of budget time (e.g., 5-10% of labor effort for specific tasks)	Should be billed to 50-100% of labor effort for total project
Typical Background/Profile	Fully qualified in disciplinary service area (e.g., greater than 10 years' professional experience) Licensed/registered professional, designer, or PE	Has broad experience in a breadth of related technical and client issues

\*Note: A final deliverable is defined as any record (written or graphic) based on professional expertise or judgment that is intended to be relied on by others and that provides direction to others as part of a service to the public (e.g., professional reports, documentation issued for construction, permit submissions, and maps).



# Project Life Cycle



↑ Escalating costs, schedule delays, and scope creep are just a few of the *surprises* your projects may encounter. But by treating your projects as our own and seamlessly integrating our business, technical, and project management experts into your team, we're better equipped to help you achieve predictable and successful project outcomes. *No surprises necessary!*

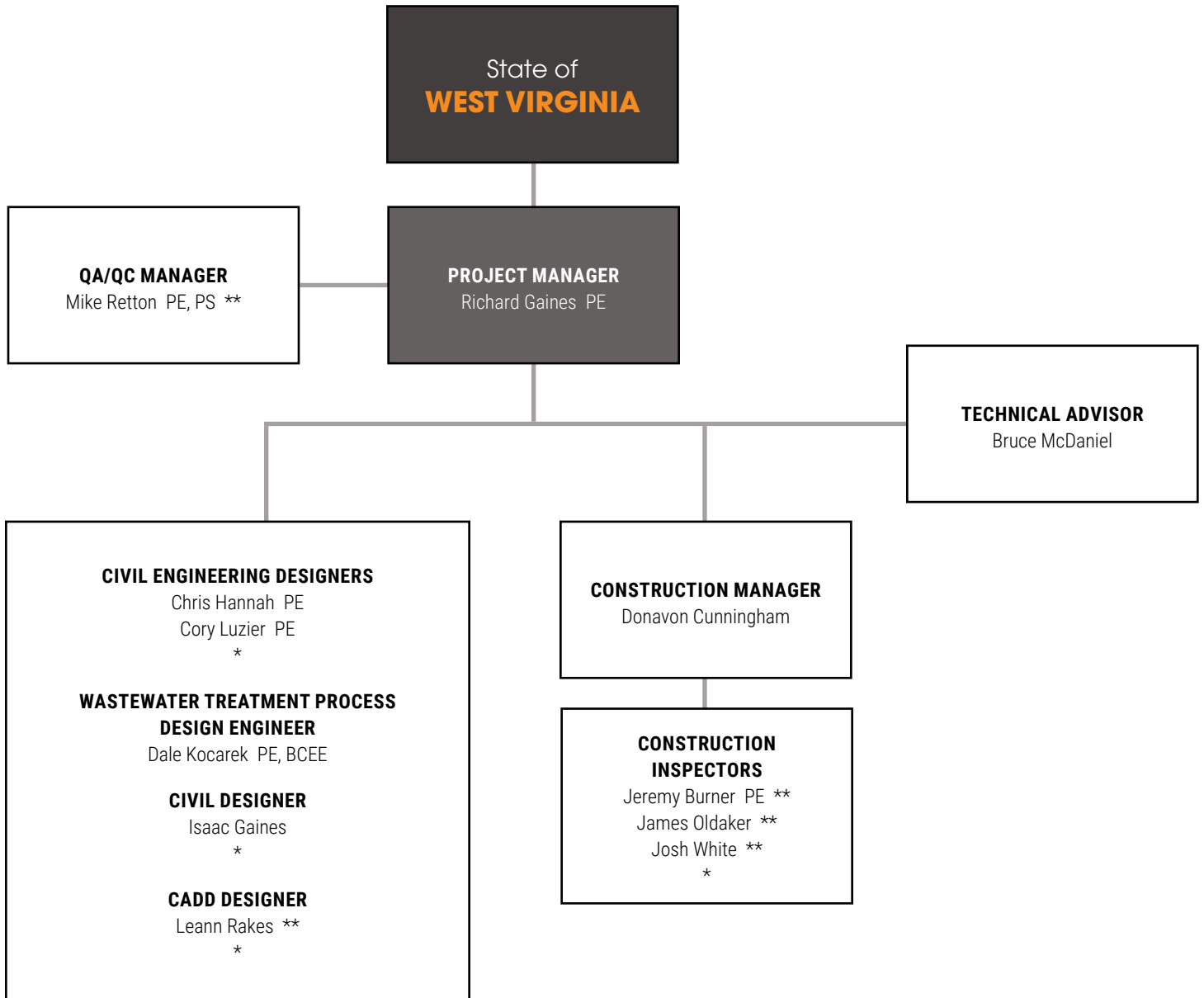
## Team Capacity

We are better together. We take that core value seriously here at Stantec. That's why we have assembled a strong reliable team to provide you with the best project experience possible.

Our intention is to deliver a focused process that facilitates the successful completion of your project today and helps you move confidently toward tomorrow. Taking into consideration the goals and objectives of this project and the expertise and availability of our professionals, we have carefully handpicked the team that is right for this project.

The chart below outlines roles and responsibilities of the Stantec team. We've also included brief résumés of our team members so you can get to know a little bit more about them. Our skilled staff are available to start working on your project once a contract is executed, and please be assured any relationships you have with our current staff will continue seamlessly.

# Project Organizational Chart



## KEY

\* As-needed additional resources are available outside the local office for support and additional experience.

\*\* Résumé not included.



## Key Staff and Description of Responsibilities

**RICHARD GAINES, PE**, will serve as project manager and be the State's and Barboursville School's primary point person on all day-to-day project matters. Richard will work closely with the project team throughout all phases of development and documentation to ensure coordination and continuity.

**DALE KOCAREK, PE, BCEE**, will guide wastewater-related process engineering. His 38 years of professional engineering experience in both the public and private sectors include the planning, design, process design, compliance management, pretreatment systems and local limits studies and programs, and the financing of sanitary sewer systems, I&I studies, detailed design, permitting, and construction administration and startup for WWTPs.

**BRUCE McDANIEL** will provide technical oversight of the team, and he will use his past experience as an operator and utility manager to assist in evaluating the Park's existing wastewater system and develop recommended modifications that enhance current operations and equipment performance and reliability.

**CHRIS HANNAH, PE**, will serve as civil engineering designer and provide design support for all aspects of the project and work with the project manager and technical advisor to ensure all project facets are addressed.

**CORY LUZIER, PE**, will serve as a civil engineering designer. He'll support the team with development of specifications for the project and design of any proposed line work.

**HARRY CANFIELD, PWS**, will oversee environmental/permitting. A senior environmental scientist, Harry has more than 30 years of professional experience in natural resources assessments, environmental inventories, environmental permitting, and compliance.

**DONAVON CUNNINGHAM** will serve as construction manager.

Stantec helps clients improve the state of their wastewater infrastructure in inventive and environmentally responsible ways.





**Richard Gaines PE**  
*Project Manager*

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

## **EDUCATION**

BS // Civil Engineering // Fairmont State College // 1987  
AS // Mechanical Engineering // Fairmont State College // 1987

## **REGISTRATIONS**

West Virginia // Professional Engineer #17220 // 2007  
Virginia // Professional Engineer #035466 // 2002

## **RELEVANT EXPERIENCE**

### **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.

### **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.

#### **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.

#### **JANE LEW PSD // POTABLE WATER SYSTEM IMPROVEMENTS PROJECT // LEWIS COUNTY, WEST VIRGINIA // PROJECT ENGINEER**

Richard was the project engineer on the replacement of about 11,500 feet of 2-inch galvanized waterline, including valves, removal, and replacement of 25 existing gate valves, installation of 17 new gate valves in the existing distribution system, installation of 13 bypass meters, installation of an 8-inch-diameter river crossing pipe to replace an existing crossing, installation of a SCADA-controlled solenoid valve station and booster chlorination station, installation of 1,500 feet of 2-inch PVC waterline, a 37 gpm booster pump station to provide service to 6 new customers, and the fencing of an existing 100,000-gallon water storage tank.

#### **PRESTON COUNTY PSD #4 // CLIFTON MILLS WATER EXTENSION // PRESTON COUNTY, WEST VIRGINIA // PROJECT MANAGER**

Richard was the project manager for a water system extension project for a 190 additional customers. Services included providing a preliminary engineering report and funding application preparation and construction plans for waterline extensions, and improvements and upgrades to the water treatment plant and water wells.

#### **CITY OF SHINNSTON // POTABLE WATER SYSTEM UPGRADE, PHASE II // HARRISON COUNTY, WEST VIRGINIA**

Richard was the project manager for the replacement of about 10 miles of 10-inch waterline, including valves, installation of new bypass meters, installation of a river crossing pipe to replace an existing crossing, and fencing twin existing 1,000,000-gallon water storage tanks.

#### **TEMPORARY HDPE WATERLINE // BARBOUR COUNTY, WEST VIRGINIA // PROJECT MANAGER**

Richard served as the project manager for the design of a 3-mile temporary HDPE waterline along WV State Route 92 from a permitted stream intake to a centralized impoundment. He provided oversight of the design for the eight-inch HDPE waterline in the WVDOH right-of-way, which included detailing the route, restraints, and maintenance of traffic plan.

#### **PRESTON COUNTY PSD #1 // WATER SYSTEM UPGRADES // ARTHURDALE, WEST VIRGINIA**

Richard was the project manager for water system evaluation, design, funding procurement, and construction oversight for a \$3.2 million water treatment plant, system upgrade, and source water impoundment improvements. The treatment plant upgrades included replacement of old valving, controls, filter media, and high-service pumps. Source water improvements included primary and secondary pumping upgrades and providing NRCS funding to repair and improve a water storage impoundment. Also included were water storage tank mixers and pump station metering at two remote sites.

#### **ALPINE LAKE PUC // WOODBINE WATERLINE REHABILITATION // PRESTON COUNTY, WEST VIRGINIA**

Richard was project manager for the design, permitting, and construction of a waterline replacement project in the Alpine Lake development. The waterline replacement included about 2,350 feet of 8-inch PVC C-900 and 360 feet of 4-inch PVC C-900 with related appurtenances and paving restoration.

#### **CITY OF FAIRMONT // FAIRMONT-MANNINGTON WATER TRANSMISSION MAIN EXTENSION // WEST VIRGINIA**

Richard provided planning, design, and construction inspection of a water main extension from the City of Fairmont to serve the City of Mannington. The project includes mapping, route surveys using GPS, assistance in obtaining project funding, design of 13 miles of 12- to 15-inch water main, preparation of specifications, bid and contract documents, right-of-way acquisition, construction surveys, and construction management and inspection services.



**Dale Kocarek** PE, BCEE  
*Process Engineer (Wastewater)*

**DALE's 38 years of professional engineering experience in both the public and private sectors include the planning, design, process design, compliance management, pretreatment systems and local limits studies and programs, and the financing of sanitary sewer systems, I&I studies, and detailed design and construction administration and startup for WWTPs. In addition to being a professional engineer and Board Certified Environmental Engineer (BCEE), Dale is a certified WWTP operator.**

### EDUCATION

MS // Sanitary/Environmental Engineering // The Ohio State University // 1982  
BS // Civil Engineering // The Ohio State University // 1980  
Pre-Treatment Course // USEPA // 2002  
Value Engineer Training // Edward J. Nichols, Inc. // Columbus, Ohio // 1990

### REGISTRATIONS

Ohio // Professional Engineer **#E-50185** // 1986  
American Academy of Environmental Engineers & Scientists // Board Certified Environmental Engineer (BCEE) #05-20024  
Ohio Environmental Protection Agency // Wastewater Operator Class 3 #3-88-084

### RELEVANT EXPERIENCE

*Dale's projects have included wastewater treatment plant studies for the Cities of Napoleon, Aurora, Marietta, and Kenton, Ohio, as well as the Southwest Licking Community Water & Sewer District, Licking County, and the Village of Peninsula. He is also a task manager in the Cincinnati MSD Sewer Backup Prevention Program and previously worked on the City of Napoleon CSO Long Term Control Plans and served as the project manager for two large I&I studies for the City of Columbus. Dale is also experienced in the design of treatment plants with high wet weather flows and assisting municipal clients in avoiding enforcement action. He has a strong Ohio EPA background, having worked at the Division of Construction Grants and Surface Water and can develop effective compliance management strategies relating to wastewater treatment and collection systems. He was also a member of the Ohio EPA Nutrient Technical Advisory Group for developing nutrient rules.*

#### **MARIETTA WWTP—PHASE 3, SCOPE 2 AND 3 PUMP STATION, SCREENING, SEPTAGE TREATMENT, PIPING, AND ELECTRICAL IMPROVEMENTS // CITY OF MARIETTA, OHIO // PROJECT MANAGER AND PROCESS ENGINEER**

This project rehabilitated the raw sewage pump station, provided a new mechanical fine screen, septage treatment, hydraulic and electrical improvements and was placed online in 2017. Dale helped provide both design and construction administration.

#### **MARIETTA WWTP—PHASE 3, SCOPE 4 WET STREAM AND SCADA // CITY OF MARIETTA, OHIO // PROJECT MANAGER AND PROCESS ENGINEER**

This project provided new final clarifiers, sludge pumping, UV disinfection using the Enoqua UV system, high river pumping, and a new outfall sewer. This project will increase the capacity of the WWTP from 2.25 MGD to 4.0 MGD and increase the hydraulic capacity from 8.5 MGD to 12 MGD. Stantec provided both design and construction administration.



## **SR 161 WWTP FEASIBILITY STUDY AND ANTIDEGRADATION REVIEW REPORT (2018) // SOUTHWEST LICKING COUNTY WATER & SEWER DISTRICT, OHIO**

The purpose of this study was to evaluate the feasibility of a new wastewater treatment plant in a developing area. Various technologies were evaluated, and it was determined that the SBR process would be the most cost effective. The study was followed by an Antidegradation Rule Review Report to demonstrate the need of the project to the public and secure an NPDES permit.

## **MARIETTA WWTP RENOVATION PROGRAM—PHASES 1, 2, AND 3 // CITY OF MARIETTA, OHIO**

The initial phase of this project was to prepare a master facility plan on the entire sewerage system and present a plan for growth for the next 20 years. Portions of this facility were in excess of 50 years old with equipment at the end of its useful life. The plant was also hampered by sludge thickening and storage capacity. The activated sludge process experienced sludge bulking. In addition, the City is looking to expand its service area to other parts of the nearby county. The completion of the upgrade and expansion led to the following: solved sludge bulking problems and sludge storage deficiencies, implemented project phasing and a flexible platform for future expansion that encouraged the pay-as-you-go approach towards financing and an oxidation ditch plant with the ability to treat 5:1 flows through the system. Dale has been the client manager and planning and process engineer for the Marietta WWTP Renovation Program Phases 1, 2, and 3. This is a \$25 million project that will rehabilitate, expand, and modify the Marietta WWTP, which was nearing the end of its useful life. Phase 1 included a new electrical services line, a new standby generator, and an anoxic biological selector. Phase 2 involved aerobic digestion, recuperative sludge thickening dewatering, and direct load off of cake. Phase 3 involves a wet stream expansion of the facility to increase capacity from 3.35 MGD to 4.0 MGD.

## **MARIETTA WWTP AEROBIC DIGESTION PROCESS (PHASE 2 IMPROVEMENTS) // CITY OF MARIETTA, OHIO**

The purpose of the Marietta WWTP Renovation Program is to repair, rehabilitate, and renovate the existing wastewater treatment plant for the City of Marietta and help increase the capacity of the wastewater treatment plant from 3.35 MGD to 4.0 MGD. The new system has provided the City with a system that is easier to operate than the former anaerobic digestion system and be easier to manage by existing personnel. Major components of the system include the rehabilitation of three existing tanks to aerobic digestion, one thickening centrifuge for pre thickening and recuperative thickening, one dewatering centrifuge with a Spirac Sludge Conveyor and automated load off facility, three new blowers, and a fine bubble aeration system to meet process and mixing needs of digestion.

## **WWTP OPTIMIZATION STUDY 2017 // CITY OF AURORA, OHIO**

The purpose of this study was to prepare a master plan to determine the improvements that may be needed to the Central and Westerly WWTPs to allow it to provide good service to the City of Aurora for the next 30 years. It should be noted that many of the treatment systems are over 20 years in age, with some approaching 50 years, and that an organized improvement program is required.

## **LONG TERM CONTROL PLAN (LTCP) UPDATE AND WWTP MASTER PLAN // CITY OF NAPOLEON, OHIO**

This project involved an update to the original 2005 LTCP. A key part of this study was a process evaluation and master plan for the existing wastewater treatment plant. The WWTP master plan involved a critical analysis of the existing trickling filter solids contact process for capacity, condition, and ability to meet future NPDES permit regulations for nutrient removal. It was concluded for the City to pursue projects that will enhance existing operations including a new headworks, and then implementing a new wet stream using the extended aeration process.

## **WWTP ASSET MANAGEMENT MASTER PLAN 2017 // CITY OF NAPOLEON, OHIO**

The purpose of this study was to prepare a master plan to determine the improvements that may be needed to the WWTP to allow it to provide good service to the City of Napoleon for the next 30 years. It should be noted that many of the treatment systems are over 35 years in age, with some approaching 60 years and that an organized improvement program is required. Options for the WWTP included rehabilitating the existing plant and constructed a new facility on adjacent property.

## **CSO LONG TERM CONTROL PLAN AND WWTP IMPROVEMENTS // CITY OF NAPOLEON, OHIO // PROJECT ENGINEER**

Dale provided assistance in the planning and design of selected improvements in the City of Napoleon in accordance with its CSO Long Term Control Plan. The single largest improvement project was wet weather storage, pumping and disinfection improvements to the WWTP. The tank system provides 2.5 MG of wet weather storage capacity to the system and is designed in a manner to allow it to provide primary equivalent treatment of flow.



**Chris Hannah** PE  
*Civil Engineering Designer*

**CHRIS began his career with Stantec as a construction inspector and as a utility inspector. He obtained his PE license in West Virginia in 2016 and has since actively practiced design engineering from our Fairmont office.**

## EDUCATION

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

## REGISTRATIONS

West Virginia // Professional Engineer #21656 // 2009

Pennsylvania // Professional Engineer #PE087677

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

## RELEVANT EXPERIENCE

### **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 this 0.20 MGD WWTP and lift station. Work includes the removal and replacement of an existing 0.30 MGD package WWTP and lift station.

### **LINCOLN APARTMENTS // DESIGN OF LIFT STATION // SHINNSTON, WEST VIRGINIA**

Chris is the project engineer to complete preliminary final design and permitting of a lift station to replace an existing package WWTP.

### **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.

**MORGANTOWN UTILITY BOARD // WATER AND SEWER INSPECTION SERVICES // MONONGALIA COUNTY, WEST VIRGINIA // CONSTRUCTION INSPECTOR**

Chris was responsible for performing inspector duties for this expansion and upgrade project for various components of Morgantown Utility Board's water and wastewater systems. The contract's main focus was to provide resident inspection services for the proposed construction activities and similar projects. Activities to be inspected included, but were not limited to: construction/modification of gravity sanitary sewers, sanitary sewer force mains, waterlines, sewage lift stations, odor control facilities, water storage tanks, and related construction.

**CLIFTON MILLS WATER EXTENSION // PRESTON COUNTY, WEST VIRGINIA // PROJECT ENGINEER/DESIGN TEAM MEMBER**

Chris was the project engineer/design team member for a water system extension project for 190 additional customers. His services included providing a preliminary engineering report and funding application preparation and construction plans for waterline extensions, and improvements and upgrades to the water treatment plant and water wells.

**TEMPORARY HDPE WATERLINE // BARBOUR COUNTY, WEST VIRGINIA // CAD TECHNICIAN AND DESIGNER**

Chris completed the drafting and design of a 3-mile temporary HDPE waterline along WV SR 92 from a permitted stream intake to a centralized impoundment. He provided layout and design for the eight-inch HDPE waterline in the WVDOH right-of-way, which included detailing the route, restraints, and maintenance of traffic plan.

**PRESTON COUNTY PSD #1 // WATER SYSTEM UPGRADES // ARTHURDALE, WEST VIRGINIA**

Chris was the engineering designer of a water treatment plant, system upgrade, and source water impoundment improvements. Treatment plant upgrades included replacement of old valving, controls, filter media, and high-service pumps. Source water improvements included primary and secondary pumping upgrades and providing NRCS funding to repair and improve a water storage impoundment. Also included were water storage tank mixers and pump station metering at two remote sites.



**Cory Luzier PE**  
*Civil Engineering Designer*

**CORY is a professional civil engineer from Arthurdale, West Virginia, with more than 8 years of professional experience in site development, environmental permitting, and surveying. His 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

BS // Civil Engineering // West Virginia University // 2012

## REGISTRATIONS

West Virginia // Professional Engineer #23042

Maryland // Professional Engineer #53482

Ohio // Professional Engineer #84153

Pennsylvania // Professional Engineer #089541

## RELEVANT EXPERIENCE

### **EAST LYNN ELEMENTARY SCHOOL // DESIGN OF A WWTP // WAYNE COUNTY, WEST VIRGINIA // CIVIL DESIGN ENGINEER**

Cory completed final design and permitting of this 0.20 MGD WWTP and lift station. Work included 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.

**THE CROSSINGS AT MORGANTOWN, INDIVIDUAL EXPERIENCE // MORGANTOWN, WEST VIRGINIA // PROJECT ENGINEER**

The project included the construction of a senior housing facility in Morgantown. Cory's duties included the development of a feasibility study and due diligence report, development of site plan construction documents (layout, grading, utility plans), NPDES permitting, stormwater drainage analysis and design, and construction-phase services, including RFI and submittal review and response.

**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.

**PARSONS DIKE REPAIR, INDIVIDUAL EXPERIENCE // PARSONS, WEST VIRGINIA // PROJECT ENGINEER**

The project consisted of the repair of a damaged concrete dike. Cory's duties included the development of the construction plan drawings and associated details, and the generation of bid documents and project specifications.

**FAIRMONT STATE UNIVERSITY // STUDENT HOUSING, INDIVIDUAL EXPERIENCE // FAIRMONT, WEST VIRGINIA // PROJECT ENGINEER**

The project consisted of the construction of a new student housing facility and associated parking lots for a college. Cory's duties included the development of the erosion and sediment control plan, stormwater drainage and management plan, NPDES permitting, assistance with site plan drawing package (site layout, grading, and utility plans), and construction-phase services, which included RFI and submittal review and response.



**Isaac Gaines**  
*Civil Designer*

**Isaac started his career as an intern with Stantec in 2012. In 2016, he began serving as a civil designer and CADD technician.**

## **EDUCATION**

BS // Civil Engineering // West Virginia University // 2015

## **RELEVANT EXPERIENCE**

### **PRESTON COUNTY PSD #4 // WATERLINE EXTENSION // PRESTON COUNTY, WEST VIRGINIA // INTERN/CIVIL DESIGNER**

Isaac started on the PSD #4 Waterline Extension project as an intern and following graduation, he became a civil designer on the multicontract project. He had duties to construct an asset management plan through the CUPSS program, prepare cost estimates, and revise line plans. Once construction starts, Isaac will also be out in the field as an inspector to ensure the proper execution of the project.

### **CITY OF SHINNSTON // WATER IMPROVEMENTS, PHASE II // SHINNSTON, WEST VIRGINIA**

Isaac was a designer on design, construction, and inspection services involving installation of 53,000 feet of waterline replacements with fire hydrants, resale connection meters, and renovation and upgrading of the existing raw water intake and raw pump station.

### **EMERALD GARDENS // LINCOLN COUNTY, WEST VIRGINIA // CIVIL DESIGNER**

Isaac is a civil designer for providing professional engineering and surveying services for the preparation of a conceptual plan, construction plans, and construction specifications for a 42-unit affordable housing complex located near West Hamlin. Design included preparation of a preliminary land plan, final land plan, field topographic survey, access road layouts, plan of all proposed onsite roads, typical sections, water distribution/fire line design, onsite gravity sanitary sewer collection system, drainage design, erosion/sediment control, finished grade elevations, and permitting. The site improvements were designed to comply with accessibility codes and requirements (ADA and Fair Housing HUD).

### **FISHER MOUNTAIN ESTATES // RESIDENTIAL SUBDIVISION // PENDLETON COUNTY, WEST VIRGINIA // CIVIL DESIGNER**

Isaac was a civil designer for a 1,000-lot residential subdivision that included conceptual land plans final construction drawings for roads, utilities, water treatment plant and storage tanks, wastewater treatment plant and permitting. The project was put on hold in 2009; however, it is in the process of getting back on track at a smaller scale.

### **2017 CLARKSBURG DEMO // HARRISON COUNTY, WEST VIRGINIA // ASBESTOS INSPECTOR**

Isaac was the licensed inspector for the City of Clarksburg. The project consisted of 45+ structures throughout the city that were inspected for asbestos. Most of the structures that were to be inspected are old, abandoned buildings that have been marked for demolition by the City. Each structure had to be carefully inspected, and after the samples were tested, Cory helped compile a report needed for each structure.

### **OAK VALLEY GARDENS // GILMER COUNTY, WEST VIRGINIA // CONSTRUCTION INSPECTOR**

Isaac was partially responsible for providing engineering services for the preparation of a conceptual plan, construction plans, and construction specifications for the Oak Valley Gardens townhouse project located along the west side of CR 35/19, 2.8 miles south of Glenville, WV, on SR 5. Phase I included preparation of a conceptual layout for up to 28 townhouse units on the site. Phase II included preparation of a preliminary land plan, a field topographic survey, and full-/part-time construction inspection services throughout site construction.

### **WOO MEMORIAL BRIDGE INTERIM INSPECTION // KANAWHA COUNTY, WEST VIRGINIA // INSPECTOR**

Isaac was an inspector whose duties included preparing gear for inspection and using a 60-foot and 135-foot man-lift to check for deficiencies. He used the lifts to inspect the fracture critical members. This included a hands on approach to inspecting: longitudinal stiffeners, ends of lateral bracing gussets, floorbeam connection stiffeners, floorbeam copes, girder copes at transfer diaphragms, and web gaps.

### **SMITH LAND SURVEYING // WQT Big 245 // WETZEL COUNTY, WEST VIRGINIA // CIVIL DESIGNER**

Isaac was a civil designer providing professional engineering services on a well pad access road located near Big Run. Design included preparation of access road layouts, typical sections, erosion/sediment control, and finished grade elevations.

### **35TH AND 36TH STREET BRIDGE INSPECTION // KANAWHA COUNTY, WEST VIRGINIA // INSPECTOR**

Isaac was an inspector whose duties included preparing gear for inspection and using a 60-foot man-lift and snooper to check for deficiencies. He used the lifts to inspect the fracture critical members. This included a hands on approach to inspecting: longitudinal stiffeners, ends of lateral bracing gussets, floorbeam connection stiffeners, floorbeam copes, girder copes at transfer diaphragms, and web gaps.



## **Donavon** Cunningham *Construction Manager*

**DONAVON is an experienced construction manager with more than 18 years in onsite and design project management. His numerous construction projects range from wastewater and water improvements, to roadway and bridge construction, to coatings inspection and corrosion assessments. He holds numerous material testing certifications that are valuable for ensuring quality inspection and management of construction.**

### **EDUCATION**

AS // Electronic Tech // Fairmont State College // 2004  
CADD and Design Certificate // United Tech Center // 1999

### **REGISTRATIONS**

OSHA 10-Hour Construction Safety and Health, 2015  
Radiation Safety Officer Certification, 2014  
Asphalt Field Technician, 2012  
Aggregate Sampling Inspector Certification, 2009  
Nuclear Compaction Inspector Certification, 2009  
Portland Cement Concrete Inspector, 2008  
Level III CIP National Association of Corrosion Engineers #14613, NACE International, 2012  
Nuclear Handling/Radiation Portable Gauge Safety Training, 2015

### **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 UTILITY BOARD 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.





### **MORGANTOWN UTILITY BOARD 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.

### **FAIRMONT-MANNINGTON WATER MAIN EXTENSION // FAIRMONT, WEST VIRGINIA**

Donavon was the instrument person/surveyor in charge of all surveying aspects of this 13-mile water main extension project that included 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.

### **INFRASTRUCTURE IMPROVEMENTS // SHINNSTON, WEST VIRGINIA**

Donavon was the instrument person/surveyor for the planning, design, and construction inspection services for a water distribution system upgrade for the City of Shinnston. Services will include the mapping and hydraulic modeling of the existing water distribution network, the identification of problem areas, forecasting future water usage for projected growth areas and the completion of funding applications, detailed design drawings, specifications, bidding, and contract documents, solicitation of bidders and recommendations for award. CEI services include constructability reviews, construction management, project inspection, processing routine pay requests, and the preparation of as-builts drawings.

### **LENOX/CUZZART WATER SYSTEM, BRUCETON MILLS // PRESTON COUNTY, WEST VIRGINIA**

Donovan is providing inspection services for the construction of a 42-mile water system extension to serve about 400 new customers in the Lenox and Cuzzart area of Preston County for the Preston County Public Service District #4. The project includes the design of the water distribution system, which includes four water storage tanks, four booster pump stations, and three pressure reducing valves. The Abandoned Mine Lands division of the West Virginia Department of Environmental Protection (WVDEP/AML) and the West Virginia Infrastructure and Jobs Development Council provided funding for this project. 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.

### **MORGANTOWN UTILITY BOARD BURROUGHS RUN/POPONOE RUN WATERWAYS IMPROVEMENT // MORGANTOWN, WEST VIRGINIA**

Donavon provided inspection and quality assurance for stormwater improvements, stream restoration, and sanitary sewer installation improvements. Inspection included installation of 5,800 feet of sanitary sewer line; 2,200 feet of storm sewer line; 11,000 feet of channel restoration; construction of seven precast arch bridge crossings; and installation of 1,000 feet of precast box culverts for flow control of waterway. Quality assurance included field testing on concrete footers, wing walls, and culverts. Compaction testing was performed on backfill, stream bank restoration, and asphalt paving. Donavon also served as liaison between the contractor and MUB.



**Bruce McDaniel**  
Technical Advisor

**BRUCE has more than 51 years of professional experience, including more than 13 years at Stantec. His public-sector experience lies in wastewater and water utility management, operations and maintenance, and municipal government administration. His career has encompassed wastewater, water, and stormwater utility construction, project management, systems start-up, and personnel training.**

*Bruce has managed several projects in West Virginia involving project scope definition, project financing, rate setting, design and construction review, and implementing utility management structures. He has been responsible for projects ranging from water and sewer systems, public parking garages, and municipal public safety buildings, and he has developed professional relationships with regulatory and funding agencies at all levels of government.*

#### **EDUCATION**

Center College // Business Management/Computer Programming // Charleston, West Virginia

#### **CERTIFICATIONS AND TRAINING**

WV Department of Health and Human Resources and the WV Environmental Training Center // Member—West Virginia Wastewater Exam Review Committee // 2015

Class IV Wastewater Treatment Plant Operator // #WVOP04693 Certification, 2014

West Virginia Division of Highways // Certified Aggregate Sampling Inspector, Certification, 2013

United States Environmental Protection Agency Certified Instructor // Wastewater Treatment, Certification, 2013

West Virginia Division of Highways // Certified Compaction Inspector, Certification, 2013

West Virginia Division of Highways // Certified Asphalt Field Technician, Compaction Certified, 2013

ACI Concrete Field Testing Technician Grade I // #01190591 Certification, 2013

West Virginia Division of Highways // Certified Portland Cement Concrete Inspector, Certification, 2013

#### **RELEVANT EXPERIENCE**

##### **ALPINE LAKE PUC // SEWER SYSTEM IMPROVEMENTS // TERRA ALTA, WEST VIRGINIA**

Bruce was construction inspector/project administrator for a sewer system improvements and upgrade project for a 500-resident, 2,000-acre private community. Services included providing construction inspection for a new utility office and operations building, improvements and upgrades to the sewer treatment facilities, (new/replacement wastewater treatment plant) sewer lift stations, (six new/replacement lift stations), and collection system rehabilitation (SSES of the existing system and replacement of an existing trunk line to WWTP Main Lift Station H). Bruce was also responsible for start-up services, owner/operator training, compilation of O&M manuals and as-built drawings, and project close-out.

##### **MORGANTOWN UTILITY BOARD // WATER/SEWER INSPECTION SERVICES // MONONGALIA COUNTY, WEST VIRGINIA**

Bruce performed construction inspection services for a \$25 million expansion and upgrade project for various components of MUB's water and wastewater systems. The contract's main focus is to provide resident inspection services for the proposed construction activities and similar projects. Activities to be inspected included, but were not limited to: construction/modification of gravity sanitary sewers, sanitary sewer force mains, waterlines, sewage pumping stations, odor control facilities, water storage tanks, tank painting, and related construction.

### **GRAFTON SANITARY SEWER IMPROVEMENTS // TAYLOR COUNTY, WEST VIRGINIA**

Bruce was a construction inspector for sanitary sewer improvements that included a new sanitary collection system in an area of an older city that currently has a combined storm/sanitary system. The project will include the installation of about 10,000 feet of line and 54 manholes.

### **PRESTON COUNTY PSD #4 // AML #2 HUDSON TO STATE LINE // BRUCETON MILLS, WEST VIRGINIA**

Bruce served as a construction manager/ROW agent for this project, which consisted of a 73-mile water system extension to serve about 650 new customers in multiple areas. The project includes 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 is primarily provided by the Abandoned Mine Lands division of the West Virginia Department of Environmental Protection (WVDEP/AML). The project is also funded by the WV 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.

### **PRESTON COUNTY PSD #4 // LENOX-CUZZART WATERLINE EXTENSION // PRESTON COUNTY, WEST VIRGINIA**

Bruce was manager/ROW agent for the design and specifications of a water system extension project for 341 additional customers. This project involves over 42 miles of waterline extensions, 4 water booster pump stations, 3 pressure-reducing valve stations, hydraulic calculations, and environmental reporting.

### **PRESTON COUNTY PSD #4 // CLIFTON MILLS WATER EXTENSION // PRESTON COUNTY, WEST VIRGINIA**

Bruce was manager/ROW agent for a water system extension project for a 190 additional customers. Services included providing a preliminary engineering report and funding application preparation and construction plans for waterline extensions and improvements and upgrades to the water treatment plant and water wells.

### **ALPINE LAKE PUC // WATER SYSTEM IMPROVEMENTS // TERRA ALTA, WEST VIRGINIA**

Bruce was construction inspector/project administrator for a water system improvements and upgrade project for a 500-resident, 2,000-acre private community. Services included providing construction inspection for improvements and upgrades to the water treatment facilities, water booster pumping stations, water storage tanks, radio telemetry, and production well development, owner/operator training, and project close-out.

### **PRESTON COUNTY PSD #1 // WATER SYSTEM UPGRADES // ARTHURDALE, WEST VIRGINIA**

Bruce was construction manager for a water system evaluation, source water upgrades, and construction oversight of this water treatment plant upgrade. Upgrades consisted of the replacement of old valving, controls, filter media, and high-service pumps. Source water improvements included primary and secondary pumping upgrades and providing NRCS funding to repair and improve a water storage impoundment.



The Stantec team operates seamlessly to meet challenges and create solutions. The benefit to our clients is that we can design custom solutions that best meet their schedules, their budgets, and, most importantly, their goals.

# 4 Prior Experience with Wastewater



**THROUGH THE LIFE CYCLE OF CAPTURE, USE, REUSE, AND DISCHARGE, THE STANTEC TEAM WORKS TO OPTIMIZE EVERY FACET OF A WASTEWATER SYSTEM—REGARDLESS OF ITS SIZE.**

By viewing water as an integrated system, Stantec delivers solutions to conveyance, wastewater treatment, water treatment, and water resources projects that minimize cost and maximize the sustainability of the resource.

When your goal is to move water, we are there with pumping, piping, and storage expertise for wastewater, stormwater, and treated water. Our projects consistently deliver to communities next door or those hundreds of miles distant. When your water carries a waste product, our treatment processes protect natural resources while minimizing cost and regulatory risk. We are at the forefront of advanced wastewater treatment and can help satisfy even the most stringent discharge limits. When water quality is critical to your community or industrial process, we focus on maximum efficiency and consistency. As an industry leader in water treatment, we bring best practices from some of the largest plants in North America. Finally, when you need to manage surface water quantity and quality, our solutions result in aesthetically pleasing community assets. We are well-versed in wet weather flow management, dams, bank protection, river and stream restoration, and flood protection.



← Stantec-designed plants daily treat more than 10 billion gallons of wastewater and water across the world.

## RELEVANT WASTEWATER PROJECT

Client

Location

Brief Scope and Description

### DESIGN OF WASTEWATER TREATMENT PLANT

**East Lynn Elementary School**  
Wayne County, West Virginia

Richard Gaines is the project manager for the preliminary and final design and permitting of this 0.20 MGD extended air wastewater treatment plant (WWTP) with a sand filter and sewer lift station. The scope involves the removal and replacement of an existing 0.30 MGD package WWTP and a lift station. The existing station was located in a 100-year floodplain, and no land was available to practically relocate the plant out of the floodplain. Thus, a floodwall was designed to protect the plant during flood events as required by health department regulations. The plant is under construction and is scheduled to be completed during the summer of 2021.

### SEWER SYSTEM IMPROVEMENTS

**Town of Franklin**  
Pendleton County, West Virginia

Stantec provided preliminary and final engineering design services for upgrades and improvements to the Town of Franklin's wastewater treatment plant and lift station. The project also included improvements to the Town's existing collection system. Preliminary engineering services included evaluations of the existing wastewater treatment plant and existing collection system. Extensive system evaluations were conducted to determine the extent of inflow and infiltration (I&I) conveyed to the wastewater treatment plant. The work was conducted through the use of dye testing and visual inspections with particular focus on roof leaders that were tied into the system. Engineering services also included the planning and preparation of proposed improvement drawings, technical feasibility studies, environmental reports, cost estimating, and assistance in obtaining approval from state and federal agencies.

### WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM IMPROVEMENTS

**Alpine Lake Public Utility Company**  
Terra Alta, Preston County, West Virginia

Stantec performed preliminary and final engineering design services and construction management and inspection services for improvements to the Alpine Lake PUC wastewater treatment and collection system. The project consisted of the construction of a new 150,000 gpd extended aeration wastewater treatment facility required to meet tertiary treatment effluent limitations complete with equalization basin, disinfection, effluent filters, mechanical head works, process control building, and an emergency generator. Extensive system evaluations were conducted to determine the extent of I&I rates being delivered to the original treatment plant. Preliminary engineering services also included the planning and preparation of proposed improvement drawings, technical feasibility studies, environmental reports, cost estimating, and assistance in obtaining approval and funding from state and federal agencies. Final engineering design services included the design of upgrades to four existing sewer pumping stations, two new duplex pumping stations with force mains, and the design of a new billing and office building.

### SANITARY SEWER IMPROVEMENTS

**City of Fairmont**  
Marion County, West Virginia

Stantec provided preliminary and final engineering design services and construction management and inspection services for improvements to the City's existing sanitary sewer collection system to meet the Long Term Control Plan as mandated by the EPA and WVDEP. The project included the study of the City's existing sanitary sewer collection system to identify and propose correction of areas of significant I&I entering the sewer system.

Preliminary engineering services included an extensive sanitary sewer evaluation survey (SSES), which included detailed field inspection of existing facilities, smoke and dye testing, flow monitoring, CCTV inspection, manhole inspections, and hydraulic modeling. Preliminary engineering services also included the planning of proposed improvements, feasibility studies, and assistance in obtaining funding. Final design included a 600,000-gallon equalization basin, gravity sewer line replacement, hydrogen sulfide protection, and sanitary and storm sewer separation.



## RELEVANT WASTEWATER PROJECT

Client

Location

Brief Scope and Description

### ON-CALL CONTRACT

#### Town of Middleburg

Loudoun County, Virginia

Stantec is providing on-call support to the Town of Middleburg for water and wastewater treatment plants and utility systems. Key services performed in this contract include condition assessment, treatment process optimization and capital planning of the water and wastewater utility, coordination with state regulators, and providing technical support to operations staff. When a maintenance issue or need for troubleshooting arises, Stantec assists in the review of the issue and provides recommendations to assist the Town in acquiring vendors and contractors as needed to make corrections or process enhancements. Wastewater collection and treatment services conducted for the Town include providing on-call support of the 250,000 gpd membrane bioreactor wastewater treatment plant, which was constructed in 2010, and design of a new sewage pumping station to replace the existing pumping station and plan development to integrate the controls into the Town's SCADA system. Stantec has also provided technical support for evaluating the condition of the Town's sanitary sewer system and prepared rehabilitation projects to ensure continued service.

### SANITARY SEWER COLLECTION AND TREATMENT SYSTEM IMPROVEMENTS

#### City of Shinnston

Harrison County, West Virginia

Stantec provided final engineering design services and construction management and inspection services for upgrades and improvements to the City of Shinnston's wastewater collection and treatment system. The project included the rehabilitation of the City's existing 380,000 gpd wastewater treatment facility and extensive sanitary and storm sewer separation. The wastewater treatment facility received improvements to its sludge handling and disposal systems. Additionally, the reduction of I&I has been achieved by the rehabilitation of many parts of the collection system by pipe lining and the construction of new sanitary and storm sewer systems. The project also included the rehabilitation of the system's two main duplex sewage lift stations.

### WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM IMPROVEMENTS

#### Kingmill Valley Public Service District

Pleasant Valley, West Virginia

Stantec provided preliminary planning, final design, and construction management services for sanitary sewer improvements to Millersville and surrounding areas of the Kingmill Valley Public Service District service area. The project also included the rehabilitation of nine existing duplex sewage lift stations. The project required the preparation of a preliminary engineering report (PER) for submission to the West Virginia Infrastructure and Jobs Development Council (WVIJDC) and the USDA Rural Utility Service to secure funding for the new collection system and nine sanitary sewer pump station rehabilitations. The PER identified the necessary improvements to Millersville and surrounding areas and provided corrective action alternatives and preliminary costs. The team completed the detail design, construction drawings, technical specifications, and contract bid documents. The project team also provided construction management and resident project inspection services to ensure compliance with approved plans and specifications.

### MARIETTA WASTEWATER TREATMENT PLANT RENOVATION PROGRAM—PHASES 1, 2, AND 3

#### City of Marietta, Ohio

EXPERIENCE OF DALE KOCAREK

The initial phase of this project was to prepare a master facility plan on the entire sewerage system and present a plan for growth for the next 20 years. Portions of this facility were in excess of 50 years old with equipment at the end of its useful life. The plant was also hampered by sludge thickening and storage capacity. The activated sludge process experienced sludge bulking. In addition, the City is looking to expand its service area to other parts of the nearby county. The completion of the upgrade and expansion lead to the following: solved sludge bulking problems and sludge storage deficiencies, implemented project phasing and a flexible platform for future expansion that encouraged the "pay as you go approach" towards financing and an oxidation ditch plant with the ability to treat 5:1 flows through the system. Dale has been the client manager and planning and process engineer for the Marietta WWTP Renovation Program Phases 1, 2, and 3. This is a \$25 million project that will rehabilitate, expand, and modify the Marietta WWTP, which was nearing the end of its useful life. Phase 1 included a new electrical services line, a new standby generator, and an anoxic biological selector. Phase 2 involved aerobic digestion, recuperative sludge thickening dewatering, and direct load off of cake. Phase 3 involves a wet stream expansion of the facility to increase capacity from 3.35 MGD to 4.0 MGD.



## RELEVANT WASTEWATER PROJECT

Client

Location

Brief Scope and Description

### WASTEWATER TREATMENT PLANT OPTIMIZATION STUDY

City of Aurora, Ohio

EXPERIENCE OF DALE KOCAREK

The purpose of this study was to prepare a master plan to determine the improvements that may be needed to the Central and Westerly WWTPs to allow it to provide good service to the City of Aurora for the next 30 years. It should be noted that many of the treatment systems are over 20 years old, with some approaching 50 years, and that an organized improvement program is required.

### LONG TERM CONTROL PLAN (LTCP) UPDATE AND WASTEWATER TREATMENT PLANT MASTER PLAN

City of Napoleon, Ohio

EXPERIENCE OF DALE KOCAREK

This project involved an update to the original 2005 LTCP. A key part of this study was a process evaluation and master plan for the existing wastewater treatment plant. The WWTP master plan involved a critical analysis of the existing trickling filter solids contact process for capacity, condition, and ability to meet future NPDES permit regulations for nutrient removal. It was concluded for the City to pursue projects that will enhance existing operations including a new headworks, and then implementing a new wet stream using the extended aeration process.

### SR 161 WASTEWATER TREATMENT PLANT FEASIBILITY STUDY AND ANTIDegradation REVIEW REPORT

Southwest Licking Community Water & Sewer District

Licking County, Ohio

EXPERIENCE OF DALE KOCAREK

The purpose of this study was to evaluate the feasibility of a new wastewater treatment plant in a developing area. Various technologies were evaluated, and it was determined that the SBR process would be the most cost effective. The study was followed by an Antidegradation Rule Review Report to demonstrate the need of the project to the public and secure an NPDES permit.

### BUCKEYE LAKE WASTEWATER TREATMENT PLANT UPGRADE AND EXPANSION / FEDERAL CONSENT DECREE ASSISTANCE

County of Licking, Ohio

EXPERIENCE OF DALE KOCAREK

As project manager, Dale prepared the wastewater facilities plan for the Buckeye Lake WWTP in Licking County to replace an undersized facility subject to SSOs and its flow storage basin. The facilities plan was part of the successful negotiation with USEPA on addressing an SSO problem and minimizing penalties. In June 2008, Licking County completed the Buckeye Lake WWTP Expansion to meet the intent of their August 30, 2005, consent decree with the USEPA. The treatment plant upgrade increased the capacity from an average daily flow of 1.1 million gallons per day to 2.0 million gallons per day, with the ability to store and treats a peak flow of 7.0 million gallons per day. The upgrade included a new Plant wet flow stream featuring an oxidation ditch process and a new solids handling system with aerobic digestion, sludge storage, and dewatering. The WWTP featured improvements that would allow the plant to handle a wide range of flows, from as low as 0.5 MGD to in excess of 7.0 MGD. The existing flow storage basis was retained to allow the plant to handle peak flow spikes in excess of 10 MGD. The project was successful in eliminating SSOs and addressing the complained filed by USEPA. Site stormwater generated on-site was handled through bioswales.

### VALPARAISO CITY UTILITIES CODIGESTION STUDY AND WASTEWATER TREATABILITY STUDY

Valparaiso, Indiana

EXPERIENCE OF DALE KOCAREK

Valparaiso City Utilities has partnered with Stantec on several projects over the last several years. One such project was a co-digestion study to investigate the feasibility of using high-strength waste at the City's WWTP. Stantec also assisted the City with an industrial wastewater treatability study, which helped assess the ability of the WWTP to accept a potential, heavy industrial user. After the study, the industrial user constructed their production plant, and the WWTP has operated well overall. Stantec is currently assisting the City with a preliminary engineering report for the potential upgrade/expansion of the wastewater facility.

### WASTEWATER TREATMENT PLANT AND SEWER SYSTEM DESIGN

Village of Amanda, Ohio

EXPERIENCE OF DALE KOCAREK

Dale served as project manager for the construction of a complete sanitary sewer system and controlled discharged lagoon system for an unsewered community. Other services performed included an intensive post-design critique of the project and the preparation of O&M manuals. This project was funded by a USEPA construction grant, and a grant and loan from the Farmers Home Administration.







“

Our industry is one of the noblest callings anyone can undertake—we get the privilege of changing the world for the better every day.”

Project Manager  
**Richard Gaines, PE**

# City of Aurora

BROWN-KEIDEL SERVICE CENTER

Service Department  
158 West Pioneer Trail  
Aurora, Ohio 44202-9103

July 13, 2020

Dale E. Kocarek, PE, BCEE  
Stantec Consulting Services, Inc  
1500 Lake Shore Drive Suite #100  
Columbus OH 43204

To Whom It May Concern

Re: Letter of Recommendation

Stantec Consulting Services, Inc. has worked with the City of Aurora, OH since 2015, when they were retained to do an Optimization Study of the City's two wastewater treatment plants. This study encompassed a 20 year master plan for capital improvement projects pertaining to wastewater. Stantec was then awarded a contract to design the Phase 1 improvements at The Aurora Central Plant. This is approximately a 9 million dollar construction project that will include a new aerobic digester, solids processing building with belt filter press, electrical building and pumping, and plant emergency generator.

Stantec has also helped write the RFQ for an I&I study targeting several areas in the City and has submitted a bid to do the study.

I would recommend Stantec to others and would not hesitate to consider for future endeavors.

Sincerely,



Andy Krispinsky  
Facilities Manager  
City of Aurora, OH

July 23, 2020

Dale E. Kocarek, PE, BCEE  
Stantec Consulting Services, Inc.  
1500 Lake Shore Drive Suite #100  
Columbus, OH 43204

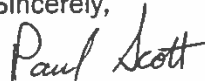
To: Whom It May Concern

Re: Letter of Recommendation

The Valparaiso City Utilities has utilized Stantec Consulting Services, Inc. for several projects over the last several years. One such project was a co-digestion study from April of 2013 to investigate the feasibility of using high strength waste at the City's wastewater treatment plant (wwtp). Later that same year their services were again retained for an industrial wastewater treatability study. This was to assess the ability of the wwtp to accept a potential industrial user that would utilize about 15% of the facility's treatment capacity at that time. After the study, the industrial user constructed their production plant and the wwtp has operated well overall with the assistance of the Stantec study. Currently, Stantec is working on a preliminary engineering report for the potential upgrade/expansion of the wwtp. From past projects to present, we have had excellent customer relations with Stantec. They further maintain good communication and their work is thorough on all levels.

I therefore, would recommend Stantec and will consider them for future projects.

Sincerely,



Paul Scott

Valparaiso City Utilities  
Superintendent - Water Reclamation Department  
Class IV Operator

July 7, 2020

Dale E. Kocarek, PE, BCEE  
Stantec Consulting Services, Inc  
1500 Lake Shore Drive Suite #100  
Columbus OH 43204

To Whom It May Concern

Re: Letter of Recommendation

Stantec Consulting Services, Inc. has worked with the City of Marietta since 2002, when they were retained to do a local limits study for our industrial community. Since then, they have completed a number of projects including Master Facilities Planning, Rehabilitation of Primary Clarifiers for our wastewater treatment plant (WWTP), Phase 1 of the Marietta WWTP Renovation (biological selector and electrical improvements), Phase II of the Marietta WWTP Renovation (solids handling, conversion from anaerobic digestion to aerobic digestion, installation of thickening and dewatering centrifuges, a sludge load out facility and a septic receiving station), Phase III of the Marietta WWTP Renovation (a new UV disinfection system, two larger final clarifiers and a high river pump station increasing capacity and wet stream improvements). They also completed the design to replace our lift station on Manchester Drive which was subsequently renovated according to the design.

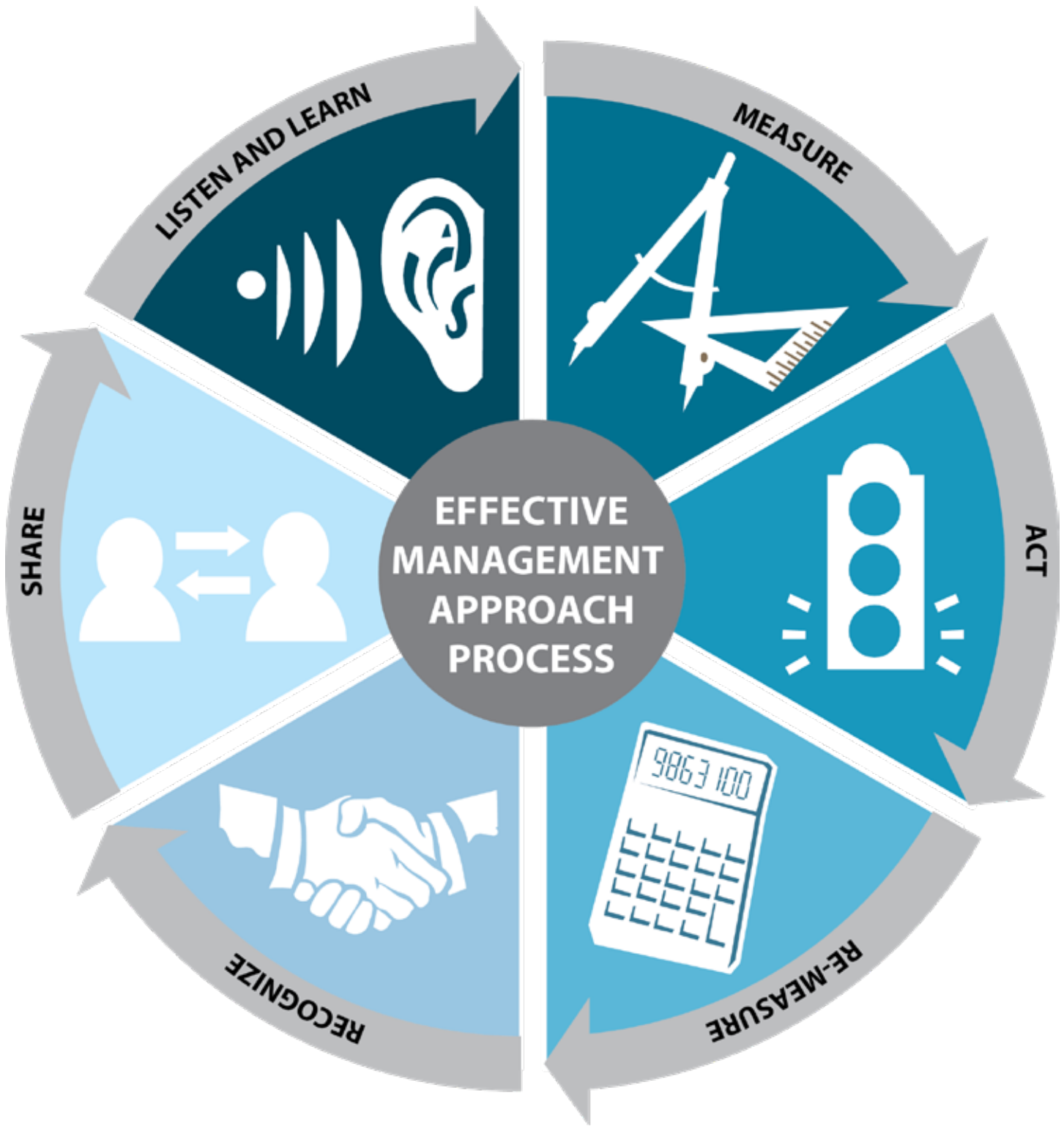
Stantec has also helped the City provide operational assistance during several times when our plant had experienced sludge bulking. This helped us maintain compliance with our NPDES permit. They have also worked with the City on additional local limits justifications over the years as required by the NPDES permit.

I would recommend Stantec to others and would not hesitate to consider for future endeavors.

Sincerely,



Stephen A. Elliott  
Wastewater Superintendent and Class IV Operator





Stantec strives for outcomes that transcend the challenges they solve and become long-term successes for the West Virginia communities we serve.

# 5 Professional References

## Don't Just Take Our Word for It!

**Stantec consistently resources and manages the workload of multiple engineering and environmental projects to ensure that deliverables are completed on time. Our experience, along with established relationships with a multitude of regulatory agency staff, are beneficial to timely, cost-effective project implementation. We pride ourselves on our working relationships, and following is a list of references who can attest to our quality of work, commitment, and professionalism.**

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