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Header @ 1

List View

- General Information**
- Contact
- Default Values
- Discount
- Document Information
- Clarification Request

Procurement Folder: 1337601

Procurement Type: Central Purchase Order

Vendor ID: VS0000043356

Legal Name: Burns & McDonnell Engineering Company, Inc.

Alias/DBA:

Total Bid: \$0.00

Response Date: 01/30/2024

Response Time: 11:51

Responded By User ID: sarah.lothman

First Name: Sarah

Last Name: Lothman

Email: selothman@burnsmcd.com

Phone: 9196411032

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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:** 1337601  
**Solicitation Description:** DLR - Design-Build Owner Advisor Services  
**Proc Type:** Central Purchase Order

Solicitation Closes	Solicitation Response	Version
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**VENDOR**  
 VS0000043356  
 Burns & McDonnell Engineering Company, Inc.

**Solicitation Number:** CEOI 0313 DEP2400000010  
**Total Bid:** 0  
**Response Date:** 2024-01-30  
**Response Time:** 11:51:06  
**Comments:**

**FOR INFORMATION CONTACT THE BUYER**

Joseph E Hager III  
 (304) 558-2306  
 joseph.e.hageriii@wv.gov

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

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

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Owner Advisor Services				0.00

Comm Code	Manufacturer	Specification	Model #
80101600			

**Commodity Line Comments:** Pricing not required at this stage.

**Extended Description:**

Owner Advisor Services



PROPOSAL FOR

# DESIGN-BUILD OWNER ADVISOR SERVICES

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SUBMITTED TO  
**WEST VIRGINIA DEP**  
SOLICITATION # **CE01 0313 DEP2400000010 DLR**  
**JANUARY 30, 2024**

January 30, 2024



Bid Clerk  
Department of Administration  
Purchasing Division  
2019 Washington St E  
Charleston, WV 25305

**Re: Solicitation No. CEOI 0313 DEP2400000010 DLR - Design-Build Owner Advisor Services**

Dear Selection Committee,

With the establishment of the Design-Build Pilot Program, DEP has an opportunity to beneficially shift the way you deliver critical mine land restoration projects. Additional funding provided by the Bipartisan Infrastructure Law will allow you to deliver more projects than ever before. Therefore, efficiency in execution will be paramount.

Burns & McDonnell is the right partner to help you transition to and successfully deliver design-build projects. West Virginia DEP (WVDEP) will gain a partner with the right combination of staff capabilities, design-build knowledge and program delivery experience to help you define, develop and deliver success.

***We are a Design-Builder providing DEP a practitioner's perspective as the foundation for our partnership***

**We're passionate about design-build and have helped dozens of public clients successfully execute collaborative delivery projects for the first time.** As such, we offer pragmatic insight as an actual practitioner. Burns & McDonnell has delivered more than 1,600 design-build projects as a firm over the last decade, with \$3.45 billion delivered in construction in 2023 alone. Our team includes staff delivering some of the country's most complex projects and who understand how to apply the design-build process to the successful delivery of any kind of project. **We are the partner that brings real-life experience as both a design-builder and an Owner Advisor to help you maximize the value of your Pilot Program and set you up for long-term success.**

***We bring the right team that will guide you throughout the collaborative delivery process and optimize your staffing resources***

Our solutions-driven, integrated team offers WVDEP full-service capabilities through this Pilot Program and well beyond. While the selected design-builders will be responsible for the delivery of individual projects, our in-house team of technical and construction resources can provide program guidance, budget development and tracking, management and maintenance of project and program schedules, procurement support, contractor and stakeholder outreach support, timely and efficient submittal reviews and monitoring of construction to optimize WVDEP staffing resources. Further, we will help develop your traditional engineering and construction firms to be great design-build partners for WVDEP.

***Committed and available from day one to help you immediately get started on the right path***

An industry leader in capital program delivery, we are serving as an Owner Advisor or Program Manager in the delivery of over \$70 billion in capital programs across a wide range of industries. Many of these programs require immediate project delivery through on-site staff augmentation and management services; civil, mechanical, chemical, and electrical engineering discipline resources; and construction staff - all in-house and actively working within the environmental and mining industries.

With no conflicts of interest in the region, we will solely focus on assisting you through successfully delivering your Design-Build Pilot Program. We are excited and ready to get started. We look forward to discussing our qualifications with you.

Sincerely,

A blue ink signature of Sarah Lothman, written in a cursive style.

Sarah Lothman, PE, PMP, Assoc. DBIA  
Project Manager  
202-987-2524  
selothman@burnsmcd.com

A blue ink signature of John Bothof, written in a cursive style.

John Bothof, PE, LEED BD+C  
Project Principal  
808-954-6880  
jbothof@burnsmcd.com



# EXECUTIVE SUMMARY

The West Virginia Department of Environmental Protection (WVDEP) is about to embark on a program that, if performed successfully, will transform mind land reclamation projects in West Virginia for years to come. You have the opportunity to construct billions of dollars in environmental restoration improvements through unprecedented federal funding. This opportunity is a once-in-a-generation opportunity to remedy numerous environmental challenges that have been decades in the making.

The first step in this transformation is your Design-Build Pilot Program that has a legislative mandate to evaluate the feasibility of utilizing the Design-Build delivery model for WVDEP projects. To that end, you have, correctly so, elected to engage an Owner Advisor to successfully guide you through this Pilot Program.

As practicing Design Builders who help Owner’s deliver over \$7 billion in capital projects annually, Burns & McDonnell is truly excited to offer our qualifications to assist you in this endeavor.

As you review our qualifications, we’d like to share how we differ from the competition in the key areas you have deemed most important for selection.

Evaluation Criteria	The Burns & McDonnell Difference
Understanding of Project Scope	Not only have we had an opportunity to meet with you and understand the Pilot Program from your perspective, but we have also listened to outside stakeholders such as myriad watershed groups and interested parties. In listening to your challenges from you and others, we grasp the delivery, technical, and political challenges you face. As you review our proposal, we share a variety of offerings we can utilize to help you navigate your Design-Build Pilot Program on budget, schedule, and within the requirements set by the enabling legislation.
Relevant Experience (e.g. OA, Design-Build)	We are Design-Builders. Further, we have guided numerous owners through their first design-build projects. We have also served as Owner Advisor for numerous programs with hundreds of projects delivered via design-build. As practitioners, we make an ideal partner for WVDEP as we can not only guide you, but also your traditional engineering and construction firms to deliver projects that will be successful for everyone involved.

Evaluation Criteria	The Burns & McDonnell Difference
Available Resources (e.g. Current Staffing)	<p>We have assigned some of the best talent we have in the region as well as nationally to serve you through the duration of this engagement. Our Project Manager, Sarah Lothman, is immediately available to kick off your Pilot Program and hit the ground running. Most importantly, she is a former public utility Owner who recently experienced the transition from traditional design-bid-build to collaborative delivery, so she completely relates with where you are today. Further, with over 13,500 employee-owners who are directly vested in success, we can offer a volume of committed resources very few firms can match.</p>
Performance History	<p>With over 1,600 design-build projects under our belt over the past 10 years and serving as Owner Advisor/Program Manager for over \$7 billion in capital infrastructure delivered annually, you won't find a more qualified firm. Our experience has been gained through real-life projects, and we share several projects in our proposal executed by our key team members for your review and consideration. However, these are just a few. There are hundreds of projects like these our team has delivered across many industries throughout their careers. You will not find a more qualified firm to partner with you on your Design-Build Pilot Program.</p>

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# 1. General Information

## COMPANY PROFILE

Burns & McDonnell is a full-service engineering, procurement, construction, and program management firm that delivers innovative design and technology solutions. We offer a dedicated team of 13,500 engineers, construction and craft professionals, architects, and more to design and build today's critical infrastructure. With an integrated construction and design mindset, we offer full-service capabilities from a 100% employee-owned team.

WVDEP has requested an Owner Advisor (OA) for your Design-Build Pilot Program, and who better to serve in that role than an actual Design-Builder who executes these projects daily. We will be your trusted partner who brings all the resources to establish and execute your initial design-build mine land restoration projects. We help our clients deliver projects through program management; construction and design-build services; studies and planning; permitting; environmental assessments; and nearly all engineering disciplines.

Our OA offering leverages the experience we have garnered from various Program Management, Design-Bid-Build, and Design-Build projects in all types of infrastructure-related industries. These skillsets give our team the unique ability to help you get project and risk management systems in place as well as develop proactive contracting and mitigation strategies to keep projects on schedule and on budget.

**13,500**

Burns & McDonnell  
employee-owners

**95%**

of our revenues are  
from repeat business

**1,600**

Design-Build projects  
in the past 10 years

**#6**

in Top 100  
Design-Build Firms

**#11**

in Top 200  
Environmental Firms

**#15**

in Top 50 Program  
Management Firms

ENGINEERING NEWS-RECORD  
TOP LISTS (2023)

**#1**

in Fossil Fuel

**#9**

in Site Assessment  
and compliance

**#11**

in Wastewater  
Treatment

ENGINEERING NEWS-RECORD  
DESIGN INDUSTRY-SPECIFIC  
LISTS (2023)



Burns & McDonnell Engineering Co., Inc.  
9400 Ward Parkway, Kansas City, MO 64114  
Telephone: 816-333-9400

Fax: 816-822-3494

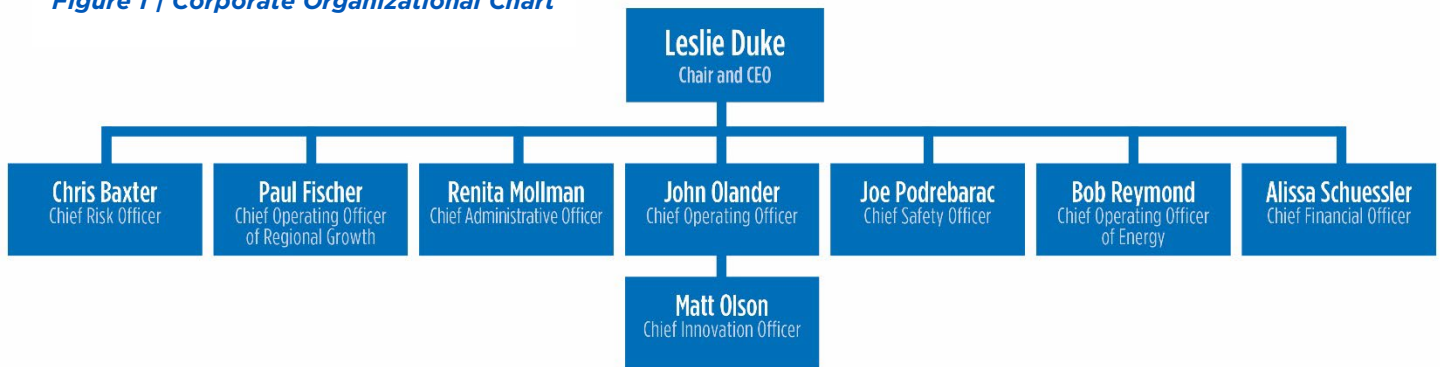
Federal ID Number: 43-0956142 | Missouri State Tax ID: 10443932

Employee Owned

Burns & McDonnell Engineering Company, Inc. is an S Corporation Date: 9/1/1970, Missouri

Below is our corporate organizational chart (Figure 1) with names and roles for Burns & McDonnell leadership. Our organizational chart for your project is shown in Section 3.

**Figure 1 | Corporate Organizational Chart**



In accordance with the RFP, our Authorized Officer, Jeff Ganthner, Vice President and General Manager, is shown below. In addition, we included our Project Principal, John Bothof and our Project Manager, Sarah Lothman. While Mr. Ganthner will sign the contract, Burns & McDonnell fully empowers our Project Principals to negotiate contracts, and John will lead those efforts on behalf of Burns & McDonnell.

**AUTHORIZED OFFICER**



Jeff Ganthner  
Vice President  
1317 Executive Blvd  
Chesapeake, VA 23320  
jganthner@burnsmcd.com  
757-317-0308

**PROJECT PRINCIPAL**



John Bothof, PE  
Project Principal  
1317 Executive Blvd  
Chesapeake, VA 23320  
jbothof@burnsmcd.com  
808-954-6880

**PROJECT MANAGER**



Sarah Lothman,  
PE, PMP, Assoc. DBIA  
Senior Project Manager  
3004200 Wilson Blvd, # 600  
Arlington, VA 22203  
selothman@burnsmcd.com  
202-987-2524

**CURRENT STAFFING LEVELS AND ABILITY TO RESPOND**

Please refer to Section 3 of the RFP for our proposed staffing plan for your project. Our team will be led by Sarah Lothman as your Project Manager through the duration of your pilot program. As the former Manager of Capital Projects for a public utility, she oversaw her utility’s incorporation of their first collaborative delivery/design-build projects. As such, she understands where you are in terms of the transition to design-build as she experienced that transition just a few short years ago. This makes her your ideal Project Manager to help translate and guide our team appropriately to coincide with your transitional pace to this new delivery method.

In terms of support, when Burns & McDonnell engages in any OA or Program Management role like this, we surround our client and our project leaders with the best, most knowledgeable people we have to help the pilot be successful. Accordingly, we have selected some of the most experienced design-build and technical experts to support WVDEP. Due to our deep bench of over 13,500 employees, we can pull additional resources as necessary for any challenge you may face.



**We are excited to become a new partner for West Virginia DEP and are proud to have Sarah leading our proposed team. Under her leadership, I am extending Burns & McDonnell’s renowned customer service and diverse offerings from across the company. On behalf of our firm, I pledge to commit our resources to assisting West Virginia DEP as you embark on your first design-build projects. Sarah is fully empowered to direct our team to make you successful. We look forward to being a part of your transformational Design-Build Pilot Program.”**

JOHN BOTHOF  
Mid-Atlantic Operations Director

In all cases, most importantly, we understand how to “right-size” our delivery approach to optimize our value to our clients.

Specific to our key team members (as shown in our organizational chart in Section 3) availability, Table 1 below presents a summary of the key team member availability over the next 12 months. Each member will be committed to your projects as required as the work progresses.

**Table 1 | Team Availability**

Key Team Member	Role	Availability to Support
<b>Project Leadership</b>		
Sarah Lothman, PE, PMP, Assoc. DBIA	Project Manager	90%
John Bothof, PE	Project Principal	20%
Rob Young, CPEA	Deputy Project Manager	50%
Julie Lorenz	Senior Advisor	20%
Tom Rosenbaugh, PMOC, EVMP, PMI-SP	Assessment Lead	60%
<b>Project Controls and Procurement Support</b>		
Paul Delphos, PE, DBIA	Procurement Support	60%
Chris Burks, PE	Project Controls & Scheduling	80%
Nathan Hood	Project Controls Specialist	80%
Kevin Waddell, PE, Assoc DBIA	Cost Estimating	40%
Tracy Ultican	Cost Estimating	70%
<b>Training, Public and Industry Engagement</b>		
Dave Kinchen, DBIA	Workforce Dev. & Training	50%
Chitra Foster, PE, DBIA, ENV SP	Workforce Dev. & Training	50%
Carey Sullivan	Stakeholder Engagement	80%
Lindsey Douglas	Industry & Agency Engagement	50%
<b>Construction Support</b>		
Don Osterhout	Construction Advisor	40%
Steve Corning	Construction Field Support	100%
Mike Munsell, CHST, SPRAT	Safety	40%
<b>Technical Support</b>		
Angeline Crowder, AICP	Environmental Coordinator	60%
Chris Yow, PE	Stream Restoration	70%



Key Team Member	Role	Availability to Support
Brian O'Neill	Environmental Assessment & Monitoring	40%
Dennis McBride	Treatment	40%
Joe Kopajtic, PWS	Environmental Assessment & Permitting	40%
Michelle Mayfield	Permitting & Compliance (Wastewater Treatment)	50%
David McLane, PE	Mining	50%
Patrick Meier, PWS	Permitting & Compliance (Env. Construction)	50%
Tyler McKee, PE	Geotechnical (Land Restoration & Subsidence)	80%
Robyn Susemihl	NEPA	50%
Greg Smith, REA	Land Services	30%

As Employee Owners, our success is 100% contingent on your success. Simply put, we cannot afford anything less than exceptional performance as WVDEP's success is critical as we grow and expand in this marketplace. So, in summary, while our key staff have the availability to respond to the anticipated workload, with the balance of our company resources, we will adjust our staffing levels promptly as project requirements demand.

## KEY STAFF CONTINGENCY PLAN

A key element for any Burns & McDonnell's Owner Advisor role is depth. You will notice that we have redundancies throughout our organizational chart, especially in leadership positions, which is typical with all our Owner Advisor offerings. One of the many strengths Burns & McDonnell offers WVDEP as it applies to this contract is a deep bench that has performed similar services for numerous clients across multiple industries throughout the nation.

While we don't anticipate any changes to our proposed team, our vast experience has allowed us to build a deep bench of specialists in program delivery and refine our approach, best practices, and tools that apply directly to the role as an OA. Therefore, we have interchangeable talent that provides for seamless transitions in the event of staff turnover.

We can provide every required functional area to manage this pilot program and develop a plan for its ongoing evolution using our current in-house staff who can transition as required. This built-in and operational redundancy provides our clients comfort in the event of a key staff member's departure but without additional cost to you.

It should be noted that we have one of the lowest employee turnover rates in the engineering and construction industry. Our turnover is less than 5% for all employees and less than 2% for those with more than five years of experience with the firm, which includes most of your project team.

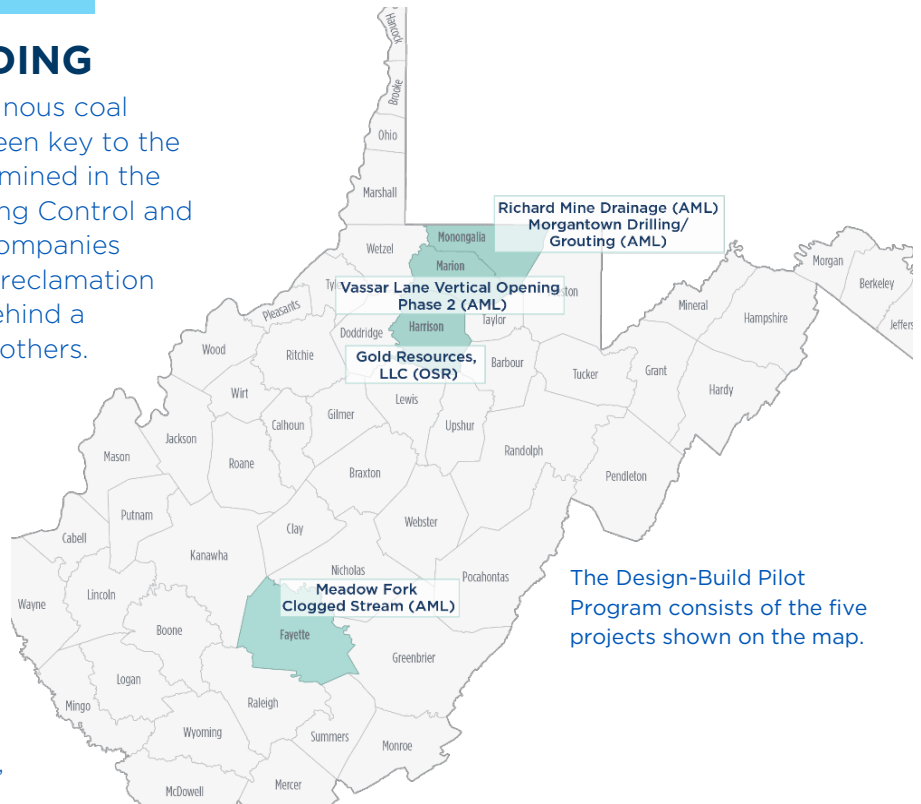
In summary, our immediate (and long-term) success will be based on your success. We cannot afford to fail, and as such, we will be extremely responsive and supportive of every task we undertake for WVDEP. We are committed to providing you a consistent and capable project team for the entire project duration.

**While the staff we have proposed are fully committed to serve WVDEP throughout this engagement, with over 13,500 professionals, including over 500 within a two-hour drive of West Virginia, Burns & McDonnell has more than enough depth to support this project and any unexpected key team member departures.**

# 2. Project Understanding & Approach

## PROJECT UNDERSTANDING

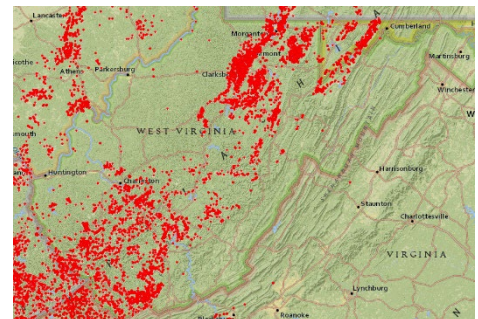
The abundance of energy-rich bituminous coal reserves in the Mountain State has been key to the State's economy since coal was first mined in the early 1800s. Prior to the Surface Mining Control and Reclamation Act of 1977 (SMCRA), companies mining coal in West Virginia bore no reclamation responsibility after mining, leaving behind a vast array of issues for resolution by others. The federal Abandoned Mine Lands (AML) program is the primary mechanism through which environmental issues caused by unregulated mining activities can be mitigated. The Abandoned Mine Land Inventory System (e-AMLIS) maintained by the U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement includes over 5,300 problem areas in West Virginia alone, totaling nearly \$2.5B in estimated reclamation costs.



Even with the establishment of new standards for surface mining under SMCRA, coal mining sites have continued to be abandoned or forfeited in West Virginia since 1977. WVDEP's Office of Special Reclamation is the agency that focuses on restoring post-1977 regulated sites.

Between the AML and OSR programs, five geographically and technically diverse projects have been identified for execution under the Design-Build Pilot Program established by Senate Bill 439 (SB 439). Successful delivery of these projects is critical to WVDEP, considering the total mine land restoration work to be done in the State over the next several years. The State of West Virginia will receive an additional \$141 million over the next 15 years to support AML projects alone.

The table below provides a high-level summary of the five pilot projects.



Each red dot reflects an AML project site.

**Table 2 | Five Pilot Projects Summary**

Project Name	Project Type	Program	Site description
Richard Mine Drainage	Stream Restoration	AML	Stream flow mine discharge point is impaired from sedimentation and unnatural stream design for 3,368 feet after the mine discharge point.
Vassar Lane Vertical Opening Phase 2	Stream Restoration, Subsidence, Land Reclamation	AML	Overburden ranges from 0 to 31 feet according to the WVGES coal bed mapper. Due to the shallow distance between the mine and these homes, drilling and grouting is proposed to shore up any subsidence that may occur in the future. Approximately 97 acres of clean surface water runoff is draining into an underground mine through the priority 1 vertical opening. There are potentially more areas upstream where water is entering the mine.
Meadow Fork Clogged Stream	Stream Restoration, Land Reclamation	AML	WVDEP staff have documented numerous AML hazards within the Meadow Fork watershed over the past 20 years. These problems included clogged stream flooding, open vertical shafts/stream capture, subsidence, refuse piles and mine drainage issues. The main source of all the problems is a stream channel that was filled in during pre-law surface mining activities. During heavy rain events, the water flow within the drainage basin has nowhere to go except through yards, roadways, and make-shift channels. As a result, flooding events have occurred numerous times. In numerous areas, the coal seam is just feet below the surface. As the water builds up it tears into the ground surface and often then digs its way into the underline mine voids, creating stream capture areas. Field investigations have determined that almost two miles of stream channel within the valley and several of the side tributaries have been filled in with pre-law mine spoil due to deep mine and strip mine activities within the coal seams.
Morgantown Drilling / Grouting	Subsidence, Land Reclamation	AML	Six subsidence/slump features that need to be filled with plugs. Two dangerous impoundments and four mine openings.
Gold Resources, LLC	Land Reclamation	OSR	Drainage flows into two creeks and then into a river. The permitted area was 528 acres in size. Two coal seams had been deep-mined and surface-mined multiple times. Some areas of the permit have been reclaimed, some partially reclaimed, and some areas remain as open strip pits. AMD-affected water goes off the forfeited permit.

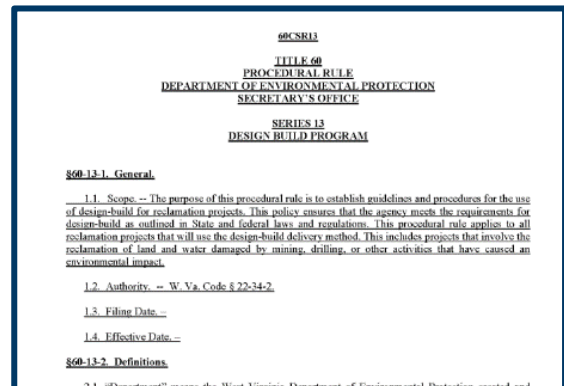
**We Understand You and Your Work**

The issues to be addressed through the Design-Build Pilot Program are complex and varied. As your Owner Advisor, Burns & McDonnell recognizes your challenges and offers a few observations.

- ▶ We understand that change orders are common on your construction projects and the performance of contractors can be a challenge. We see the shift to design-build delivery as an opportunity to re-establish project delivery within WVDEP – new expectations, new requirements, new processes, better quality – all in alignment with your new procedural rules. Furthermore, successful execution of projects under the pilot

program is key to expanding your use of design-build delivery across your larger portfolio of mine land reclamation projects.

- ▶ The grassroots and watershed groups within the state are very active and engaged. We see this as an opportunity – to build trust within local communities and to leverage their expansive networks for the benefit of your projects. As an example, we know that the Friends of Deckers Creek have been focused on the Richard Mine for decades and are inherent supporters of the Richard Mine Drainage Project.
- ▶ We recognize that the current focus is on the successful design-build delivery of five distinct projects. We understand, too, that time is critical since SB 439 sunsets after December 31, 2025. Realizing the benefits of collaborative delivery now can enable new ways of working that can be leveraged beyond the Design-Build Pilot Program. As a point of reference, WVDEP is facing a nearly 10-fold increase in AML project throughput over the next 15 years with the additional funding made available through the Bipartisan Infrastructure Law. Expanding the use of collaborative project delivery methods will be instrumental to maximize the improvements that can be implemented with this additional funding.
- ▶ The step you are taking to secure a trusted Owner Advisor for your first design-build projects demonstrates your commitment to getting things right. As design-builders who have worked with many owners on their first design-build project – and in some cases being previous owners ourselves – we appreciate your approach to engaging an owner advisor who’s focused on making you and your pilot program successful.



**As a design-builder and program manager who has guided many clients through design-build for the first time, we are the ideal Owner Advisor to guide WVDEP through your pilot program and successfully leverage design-build well into the future.**

## SCOPE OF WORK

The Burns & McDonnell team understands the broad support required to make your pilot program a success from Day One. The following is our understanding of your known needs:

- ▶ Lead DEP staff in coalescing around goals, challenges, constraints, and measures of success for an Owner Advisor and the Design-Build Pilot Program
- ▶ Support DEP with procurement, including development of Scope of Work documents (including conceptual design) and performance requirements for all five pilot projects, creation of RFQ and RFP solicitations, and establishment of Design-Builder qualifications and experience, financial, and safety requirements
- ▶ Identify information gaps necessary for design-builder proposal response
- ▶ Conduct site visits to gain a comprehensive understanding of each project
- ▶ Participate as a non-voting member on the design-builder selection committee
- ▶ Provide input into design-build contract terms and conditions in collaboration with WVDEP counsel
- ▶ Facilitate meetings and workshops
- ▶ Attend internal DEP staff meetings and discussions
- ▶ Perform industry outreach with contractors and engineers
- ▶ Facilitate community stakeholder engagement
- ▶ Develop cost estimates for each project
- ▶ Develop individual project schedules
- ▶ Provide design-build learning and training opportunities for DEP stakeholders and partners in alignment with DBIA Best Practices
- ▶ Perform technical reviews of design-builder proposals and submittals
- ▶ Provide full-time construction phase support, including construction observation and reporting
- ▶ Lead permitting coordination on behalf of WVDEP with local, state, and federal regulatory agencies

**It will be important to update the Pilot Program Construction Cost budgets. With strict spending limitations and the recent escalation in construction costs, one of our first steps will be to update the budget to assure compliance with the Pilot Program spending limits and maximize**

## PROJECT APPROACH

With the transition to a design-build delivery model, your mission, vision, and core values remain steadfast. You need a design-build project delivery framework that helps you more efficiently deliver critical environmental restoration projects while building a culture that allows your team and partners to thrive. Burns & McDonnell is a partner who can do both. We are an industry-leading design-builder who will bring the right team as you embark on your first design-build projects. One of the primary keys to success in an environment such as this is clear, concise, and definitive stakeholder identification, integration, and communications. Our approach is to breakdown the silos of information and communications that typically exist in these environments, compounded by a new execution strategy, so that all stakeholders have full visibility and transparency to meet the needs for successful program execution.

The Burns & McDonnell team will approach our role as your Owner Advisor in three phases:

- ▶ Phase 1: Goals and Understanding
- ▶ Phase 2: Plan of Action
- ▶ Phase 3: Implementation

Figure 2 below presents a visual representation of our three-phased approach and highlights objectives, deliverables and timeframes. We will pull in the right resources at the right time in an integrated way to meet your objectives. Also, we recognize that uncertainty exists and will seek to “right-size” our services to maximize your budgets.

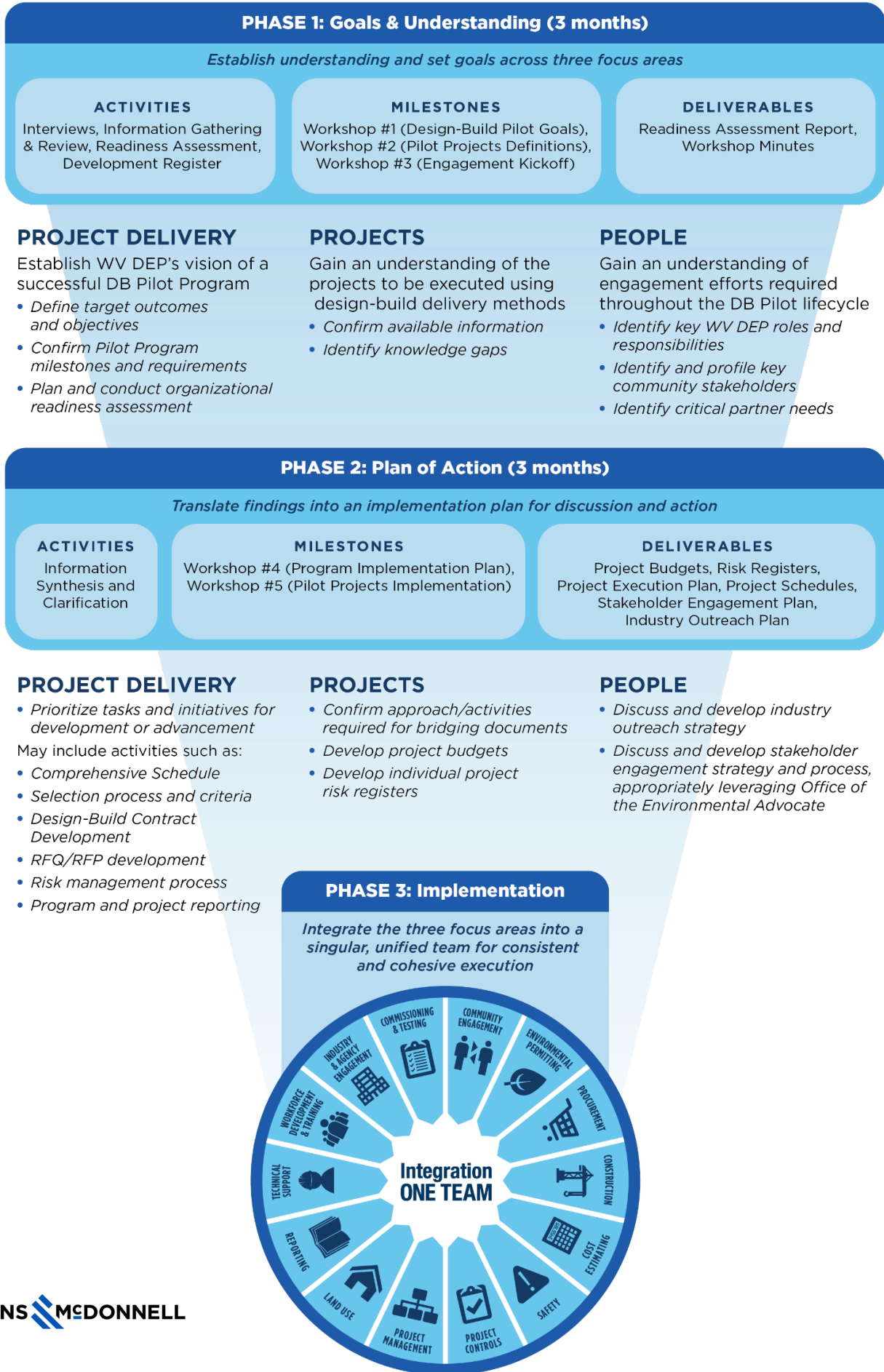
The projects you are undertaking are being funded, at least partially, with federal money made available by the Bipartisan Infrastructure Law. With federal money comes reporting and compliance with other federal acts such as the Build America Buy America Act. Burns & McDonnell implements a significant amount of federal or federally funded work, and based on our experience, will incorporate those requirements from the beginning to assure you and your design-builders' compliance with these critically important requirements.



Our Design-Build Owner Advisor Project Approach is centered around three core elements: Project Delivery, Projects, and People.



Figure 2 | Project Approach



## Schedule and Milestones

Keeping a project on schedule is always a key objective for any project. We understand and appreciate the importance of delivering on time, especially as part of the Design-Build Pilot Program where you have commitments and a directive to get projects executed. We know there is an overall timeline to contract up to \$50 million prior to the sunset of SB 439. As such, one of the first critical activities will be to generate a full and detailed program schedule that includes key milestones and activities for each of the five projects.

We will build realistic schedules that will consider both contractors and WVDEP taking on a new delivery method and keep contractors on realistic schedules that both allow for proper time but don't stretch the project too long and thus cost more money than necessary.

As we create the Program and individual project schedules, your staff will confirm all critical milestones to garner full team buy-in. With our approach, we easily integrate ALL project stakeholders into a fully comprehensive and logically tied schedule to generate a true critical path.

## Contingency and Change Management

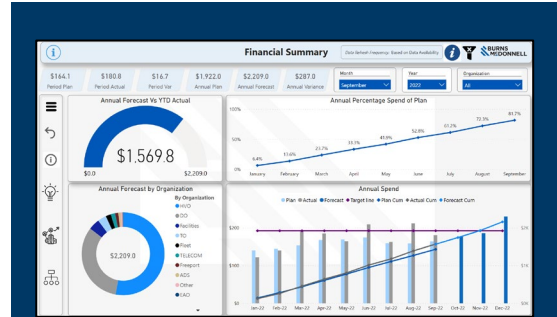
The services provided by an Owner Advisor may change over time. Projects may be impacted by permitting. Budgets and schedules may change. Site discoveries may cause the need for specialized resources not originally anticipated.

In addition to changes taking place throughout the lifecycle of every project, it is also critical to properly establish a risk-based contingency plan. The Burns & McDonnell team will work with WVDEP to develop this plan. This approach supports a methodology for full auditability, traceability and, ultimately, estimate to actual reconciliation at project completion. Without a risk-based contingency approach, projects typically apply a percentage contingency that may or may not be fact-based and NOT lend itself to the ability to support auditability, traceability and/or prudence.

## Project Controls (Scope, Schedule, Budget)

As the team confirms and defines critical scope, budget, and schedules for each project, Burns & McDonnell will implement a three-prong project controls approach to see that these milestones are met or exceeded.

Our standard approach to project controls implements the use of software to monitor and report appropriate data for the team throughout the life cycle of the project, both on a schedule and financial basis. Our experience has tuned the use of the appropriate data and the knowledge of the indicative trends so that each project can be controlled and managed to a successful conclusion. To this end, we will continually monitor contractor schedules for accuracy and track their overall schedule compliance.



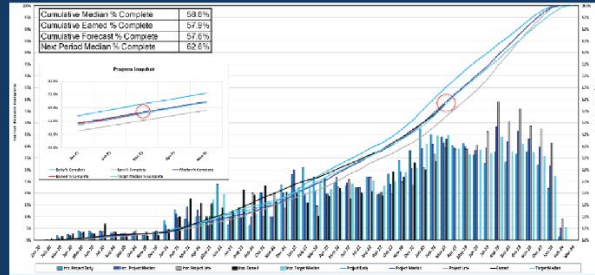
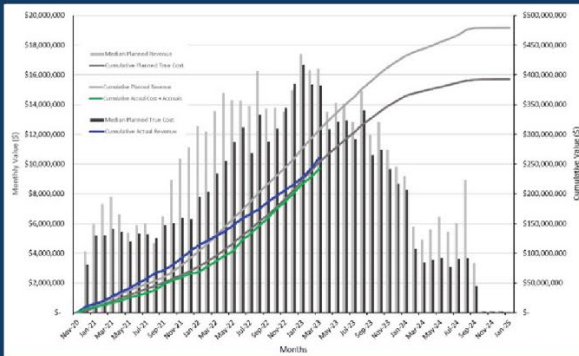
Along with developing a Pilot Program master schedule based on our expertise in construction durations and activities, we will work closely with Design-Builders on their schedule development and develop scheduling dashboards to provide WVDEP clear visibility into each individual project schedule compliance.



As a testament to our construction cost estimating and project controls experience, Fairfax County (VA) Department of Public Works and Environmental Services (DPWES), serving the largest County in Virginia, recently hired Burns & McDonnell to provide third-party cost estimating and project controls for the next three years. We will bring the same experience to assist you throughout this project, so you have complete visibility into program and project.

# ROBUST VISUAL DASHBOARDS & TRANSPARENT REPORTING TOOLS

Recognizing the importance of communication, transparency, and accessibility, Burns & McDonnell has a very strong Power BI dashboard team that helps develop executive and interactive dashboards to report project progress.



The team also helps support the review of a portfolio of projects by rolling up the details and providing KPIs to quickly address key issues within these projects. It helps to save on review time and provides more insight for leadership to plan and take corrective action.

## Quality Management

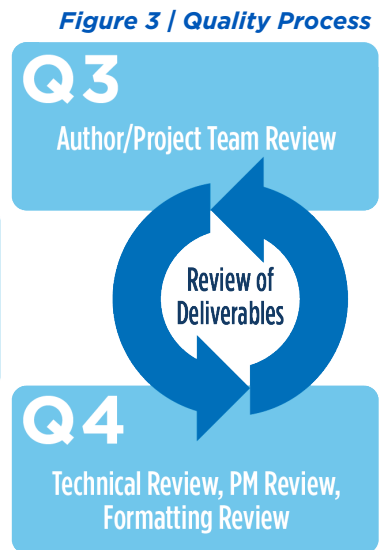
Our clients demand excellence. As a company, our rigorous quality process is one way we provide clients with standout service. Through careful, consistent quality checks overseen by a specialized QA/QC department, our teams can exceed client expectations and meet contractual and regulatory requirements.

The Burns & McDonnell quality process shown in Figure 3 requires quality checks of all deliverables. We follow a four-step quality process that culminates with a thorough review of work products — including draft work products — before they exit our doors. Compliance with this process is formally documented in our electronic Quality Tracker System.

We know our clients rightfully expect documents to be error-free, technically sound, internally consistent, and well-written. As employee owners, we believe every project is an opportunity to put our best foot forward and meet (or exceed) these expectations. Table 3 below summarizes our quality checks.

**Q1**  
Project Kickoff

**Q2**  
Technical Review & Milestone Check





**Table 3 / Quality Checks Summary**

Quality Check	Description
<p><b>Q1: Project Kickoff</b></p>	<p>Q1 is the first step in the four-step quality process and occurs within 30 days of opening a project. In the Q1 step, the project manager reviews the project and communicates these to the project team, including the quality reviewer. This is also a chance to see that all the necessary resources for the project are available and establish team communication plans moving forward. The overall goal of the Q1 is to identify existing or potential problems and address them before the work is underway.</p>
<p><b>Q2: Technical Review &amp; Milestone Check</b></p>	<p>Q2 is the second step in our four-part quality review process and has two purposes. First, the Q2 is a check of information collection procedures, safety protocols, work product inputs or other technical aspects of the work effort. The goal is to confirm that work is appropriate, correct, and complete before moving forward with any written work product. Second, the Q2 is used to check progress on the scope, schedule, and budget, and to address any potential discrepancies to keep the project on track. Multiple Q2 reviews may be completed for a project depending on the scope and length of the project.</p>
<p><b>Q3: Author/Project Team Review</b></p>	<p><b>Author/Project Team Review:</b> The Q3 step is the initial review of a deliverable, completed by the author or a project team member who is familiar with the project scope and expectations. This first review allows the author to do a self-check of his or her work and/or a peer to complete the first step of a document review before it proceeds to a more in-depth technical and project management review.</p>
<p><b>Q4: Technical Review, PM Review, Formatting Review</b></p>	<p><b>Technical Review:</b> The first review in the Q4 step is the technical review. An approved senior technical reviewer checks the methodology, assumptions, conclusions, and other technical aspects of the deliverable.</p> <p><b>Project Manager Review:</b> After the technical review, the project manager reviews the document to check that it meets the project’s scope, correctly reflects the project characteristics, and captures any client or agency preferences.</p> <p><b>Formatting Review:</b> All reviewers identify any formatting, style, and grammar issues because the focus of our deliverables should be on the content, not on distracting formatting and style inconsistencies and poor grammar. We adhere to company-wide templates and standards—or the client’s template, when appropriate—so you can count on receiving a consistent Burns &amp; McDonnell work product, regardless of the source office or practice.</p>

## OWNER ADVISOR SERVICES

While the needs of each individual owner may vary, there are common services we typically offer to our clients when employed as Design-Build Owner Advisors. Table 4 below summarizes some of these services and identifies how these services may be leveraged by WVDEP.

Burns & McDonnell will build from our Quality Management Process discussed herein to collaboratively develop a Pilot Program-wide quality management system for all your Pilot Program projects. This effort will not only improve the quality and consistency of project outcomes but will also promote the standardization of project execution as well as document management.

**Table 4 | Owner Advisor Services**

Service	Description	Benefit to WVDEP
<b>Design-Build Project Delivery</b>		
Readiness Assessment	Evaluation of multiple aspects of your systems and processes to identify specific action items in support of Design-Build Pilot Program execution	Provides quick and thorough insight into action items necessary for a successful programmatic approach to the Design-Build Pilot Program, ranked for implementation to provide the highest return on investment including cost, impact and effort to implement
Procurement Support	Assist DEP with all aspects of procuring design-builders for the pilot projects. This also includes recommending the optimum design-build approach for each project to maximize value to WVDEP.	Timely and appropriate creation of solicitation documents, contracts, and guidance for the selection committee
Project Controls & Scheduling	Develop baseline schedules and establish controls for the pilot projects; review, track, and report on project performance metrics with contractor information and data integration	Provides project and program-level monitoring of key metrics; facilitates early insights into opportunities for improvement and change
Cost Estimating	Develop project cost estimates for purposes of setting initial/planning level project budgets; review cost proposals and pay applications	Establishes updated budgets for each individual project and provides skilled review of design-builder proposals and pay applications
Safety	Review and provide comment on design-builder safety records as part of the procurement process; review and comment on design-builder safety program	Provides knowledgeable safety professional input from procurement through project completion
Construction Phase Support	Provide construction-focused inputs to shape solicitation process and pricing; provide input related to constructability and serve as WVDEP's field representative during construction	Design-builder proposal pricing and methods are clear and understood; boots-on-the-ground oversight and reporting of construction activities and progress validation
Workforce Development & Training	Identify opportunities for learning and training for project team members and stakeholders; facilitate training for the benefit of the Design-Build Pilot Program	Creation of a knowledgeable and capable team, supported by documented collateral
Community & Stakeholder Engagement	Partner with WVDEP to develop and implement an appropriate Community and Stakeholder Engagement Plan	Establish a strong rapport with stakeholder groups and build trust to leverage their ability to be strong advocates

Service	Description	Benefit to WVDEP
Industry & Agency Engagement and Outreach	Partner with WVDEP to engage the construction and engineering industry related to the Design-Build Pilot Program	Build interest and support for the Design-Build Pilot Program and collaborative delivery within the contracting and engineering community to the benefit of WVDEP
<b>Technical Support</b>		
Permitting & Compliance	Develop a permit matrix for each project and support successful permit acquisition and compliance throughout the project lifecycle; support local, state, and federal permitting efforts.	Actively advance permitting and compliance activities in collaboration with design-builder in support of schedule certainty while maintaining compliance with environmental regulations
Environmental Assessment & Monitoring	Perform environmental assessments essential to permit acquisition and provide monitoring support throughout the project lifecycle	Meets regulatory requirements in a timely and appropriate manner, continues to advance permitting in line with the schedule
Stream Restoration	Develop conceptual design appropriate for design-builder procurement; provide review and technical support related to stream restoration technical solutions	Provides input to refine conceptual design for solicitation purposes; reviews technical solutions brought forward by design-builders
Water Treatment	Provide review and technical support related to AMD water treatment technical solutions	Provides input to refine conceptual design for solicitation purposes; reviews solutions brought forward by design-builders
Mining	Provide review and technical support related to shafts, portals, and mine site infrastructure	Provides input to refine conceptual design for solicitation purposes; reviews solutions brought forward by design-builders
Geotechnical	Provide review and technical support related to subsidence and earthworks-related technical solutions	Provides input to refine conceptual design for solicitation purposes; reviews solutions brought forward by design-builders
Land Services	Provide support related to title searches, property ownership, right of entry, and easement acquisition.	Verify existing rights, obtain new land rights, and actively advance activities in support of schedule certainty

The two sections below provide greater insights into how we approach cost estimating and provide environmental support. In thinking about your pilot projects, we believe cost estimating will be critically important. We recognize that the Design-Build Pilot Program has a \$50M maximum budget; therefore, setting planning level budgets early will allow for key decisions to be made. Similarly, our team believes that permit acquisition and compliance will prove to be critical path items for your projects. We offer additional information on our environmental permitting capabilities to bring confidence that the Burns & McDonnell team is qualified to support in this capacity as your Owner Advisor.

## Cost Estimating

### *Quantity Estimates*

One of the more critical elements of accurate cost estimating, especially early, is clear scope definition. Missing project scope (either not yet defined or lack of definition) is the most common reason for poor cost estimates.

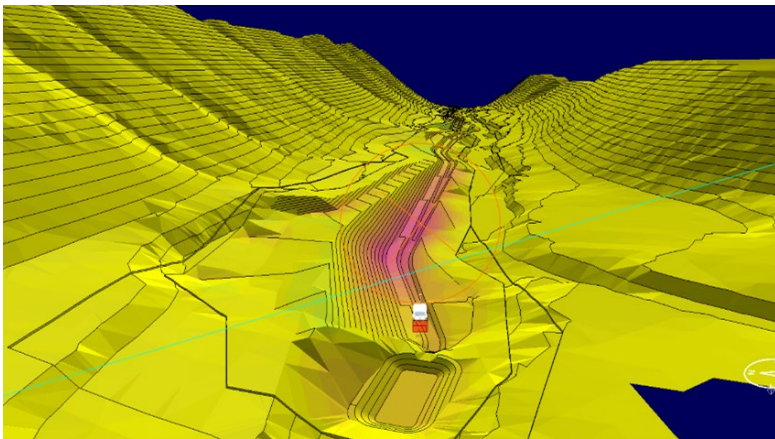
Our approach to cost estimating varies depending on the level of design progression. Our process centers around recognizing and defining the project scope at any level of design, but especially for the concept design stage. During conceptual design, when costs estimates can be of the most value, the overall scope and quantities are not typically well-defined. However, because of our design-build focus and collective self-perform construction background, our estimating team is adept at identifying comprehensive scope items early when the project is being defined. This enables our team to develop more accurate early cost models to establish project budgets and aid our clients when making critical decisions. We use HeavyBid as our estimating software and historical cost database. Additionally, we utilize industry-leading tools such as PlanSwift for quantities takeoffs and AGTEK for detailed earthwork analysis, quantities and 3D models. Our preconstruction experience, coupled with industry-leading estimating technology, allows for more informed cost estimates early in a project and facilitates efficient iterative estimating as the design progresses to completion. Our expertise will provide WVDEP with early cost certainty and confidence for budgeting, critical planning and decision-making.



The Burns & McDonnell cost estimating team prepared a third-party construction cost estimate and value engineering assessment for the recently bid Stafford County, VA Little River Falls WWTP upgrade, which is a testament to our team's ability to validate cost estimates and value engineer projects designed by others.

### **Pricing**

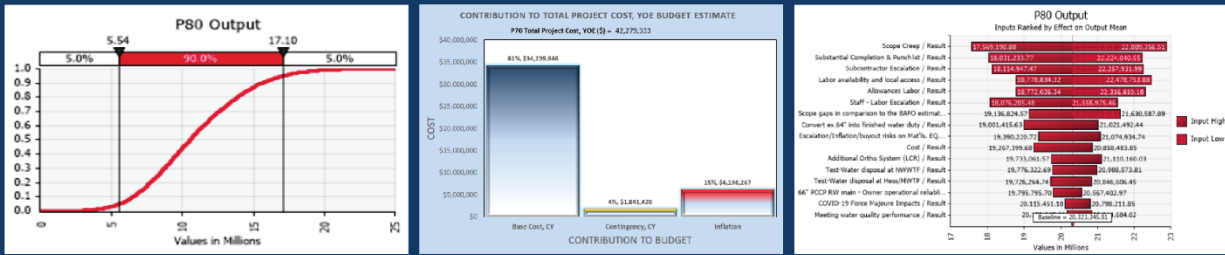
As a design-builder, we have strong relationships with contractors and vendors, as we regularly procure their services on our own projects. Through this experience, we have compiled a database of historical pricing information that we regularly update as we develop new cost estimates. Our team also understands how to build accurate cost estimates early in a project lifecycle, as we often convert many projects to progressive design-build delivery as early as 30% design development. We can price the work in alignment with the local economy and current market conditions.



Our heavy/civil preconstruction team has extensive site work, earthwork, and excavation self-perform experience. We use AGTEK to quantify and analyze earthwork quantities and materials. Not only can we accurately develop earthwork quantities, but we can develop and analyze site balance conditions. AGTEK also allows us to evaluate haul distances, locations of cut/fills onsite to optimize the sequencing of the earthwork. For example, the AGTEK 'heat map' above depicts cut and fill areas and volumes for a new WWTP with two large evaporation ponds.

# RISK IMPACTS TO PROJECT COST

Burns & McDonnell understands that risks that come to reality impact project cost. With that recognition in mind, our team can conduct workshops to quantify the probably and impact of different risks. With that information, we can perform a Quantitative Risk Analysis simulation (Monte Carlo) to define how much contingency is required for each pilot project.



## Environmental Support

Burns & McDonnell’s Environmental Services team is nationally and regionally recognized as leaders in environmental permitting and compliance services. We have successfully participated in a management role in preparing, filing, and acquiring state licenses to construct throughout the United States. We have achieved success on these projects through our utilization of a program management (Owner Advisor or OA) approach to the permitting process and compliance management that organizes and manages the interrelationships among system planning, engineering, legal counsel, client environmental staff, resource specialists and third-party consultants, and right-of-way, stakeholder management, construction and process controls, including scheduling and budget development. We believe that managing the processes and information flow between these entities is crucial to successfully acquiring a permit in a timely manner and soundly executing a compliance program.

Our team’s experience illustrates leadership in the Eastern States of the U.S. We have a large staff of more than 550 environmental specialists, many near West Virginia, who have completed work across the country. Burns & McDonnell typically staffs our environmental efforts in this area from our regional offices located in Atlanta, Georgia; Chesapeake, Virginia; and Wallingford, Connecticut. We also have numerous environmental permitting staff located in Portland, Maine; Newton, Massachusetts; Baltimore, Maryland; Philadelphia, Pennsylvania; Raleigh, North Carolina; Orlando Florida; Houston, Texas; and Kansas City, Missouri and have teaming agreements in place with subcontractors in the region to supplement our staff, when needed.

### Environmental Program Management

We are proud of our ability to maintain a multi-disciplinary staff that provides technical knowledge and a depth of resources so that we can quickly produce high-quality deliverables for our clients. Burns & McDonnell’s project team focuses on the successful delivery of technical scope, project schedule, regulatory permitting requirements, environmental compliance, and safety.

Through methodical analysis of environmental constraints and all the areas touched by the project, we identify



**Burns & McDonnell’s staff was instrumental in obtaining the necessary permits (federal, state and local) to start construction. In addition, their Real Estate Team acquired over 700 properties necessary to build the Maine Power Reliability Program (MPRP). Burns & McDonnell joined Central Maine Power (CMP) at the table and helped negotiate the construction and material contracts necessary to move ahead with construction. CMP is pleased with the staff Burns & McDonnell has assigned to this program, as well as their overall performance to this point in the project.”**

Douglas Herling, Project Director MPRP  
Central Maine Power (Avangrid)



critical issues and areas of concern that are likely to spur challenges. We will coordinate and manage the preparation and submission of applications for federal, state, and local approvals required to execute the individual projects on schedule. We will work with WVDEP and will meet with regulatory agency personnel as necessary to identify permit submission requirements needed to prepare complete applications.

Managing the inherent complexity of large projects and balancing the activities and phases can be a major undertaking. By integrating project controls with a comprehensive strategic management approach, we can manage permitting for WVDEP projects from start to finish.

### **Permitting and Studies**

The Burns & McDonnell team has vast experience overseeing and conducting resource surveys and integrating resource survey information with project design and utilizing resource information for permit application preparation. Burns & McDonnell has a staff of natural resource professionals to be able to perform the multiple surveys required as part of the licensing and permitting process. To augment our team when specialty monitors are required, Burns & McDonnell maintains a network of natural resource survey providers that can provide additional support if the need arises. A more detailed summary of our team's capabilities is provided below:

- ▶ Desktop Studies & Field Surveys to Support Permitting
  - Wetland Delineations
  - Vernal Pool Assessments
  - Cultural Resources
  - Invasive Species Surveys
  - Rare, Threatened, and Endangered Species Evaluation and Monitoring
- ▶ Conceptual Design Resource Impact Assessments
- ▶ Preparation of Applications & Documents for Permitting
  - NEPA Permitting Experience
  - Local Permitting Experience
  - Jurisdictional Waters (Federal and State) Permitting Experience
  - Dewatering and Water Use Permit Experience
- ▶ Compliance Monitoring and Management
- ▶ Waste Characterization and Management
- ▶ Stream Restoration Design and Construction
- ▶ Stream Mitigation Banking
- ▶ Stakeholder Engagement

### **Permitting Strategy & Matrix**

Upon Notice to Proceed, Burns & McDonnell will conduct a review of the proposed project areas and generate an assessment of the potential studies and permits required for the project. The team will review the proposed project schedule to develop a licensing and permitting strategy that attempts to maximize the efficiency of the approval process. The strategy will be summarized in a permit matrix that defines all required licenses and permits, their interrelationships, lead agencies, durations, and ties to the Pilot Program schedule, along with a recommended approach to pursue each of the approvals. The permit matrix will be the basis for the overall permitting strategy for the project and provides a living document to use throughout the project. After

**Burns & McDonnell's environmental team develops permitting matrices at the onset of capital projects to maintain project schedules and environmental compliance. Our Land Services team is well-versed in land acquisition as well as title and property reviews. The team is instrumental in clarifying land rights at the beginning of a project to minimize effects on project execution.**



Burns & McDonnell is a partner with Dominion Energy in Substation Security Upgrades, including fencing. The Burns & McDonnell team is not only working to manage the program, but we are aiding in the permitting necessary for various substation sites. The collaborative efforts have been on-going for more than seven years.

consultation and review with WVDEP, Burns & McDonnell will formalize the approved permitting strategy into a Permitting Plan that will be incorporated into the project implementation Plan.

The objectives of the Permitting Plan are to provide the roles, responsibilities, and overall approach for the project.

▶ Preliminary Activities

- Establish communication protocols and foster communication between environmental personnel and other members of the project team
- Identify federal, state, and local permits needed for the project
- Identify critical issues and requirements of each permit; prepare permitting matrix
- Assess project risks
- Build off existing positive relationships with the regulatory agencies

▶ Permit Application Preparation, Submittal and Approval

- Prepare permit applications using lessons learned from other projects and permits
- Conduct natural resource surveys
- Submit permit applications in a timely manner
- Conduct stakeholder communication and issue tracking during agency review
- Maintain relationships with the regulatory agencies
- Respond to agency interrogatories
- Track the status of agency reviews

As mentioned above, Burns & McDonnell will collaborate with WVDEP to develop the environmental permitting framework and land acquisition plan for the five Pilot Program Projects. The permitting framework and land acquisition plan will be included, as appropriate, in any bid documents developed for your design-builder procurement efforts to be clear on which permits will be required to be obtained to minimize the potential for change orders on a given project.

The permitting framework will include, at a minimum, the name/type of the permit, permit issuing agency, required tasks to obtain the permit, and the estimated timeframe. The land acquisition plan would provide a listing of property owners and details regarding any easements and/or stakeholders with land rights within the project area for each of the five Pilot Program projects.

For long lead-time permits and other permits that are required prior to project initiation, Burns & McDonnell may initiate studies and permit applications to drive a shortened and/or more defined project schedule to support design-build procurement. The specific scope and approach will be developed collaboratively with WV DEP.

**Burns & McDonnell understands the importance and sensitive nature of stream restoration design and construction, as well as stream mitigation banking. Our team has the expertise to handle the needs of such mitigation on site or provide off-site mitigation banking to serve project needs.**

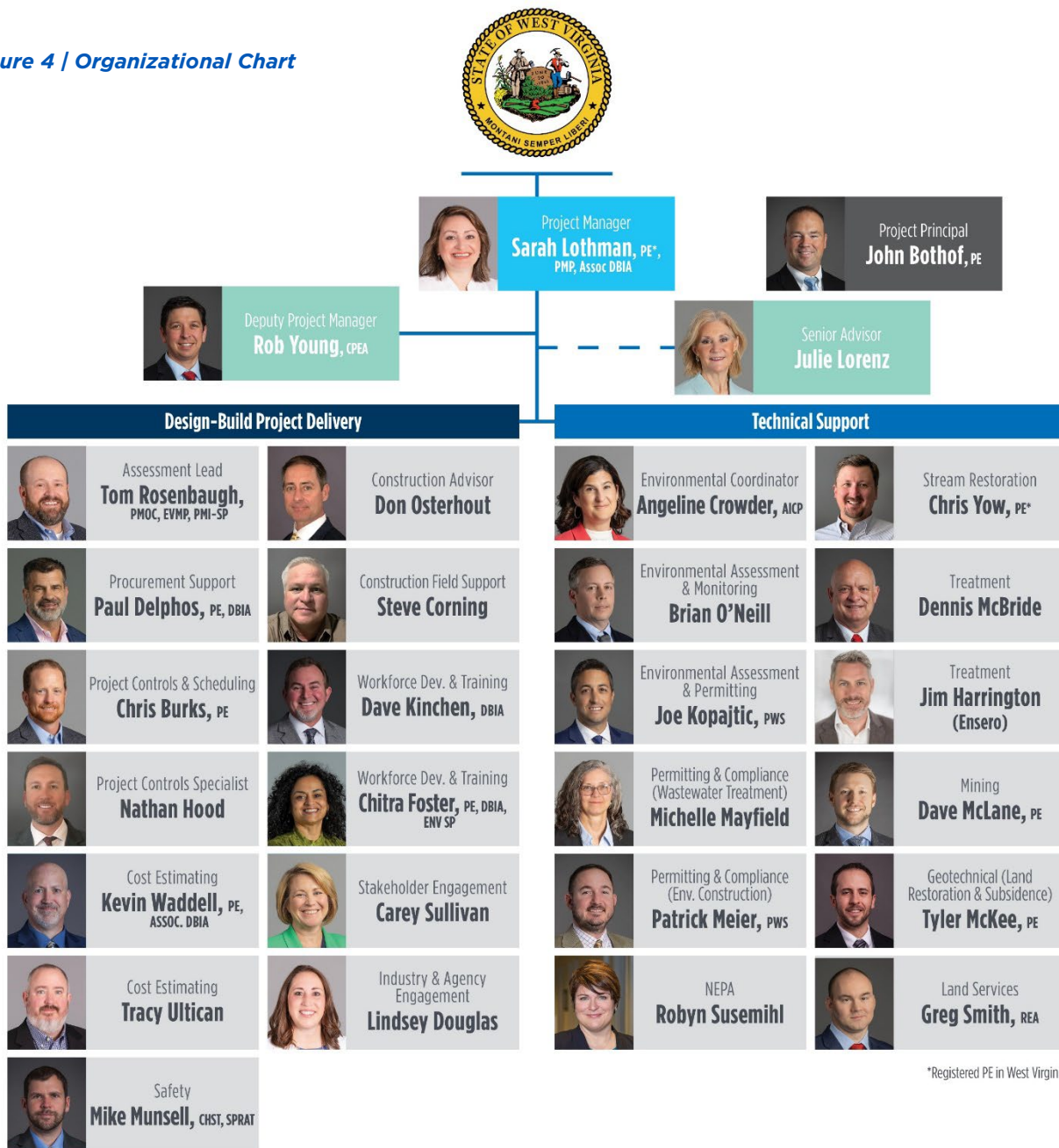
# 3. Staffing

We are very excited about the team we have to offer West Virginia DEP. While established in the Mid-Atlantic Region for many years, we are hungry and invigorated by the opportunity to work with WVDEP. Our proposed team includes a wide range of professionals located locally, regionally, and nationally that we expect to utilize in supporting you through your Design-Build Pilot Program.

The following pages summarize the qualifications of our key staff; Section 5 denotes their respective office locations. For brevity, we have included longer resumes for our team in the Appendix.

The organizational chart Figure 4 below depicts our key staff and overall project leadership. We have numerous professionals to support the staff shown as necessary to meet the workload needs of your Pilot Program.

Figure 4 | Organizational Chart



\*Registered PE in West Virginia



## OVERVIEW OF KEY PERSONNEL



**Sarah Lothman, PE,  
PMP, Assoc DBIA**  
Project Manager

Having led the development of Loudoun Water’s billion-dollar capital plan, Sarah brings hands-on experience managing project execution, utility operations, capital planning and budgeting, staff augmentation, and project implementation. She also led the final component of the partially federally-funded Potomac Water Supply Program, the \$140 million Construction Management At-Risk development of Milestone Reservoir for raw water storage. She was part of Loudoun Water’s leadership team as they transitioned to CMAR and progressive design-build for the first time, including the establishment of contracts and development of RFQs and RFPs.



**John Bothof, PE**  
Project Principal

John is the Operations Director for Burns & McDonnell’s Mid-Atlantic Region. His experience has spanned a broad range of mission-critical infrastructure and industrial facilities throughout the US and the world. His experience with diverse clients in multiple regions has positioned him as an industry leader in resilient design and construction. John now oversees multiple Global Practices in the Mid-Atlantic region, where he helps coordinate and implement key strategies and set best practices for design and construction throughout the region. He is focused on delivering exceptional client experience and making these clients successful.



**Rob Young, CPEA**  
Deputy Project  
Manager

Rob brings over 25 years of experience managing multi-disciplinary teams to our team. Rob is best known for his strategic approach to solving complex projects. During the Eversource \$205 Million solar development program, Rob performed a gap assessment of Eversource’s plan to implement 62 MW of solar installations across their footprint. Based on permitting feasibility, probable costs and ease of interconnection, a final portfolio of 19 sites was selected to provide the 62MW generating capacity. Rob’s team managed the real estate acquisition, stakeholder engagement, acquiring permits and local approvals, developing bid packages, as well as pre-qualifying, selecting and managing design-build contractors to bring the sites to final engineering and meet aggressive regulatory deadlines. He will bring these experiences to assist WVDEP in developing the approach for the AMR projects.



**Julie Lorenz**  
Senior Advisor

Julie brings public sector values and private sector urgency to advisory services, having led a 2,500-person State agency with a \$2B annual budget and assets totaling more than \$30B. By modernizing business practices, including implementing progressive design-build approaches, Julie and her team increased construction by 300% in four years and decreased worker comp costs by 45%. These achievements were delivered through collaboration with the construction industry, legislators, communities and other stakeholders. Julie is pleased to put her experience to work with the West Virginia Infrastructure Hub to deliver on Gov. Justice’s commitment to “leave no stone unturned” in bringing federal resources to the Mountain State.



**Tom Rosenbaugh,  
PMOC, EVMP, PMI-SP**  
Assessment Lead

Tom serves as our Director of Program Management for our Construction Division, both domestically and internationally. He brings 25 years of project execution, project controls and program experience to the team. In his 17 years with Burns & McDonnell, he has been engaged in over 20 programs in roles ranging from project controls to program manager to developing and implementing Program Management Offices for his clients. His role in Construction allows visibility and hands-on support across multiple industries, execution strategies (Design-Bid-Build, Design-Build etc.), locations and clients. His role focuses on the Assessment, Recommendations and Implementation roadmap for successful program execution.



**Paul Delphos, PE,  
DBIA**  
Procurement  
Support

Paul has over 30 years of experience in the water and wastewater industry, with nearly 15 years of design-build experience. His experience ranges from conceptual designs through troubleshooting and warranty work for many collaborative delivery projects. Paul has hosted and served on numerous design-build expert panels and is a Peer Reviewer in the upcoming AWWA M47 Capital Program Delivery Manual, 3<sup>rd</sup> Edition to be released in 2024. Most recently, he served as Deputy Program Manager for the Hampton Roads Sanitation District Sustainable Water Initiative for Tomorrow program, where he was responsible for streamlining their standard procurement approach for this \$2 billion program of new water treatment infrastructure.



**Chris Burks, PE**  
Project Controls &  
Scheduling

Chris' 20 years of diverse experience includes coordinating project controls teams in the selection, implementation, and usage of comprehensive and effective project controls tools to monitor and mitigate project risks and opportunities, provide accurate and timely project cost and status reporting to stakeholders, and development and monitoring of schedules against project objectives. His areas of expertise includes cost management, project performance metrics, document management, and change management.



**Nathan Hood**  
Project Controls  
Specialist

Nathan is a highly skilled Program Controls Manager at Burns & McDonnell, bringing over 13 years of expertise in project management. With a BS Degree in Economics from the University of Pittsburgh, Nathan has consistently excelled in implementing controls for accurate cost and duration forecasting, resulting in superior customer satisfaction. Nathan has a diverse work history, including roles as Regional Project Controls Manager/Regional Project Manager at Allied Power, Business Manager/Client Relations at Saulsbury Industries, and various positions at CB&I and Shaw. His responsibilities have ranged from managing financial reporting for power plant sites, overseeing revenue of over \$100MM, setting up reporting structures. Nathan's proficiency extends to project cost accounting, contract setup, and producing accurate cost and schedule forecasting for multimillion-dollar construction projects.



**Kevin Waddell, PE,  
ASSOC. DBIA**  
Preconstruction-  
Cost Estimating

Kevin brings nearly 30 years of experience working as a chief estimator, project manager, district manager and preconstruction manager on public infrastructure and civil works projects. Kevin applies design-build best practices and standards to Burns & McDonnell's most complex projects, including owners pursuing design-build for the first time. His project experience includes water treatment facilities, wetland mitigation banks, large water reservoirs, and contaminated soil excavation and remediation. Kevin experience in a variety of heavy/civil and site work construction projects allows him to bring value during development of a project by reducing risk and providing early cost certainty.



**Tracy Ultican**  
Cost Estimating

Some of Tracy's relevant experience includes providing OA services for the design, estimation and construction of the ESS Green 1, Blackwater/Lamine Rivers Umbrella Wetland Bank Site. Responsibilities included advising on earthwork design, soliciting subcontractors, reviewing subcontractor quotes and compiling the construction estimate. He also advised during the construction process on equipment fleet requirements, change order reviews, project schedules and progress payments along with assisting project closeout and final USACE permitting.



**Dave Kinchen, DBIA**  
Workforce Dev. &  
Training

Dave provides industry thought leadership through his service at the national board level for Design-Build Institute of America (DBIA) and Water Collaborative Delivery Association, where he served as a two-time chair. Dave recently led the progressive design-build delivery of a new \$500 million water treatment plant in Wichita, KS and has helped multiple owners successfully position their organizations to deliver collaborative projects. As a DBIA-certified trainer, he can provide training to organizations and stakeholders in support of successful design-build delivery and use of best practices.



**Chitra Foster, PE,  
DBIA, ENV SP**  
Workforce Dev. &  
Training

Chitra has 27 years of global experience in water infrastructure planning, engineering and construction. She has developed and managed CMAR, progressive and fixed price design-build projects for municipal, private and federal clients that range from under \$1 million to over \$500 million. She is a pioneer in collaborative delivery, having helped owners navigate regulatory changes and implement the cultural transformations necessary successfully master design-build and CMAR delivery.



**Carey Sullivan**  
Stakeholder  
Engagement

Carey is an experienced spokeswoman who brings more than 15 years of experience combining strategy, analytics and storytelling to help clients engage stakeholders and achieve reputational excellence. She has developed and executed communication and public outreach strategies for a major investor-owned utility in West Virginia. These strategies ranged from addressing West Virginians' concerns about high electric rates to complying with environmental mandates and the closing of a mine and a fossil-fuel power plant. She has conceived and driven public outreach campaigns that have included message testing, print and broadcast media buys, community engagement, and media relations.



**Lindsey Douglas**  
Industry & Agency  
Engagement

Lindsey brings nearly 20 years of experience in government affairs and policy, from both the public and private sectors. Lindsey has worked with legislators, industry groups and communities to craft strategies around the use of collaborative delivery methods for two 10-year transportation programs in Kansas. Currently in West Virginia, Lindsey is organizing and implementing the WV Infrastructure Hub grants outreach effort, in coordination with state agency staff at the Department of Highways, Department of Environmental Protection, Tourism, the Energy Office, and others.



**Don Osterhout**  
Construction  
Advisor

Don has spent his career in the environmental construction industry. With over 30 years of experience, Don has brought his construction knowledge to bear for public and private owners. He has served in many capacities as project manager, construction advisor, cost estimator, and technical director. His land reclamation experience includes stream restoration, tailings consolidation, capping, drilling and grouting, demolition, shaft and portal closure, and highwall stabilization.



**Steve Corning**

Construction Field Support

Steve is a veteran in the construction industry. With over 30 years of experience, Steve has provided on-site construction field support on hundreds of projects across the US. He has experience as a self-perform contractor and demonstrates a unique ability to engage teams on-site to find quick resolutions to issues that may arise in the field. While Steve has been involved in construction across many industries, he has supported several mine reclamation projects involving elements similar to those included as part of the Design-Build Pilot Program.



**Mike Munsell, CHST, SPRAT**  
Safety

Mike has over 18 years' experience working in construction. At Burns & McDonnell, he serves as a Senior Safety & Health Specialist supporting some of Burns & McDonnell's largest design-build projects in various industry sectors across the US. He has worked with on-boarding new employees, safety training and qualification, site audits, accident investigations, emergency preparedness and substance abuse programs. Prior to joining Burns & McDonnell, Mike spent more than five years as a Safety Manager for a general contractor.



**Angeline Crowder, AICP**

Environmental Coordinator

Angeline has 20 years of experience in local government, utility permitting and development, routing and siting projects, and public involvement. She has worked across the country on various projects, helping to bring together non-environmental and environmental permitting efforts for project development. Angeline has worked on both programmatic and project-based efforts in collaboration with various disciplines within Burns & McDonnell as well as her clients and becoming a point person for several such efforts.



**Chris Yow, PE**  
Stream Restoration

Over the course of his 20-year career, Chris has implemented over 250,000 linear feet of stream restoration projects. Most of these projects were conducted through design-build delivery where he led all phases from project inception through construction and monitoring. Chris has also worked as an Owner, where he held the position of Capital Improvement Projects Program Manager for the City of Roanoke, VA. As the CIP Program Manager, he was responsible for identifying projects, writing RFQ and RFP documents to hire engineers and contractors through design-bid-build and design-build procurement, overseeing design, permitting and construction inspection to assure quality.



**Brian O'Neill**  
Env. Assessment & Monitoring

Brian is an Aquatic Ecologist with 22 years of experience working with clients to plan and execute environmental assessment, restoration, and permitting projects. He uses an adaptive planning strategy to deliver sustainable solutions for projects bridging the built and natural environments. He is experienced at leading technical teams well versed in industry standards and is adept at applying innovative methods to support project delivery. His approach strengthens trust and fosters a positive working relationship with regulatory and resource agencies by delivering projects that stand up to local, state, and federal regulatory permit reviews, including scrutiny from special interest groups.





**Dennis McBride**  
Treatment

Dennis has over 40 years of experience with water and wastewater treatment across many industries including experience in mining and metals. With a background as a designer and operator, he brings a unique ability to assess designs and situations from multiple perspectives. Dennis has provided Owner Advisor services for many projects over the past 42 years. Some specific projects include Ma'aden Aluminum (prior to Burns & McDonnell), El Paso Electric Zero Liquid Discharge Project, and a confidential small modular reactor project.



**Joe Kopajtic, PWS**  
Env. Assessment &  
Permitting

Joe Kopajtic is a Professional Wetland Scientist with over 18 years of experience and leads the Natural and Cultural Resources Group in the Mid-Atlantic Region. He has applied environmental and permitting assessments in the energy, transportation, and industrial markets. Specializing in various environmental evaluations for the purpose of permit acquisition, Joe focuses on bringing creative solutions to complex regulatory challenges with the goal of expediting project schedules that maximize success. Joe leads a team of certified scientists with local expertise to address the environmental evaluation and permitting needs of any project.



**Michelle Mayfield**  
Permitting &  
Compliance

Michelle has 28 years of environmental permitting experience and has been involved in the development of several permitting and compliance programs for numerous industrial dischargers. Her experience includes the development of standard permit requirements in collaboration with regulators and centralized tracking programs for permit issuance, renewals, and reporting requirements. During her career, Michelle has successfully supported environmental permitting for over \$500 million in infrastructure projects throughout North America.



**Patrick Meler, PWS**  
Permitting &  
Compliance

Patrick has 18 years of experience with erosion and sediment control and stormwater permitting and compliance monitoring. His experience includes preparing and submitting applications for construction permits, drafting, reviewing, and maintaining stormwater pollution prevention plans (SWPPPs), compliance audits for active construction projects, drafting and reviewing reclamation plans, and consultation with subcontractors. Recently he has been serving as the on-site compliance lead for a construction project near Charleston, West Virginia, over the past five years.



**David McLane, PE**  
Mining

Born, raised and educated in Kentucky coal country, David understands the Appalachian mining industry. He is a professional mining engineer with nearly 15 years of experience serving on both Owner's and Contractor's teams for mine engineering, design, studies, new mine development, and large capital projects. David has worked at surface and underground coal and metal/non-metal mines globally. He understands all phases of a mine from exploration through reclamation. David's experience sinking shafts and grouting underground voids has direct technical applicability to your pilot projects.



**Tyler McKee, PE**  
Geotechnical

Tyler McKee has approximately 10 years of experience working on geotechnical components on a wide range of projects. He has worked on numerous efforts in West Virginia and surrounding states and has familiarity with regional geology. Specifically, working on site expansions encountering steeply dipping bedrock formations and transmission lines spanning previously mined coal beds. He has experience with limestone mine reclamation projects - both in underground quarries and surface-mining operations.



**Robyn Susemihl**  
NEPA

Robyn is a Senior Project Manager with 20 years of experience leading various projects in numerous practice areas and includes environmental fieldwork coordination, environmental surveys, environmental permitting, site characterization studies, and data collection and report preparation across the eastern U.S. Robyn has worked with federal and state environmental agencies across much of the U.S. through the National Environmental Policy Act (NEPA) process, which requires consultations, permits, and approvals under the Sections 10, 404, 401, and 408 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, and the Clean Air Act among others.



**Greg Smith II**  
Land Services

Greg is the Right of Way Section Manager for our Mid-Atlantic Region. He excels in managing all phases of utility and infrastructure projects from siting to acquisition through construction support, including large linear pipeline projects. His background in law and alternate dispute resolution provides a unique advantage in contract and easement negotiations, as well as understanding client needs and expectations in a rapidly evolving industry. Greg is also experienced in managing right of way agents, title specialists, and supporting staff to meet project deadlines and deliverables.



**Jim Harrington**  
Treatment

Jim has over 30 years' experience specializing in water treatment on mining-impacted lands, active and abandoned. As the technical leader for Ensero's environmental operations, he designs in-situ and active treatment solutions to address inorganics, metals, and radionuclides in processing wastes, discharges, soil, and groundwater. He has served as a technical advisor and designer for acid mine drainage treatment projects across the US. He will support the conceptual design development for procurement as well as OA reviews of design-builder design submittals.

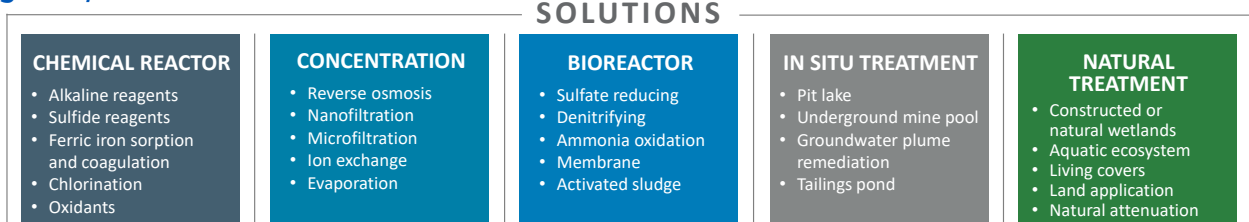
*Burns & McDonnell is excited to partner with Ensero Solutions as a key subconsultant to support our team with acid mine drainage design solutions.*

Ensero Solutions is a privately held, small business specializing in providing engineering and consulting services on mining impacted properties. Since 1996, Ensero has successfully delivered technical solutions for reclamation, remediation, and water treatment projects at mine-impacted sites across North America. Formerly known as Alexco Environmental Group, in 2020 they become an employee-owned business with seven offices and 120+ employees across North America. Ensero provides environmental consulting, remediation/reclamation, closure planning, water treatment, site care and maintenance, and assessment and permitting on a wide variety of projects for private sector mining clients as well as governments throughout the United States and Canada.



Specifically, treating mine-impacted water is their core expertise. They are experienced in all available technologies, from natural attenuation to active treatment. They are known for their expertise in passive treatment technologies and routinely evaluate their efficacy in their own, in-house treatability lab. Ensero also has a Site Services offering where we operate active treatment plants for our clients under either traditional or performance-based contracts. Since our inception, we've successfully treated almost 10 billion gallons of mine-impacted water. Figure 5 below summarizes some of their core offerings.

**Figure 5 | Ensero Services**



# 4. Similar Project Experience & References

We can offer West Virginia DEP numerous benefits that most other engineering consultants cannot. These benefits center around our corporate experience as a design-builder and program manager; this experience can directly benefit you as you embark on your first design-build projects as we not only understand the design-build process, but we know how to make these projects attractive to potential design-build teams. As design-build will be new to WVDEP and many of your engineers and contractors, having a partner who can effectively guide all parties through the process will be critical to the execution of your Design-Build Pilot Program.

Our project experience herein highlights our track record of providing key services that will be instrumental to a successful Design-Build Pilot Program. From procurement support, project controls, and project management to technical reviews and construction phase support, we will have the right experience to be your Owner Advisor from Day One to Day Done.

**Table 5 | Project Experience Summary**

Project Highlights & Performance History	
Relevancy to WVDEP Design-Build Pilot Program	Quality, Schedule and Budget Summary
<b>Frederick Water Owner Advisor Services</b>	
<ul style="list-style-type: none"> <li>▶ Owner Advisor Services for Design-Build delivery.</li> <li>▶ Contractor outreach and engagement</li> <li>▶ Procurement advisement</li> <li>▶ Advanced water treatment conceptual design</li> </ul>	<ul style="list-style-type: none"> <li>▶ Ongoing project</li> <li>▶ Have met all interim milestones</li> <li>▶ Under initial budget, even though scope has expanded</li> </ul>
<b>Eversource Solar Program</b>	
<ul style="list-style-type: none"> <li>▶ Owner Advisor Services</li> <li>▶ Cost management, control and tracking</li> <li>▶ Multiple program locations</li> <li>▶ EPC procurement support and oversight</li> <li>▶ EPC contract review</li> <li>▶ Public outreach and communication</li> <li>▶ Environmental permitting and compliance</li> <li>▶ Construction oversight</li> </ul>	<ul style="list-style-type: none"> <li>▶ Oversaw and managed schedule, budget and performance of third-party contractors</li> <li>▶ Overall program met target budget</li> <li>▶ Worked with client and regulators to adjust regulatory in-service deadlines and modify baseline schedule</li> <li>▶ Met revised schedule milestones</li> </ul>

## Project Highlights & Performance History

Relevancy to WVDEP Design-Build Pilot Program

Quality, Schedule and Budget Summary

### West Virginia Infrastructure Hub

- ▶ Industry and stakeholder outreach
- ▶ Coordinating with local/regional leaders, incl economic development professionals
- ▶ Maximizing federal funding opportunities
- ▶ Providing guidance on dashboarding and data visualization

- ▶ Have met all task order schedule and budgets, including many very tight turnaround deadlines
- ▶ Followed Burns & McDonnell QA/QC program for all deliverables

### Dominion Energy

- ▶ Owner Advisor services for several design, bid, build projects
- ▶ Serving as Design-Builder for their Design-Build Pilot Program for substations
- ▶ State and Federal permitting across multiple projects
- ▶ Project controls for multiple projects
- ▶ Land acquisition services.
- ▶ Environmental and local permitting support

- ▶ Multi-year program with track record of keeping projects on budget and on schedule
- ▶ Quality management oversight on behalf of the Owner

### Mountaineer XPress

- ▶ Third-Party construction oversight
- ▶ Project sites throughout West Virginia
- ▶ Environmental permitting compliance oversight and reporting of third-party construction
- ▶ Customer engagement

- ▶ Oversaw and managed schedule and budget of third-party contractors
- ▶ Overall program met target budget and schedule
- ▶ Overseeing construction quality

### Richland Creek Stream Restoration Bank

- ▶ Burns & McDonnell is the Owner and has obtained all of its own permits associated with the stream restoration bank.
- ▶ Over 100,000 LF of stream restoration design
- ▶ Creating a mitigation bank that can be utilized for future offsets
- ▶ Construction, contractor procurement, and oversight

- ▶ Project is currently ongoing and on schedule with Phase 1 of construction expected to start in 2025
- ▶ As the Owner, we have a vested interest in the quality of the design and demonstrates the effectiveness of our quality management program

### Gold King Adit Discharge

- ▶ Design and construction of an acid mine drainage treatment facility under a Design-Build contract
- ▶ Operation of AMD treatment facilities
- ▶ Challenging site conditions for facility layout

- ▶ Project was completed on time and within original design-build budget and schedule
- ▶ Facility being operated by Ensero demonstrates quality approach focused on facility operations in addition to constructability



## Project Highlights & Performance History

Relevancy to WVDEP Design-Build Pilot Program

Quality, Schedule and Budget Summary

### Alliant Energy Lansing Power Plant Demolition

- ▶ Owner Advisor
- ▶ Conceptual design for subsequent contractor procurement
- ▶ Procurement support
- ▶ Environmental permitting including USCAE permits for work adjacent waterways and abandonment of infrastructure
- ▶ Construction field support including on-site inspection
- ▶ Construction administration services

- ▶ Project is ongoing and currently on schedule and under budget
- ▶ Following Burns & McDonnell Quality Management program
- ▶ Successful negotiation of change orders based on unknown conditions

### Underground Mine Zero-Liquid Discharge Water Treatment Plant

- ▶ Designer of Record for multi-contaminant treatment facility delivered design-build
- ▶ Pre-construction estimating and scheduling services
- ▶ Development and oversight for water sampling program
- ▶ Permitting support of water treatment facilities

- ▶ Project was complete in two years on schedule and under budget
- ▶ No change orders were required, which is a testament to the quality of the design and construction
- ▶ Responsible for developing integrated project delivery schedule

### Waste Management Renewable Natural Gas Program

- ▶ Program assessment and implementation for multiple projects
- ▶ Owner Advisor services
- ▶ Front-end program set-up, including collaboration with Owner to develop program best practices and implementation strategies
- ▶ Schedule and cost monitoring and dashboarding

- ▶ Multi-year program with multiple projects including portfolio sequencing for highest ROI
- ▶ Quality management oversight on behalf of the Owner
- ▶ Estimate creation and validation starting in project ideation and planning phase providing higher level of accuracy earlier in project lifecycle.

# FREDERICK WATER OWNER ADVISOR SERVICES

Winchester, Virginia



Frederick Water serves a growing area of Northern Virginia adjacent to West Virginia. Due to diminishing supplies, Frederick Water embarked on two collaborative delivery projects that included a new raw water pumping station and intake in an active quarry as well as a new 8 MGD water treatment plant.

Due to unanticipated changes in raw water quality, the new facilities have not been able to produce drinking water that meets the secondary standards of the Safe Drinking Water Act. As such, the finished water cannot be pumped into the distribution system until additional improvements are in place that allows the facility to meet these secondary standards.

To this end, Frederick Water has engaged Burns & McDonnell to serve as their Owner Advisor to identify both short-term and long-term solutions for their new water treatment plant. Short-term solutions include the procurement of mobile treatment units to allow production as well as serve as a full-scale piloting effort for reverse osmosis treatment, thereby maximizing Frederick Water's investment in this temporary system.

The long-term solution involves procuring a Design-Builder to design and construct new treatment facilities that will be incorporated into the existing facilities. Burns & McDonnell provides technical support, procurement support, cost estimating service, contractor engagement support as well as regulatory support as their Owner Advisor for this program.

**CLIENT:** Frederick Water

**YEARS:** 2023 - Present

## **PROJECT TEAM**

Sarah Lothman - Project Manager

Paul Delphos - Technical Lead

Kevin Waddell - Cost Estimating

## **CLIENT CONTACT:**

Michael Newlin

Assistant Director

540-868-9974

[mnewlin@frederickwater.com](mailto:mnewlin@frederickwater.com)

## **SERVICES:**

Procurement Support

Technical Support

Industry Outreach

Regulatory and Permitting Support

# EVERSOURCE SOLAR PROGRAM

Commonwealth of Massachusetts



Burns & McDonnell was retained by Eversource Energy to provide Program Management, Permitting, Stakeholder Management and Construction Management services for the construction of 62 MW of solar photovoltaic arrays across Massachusetts.

Burns & McDonnell provided Program Management support for Eversource for their Massachusetts Solar Development Program. The program commenced in Fall of 2016 and Burns & McDonnell was responsible for managing and conducting the site selection process to build 62 MW of solar generation by the end of 2017. As part of the development process the team reviewed potential sites that would be less than 4.9MWac to stay below the threshold for ISO-NE review. The team identified and performed screenings on over 60 sites, totaling more than 150 MW of potential capacity. Based on permitting feasibility, estimated costs and ease of interconnection a final portfolio of nineteen sites was selected to provide 62MW of generating capacity. The final portfolio was composed of 15 ground mount sites and 4 solar canopy sites.

The team managed the acquisition of real estate, permits, local approvals and selection of design-build contractors to perform the

work. The team actively managed the construction, stakeholder outreach, compliance and ongoing interconnection needs for these nineteen sites and met Eversource's regulatory and internal commercial deadlines.

The entire program team was required to develop and maintain aggressive schedules to meet client expectations and support the State of Massachusetts' legislated clean energy goals.

**CLIENT:** Eversource Energy

**YEARS:**

Permitted and Constructed: 2017

Interconnected: 2018

Close Out: 2019

**PROJECT TEAM**

Robert Young – Program Manager

**CLIENT CONTACT:**

Michael Auseré

Vice President

972-730-6339

Michael.Ausere@Eversource.com

**SERVICES:**

Program Management

Site Identification

Site Feasibility Assessments

Preliminary Engineering

Cost/Schedule Management

Permitting & Licensing

Public Outreach

Real Estate Management

Procurement Management

Design-Build Contract Review

Construction Oversight



**There are no hearings or briefs for the first 10 solar sites filed with the Mass DPU. Unheard of – but only since the project was well executed and documentation to the DPU was outstanding. You have a good team working on the successful Eversource solar program.**

*-Mark Kimball, Project Director – Solar Eversource*



# WEST VIRGINIA INFRASTRUCTURE HUB

Charleston, West Virginia



As a sub-consultant to AECOM, Burns & McDonnell supports the West Virginia Infrastructure Hub to maximize fund flow into the states via the Infrastructure Investment and Jobs Act (IIJA/Bipartisan Infrastructure Law), Inflation Reduction Act (IRA) and CHIPS and Science federal acts. The Burns & McDonnell team is instrumental to the West Virginia Infrastructure Hub's community and stakeholder outreach, strategic planning and communications, grant strategy and cabinet secretary/director facilitation efforts.

**CLIENT:** AECOM Technical Services Inc.

**YEARS:** 2023 - Present

## PROJECT TEAM

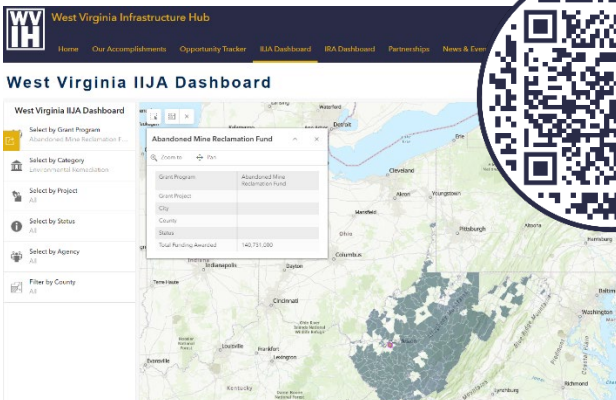
Julie Lorenz – Senior Advisor  
Lindsey Douglas – Government Relations Lead

## CLIENT CONTACT:

Gehan Elsayed, Ph.D., P.E.  
Chief Engineer on Planning and Program Implementation, WVDOT  
State of West Virginia IIJA Program Manager, WV Governor's Office  
304-558-9626  
Gehan.m.elsayed@wv.gov

## SERVICES:

Community and Stakeholder Outreach  
Strategic Communications  
Agency Coordination



The Burns & McDonnell team is supporting the development of dashboards that will provide increased public awareness of IIJA funded projects, including AML projects.

# DOMINION ENERGY

Virginia & North Carolina



Dominion Energy is a long-standing client of Burns & McDonnell with a relationship spanning more than 20 years. Burns & McDonnell provides programmatic support in a variety of areas (including environmental permitting) to streamline capital project development. In the last five years, Burns & McDonnell has provided the following services:

- ▶ Permitting
  - Wetland Delineation/ACOE Permitting
  - Cultural Surveys
  - Department of Environmental Quality
  - Stormwater Management/SWPPP
  - Land Disturbance
- ▶ Program Management
  - Generation Interconnection Program Management
  - Traditional Project Management
  - Substation Security Fence Upgrade Project Management
  - Routing & Siting
- ▶ Right of Way/Asset Protection
  - Land Rights Review
  - Asset Protection/Easement Mitigation
- ▶ Local Government Coordination
  - Conditional Use/Special Use Permits
  - Public Hearings
  - Site Plans
  - Variances
- ▶ Public Involvement
  - Community meetings
  - Public notifications
- ▶ Civil Design

**CLIENT:** Dominion Energy

**YEARS:** 2003 - Present

## PROJECT TEAM

Angeline Crowder – Environmental Program Manager

Greg Smith – Project Manager for Land and ROW Services

Joe Kopajtic – Project Manager for Natural & Cultural Resources

Patrick Meier – Field Team Leader for Natural & Cultural Resources

## CLIENT CONTACT:

Dominick Piccolomini, PE

Manager Electric Substation Engineering

804-380-9160

[Dominick.Piccolomini@dominionenergdc.com](mailto:Dominick.Piccolomini@dominionenergdc.com)

## SERVICES:

Permitting Support

Routing/Siting

Program Management

Environmental Engineering

Civil Engineering

Right of Way Services



# MOUNTAINEER XPRESS PROJECT

Third-Party (FERC) Environmental Compliance Monitoring Program, West Virginia



Columbia Gas Transmission (Columbia), an entity of TransCanada, elected to voluntarily use a FERC Third-Party inspection contractor to work under the direction of the Commission staff for the sole purpose of monitoring compliance with the environmental conditions and mitigation measures for The Mountaineer XPress Project (MXP).

The project consists of 171 miles of pipeline – 164 miles of 36-inch and 6-miles of 24-inch – along with three new compressor stations, modifications to three existing compressor stations and one regulating station, and 13 additional modifications at several above-ground facility sites, all of which occurred within 13 counties in West Virginia.

As part of the Environmental Compliance Monitoring Program, Burns & McDonnell has:

- ▶ Established a program that includes six full-time on-site Compliance Monitors and one Compliance Manager to direct and coordinate the Compliance Monitors, manage the reporting system, and provide technical support to the FERC staff
- ▶ Developed a systematic strategy for the review and approval by the Compliance Manager and Compliance Monitors of variances to certain construction activities as may be required by Columbia based on site-specific conditions
- ▶ Maintained files for the daily and/or weekly inspection reports submitted by both the Compliance Monitors and Columbia EIs
- ▶ Coordinated daily with Columbia's environmental inspection program
- ▶ Evaluated ways to incorporate and/or coordinate the monitoring program with the monitoring or reporting that may be required by other federal and state agencies

During construction, unforeseen or unavoidable site conditions can result in the need for changes from approved mitigation measures and construction procedures. Additionally, the need for route realignments, extra workspaces, or access roads outside of the previously approved construction work area may arise. Changes to previously approved mitigation measures, construction procedures, and construction work areas are handled in the form of variance requests which are submitted by Columbia and reviewed and approved or denied by FERC, with the delegation of some authority to Burns & McDonnell. Burns & McDonnell worked with FERC to define a system of variance levels that are used to categorize and process variance requests and developed a variance protocol. To provide consistency, expedite the variance request process, and reduce potential construction delays, a standardized variance request process and reporting procedure was established.

**CLIENT:** Columbia Gas Transmission

**YEARS:**

Construction Start: February 2018  
Third Party Program Complete: First Quarter 2021

**PROJECT TEAM**

Robyn Susemihl – Project Manager

**CLIENT CONTACT:**

Jon Adamson  
US Environmental Planning and  
Permitting Manager  
304-357-2081  
Jon\_adamson@tcenergy.com

**SERVICES:**

Daily Compliance Inspections  
Daily Inspection Reporting  
Review of Variance Requests  
Daily and Weekly Meetings  
Landowner Communication  
Weekly Compliance Status Reports

# RICHLAND CREEK STREAM RESTORATION BANK

Owenton, Kentucky



As the Owner, Burns & McDonnell is establishing the Richland Creek Mitigation Bank Project in Northern Kentucky on approximately 1,250 acres located near Owenton, Kentucky. A large existing network of streams within the Richland Creek watershed are being restored, offering a mitigation solution for developers with permitted impacts to U.S. waters. The Richland Creek service area will include Kentucky Resource-Based Pre-Defined Service Area 6, which encompasses Morehead through Florence to Louisville and beyond. The Burns & McDonnell project team uses natural channel design techniques to enhance and restore approximately 30,000 linear feet (LF) of perennial stream; approximately 7,000 LF of an intermittent stream, and approximately 64,000 LF of ephemeral stream. This bank will also include the restoration, enhancement, and protection of 325 acres of riparian buffer area. Four dams will also be removed that have created a hydraulic and ecological impediment for decades on the property. In addition to natural channel design tasks the project Team will conduct threatened and endangered species investigations, cultural resources investigations, develop a Mitigation Banking Instrument (MBI), coordinate with the US Army Corps (Louisville District), acquire permits

**CLIENT:** Burns & McDonnell

**YEARS:** 2021 - Present

**PROJECT TEAM**

Chris Yow - Project Manager

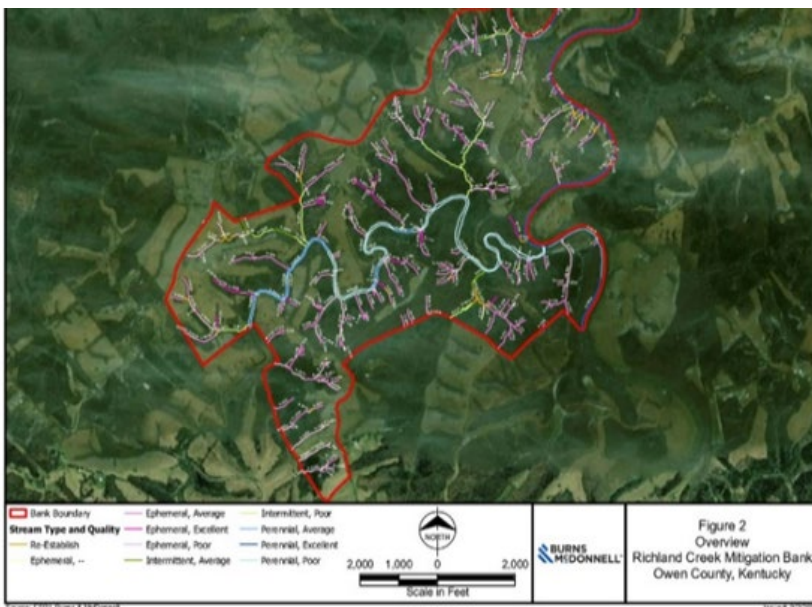
**CLIENT CONTACT:**

Sarah Soard, PWS  
 Director of Technical Services/  
 Environmental Services  
 816-800-9399  
 ssoard@burnsmcd.com

**SERVICES:**

- Natural Resources
- Wetland Delineation
- Stream Assessment
- Natural Channel Design
- Cultural Resources
- Construction Procurement
- Construction Inspection
- Construction As-Built Surveys
- Post Construction Monitoring

for construction, procure construction contractors, inspect construction, perform as-built surveys, and perform ten years of post-construction monitoring. Due to the large size of this bank, construction will be performed in several phases, with Phase 1 slated to begin in 2025.





# GOLD KING MINE DISCHARGE TREATMENT (ENSERO)

Silverton, Colorado



The Gold King Mine is located near Silverton, Colorado at 10,500 ft in the San Juan Mountains. Abandoned in 1923, the mine accumulated water in the underground workings that became a potential source of metals-laden acid rock drainage (ARD). In August of 2015, a contractor working for the United States Environmental Protection Agency (EPA) inadvertently damaged the portal plug, and approximately 3 million gallons of water/sludge was released from the mine into Cement Creek, a tributary of the Animas River. This was a high-profile situation garnering national attention. An immediate solution was needed to mitigate ongoing and prevent future natural resource damage. The situation was complicated by the remote location, geographic setting within a drainage offering very little space for water treatment, and high elevation causing difficult climatic conditions.

Ensero was selected by the EPA Emergency Response contractor through a competitive bid, to design, build, and commission an interim treatment facility within 21 days of notice to proceed. Specific metrics included treating ARD up to 1,000 gpm and operating the plant throughout the winter. Other design parameters included handling pH levels from 1.8 to 4.5 and elevated metals concentrations (aluminum, cadmium, copper, iron, manganese, and zinc).

With the limited time available for design and equipment selection, Ensero leveraged an extensive list of vendors in the western US to provide equipment to meet the critical schedule for installation and commissioning. The treatment system included dosing hydrated lime from a vertical silo/slurry tank to a large reactor tank followed by settling in a lamella clarifier. The system was connected to the on-site programmable logic controller (PLC), which allowed the system to automatically adjust lime feed rates based on continuous pH monitoring. Ensero also designed and installed a backup generator and automatic transfer switch to provide continuous treatment considering the unreliable grid power, especially in extreme storm conditions and avalanches.

Ensero continues to operate the water treatment plant year-round (as a subcontractor to the USACE Omaha District), with an average reduction of metal loading by 93% prior to discharge. Ensero recently implemented design improvements intended to extend the plant life for five more years. Additionally, they implemented operational changes to accommodate occasional influent from the American Tunnel, Red Mine, and Bonita Mine when other work at these locations produces water discharge.

**CLIENT:** EA Engineering, Science, and Technology, Inc.

**YEARS:** 2015 - Present

## PROJECT TEAM

Jim Harrington – Technical Advisor & Engineering

## CLIENT CONTACT:

Sarah Babcock  
Program Manager  
303-929-8734  
sbabcock@eaest.com

## SERVICES:

Acid Rock Drainage Treatment Design  
Construction  
Facility Operations

# ALLIANT ENERGY LANSING POWER PLANT DEMOLITION

Lansing, Iowa



Burns & McDonnell has been retained to provide Owner's Engineer services for the decommissioning and demolition of a former 275 MW power plant in Lansing, Iowa. The plant has four former coal-fired units. Project activities included development of permits for the removal of structures within the river; providing assistance with the development of specifications and bid documents, solicitation of prospective bidders and final bid evaluation. Following the award of the demolition and remediation contract, Burns & McDonnell provided on-site field representation during demolition. Project responsibilities included:

- ▶ Development of plans and specifications for the abatement and demolition of onsite structures
- ▶ Development of plans and specifications for the abandonment of the intake structures in the river
- ▶ Prepared state and USACE permits for work along the river and for abandonment of intake/discharge structures in the river
- ▶ Participated in the solicitation of prospective bidders, including a pre-qualification process, leading the mandatory bid walk and response to bidder questions
- ▶ Conducted final bid evaluation, including review of safety statistics for subcontractors, review of execution plan and comparison of project costs.
- ▶ Onsite project field representation/documentation of demolition contractor activities included:
  - ▶ Review and respond to requests for information (RFIs)
  - ▶ Provided onsite ambient air and clearance monitoring during asbestos abatement
  - ▶ Development of change orders (as necessary)
  - ▶ Conduct weekly onsite status meetings and prepare weekly progress reports
  - ▶ Review monthly contractor invoices
  - ▶ Compilation all submittals and waste disposal documentation

**CLIENT:** Alliant Energy

**YEARS:** 2022 - Present

## PROJECT TEAM

Don Osterhout - Construction Advisor  
Steve Corning - Construction Manager

## CLIENT CONTACT:

Jill Stevens  
Senior Manager - Strategic Projects  
608-334-6502  
JillStevens@alliantenergy.com

## SERVICES:

Owner's Engineer  
Engineering Design  
Procurement Support  
Environmental Permitting  
Demolition Field Support  
Construction Administration



# UNDERGROUND MINE ZERO-LIQUID DISCHARGE (ZLD) WATER TREATMENT PLANT

Lansing, NY



Burns & McDonnell has completed Phase 1 and 2 of a mine water treatment facility for Cargill's underground salt mine located in Lansing, New York. Phase 3 is Turnkey Design-Build delivery of the facility.

The zero liquid discharge (ZLD) facility was designed as a mechanical vapor recompression treatment plant sized at 65 gallons-per-minute (GPM). The project scope included all civil, structural, mechanical, electrical and process design for the facility, which will treat contact water from mining operations.

The mine stores contact water from mining operations and underground inflows in large underground containment ponds. This contact water is transported to surface via pumping system located in the service shaft to the ZLD treatment facility. Treated water will be discharged to an outfall located in the nearby lake and concentrated purge stream was directed back underground for use and storage.

**CLIENT:** Cargill Cayuga Mine

**YEARS:** 2020-2022

## **PROJECT TEAM**

David McLane - Project Manager

## **CLIENT CONTACT:**

Andrew Bannister  
Engineering Manager  
607-228-7901

[Andrew\\_bannister@cargill.com](mailto:Andrew_bannister@cargill.com)

Zoe Scopa  
Senior Engineer  
607-533-3758  
[Zoe\\_Scopa@cargill.com](mailto:Zoe_Scopa@cargill.com)

## **SERVICES:**

Engineering  
Cost Estimating  
Scheduling  
Pre-Construction



# WASTE MANAGEMENT RENEWABLE NATURAL GAS PROGRAM

U.S. and Canada



Burns & McDonnell was selected by WM Renewable Energy to provide a program readiness assessment (PRA) across 18 key focus areas to evaluate WM's readiness to move from a heavy operations-focused company to a construction execution company for the RNG Program. This assessment culminated in multiple findings, areas of improvement and areas of efficiency that could/should be promoted. To implement the recommendations, proposed needs, and gaps Waste Management selected Burns & McDonnell to provide and support program/PMO governance, technology implementation, project management and project controls services to execute the \$1.5B capital investment program to plan, design, and build several renewable natural gas facilities across the U.S. and Canada.

This portfolio is made up of 20 mid-size to large, complex projects across North America, including Canada. These projects include the front-end development, permitting, engineering, procurement, construction, and commissioning of RNG facilities as well as their electric and gas interconnections.

WM Renewable Energy (WMRE) has retained Burns & McDonnell as Program Implementation Manager to develop their program oversight and project controls focused on oversight and business strategy alignment, and to provide tangible controls, processes, stage-gates, and accountability metrics.

With an integrated program team, WMRE and Burns & McDonnell have partnered to provide governance, project management and project controls support to proactively resolve common cross-project issues, and program best practices to drive accountability, transparency, and project success rates across their capital portfolio.

Burns & McDonnell's role on this project included the following elements:

- ▶ Assessment prior to taking over as Program Manager (mid-stream)
- ▶ Program Governance
- ▶ Technology Implementation
- ▶ Front-End Development
- ▶ Project Management
- ▶ Scheduling
- ▶ Estimating
  - Cost Control

**CLIENT:** Waste Management

**YEARS:** 2023 - Present

**PROJECT TEAM**

Tom Rosenbaugh – Assessment Lead and Implementation Manager

**CLIENT CONTACT:**

Tom Uttermark  
VP Finance and Acquisitions  
609-434-5601  
tuttermark@wm.com

**SERVICES:**

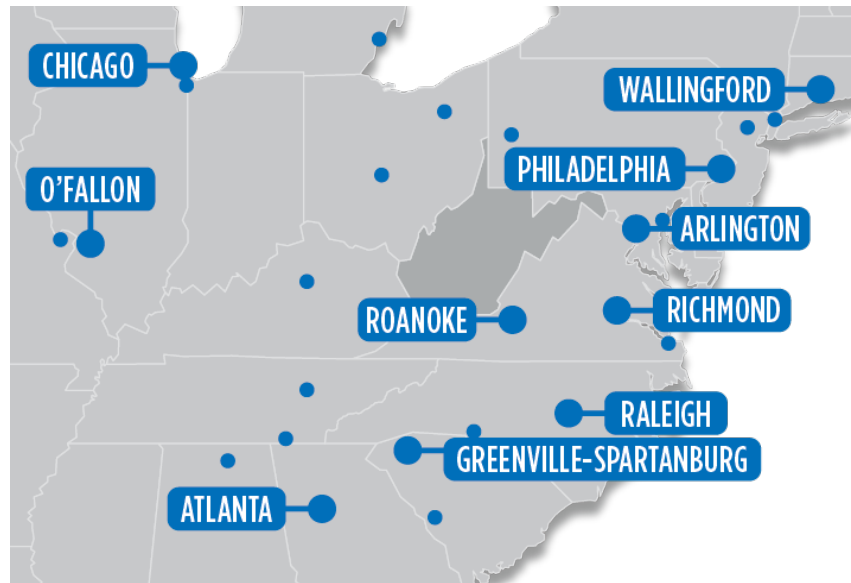
Program Assessment  
Program Management  
Owner's Agent Support – Front End Planning

# 5. Proximity to the Project Site

Burns & McDonnell has curated our team to provide the specific skillsets needed by WVDEP. While we have a national presence, we bring the right people to every job. Regardless of home or project office location, our team members are committed to being available and onsite for West Virginia DEP whenever and wherever the work is required.

In accordance with the RFP, Table 6 below outlines our key staff, their office location, and the number of staff in each of those office locations.

While we do not have an office in West Virginia, Sarah Lothman, your Project Manager, lives less than an hour from the West Virginia border and within three hours of four of your project sites. She is committed and prepared to co-locate with WVDEP staff, if desired. Further, we have over 500 staff within a two-hour drive of West Virginia, which offers plenty of depth to rapidly respond to all efforts associated with the Pilot Program.



**Table 6 | Key Staff Location and Office Staff Count**

Key Personnel	Office Location	Office Staff Count
Sarah Lothman, PE, PMP, Assoc. DBIA	Arlington, VA	48
John Bothof, PE Paul Delphos, PE, DBIA	Chesapeake, VA	83
Rob Young, CPEA	Wallingford, CT	231

Key Personnel	Office Location	Office Staff Count
Julie Lorenz Kevin Waddell, PE, ASSOC. DBIA Tracy Ultican Lindsey Douglas Dennis McBride Mike Munsell, CHST, SPRAT Tyler McKee, PE	Kansas City, MO	4,083
Tom Rosenbaugh, PMOC, EVMP, PMI-SP Nathan Hood Dave McLane, PE	Phoenix, AZ	212
Don Osterhout Steve Corning	Downers Grove, IL	106
Chris Burks, PE Angeline Crowder, AICP Patrick Meier Greg Smith, REA	Richmond, VA	52
Dave Kinchen, DBIA	Dallas, TX	130
Chitra Foster, PE, DBIA, ENV SP	Houston, TX	873
Carey Sullivan	Roanoke, VA	50
Chris Yow, PE		
Brian O'Neill	Chicago, IL	472
Joe Kopajtic, PWS	Baltimore, MD	15
Michelle Mayfield	Raleigh, NC	77
Robyn Susemihl	Atlanta, GA	383

# 6. Commercial

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In accordance with the RFP, we have not provided any pricing information herein. Upon selection, we look forward to collaboratively negotiating in good faith scope of work, pricing, and contract terms.

# RESUMES



# SARAH LOTHMAN, PE, PMP, ASSOC. DBIA

## Project Manager



Sarah is a seasoned engineer with technical, project management, capital planning and strategic decision-making experience as both a consultant and a utility owner. She has extensive experience solving complex issues related to infrastructure, permitting and project execution and procurement. Sarah has a proven record identifying priority issues and fostering collaboration across diverse teams. She brings hands-on experience

implementing design-build project delivery for the first time as an owner and has led collaborative delivery projects receiving federal funding. She is a George Mason University certified coach with skillsets beneficial to clients navigating program and organizational change.

### EDUCATION

- ▶ MS, Environmental
- ▶ BS, Civil Engineering

### REGISTRATIONS

- ▶ Professional Engineer (WV, VA, NC, KS)
- ▶ Class I Wastewater Works Operator (VA)
- ▶ Project Management Professional
- ▶ Designated DBIA Professional (Assoc. DBIA)

**1** YEAR WITH BURNS & MCDONNELL

**19** YEARS OF EXPERIENCE

### Smart Sewer Program

#### City of Kansas City, MO

Burns & McDonnell led development and implementation of this \$4.5 billion capital program targeted at reducing overflows from the utility's combined and separate sewer systems. As program manager, Burns & McDonnell is integrated with City staff and engaged at all program levels to ensure that the proper leadership, administration, project delivery, construction execution, monitoring and reporting and public communication measures are in place. Because of the scale of the program, efforts have focused on successfully delivering the program while preparing utility staff, local engineering firms and construction contractors for the stricter protocols and procedures necessary to manage increased capital throughput with strict scope, schedule, budget, quality and risk exposure requirements of a program tied to consent decree compliance. To accomplish these goals, we refined capital project delivery procedures, facilitated workforce training through an integrated educational program called SSP University, expanded the City's small/local business program and implemented an integrated design and construction management team. Burns & McDonnell has managed over 50 design and construction firms in the on-budget and on-schedule delivery of \$800 million in capital investment thus far. Sarah has been key to developing the Green Infrastructure Maintenance Program, multi-jurisdictional agreement negotiations and integrated planning to inform City-wide project prioritization across multiple utilities.

### Frederick Water Henry F Sliwinski Advanced Water Treatment Improvements Owner Advisor

#### Winchester, VA

**Project Manager** for Owner Advisor Services for the addition of advanced water treatment facilities at this recently commissioned water treatment facility. After start-up, it was recognized that the raw water quality changed sufficiently enough to require additional treatment. To streamline the installation of reverse osmosis membranes, the improvements will be delivered via progressive design-build. Owner Advisor services include conceptual design, contractor reachout and engagement, and design-builder procurement support.

# SARAH LOTHMAN, PE, PMP, ASSOC. DBIA

(continued)

## Grand Prairie Water Commission Alternative Water Source Program (AWSP)

Joliet, IL

Burns & McDonnell is serving as Owner's Advisor on a \$1.5 billion program to provide an alternative water supply for the City of Joliet and five other Chicago-area suburban communities. AWSP is the implementation of a new water source with a maximum build out demand of approximately 105 MGD by 2030. Sarah provides quarterly program evaluations, offering strategic input on program implementation including project/program development, project sequencing, scheduling/budget development, tracking and reporting and program funding.

## WWTP Procurement Assistance | Reedy Creek Improvement District, FL

Sarah served as Project Manager, taking responsibility for successfully delivering support for RCID. She led the development of selection criteria reflective of the organization's priorities, drafting of the Request for Proposals in compliance with public procurement regulations and policies and supported the client as an extension of their staff throughout the process.

## Portfolio Management Implementation | Golden State Water Company | Golden State Water Company

San Dimas, CA

Burns & McDonnell is providing professional consulting services to assist GSWC with independent review of key documents and development of new processes and tools to support the Capital Program. Specific efforts include development of a comprehensive cost-loaded portfolio schedule, development of a project prioritization framework, assessment of procurement policies, facilitation related to Capital Program governance, assessment of KPIs, support for internal construction work-in-progress meetings to drive efficiency in project execution, development of project and portfolio level dashboards, and periodic monitoring of Capital Program status, including budget, cost, and schedule information. Sarah is a key member of the Burns & McDonnell team, supporting all aspects of the project and leading key tasks related to project prioritization and SOP development.

Clean Water Shreveport Program | Shreveport, LA | Sarah is part of the team providing engineering and consulting services to oversee and implement an estimated \$350 million in sanitary sewer system improvements to meet Clean Water Act standards by 2026. Sarah is supporting efforts to identify funding opportunities for prioritized projects at the City's two wastewater treatment plants, led efforts to inform the City of potential forthcoming regulations related to emerging contaminants, and supported the Program's creative and media professionals with an educational video on wastewater treatment. Additionally, Sarah is providing support to the City related to workforce challenges since training and development of the City's staff is key to operational excellence and staff satisfaction and retention

## Manager of Capital Design, Planning & Engineering Division\*

Loudoun Water, VA

Sarah led the development and execution of the utility's nearly \$1 billion 10-year Capital Improvement Program, including projection and management of spending. She monitored, tracked and drove project progression for her team's capital projects (approximately 35 to 40 concurrent projects at all times), which included planning-level studies and detailed design for water, wastewater, and reclaimed water infrastructure.

### Project Delivery Assessment

Sarah was key to leading Loudoun Water through evaluating new project delivery methods for projects – specifically Design-Build and CMAR. As an organization comfortable with Design-Bid-Build, she was

# SARAH LOTHMAN, PE, PMP, ASSOC. DBIA

(continued)

instrumental in facilitating organizational understanding around opportunities for collaborative delivery. Individual project discussions ultimately led to Loudoun Water embarking on their first collaborative delivery projects under her leadership. In her role, she hired an Owner's Advisor and learned how to best leverage the skillsets of an OA for the benefit of her organization.

## Public Communication

Sarah led her team's coordination with Loudoun Water's communications team to support improved information sharing related to future and ongoing projects. The goal was two-fold: to provide customer and community visibility on projects as well as to businesses interested in doing work with Loudoun Water.

## Federal Funding

Sarah evaluated suitability and organizational interest in pursuing federal funding opportunities. She led Loudoun Water in the application for a 2019 Pre-Disaster Mitigation Grant (now BRIC program) in which Loudoun Water was awarded \$10M for its quarry reservoir project. A focus of this effort was to assess impacts to project delivery associated with grant opportunities and the cost and benefit of grant funding.

## Contractor and Consultant Outreach

Sarah supported and encouraged her team's contractor and consultant outreach efforts. In her role, she organized project-specific events to educate contractors on the work and facilitate contractor and subcontractor networking. She was also active in participating on industry panels sharing Loudoun Water's priorities and projects.

## Agreement/Contract Negotiation

In her role, Sarah was key to various agreement and contract negotiations. Sarah worked with the Loudoun Water executive team on multiple agreements and led coordination with Luck Stone, the private owner of a retired rock quarry being developed by Loudoun Water as a raw water storage reservoir. She was involved with private owner agreements where Loudoun Water was executing projects or responsible for providing additional capital infrastructure.

## Plant Engineer, Operations & Maintenance Division\* | Loudoun Water | Broad Run Water Reclamation Facility

Sarah led in the development of goals and measures for the Broad Run Water Reclamation Facility (BRWRF). She worked collaboratively with plant operations and maintenance staff on day-to-day operations, including coordination efforts with staff and on-site contractors. She worked with plant staff to implement and optimize HachWIMS for process monitoring and reporting, supported operators in preparation for licensing exams, and served as a liaison between BRWRF and senior management on facility-related topics, specifically those related to long-term planning and ongoing process optimization efforts. She understands the NPDES permitting process and complexities associated with facility commissioning and operation.

*\*denotes experience prior to joining Burns & McDonnell*

# PAUL DELPHOS, PE, DBIA

## Procurement Support



Paul has over 32 years of experience in the water and wastewater industry, including a wide variety of collaborative delivery projects. He has a vast amount of design experience with advanced water treatment technologies (membranes, desalination, GAC, etc.) including over 40 different facilities totaling more than 800 MGD. He has been involved with design build projects for over 15 years as a Project

Manager, Design Manager and Owner's Advisor. Paul is a recognized design-build consultant having presented on design-build topics at national and regional conferences more than 15 times, presented design-build principles to numerous public sector utilities. Further, he is serving as a Peer Reviewer to the upcoming 3rd Edition of M47 Capital Project Delivery Manual prepared by AWWA.

### EDUCATION

- ▶ Masters, Environmental Engineering
- ▶ Bachelors, Civil Engineering

### REGISTRATIONS

- ▶ Professional Engineer (VA)

**2** YEARS WITH BURNS & MCDONNELL

**32** YEARS OF EXPERIENCE

### Frederick Water Henry F Sliwinski Advanced Water Treatment Improvements Owner Advisor

Frederick Water, VA

**Lead Technical And Design-Build Support** for Owner Advisor Services for the addition of advanced water treatment facilities at this recently commissioned water treatment facility. After start-up, it was recognized that the raw water quality changed sufficiently enough to require additional treatment. To streamline the installation of reverse osmosis membranes, the improvements will be delivered via progressive design-build. Owner Advisor services include conceptual design, contractor engagement and design-builder procurement support.

### Smith Mountain Lake Water Treatment Plant and Pipelines Progressive Design Build Project\* | Bedford Regional Water Authority, VA

**Project Manager** for the progressive design-build for a new 4 MGD membrane/GAC WTP, 12 MGD lake intake, 4 MGD raw water pumping station and over 20 miles in pipelines. The project involved membrane system and granular activated carbon pilot studies; early treatment equipment procurement; local and VDH regulatory coordination and negotiations; and design-to-budget efforts to meet a targeted \$34 million budget for all project components. In addition, easement acquisitions for over 20 miles of pipeline were required and a number of public workshops were conducted throughout the project.

### Sustainable Water Initiative for Tomorrow (SWIFT) Program\* | Hampton Roads

Sanitation District, VA

**Procurement Delivery Leader** as part of the Program Management team for this large, regional groundwater recharge program. SWIFT is \$2 billion program to treat wastewater effluent through advanced water treatment facilities to recharge the Potomac Aquifer and reduce nutrient loadings to the Chesapeake Bay. Paul's primary role was to lead the program management design-build procurement efforts, including contract reviews, bid form development, contractor outreach and risk management efforts. Other key responsibilities included overseeing the development of 20 to 30% design documents to support subsequent design-build procurement.

### Opequon Creek Water Supply Project WTP and Pipelines Progressive Design Build Project\* | Frederick Water, VA

**Design Manager** for the progressive design-build for a new 8 MGD WTP, 6-mgd lake intake and pumping station, 8-mgd river intake and pumping station and over 5 miles of pipeline for \$35 million. The project involved technology selection, equipment procurement, regulatory coordination and negotiations, and "design to budget" efforts to meet a targeted \$35 million budget for all components of the project.

# PAUL DELPHOS, PE, DBIA

(continued)

## WWTP Improvements Procurement Assistance | Reedy Creek Improvement District, FL

*Procurement Specialist* supporting the development of procurement selection criteria for the design of an 18 MGD advanced WWTP that required significant constructability and maintenance of plant operations considerations. The team drafted the Request for Proposals in compliance with public procurement regulations and policies and supported the client as an extension of their staff throughout the process.

## Hummelstown WTP PDB Conceptual Design Development | United Water PA/DE

Hummelstown, PA

*Project Manager* for the development of conceptual design documents for a subsequent design build procurement. Project included the evaluation and conceptual design of a new 4-mgd membrane filtration plant for UWPA's Hummelstown WTP. Project components included a cost-feasibility evaluation of membrane technology versus conventional technology, side-by-side piloting of three different membrane systems, membrane system procurement, and overall conceptual design for a \$15 million design-build contract.

## Industrial Wastewater Treatment Facility Engineering Services | Energy Resource Recovery, Inc.

Cabarrus County, NC

*Project Manager* for a variety of engineering services for a commercial wastewater treatment facility that received a wide variety of oily wastewaters and used oils. Tasks included conceptual design of a retrofit of an abandoned DAF for a subsequent design-build project of a oil-water separator, industrial wastewater pumping analysis, industrial wastewater treatment process review, and used oil pretreatment design.

## Water Facility Master Plan and Conceptual Treatment Facility Design

Charles Town, WV

*Technical Lead* for a facility master plan that recommended water treatment plant upgrades from the current 2.8-mgd to an interim 5.5-mgd and final 7.0-mgd capacity. Project components included raw water screening, raw water pump station, high-rate clarification and filtration alternatives. Subsequent efforts included conceptually designed new treatment plant consisting of flocculation, inclined-plate clarification and membrane filtration with a side-by-side pilot of two membrane filtration systems.

## Station 6 Demonstration Water Treatment Plant | New York Department of Environmental Protection

New York, NY

Responsible for process value engineering of a \$93 million water treatment plant. Primary treatment process train included ozone and ultrafiltration for iron and manganese oxidation, air stripping for VOC and MTBE removal, and reverse osmosis for hardness removal. Helped develop value engineering strategies with the potential of over \$20 million in capital cost savings. Efforts included third-party review of treatment plant designs, alternatives development and construction cost estimating.

## Queens Groundwater Replenishment Program Value Engineering | New York Department of Environmental Protection

New York, NY

Part of the third-party value engineering team for the proposed \$200 million program to retrofit groundwater treatment facilities in Queens as a supplemental water supply to the Catskill and Delaware Aqueducts when they were shut down for maintenance. Efforts included third-party review of treatment plant designs, alternatives development and construction cost estimating.

*\*denotes experience prior to joining Burns & McDonnell*



# ROBERT YOUNG, CPEA

## Deputy Project Manager



Robert has more than 25 years of experience in construction, industrial, consulting and auditing. His experience includes managing energy development and permitting projects in the United States and the Bahamas involving compliance with U.S. Federal, state and local regulations, as well as World Bank Guidelines. He has managed permitting, compliance and management system projects ranging from electrical transmission lines

to pipelines to resorts. His broad experience across industries and project types gives him a unique perspective to address the risks and challenges associated with obtaining project approvals and maintaining compliance in today's regulated environment. In addition to his experience managing permitting and compliance projects, he has also managed multi-media environmental, health and safety management system and compliance audits. Robert utilizes strong project management skills and technical expertise in regulatory siting and permitting to identify and mitigate project risks to meet client demands and aggressive schedules. Additional strengths in strategic development, wastewater discharge requirements, waste management, hazardous chemical management, and OSHA health and safety regulations, along with experience designing and implementing management systems allow Robert to identify and manage risks during siting and permitting and during project construction.

### EDUCATION

- ▶ Bachelors, Biology

**14** YEARS WITH BURNS & MCDONNELL

**26** YEARS OF EXPERIENCE

### Program Management, Permitting, Stakeholder Management and Construction Management Services, Massachusetts Solar Program | Eversource Energy

Hartford, Connecticut | Nov 2016 - Nov 2020

**Program manager.** Project scope included program management, permitting, stakeholder management and construction management services for the construction of 62 MW of solar photovoltaic arrays across Massachusetts. Burns & McDonnell is providing Program Management services in support of Eversource Energy's Massachusetts Solar Development Program, a project designed to build 62 MW of solar generation. Since the program commenced in the fall of 2016, Rob has been leading the Burns & McDonnell team responsible for managing and conducting the site selection process. The team identified and performed screenings for more than 75 sites totaling greater than 150 MW of potential capacity. Based on permitting feasibility, probable costs and ease of interconnection, a final portfolio of 19 sites was selected to provide the 62MW generating capacity. Burns & McDonnell has managed the real estate acquisition, acquiring permits and local approvals, and selecting EPC construction contractors. The team is actively managing the construction, compliance and ongoing interconnection needs for these nineteen sites and is on schedule to meet Eversource's regulatory deadlines.

### Confidential Project | Confidential Client

Northeast, U.S. | May 2015 - Nov 2016

**Manager of Environmental, Permitting, Outreach, Real Estate and Governmental Relations.** In this role, Rob provided overall project management and project delivery responsibilities. This included the collaboration of a large project team with multiple development partners. Focus had been on the development of a detailed project execution plan and the implementation of a full suite of project controls including an integrated project

# ROBERT YOUNG, CPEA

(continued)

schedule. This execution plan and project controls managed between functional areas and develop a comprehensive FERC 7c application in a short period. Other services provided include safety management, project management, procurement management, environmental permit management through FERC 7c process as well as other federal/state permits, FERC open house support, GIS/Mapping, field service coordination, and cross-functional coordination.

## New England East-West Solution Program (NEEWS) | Eversource Energy

Lebanon, Connecticut | Dec 2008 - Sep 2014

**Environmental permitting and compliance manager.** Four electrical transmission upgrade projects collectively called the New England East-West Solution (NEEWS). The main components of the four projects were 345-kV high-voltage lines including upgrades to substations and improvements to the region's 115-kV electric system. Responsible for developing a programmatic siting and permitting strategy to obtain all required approvals across four major project components totaling \$1.6 billion. Tasks included developing contracting strategies, arranging and coordinating specialty natural and cultural resource surveyors, associated environmental permit applications, and supporting interaction among the project owner, environmental specialists, counsel, and agencies to obtain siting approvals and environmental permits for the project. Developed and managed project schedule, accounting for key performance indicators (KPIs) for timely completion and meeting project milestones, and reporting to executive management and the public. Rob developed and implemented the permitting strategy for this project, which included over 21 individual approvals from federal, state and local environmental agencies including an extensive Section 106 consultation with five Native American Tribal Nations and two State Historic Preservation Offices. One project of the program, the Greater Springfield Reliability Project (\$640 million) was completed on schedule, \$40 million under budget with 2.9 million safe work hours at project completion.

## Liquefied Natural Gas Terminal & Transmission Pipeline Project\*

Maryland and Pennsylvania | 2005 - 2007

**Project team leader** responsible for Federal, State and local permitting of a new LNG import, storage, and regasification terminal in Maryland and associated 88-mile, 30-inch outside diameter natural gas pipeline terminating at in interconnection in Pennsylvania. Permitting responsibilities included managing geotechnical investigations surveys, marine and terrestrial biological surveys, archaeological surveys, and various engineering studies for the proposed pipeline. Permitting requirements included a FERC Application for Certificate of Public Convenience and Necessity (CPCN), various permits for the USACE, and state and local permits. State permitting included Coastal Zone Consistency Determination, Water Quality Certification, Maryland Coastal Facilities Review Act and General Conformity Analysis.

## Confidential Resort Development\*\*

Nassau, New Providence, Bahamas | 2005 - 2007

**Project Manager** for the siting and permitting of a 1000-acre development project that included constructing a signature resort development consisting of approximately 3,500 hotel rooms, two world class 18-hole golf courses, a retail village, luxury spas, the region's largest casino, meeting space, restaurants, an eco-water park, and entertainment venues. The permitting process required the performance of marine biological, archaeological, socioeconomic, geophysical, and geotechnical studies. The project included the preparation of a comprehensive environmental impact assessment (EIA) consistent with World Bank standards.

\*denotes experience prior to joining Burns & McDonnell

# JULIE LORENZ

## Senior Advisor



After leading the Kansas Department of Transportation (KDOT) for four years, Julie joined Burns & McDonnell as a principal consultant. With more than 25 years of experience, she's known as a national leader in policy development, collaboration and implementing vision initiatives.

Julie was appointed Secretary of KDOT and Director of the Kansas Turnpike Authority in

January 2019. While at KDOT, she launched the Kansas Infrastructure Hub in support of IJJA, spearheaded the development and passage of the \$10 billion Eisenhower Legacy Transportation Program and led the Kansas Recovery Office, responsible for administering over \$1 billion in CARES Act COVID-19 relief funding in six months. She was honored to receive the George S. Bartlett Award for leading development of a national vision for transportation for state DOTs, which was unanimously approved by all 52 state and territory departments of transportation in October 2022.

In 2021-22, she served as President of MAASTO (Mid America Association of State Transportation Officials), the 10-state mid-America region of AASHTO. During that time, she convened the 2021 HomeField Advantage Conference bringing together more than 20 states to focus on the intersection of transportation, agriculture, and technology in support of safety and economic development.

Progressive Design Build and other business practices. During her tenure at KDOT, Julie employed the use of progressive design build (PDB) for two high profile, fast track transportation projects. From legislative and construction industry concerns to legal considerations to employee training, bringing a new delivery model into a state agency takes significant collaboration and expertise. Julie knows first-hand and can assist with implementing many lessons learned from those experiences including: the need to have escalation provisions within the scope so that agency leadership is kept aware and can manage risk, to work transparently while protecting proprietary information, and to evolve risk mitigation strategies for traditional and emerging issues.

Julie successfully modernized business practices which have often been opposed in other states, including: the first Road Usage Charge study in the Midwest to address the long-term electrification of the fleet and resulting declining motor fuels tax revenue, implementing the first Midwest managed lane project on US-69 in Johnson County which allows travelers the choice of using a toll lane to keep moving at pace, and legislatively increasing the design-build contracting cap to deliver projects faster for communities and manage price escalation. These, and many other changes, were implemented through extensive public engagement and using facts to build the case for change.

Senior Advisory Services. Since returning to Burns & McDonnell/1898 & Co., Julie has provided executive coaching and senior advisory services on a number of engagements. Highlights include:

- Support of West Virginia and Kansas Infrastructure Hubs to maximize fund flow into the states via IJJA, IRA and CHIPS acts, including community outreach, strategic planning and communications, grant strategy and cabinet secretary/director facilitation.

### EDUCATION

- ▶ Masters, Organizational Psychology
- ▶ Bachelors, Business Admin
- ▶ Bachelors, Psychology

**1** YEAR WITH BURNS & MCDONNELL

**25** YEARS OF EXPERIENCE

# JULIE LORENZ

(continued)

- Market analysis for potential development of regional transport institute. Confidential client.
- National digital infrastructure research and deployment roadmap. Confidential client.
- Development and facilitation support to “light up” I-80, one of the AASHTO moonshot interstate pilots. Partial funding through FHWA. Nevada DOT.
- 90-day work plan in support of new State Department of Transportation CEO with his executive team, on-going coaching. Confidential client.
- Design and facilitate Executive Board annual retreat, The Eastern Transportation Coalition.
- National Vision and Leading Culture Change, CEO peer exchange sessions for AASHTO

Julie previously led strategic consulting for Burns & McDonnell’s Transportation Group from 2011 through 2018. During that time, she led statewide engagement and outreach efforts in support of strengthening and modernizing the economic analysis portion of the priority formula for the Ohio TRAC prioritization process.

Julie served as the Director of Public Affairs at the KDOT, where she led strategic planning and integrated collaboration/communication efforts from 2002 to 2011. Notably, KDOT secured an \$8.2 billion 10-year funding program in spring 2010, resulting largely from stakeholder collaboration and a focus on economic impact analysis.



# TOM ROSENBAUGH, PMOC, EVMP, PMI-SP

## Assessment Lead



Tom is the Director of Program Management for Burns & McDonnell for domestic and international operations. He holds multiple certifications from the Earned Value Management Institute as an Earned Value Management Professional (EVMP), AACEi as a Certified Planning and Scheduling Professional (PSP), PMI as a PMI-Scheduling Professional (PMI-SP) and the ALLPMO Network as Project Management Office Certified (PMOC). He is a former US Army

Ranger and has over twenty-one years of project experience in multiple single site and linear project fields including Energy, Transportation, Infrastructure, Commercial/Residential Construction and Process and Refinery. He previously led the Unmanned Aerial Systems Program for Burns & McDonnell Canadian Operations as a chief pilot and operations lead.

### Director of Program Management – Construction

Company Wide | 2023 - Current

**Director of Program Management - Construction** primary responsibility is to implement, oversee, manage, and support the successful execution of all programs for Burns & McDonnell, either directly for construction led programs, or indirectly for programs led by other global practices/lines of business. Also responsible for coordinating, aligning, training and career growth planning efforts of program staff, while ensuring timely delivery, adherence to quality standards, and effective resource utilization. With a keen eye for detail and excellent leadership skills, I drive program success by setting clear objectives, providing guidance, and ensuring collaboration across all stakeholders involved across all programs.

Key responsibilities include Program Strategy and Planning, Team Leadership and Collaboration, Resource Allocation and Optimization, Client & Stakeholder Management, Quality Assurance and Compliance, Risk Management, Systems/Tools Identification, Implementation and Integrations, Performance Monitoring and Reporting and hands-on Management of Programs.

### Public Service Company of New Mexico (PNM) | 10yr Capital Program

Albuquerque, NM | 2021 - 2022

**PMO Startup/Implementation Manager** responsible for the startup and implementation of the Capital and Sustaining Projects PMO, and Capital Execution Program for Public Service Company of New Mexico. Role included the selection, implementation and integration of Project Management Platforms including Prism, Primavera P6, PowerBI, SharePoint, Oracle Apex, PowerClerk and Maximo. In addition, the hiring, training, and career development of a team of 100+ engineers, construction resources, data scientists, project managers and project controls staff. Utilizing industry standard tools and processes from organizations such as the Project Management Institute (PMI), Construction Industry Institute and Prosci in support of the organizational change management initiative, to successfully plan and execute \$400M annual spend. As part of this role, also stood up the New Service Delivery program to support the application development and receipt, through energization process for all new residential and commercial electrical service applications.

## EDUCATION

- ▶ Bachelors of Science, Business Administration-Project Management

## CERTIFICATIONS

- ▶ ALLPMO Network - Project Management Office Certified
- ▶ Earned Value Management Institute (EVMI®) Certified Earned Value Management Professional
- ▶ Project Management Institute Certified Scheduling Professional
- ▶ AACEi - Certified Planning and Scheduling Professional

**17** YEARS WITH BURNS & MCDONNELL

**23** YEARS OF EXPERIENCE

# TOM ROSENBAUGH, PMOC, EVMP, PMI-SP

(continued)

## Colorado Springs Utilities – Sustainable Energy Plan Portfolio

Colorado Springs, CO | 2020-2021

**Portfolio Startup/Implementation Manager** responsible for the implementation of the SEP Portfolio for Colorado Springs Utilities for the Burns & McDonnell team functioning as the overall Portfolio Manager. This portfolio consists of multiple generation projects (gas, renewable, coal etc.), Transmission and Distribution projects, Technology Systems Implementation (ERP, Accounting, Information Management etc.), Long term asset planning and management. Responsible for the implementation and management of all policies, procedures, staffing, resource planning, contract execution, risk management, systems/tools implementation and integration, reporting, client executive interface and support of individual project execution.

The SEP portfolio is a multi-year, multi-faceted portfolio being executed to support the substantial growth of renewable energy and population of the Colorado Springs area.

## Liberty Utilities - Capital Transmission Program

Joplin, MO/Galena, KS | 2019-2020

**Program & Portfolio Manager** responsible for the overall program execution and PMO Implementation for Liberty Utilities CapEx Transmission and Distribution Program. For 2020, this portfolio consists of approx. 45 strategic projects and 500+ O&M work orders with a total budget of ~\$190M. The strategic projects consist of multiple T&D projects varying in scope, schedule and budget from \$1M to \$50M, green and brownfield, as well as both substation and transmission lines. The strategic projects consist of multiple T&D projects varying in scope, schedule, and budget from \$1M to \$50M, green and brownfield, as well as both substation and transmission lines. By establishing a strategic project PMO, implementing and utilizing industry standard management systems such as ProCore, PowerBI and PowerPlan the overall Program can now identify, strategically plan and successfully execute a portfolio that will span into ~2023.

## City of Shreveport – Clean Water Shreveport City Wide Water and Sewer Program

Calgary, AB/ Shreveport, LA | 2019-2020

**PMO Manager** responsible for the implementation of the Program Management Office (PMO) supporting the Program Manager for the City of Shreveport Clean Water and Sewer Program. Burns & McDonnell is functioning as the overall Program Manager for the city's ~\$900M water and sewer program. Systems include the implementation of Oracle Primavera Unifier, P6 and PowerBI. In addition, leading the integration design and implementation between these systems as well as the city's financial and accounting system, Geo-Spatial work management system and public reporting portal. Also responsible for the development of all associated policies and procedures, training curriculum and materials for internal, external staff and program/project contractors.

## Bruce Power - Program/Portfolio Integrated Project Controls System Development & Implementation | Bruce Power

Ontario, Canada | 2016-2019

**Program Manager** Currently managing a team of 40+ project controls and IT individuals, responsible for the development, implementation, and execution of all aspects of project controls and Portfolio Management systems and tools for Bruce Power. The system development and implementation include process, training and functionality development to execution for Bruce Power. The portfolio spans multiple lines of business, over 500+ projects, and budgets of over \$13B for an organization of 4000+ employees. The Integrated Enterprise Project Controls Platform consists of industry leading tools such as EcoSys, Maximo, P6, OpenText, Field Status (Mobile) Tool Solution and others.

# PAUL DELPHOS, PE, DBIA

## Procurement Support



Paul has over 32 years of experience in the water and wastewater industry, including a wide variety of collaborative delivery projects. He has a vast amount of design experience with advanced water treatment technologies (membranes, desalination, GAC, etc.) including over 40 different facilities totaling more than 800 MGD. He has been involved with design build projects for over 15 years as a Project

Manager, Design Manager and Owner's Advisor. Paul is a recognized design-build consultant having presented on design-build topics at national and regional conferences more than 15 times, presented design-build principles to numerous public sector utilities. Further, he is serving as a Peer Reviewer to the upcoming 3rd Edition of M47 Capital Project Delivery Manual prepared by AWWA.

### EDUCATION

- ▶ Masters, Environmental Engineering
- ▶ Bachelors, Civil Engineering

### REGISTRATIONS

- ▶ Professional Engineer (VA)

**2** YEARS WITH BURNS & MCDONNELL

**32** YEARS OF EXPERIENCE

### Frederick Water Henry F Sliwinski Advanced Water Treatment Improvements Owner Advisor

Frederick Water, VA

**Lead Technical And Design-Build Support** for Owner Advisor Services for the addition of advanced water treatment facilities at this recently commissioned water treatment facility. After start-up, it was recognized that the raw water quality changed sufficiently enough to require additional treatment. To streamline the installation of reverse osmosis membranes, the improvements will be delivered via progressive design-build. Owner Advisor services include conceptual design, contractor engagement and design-builder procurement support.

### Smith Mountain Lake Water Treatment Plant and Pipelines Progressive Design Build Project\* | Bedford Regional Water Authority, VA

**Project Manager** for the progressive design-build for a new 4 MGD membrane/GAC WTP, 12 MGD lake intake, 4 MGD raw water pumping station and over 20 miles in pipelines. The project involved membrane system and granular activated carbon pilot studies; early treatment equipment procurement; local and VDH regulatory coordination and negotiations; and design-to-budget efforts to meet a targeted \$34 million budget for all project components. In addition, easement acquisitions for over 20 miles of pipeline were required and a number of public workshops were conducted throughout the project.

### Sustainable Water Initiative for Tomorrow (SWIFT) Program\* | Hampton Roads

Sanitation District, VA

**Procurement Delivery Leader** as part of the Program Management team for this large, regional groundwater recharge program. SWIFT is \$2 billion program to treat wastewater effluent through advanced water treatment facilities to recharge the Potomac Aquifer and reduce nutrient loadings to the Chesapeake Bay. Paul's primary role was to lead the program management design-build procurement efforts, including contract reviews, bid form development, contractor outreach and risk management efforts. Other key responsibilities included overseeing the development of 20 to 30% design documents to support subsequent design-build procurement.

### Opequon Creek Water Supply Project WTP and Pipelines Progressive Design Build Project\* | Frederick Water, VA

**Design Manager** for the progressive design-build for a new 8 MGD WTP, 6-mgd lake intake and pumping station, 8-mgd river intake and pumping station and over 5 miles of pipeline for \$35 million. The project involved technology selection, equipment procurement, regulatory coordination and negotiations, and "design to budget" efforts to meet a targeted \$35 million budget for all components of the project.

# PAUL DELPHOS, PE, DBIA

(continued)

## WWTP Improvements Procurement Assistance | Reedy Creek Improvement District, FL

*Procurement Specialist* supporting the development of procurement selection criteria for the design of an 18 MGD advanced WWTP that required significant constructability and maintenance of plant operations considerations. The team drafted the Request for Proposals in compliance with public procurement regulations and policies and supported the client as an extension of their staff throughout the process.

## Hummelstown WTP PDB Conceptual Design Development | United Water PA/DE

Hummelstown, PA

*Project Manager* for the development of conceptual design documents for a subsequent design build procurement. Project included the evaluation and conceptual design of a new 4-mgd membrane filtration plant for UWPA's Hummelstown WTP. Project components included a cost-feasibility evaluation of membrane technology versus conventional technology, side-by-side piloting of three different membrane systems, membrane system procurement, and overall conceptual design for a \$15 million design-build contract.

## Industrial Wastewater Treatment Facility Engineering Services | Energy Resource Recovery, Inc.

Cabarrus County, NC

*Project Manager* for a variety of engineering services for a commercial wastewater treatment facility that received a wide variety of oily wastewaters and used oils. Tasks included conceptual design of a retrofit of an abandoned DAF for a subsequent design-build project of a oil-water separator, industrial wastewater pumping analysis, industrial wastewater treatment process review, and used oil pretreatment design.

## Water Facility Master Plan and Conceptual Treatment Facility Design

Charles Town, WV

*Technical Lead* for a facility master plan that recommended water treatment plant upgrades from the current 2.8-mgd to an interim 5.5-mgd and final 7.0-mgd capacity. Project components included raw water screening, raw water pump station, high-rate clarification and filtration alternatives. Subsequent efforts included conceptually designed new treatment plant consisting of flocculation, inclined-plate clarification and membrane filtration with a side-by-side pilot of two membrane filtration systems.

## Station 6 Demonstration Water Treatment Plant | New York Department of Environmental Protection

New York, NY

Responsible for process value engineering of a \$93 million water treatment plant. Primary treatment process train included ozone and ultrafiltration for iron and manganese oxidation, air stripping for VOC and MTBE removal, and reverse osmosis for hardness removal. Helped develop value engineering strategies with the potential of over \$20 million in capital cost savings. Efforts included third-party review of treatment plant designs, alternatives development and construction cost estimating.

## Queens Groundwater Replenishment Program Value Engineering | New York Department of Environmental Protection

New York, NY

Part of the third-party value engineering team for the proposed \$200 million program to retrofit groundwater treatment facilities in Queens as a supplemental water supply to the Catskill and Delaware Aqueducts when they were shut down for maintenance. Efforts included third-party review of treatment plant designs, alternatives development and construction cost estimating.

*\*denotes experience prior to joining Burns & McDonnell*



# CHRIS BURKS, PE

## Project Controls & Scheduling



Chris is a highly qualified and trained leader with 20 years of experience in project management, directly supervising project managers and coordinating multidiscipline design/project engineers and project controls specialists to plan and execute complex projects in the power generation, petrochemical, and manufacturing industries. His experience has derived a passion for building trusted relationships, driving to a shared project vision, communicating clear

goals and expectations, and inspiring team enthusiasm. Currently, Chris is providing EPC and regulatory license application and permitting oversight, technical product owner's reviews, development of quality control procedures, QA surveillances, and monitoring EPC performance metrics.

### EDUCATION

- ▶ Bachelors, Mechanical & Aerospace Engineering

### REGISTRATIONS

- ▶ Professional Engineer (VA)

1 YEAR WITH BURNS & MCDONNELL

20 YEARS OF EXPERIENCE

### Carbon Free Power Project (CFPP) | UAMPS/CFPP LLC

Idaho National Labs | Nov 2022-Present

**Construction Project Manager.** Led coordination and oversight of the EPC contractor design, procurement, and construction activities in support of the deployment of Small Modular Reactors for the Carbon Free Power Project. Conducted the owner's engineering team review and approval of vendor generated engineering and cost estimating deliverables per project schedule and technical requirements, monitored and directed corrective action to EPC and sub supplier performance, performed quality assurance vendor surveillances, and developed quality control procedures. Provided oversight of the integrated project controls team (EPC, OEM, and owner) in the areas of document management, schedule management, cost management, and change management.

### Subsequent License Renewal\* | Dominion Energy

Richmond, VA | 2018-2022

**Supervisor Project Management - Nuclear Corporate Projects.** Provided leadership, structure, technical guidance, and direct oversight to employees and contract project managers, cost control specialists, cost estimating specialists, and schedulers in executing complex capital and expense nuclear power plant projects supporting North Anna and Surry Power Stations. Project portfolio includes main control room conversion from analog to digital controls, switchyard transformer replacements, ISFSI expansions, circulating water and reactor coolant pump refurbishment, chiller replacements, and many others. Supported multiple plant refueling outages from the corporate office and on station, including Engineering Manager in the Outage Control Center.

### Nuclear Corporate Projects/External Flooding Hazard Analysis - Beyond Design Basis (BDB)\* | Dominion Energy

Richmond, VA | 2016-2018

**Project Manager - Nuclear Corporate Projects.** Organized and directed internal and contract resources to prepare reevaluations of multiple external flooding reanalysis reports and calculations for North Anna, Surry, and Millstone Power Stations in response to the nuclear incident at Fukushima, Japan. Assessed existing flood vulnerabilities and led development of design changes for additional protection and mitigation strategies.

### Nuclear Corporate Projects/FLEX - Beyond Design Basis (BDB)\* | Dominion Energy

Richmond, VA | 2013-2016

**Project Manager - Nuclear Corporate Projects.** Directed resources from internal and external groups to develop Flexible and Diverse Coping Strategies (FLEX) in response to NRC order EA-12-049 and installation of Spent Fuel Pool monitoring instrumentation per NRC order EA-12-051 at Millstone Power Station. Fleet lead for

# CHRIS BURKS, PE

(continued)

procurement effort for FLEX portable equipment, spent fuel pool instrumentation, and mechanical connection manual valves. Oversaw development of design change packages, procurement specifications, testing plans, and work order packages for plant mechanical/electrical connections and spent fuel pool instrumentation. Provided oversight of construction activities during refueling outages.

## **Nuclear Corporate Projects/ Regulatory Initiatives\* | Dominion Energy**

Richmond, VA | 2008-2013

**Project Manager - Nuclear Corporate Projects.** Led implementation of the Joint Owners Group (JOG) Motor Operated Valves (MOV) Periodic Verification (PV) program in response to NRC Generic Letter 96-05 for North Anna, Surry, and Kewaunee Power Stations. Led multiple teams in the reconstitution of design basis calculations for over 500 MOVs, including seismic weak-link evaluations, system differential pressure, and thrust/torque calculations. Supported replacement of new containment sump strainers and supplemental modification packages, including strainer seal enclosures in response to NRC Generic Letter 04-02 (GSI-191) for North Anna and Surry Power Stations. Led multidiscipline teams in developing procurement specifications, design change packages, performance testing, and related support calculations.

## **BP/Amoco Yorktown Refinery Expansion\* | AEC Engineering**

Richmond, VA | 2007-2008

**Project Manager.** Managed installing three new facilities in an existing refinery site expansion project to support plant laboratory operations and the plant fire brigade. Directed development of detailed construction packages, SWPPPs, special and conditional use permits, and building permit packages.

## **Sunoco Logistics Fuel Terminal Expansion\* | AEC Engineering**

Richmond, VA | 2006-2008

**Project Manager.** Managed expanding petroleum fuel storage, handling, and bulk load out terminal. Tasks include specification of pumps, piping, API storage tanks, instrumentation, and tank emergency containment dikes. Produced engineering design, bid, and construction packages, special/conditional use permit packages.

## **RPL Biodiesel Processing & Power Generation\* | AEC Engineering**

Richmond, VA | 2006-2007

**Project Engineer.** Developed site layout plans, specifications, and detailed cost estimates for new biodiesel fuel plants. Evaluated, compared, and recommended various sites and process technologies chosen by clients to best facilitate their business objectives. Performed technical due diligence reviews for combined cycle power plants utilizing biodiesel fuel. Conducted predicted performance models, heat and mass balance models, and future life expectancy evaluations. Generated design plans and specifications for modifications to water treatment, fuel handling, and steam process equipment.

## **Packaged Boiler Sales & Manufacturing\* | English Boiler & Tube, Inc.**

Richmond, VA | 2003-2006

**Sales Engineer/Project Manager.** Developed and maintained budgets, material procurement, fabrication tracking systems, and detailed fabrication schedules for packaged steam boiler systems while adhering to ISO-9000 quality procedures. Produced design specifications for packaged steam boiler systems and auxiliary equipment. Specifications were required for items such as gas/liquid fuel burners, force draft fans, water treatment equipment, heat exchangers, boiler feed water pumps, combustion controls, and instrumentation. Managed designers who developed and revised general arrangement, P&ID, and shop fabrication drawings for boilers and other packaged auxiliary shop assembled systems.

*\*denotes experience prior to joining Burns & McDonnell*

# NATHAN HOOD

## Project Controls Specialist



Nathan is a project management professional with 13 years' experience working with organizations to put necessary controls in place that produce accurate cost and duration forecasting, yielding superior profitability and customer satisfaction. Acknowledged for excellence in leadership and developing good workplace relationships. Enjoys working with diverse teams to increase organizational capacity.

### EDUCATION

- ▶ BS Economics

**1** YEAR WITH BURNS & MCDONNELL

**13** YEARS OF EXPERIENCE

### Regional Project Controls Manager | Allied Power

Phoenix, AZ | 2019 - Present

**Regional Project Manager.** Responsible for all financial and productivity reporting. Responsible for managing eight fossil power plant sites.

- ▶ Managed over 100MM in revenue
- ▶ Responsible for setting up reporting structure
- ▶ Brought in over 20MM in new business

### Business Manager | Saulsbury Industries

Dallas, TX | 2016 - 2019

**Client Relations.** Responsible for all financial and productivity reporting. Responsible for managing five different nuclear sites.

- ▶ Managed over 100MM in revenue
- ▶ Responsible for setting up 10+ new jobs
- ▶ Created new reporting structure for O/H management

### Project Controls Manager | Saulsbury Industries

Jenkinsville, SC | 2015 - 2016

- ▶ Managed project cost accounting and contract setup for a \$40 million/year construction firm.
- ▶ Produced weekly, accurate cost and schedule forecasting.
- ▶ Reviewed daily timesheets from craft personnel and assembled invoicing for +\$1 million in weekly labor.

### Project Controls Lead | Saulsbury Industries

El Paso, TX | 2014 - 2015

Responsible for all financial and productivity reporting. Responsibilities also include Schedule Management, Earned Value Management, and Cost Control.

### Cost Analyst/Project Controls | CB&I

Jenkinsville, SC | 2014

Track cost on all working activities of VC Summer Unit 2/3 New Nuclear Construction. Along with track, Nathan is responsible for forecasting all subcontractor's work onsite.

# KEVIN WADDELL, PE, ASSOC. DBIA

## Cost Estimating



Kevin brings nearly 30 years of experience working as a chief estimator, project manager, district manager and preconstruction manager on public infrastructure and civil works projects. Kevin has provided preconstruction & cost estimating on eighteen progressive design-build projects in the past five years alone including multiple clients utilizing PDB for the first time. He leverages this experience to implement PDB best practices to Burns & McDonnell's most complex projects — from water treatment facilities to wetland mitigation banks to large water reservoirs to contaminated soil excavation and remediation. Kevin has experience in many types of heavy/civil and site work construction which allows him to bring value during project development by reducing risk, improving constructability and providing early cost certainty.

As the constructability and cost estimating task leader, Kevin and his team will focus on early cost estimates to set accurate budgets for better planning and decision-making. Kevin's team develops cost estimates based on self-perform construction and general contracting experience, which results in continuous value alternatives analysis and constructability input throughout the project lifecycle.

### Northwest Water Facility Design-Build

Wichita, KS

Kevin provided preconstruction work in Phase 1 of the progressive design-build project, which included the review and analysis of the cost estimate for the final GMP for the new \$500 million WTP. Burns & McDonnell is the design builder for the new 120 MGD surface water softening & treatment facility. Construction is scheduled to be completed in 2024. The budget for this project was established by the preconstruction and estimating team at a 5% design completion for \$524M. The City chose to lock in the guaranteed maximum price (GMP) at 30% design and the project came in \$14M under budget; an example of accurate, early cost estimating with limited design information. With early cost certainty, Wichita was able to lock in an interest rate of 1.17%, saving the project an estimated \$93M in project financing costs.

### PFAS Surface Water Treatment Project | Husky Energy

Superior, WI

Developed the concept level FEL-1 detailed scope of work and cost model for the study phase. Project consisted of a new PFAS storm water treatment facility involving RO membrane and chemical treatment systems, extensive site grading and conveyance channel excavation, and construction of a stormwater retention pond. The project was developed to remove PFAS from storm water runoff, collect and contain run off in engineered channels, and convey the contaminated storm run off to the new treatment facility.

## EDUCATION

- ▶ BS, Civil Engineering
- ▶ Degree, Specialization

## REGISTRATIONS

- ▶ PE, State of Kansas
- ▶ Assoc. DBIA

**5** YEARS WITH BURNS & MCDONNELL

**30** YEARS OF EXPERIENCE



# KEVIN WADDELL, PE, ASSOC. DBIA

(continued)

## Lake Hicpochee Shallow Storage & Hydrologic Enhancement Project Expansion

South Florida Management District

The Lake Hicpochee Enhancement Project Expansion is the second phase of a project by the South Florida Water Management District (District) to promote hydrologic enhancement of the Lake Hicpochee Lakebed. The project included the design of a new flow equalization basin with a footprint of 2,200 acres. The flow equalization basin was designed as an above-ground, low-hazard impoundment feature to capture and store approximately 8,750 acre-feet of water from the Caloosahatchee River. In addition to 4 million cubic yards of earthwork, the scope included a pump station, control building, two bridges, two flow control structures, site access, recreational facilities, and site security. Kevin managed the estimating team during the development of the conceptual ROM cost estimate through completion of the final opinion of construction cost valued at approximately \$87.5 mil. His team provided constructability reviews, value alternatives analysis, and preliminary construction schedule input.

## HCFCD Estimating Review and Standardization Technical Assistance | Harris County Flood Control District

Houston, TX

Burns & McDonnell is currently assisting Harris County Flood Control District in conducting a mid-phase review of its \$5 Billion Hurricane Harvey Relief Bond Program. Since its inception in 2018, the bond program has been hampered by inconsistent and poor consultant estimates, high inflation and cost escalation due to volatile market conditions. Our team's role, which includes reviewing all project scopes, schedules and budgets for consistency, is to establish a standardized estimating process for all project planning, design, construction and maintenance phases; realistic cost and schedule forecasts to improve CIP forecasting; and ultimately, a new risk management system for the District. Kevin and his team have analyzed approximately \$2 billion in projects involving stormwater retention, stormwater conveyance, and civil infrastructure improvements to provide detailed feedback regarding the reliability of the preliminary scopes of work, early cost estimates and schedules to assist HCFCD with business case decisions for CIP planning, project sequencing and overall validity of proposed costs for the CIP.

# TRACY ULTICAN, CPE

## Cost Estimating



Tracy has 26 years of experience in the civil/earthwork estimating field. The majority of his experience is with DOT, Railroad, Army Corp, MATOC, intermodal, site development, commercial earthwork and design-build earthwork projects. He has additional experience in compiling estimates as the prime contractor for civil construction projects. Specifically, DOT, intermodal/rail road and other civil projects.

Throughout his career, Tracy has been responsible for estimating a wide range of civil projects, including DOT work in multiple states such as Kansas, Iowa, Missouri, Illinois, Indiana, Wisconsin, Minnesota, North Dakota and North Carolina. He has experience estimating Intermodal Projects; the Charlotte North Carolina Intermodal, the Birmingham Alabama Intermodal and Straus New Mexico Intermodal. Tracy also has experience estimating dams, new landfill and landfill closure projects.

Other responsibilities include Project Engineering/Project Management. Tracy was responsible for setting up projects in the company View Point project management contract control software, reviewing and issuing subcontracts, PO's, tracking daily production, reviewing and submitting submittals, compiling and submitting Quality Control Plans and safety plans and using Primavera P6 and assembling submitting project schedules.

At a previous firm, Tracy was responsible for hard bidding 80 million dollars worth of commercial earthwork project in the Kansas City market and ensuring a revenue stream of 25 million dollars for the earthwork division.

Tracy is proficient in taking projects from conceptual pricing to hard-bid estimating. He has experience with cost analysis of projects, forecasting cost, vendor relations, evaluation of sub-contractor bids, and coordination of shop drawings with on-site conditions and contractors. On smaller projects, served as both estimator and project manager.

### NOTABLE PROJECTS ESTIMATED:

- |  |              |
|--|--------------|
| ▶ CSX Casky Inspection Yard (Design/Build Prime):    | \$49 Million |
| ▶ Birmingham, AL Intermodal (Prime & Earthwork):     | \$46 Million |
| ▶ Strauss New Mexico Intermodal (Prime & Earthwork): | \$45 Million |
| ▶ Kansas Homestead (DOT) (Prime & Earthwork):        | \$37 Million |
| ▶ Charlotte, NC Intermodal (Prime & Earthwork):      | \$18 Million |
| ▶ Red Willow Dam Nebraska (Prime & Earthwork):       | \$17 Million |

### EDUCATION

- ▶ B.S. Construction Management

### REGISTRATIONS

- ▶ Member of American Society of Professional Estimator CPE Certified Earthwork Estimator

**1** YEAR WITH BURNS & MCDONNELL

**26** YEARS OF EXPERIENCE

# TRACY ULTICAN, CPE

(continued)

## **Emery Sapp and Sons, Inc. | Chief Estimator**

Kansas City, MO | July 2015 – 2023

Responsible for Unit Price and hard-bid civil construction estimating (earthwork, storm sewer, shoring, bridges, RCB, structural concrete, MSE walls, T-Walls); duties included quantity take-off, solicitation of subcontractors' bids, reviewing subcontractor bids, writing proposals, developing schedules. Coordinating estimating department assigning projects and tracking bids with Sales Force. Estimates range from \$1,000,000 to \$60,000.

## **Ames Construction, Inc. | Senior Earthwork Estimator**

Burnsville, MN | July 2012 – July 2015

Responsible for Unit Price and hard-bid civil construction estimating (earthwork, storm sewer, shoring, small bridges, RCB, structural concrete, MSE walls, T-Walls); duties included quantity take-off, solicitation of subcontractors' bids, reviewing subcontractor bids, writing proposals, developing schedules using P6. Estimates range from \$3,000,000 to \$200,000,000.

## **TJ Lambrecht Construction | Senior Earthwork Estimator**

Chicago, IL | 2009 – July 2012

Responsible for Unit Price and hard-bid earthwork estimating; duties included quantity take-off, writing proposal letters, solicitation of subcontractors' bids, reviewing subcontractor bids, writing purchase orders and contracts. Setting up project in project management software coordination of cost control with our project management division and reviewing change orders. Estimates range from \$500,000 to \$60,000,000 with the current years' revenue to be \$250 million.

## **George J. Shaw Construction | Senior Earthwork Estimator**

Kansas City, MO | 2003 – 2009

Responsible for hard-bid earthwork estimating department; duties included quantity take-off, writing proposal letters, solicitation of subcontractors' bids, writing purchase orders and contracts. Reviewing bids and proposal submitted by our junior earthwork estimators and coordination of cost control with our project management division and reviewing change orders. Estimates range from \$50,000 to \$10,000,000 with the current years' revenue to be \$20-\$25 million.

# DAVID KINCHEN

## Workforce Development & Training



Dave is an industry leader with 35 years of business leadership and management experience at the corporate, divisional and project level coupled with operations and business development expertise in multiple market segments thought EPC, design-build, CMAR, design-bid-build and P3 delivery. Over his career, David has led teams from project development through construction execution in municipal water, federal, heavy civil, heavy industrial, commercial,

institutional, and transportation market sectors (rail, aviation and bridges). David provides industry thought leadership through his service at the national Design Build Institute of America (DBIA), and serves as past president and board member for the Water Design Build Council (WDBC). David's business acumen and understanding of complex business structures has afforded him the opportunity to participate at the leadership level on numerous joint ventures for major infrastructure projects, integrating . David has also served in a number of key leadership and management positions throughout his career within major top tier design & construction companies. He has lead major projects nationally and internationally, and has chaired multiple corporate growth initiatives in addition to participating on corporate risk review boards.

### EDUCATION

- ▶ BS, Construction Management

### REGISTRATIONS

- ▶ DBIA Professional Certification
- ▶ Licensed Utility Manager (GA)
- ▶ NPDES Level 1 Certification
- ▶ USACE QCM Certification
- ▶ OSHA 30-hour and 10-hour

**5** YEARS WITH BURNS & MCDONNELL

**35** YEARS OF EXPERIENCE

### WTP Upgrade and RW Line Replacement | Stillwater Utility Authority

Stillwater, OK | 2021 – Present

**Project Manager** | \$250 million. CMAR – 24 MGD WTP, Phase 1 preconstruction effort and project development including upgrades and expansion of existing WTP, 45,000 lf of FW TX and refurbish/replacement of 105,000 lf of RW TX including new pump stations.

### Wichita MWWTF | City of Wichita

Wichita, KS | 2019 – Present

**Project Director** for Joint Venture | \$491.4 million. PDB - 120 MGD WTP, JV with Alberici, 2nd largest Water PDB in the country.

### Water Resource Centralization Project | PWSD

Parker, CO | 2016 – 2017

**Project Executive** | \$45 million. PDB – Full conversion from free chlorine to chloramination, including 22 miles of pipeline tying into Castlerock transmission lines.

### Smith Mountain Lake WTP and Pipeline | BRWA

Bedford, VA | 2013 – 2014

**Project Director** | \$42 million. PDB – 4 MGD MBR WTP, RW intake and PS, 24 miles FW TX lines thought rural western Virginia.



# DAVID KINCHEN

(continued)

## **T-Bar Wellfield and Pipeline | Midland County Freshwater Supply District #1**

Midland, TX | 2012 – 2013

*Project Executive* for Joint Venture | \$162 million. DBOF - 70 Miles RW pipeline, wellfield development, chlorination stations, pump station, JV with Garney, self-perform work on facilities.

## **DCW Combined Heating and Power (CHP) | Pepco Energy Services**

Washington, DC | 2012 – 2014

*Project Director* | \$80 million. DBO - 5MW CHP, consortium with PEPCO Energy and Ulliman Schutte.

## **OUC SW Plant Ozone Generator Replacement Project | Orland Utility Commission**

Washington, DC | 2011 – 2012

*Project Director* | \$9.6 million. CMAR - replacement of 4 Ozonia OG's and new LOX, including shutdowns and tie-ins to existing WTP.

## **UOSA WWTF Frame Press Replacement Project | Upper Opequon Sanitary Authority**

Centreville, VA | 2011 – 2012

*Project Director* | \$6.9 million. PDB - replacement of 2 x 50-year-old frame presses and sludge handling for WWTF, teamed with PCC as construction partner.

## **ATCT and Simulation Facility Vance AFB | USACE Tulsa District**

Enid, OK | 2010 – 2011

*Preconstruction Director* | \$8.3 million. FPDB - Replacement of ATC Tower and new simulation facility, LEED Silver.

## **Joint Intel Tactical Facility, Goodfellow AFB | USACE Little Rock District**

San Angelo, TX | 2010 – 2011

*Preconstruction Director* | \$11.7 million. DBB - 49,400 SF joint intelligence facility with SCIF, LEED Silver.

## **Dining Hall Facility, Fort Benning | USACE Savannah District**

Columbus, GA | 2009 – 2010

*Project Director* for Joint Venture | \$17.2 million. FPBD - 64,000 SF, 1,200-person dining hall facility with full kitchen facility, LEED Silver, JV with EDT (8A).

## **Main Post Worship Center | USACE Savannah District**

FT. Bragg, NC | 2010 – 2011

*Preconstruction Director* for Joint Venture | \$13.5 million. FPBD - 22,600 SF Facility, including worship, activity center, offices, seating capacity of 629, LEED Silver, JV with ILF (8A).

## **Armed forces Joint Chaplaincy Center, Ft. Jackson | USACE Charleston District**

Columbia, NC | 2008 – 2010

*Project Director* for Joint Venture | \$10.6 million. FPBD - 50,000 SF Facility, including all religions and all services, LEED Silver, JV with ILF (8A).

# CHITRA FOSTER, PE, DBIA, ENV SP

## Workforce Development & Training



Chitra is the Regional Practice Manager for the Water Business Line in Texas. Her business leadership is informed by US and international hands-on experience in all aspects of planning, engineering and construction of water and wastewater infrastructure. She leads the growth of the firm's practice in the Texas region while at the same time performing various functional project roles to further the business. Over the course of her career, she has worked and lived in many parts of the world, successfully bridging technical and cultural divides to drive teams to excel in holistic project delivery.

### Wichita Northwest Water Facility | Wichita Water Partners Joint Venture

Wichita, Kansas | Aug 2019 - Present

**Design Manager.** The City's existing water treatment plant is 80 years old and lacks necessary redundancies, making it vulnerable to failure. Under progressive design-build delivery, our integrated team is building a new, fully redundant 120 MGD Northwest Water Facility (NWWF). The facility is designed to treat water from three different sources: wellfield water, surface water and water from the City's ASR Surface Water Treatment Plant, which adds efficiency and drought resiliency. The \$500 million project broke ground in October 2020 and will be complete by January 2025. Overall responsibility for delivery of project design on schedule, budget, quality, synchronized with construction sequencing and integration of constructability and operability to deliver a best value design allowing the Owner to maximize project budget across the site.

### South Platte Renew (SPR) Owner Advisory Services | Englewood Colorado

Englewood, Colorado | Dec 2019 - Dec 2022

**Project Manager.** Burns & McDonnell oversees the management of contracts for \$32 million in wastewater infrastructure. Our owners advisory services include assisting with the selection of the CMAR contractor, reviewing and/or developing initial 30% cost opinions for a project, conducting constructability reviews, coordinating construction activities with operations and participating in partnering activities. Provide expert guidance to the Owner's team on the Civil and Electrical CMAR Project. Assisted the Owner in successful negotiations with the CMAR to maximize project budget.

### Stillwater Water Treatment Plant Preconstruction (CMAR) | Stillwater Utilities Authority

Stillwater, Oklahoma | June 2021 - November 2022

**Deputy project manager / Design integration manager.** On the CMAR team, Chitra's role was to oversee design integration with construction sequencing, constructability and operability to deliver cost-effective solutions on this Phase 1 preconstruction effort for upgrades and expansion of the City of Stillwater's existing WTP.

## EDUCATION

- ▶ Masters, Environmental Engineering
- ▶ Bachelors, Civil Engineering
- ▶ Bachelors, Mathematics

## REGISTRATIONS

- ▶ Board Certified Environmental Engineer (TX)
- ▶ Designated Design/Build Professional (TX)
- ▶ Envision SP (TX)
- ▶ Professional Engineer

4 YEARS WITH BURNS & MCDONNELL

26 YEARS OF EXPERIENCE

# CHITRA FOSTER, PE, DBIA, ENV SP

(continued)

## HCFCO STRATEGIC ENGINEERING TECHNICAL ASSISTANCE | Harris County Flood Control District

Houston, Texas | Oct 2022 - Present

**Project Manager.** Chitra is the Project Manager and key client liaison leading Burns & McDonnell and its minority-owned subconsultant team partners assisting the District by providing technical assistance in three main focus areas: Conducting a mid-phase review of the \$5 Billion Bond Program, including project scopes, estimates and schedules and beginning phases of a Risk Management System for the District; establishing a Standardized Estimating Process for the Planning, Design, Construction and Maintenance project phases so that project estimates and schedules. This process will help the District establish realistic cost and schedule forecasts to improve CIP forecasting and Using the data and processes developed in the first phase of work to provide costs, schedule and staffing forecast for the District's \$0.8 Billion Community Development Block Grant "Mitigation" and "Disaster Recovery" applications.

# CAREY SULLIVAN

## Stakeholder Engagement



Carey brings more than 17 years of experience engaging internal and external stakeholders and communicating for major investor-owned utilities and government entities. She is collaborative and consumer-focused. She approaches business problems with a creative mindset and consistently uncovers fresh ways for organizations to connect with

customers, build trust, and foster excellent relationships. Carey developed and executed communication and public outreach strategies ranging from closing a coal mine in Louisiana to complying with environmental mandates at multiple fossil-fueled power plants and from responding to West Virginians' high electric bill concerns to restoring power after major weather events.

### EDUCATION

- ▶ MS, Journalism
- ▶ BS, Journalism Degree

1 YEAR WITH BURNS & MCDONNELL

17 YEARS OF EXPERIENCE

### Dolet Hills Lignite Company Mine Closure\* | Southwestern Electric Power Company

Shreveport, Louisiana | 2018

**Communications director** for the closure of a lignite mine in rural Louisiana. She developed internal and external communications and served as a spokesperson for the closure, which impacted more than 200 employees and contractors. She garnered several earned media mentions by highlighting the company's work with the State of Louisiana to connect affected employees to job opportunities at nearby industrial and manufacturing companies.

### H.W. Pirkey Power Plant Closure\* | Southwestern Electric Power Company

Hallsville, Texas | 2020-2021

**Communications director and stakeholder engagement** for the closure of a lignite power plant in East Texas. When the retirement of the H.W. Pirkey Power Plant was announced in 2020, work began quickly to help employees and the local community transition to the future. AEP, Southwestern Electric Company, and local leaders developed a Just Transition model based on a commitment to do the right thing for affected communities. This work included engaging with regional economic development professionals and leaders for the impacted counties, cities, school districts, and houses of worship. Carey organized video coverage of multiple public meetings that was used by multiple local television stations to report on the effort.

### Ross Prairie to Shaw 230-kV Transmission Line | Duke Energy Florida

Ocala, Florida | 2023

**Stakeholder engagement** for a 19-mile greenfield transmission line in Marion County, Florida, with organization opposition to potential line routes impacting a state park. Working with the client, Carey developed talking points, fact sheets, web content, open house materials, managed the hotline, email inbox and two back-to-back public open houses. More than 300 residents attended the first open house. The project garnered feedback from more than 600 individuals.

### North Central Wind Energy Facilities\* | Southwestern Electric Power Company

Shreveport, Louisiana | 2019-2021

**Communications director** for Southwestern Electric Power Company's campaign to get utility commission approval for a \$1.1 billion investment in 809 megawatts of wind energy - enough to power 440,000 homes. She conceived and drove a communication and public outreach campaign, which included message testing, strategic digital, print and broadcast media buys, community engagement, and media relations that prompted two state utility commissions to give the project the go-ahead.

\*denotes experience prior to joining Burns & McDonnell

# LINDSEY DOUGLAS

## Industry & Agency Engagement



Lindsey has 18 years of experience and has provided executive strategic coaching, government affairs guidance, project management and rail coordination. She previously worked for Union Pacific Railroad in Chicago and Kansas City, where she served as senior director of public affairs in Illinois, Wisconsin, Kansas and Missouri. She also served as deputy secretary of the Kansas Department of Transportation. As

deputy secretary, Lindsey worked with external stakeholders to expand KDOT's use of alternative delivery, including Design-Build and Phased Design-Build based on a percentage of total program construction.

### EDUCATION

- ▶ Masters, Environmental Law
- ▶ Bachelors, Public Administration

1 YEAR WITH BURNS & MCDONNELL

18 YEARS OF EXPERIENCE

### West Virginia DOT Infrastructure Hub | West Virginia Department of Transportation

Charleston, West Virginia | Aug 2023 - Present

**Government relations lead.** Burns & McDonnell/1898 & Co. is supporting Governor Justice and the State of West Virginia with the WV Infrastructure Hub to maximize fund flow into the states via IIJA, IRA and CHIPS federal acts, including community and stakeholder outreach, strategic planning and communications, grant strategy and cabinet secretary/director facilitation. Lindsey leads all government relations strategy and coordination. She also assists the project manager with general task management, scheduling and deadlines.

### IKE Transportation Program | Kansas Department of Transportation

Multiple Locations, Kansas | Jul 2023 - Present

**Strategic consultant.** KDOT selected IKE Transportation Partners (ITP), a joint venture of Burns & McDonnell and Garver, to serve as its program management consultant (PMC) for the full 10-year IKE Transportation Program. ITP provides oversight of all projects in the \$9.9 billion program through assistance with project planning, program review and support, industry engagement and public involvement. ITP provides project-level support activities, including preliminary design, environmental studies, ROW acquisition, final design, construction engineering and inspection. KDOT also leverages technical skills within ITP to assist with integration of new technology, process improvements, asset management and resource planning. This staff supplementation allows KDOT to deliver on legislative commitments and strengthen the agency to deliver future programs. Lindsey provides strategic input on legislative and stakeholder expectations regarding program delivery. She also leads tasks supporting the KS NEVI Program and assists with the rail coordination and engagement strategy.

### KDOT Road Usage Charge (RUC) Study | Kansas Department of Transportation

Topeka, Kansas | Sep 2023 - Present

**Strategic Consultant.** This multi-phase project is helping KDOT study whether a road usage charge could be a viable alternative to the gas tax for funding the state's roads and bridges. This exploratory work includes user-centered research into the priorities and values of Kansans, development of policy recommendations, and the planning and eventual execution of a road usage charge pilot. A key objective of this work is to bring a Midwestern perspective to the national conversation around alternative ways to fund transportation. Lindsey advises on policy strategy and engagement.



# LINDSEY DOUGLAS

(continued)

## Westside Gateway (CREATE WA1) | MK Communications, Inc.

Chicago, Illinois | Jul 2023 – Nov 2023

**Public engagement lead.** Burns & McDonnell supports the Westside Gateway (CREATE WA1) project goals to maximize participation in and benefits to the community, including goals for hiring, contracting and keeping the community and its leadership informed, involved and supportive. The team assists with project management activities, tracking and reporting project progress to partners, coordinating DBE outreach, and generating support from local leaders and elected officials through materials development and outreach. Lindsey is the co-lead for public engagement, government relations and outreach with MK Communications. She also assists Union Pacific in these efforts and general CREATE program engagement.

## Maguire Street Corridor Improvements | City of Warrensburg, Missouri

Warrensburg, Missouri | Jul 2023 – Present

**Rail coordination lead.** This project is helping the City of Warrensburg upgrade a major thoroughfare, making it safer and more accessible for all users well into the future. Using the construction manager at risk (CMAR) method, the city will manage two separate contracts for the project: one for engineering and procurement services and one for the CMR. Lindsey is the co-lead for rail coordination and engagement regarding a pedestrian bridge.

## Senior Director of Public Affairs - Illinois, Wisconsin, and Metra Community Relations\* | Union Pacific Railroad

Chicago, Illinois | 2022 – 2023

**Senior director of public affairs.** Lindsey represented Union Pacific on the CREATE Partnership and Union Pacific capital projects in communities. She also built relationships with elected leaders and community partners, managed lobbying consultants to protect Union Pacific interests in all matters including tax, property and specific railroad industry policy issues. Lindsay led internal initiatives to solve community problems and operated the Union Pacific Foundation, investing in projects resulting in lasting improvement to communities.

## Deputy Secretary\* | Kansas Department of Transportation

Topeka, Kansas | 2019 – 2022

**Deputy secretary.** Lindsey's responsibilities included fiscal and asset management, performance management, economic development, policy and aviation. Lindsey led strategic engagement with private partners, policy makers and other agency partnership opportunities. She also served as lead negotiator related to all partnerships the agency entered with communities and developers. Lindsey actively managed the \$1.2 billion per year KDOT budget and cash flow systems. Lead the implementation of KDOT's performance-based budgeting using private sector experience to improve performance management for transparency and accountability as stewards of tax dollars. During her time at KDOT, Lindsey served as the strategy lead for development, passage and implementation of the Eisenhower Legacy Transportation (IKE) Program; a 10-year, \$9.9 B transportation program. She was involved in the development of the \$300 million U.S. 69 expansion project. As part of this project, she established a new funding tool, managed lanes - a first in Kansas and the Midwest. Lindsey designed and implemented the Cost Share program that leveraged \$63 million in local investment for 90 projects with state investment of \$87 million. She also designed the short line rail improvement program, coordinating with private sector partners with differing interests to invest \$5 million per year to benefit all parties.

\*denotes experience prior to joining Burns & McDonnell

# DON OSTERHOUT

## Construction Advisor



Don has 28 years of experience in estimating and managing heavy civil construction projects across the United States. Experience includes remediation, general civil and site utilities, water treatment, high production earth moving, mine reclamation, tailings consolidation, engineered cap and cover installation, demolition, surgical remediation /excavation, in-situ remediation, pipeline

repair and maintenance, lagoon closure, landfill capping, waterway and creek restoration/relocation. Don has managed sites under BLM, Forestry Service, Nuclear Regulatory Commission (NRC), Department of Energy, CERCLA, RCRA, RSCA, and numerous other state agencies, and is proficient in Construction Management and constructability reviews.

## EDUCATION

- ▶ General Studies
- ▶ Harvard - Leading a Professional Services Firm

1 YEAR WITH BURNS & MCDONNELL

28 YEARS OF EXPERIENCE

### Silver Mine Reclamation\* | Alexco Resources

Yukon | 2019 | \$50 Million

**Senior Civil Closure Consultant** for the closure of former silver mining facilities in the Yukon. The project included consolidation of 2 million yards of tailings, water treatment (passive and water treatment plant construction), cap and cover installation, demolition of existing buildings and infrastructure, audit closures, highwall grading, stormwater controls, and road improvements.

### New Mine Infrastructure\* | Confidential Client

Soda Springs, Idaho | September 2018 thru 2021 | \$150 Million Capex Project

**Project Sponsor and Assistant Project Manager** for the preparation of FEL1, FEL2 and FEL 3 Engineering Study and engineering design services for a new phosphate ore mine and supporting Infrastructure development. Study disciplines included Civil, Ore Handling, Facility and Rail development Study Packages and site closure.

### Baroid Mine Reclamation\* | Halliburton

Hot Springs, Arkansas | 2018-2021 | \$20 Million

**Senior Civil Closure Consultant** for the closure of former silver mining facilities located near Hot Springs, Arkansas. Project included consolidation of 600,000 cubic yards of tailings, site-wide clearing, water treatment (passive and water treatment plant upgrades), 2500 lineal feet of barrier wall installation, 1500 lineal feet of collection trench, 5000 lineal feet of piping pumps, well installation, pond sludge solidification and closure, electrical upgrades, cap and cover installation, dewatering, stabilization of material, highwall grading, site-wide grading to promote drainage, stormwater controls, and road improvements.

### Mining Overburden Cap and Cover System Construction\* | Monsanto

Soda Springs, Idaho | May 2012 thru 2019 | \$15 Million

**Senior Project Manager** for the construction of a cap and cover system over an existing waste dump at an active mine facility. The cap and cover system covers approximately 310 acres; 20-25 acres are covered annually, the majority of which lies on a 3:1 slope. Project includes site balancing using existing waste material, installation of a 6-inch-deep foundation layer, installation of a two-part liner system (GCL and Geocomposite), installation of an 18" alluvial layer, an 18" topsoil layer, installation of over 15,000 feet of various sized perforated

# DON OSTERHOUT

(continued)

drainage pipe annually. All layers of the cap system were derived from an onsite borrow source. Work was performed under close scrutiny of the Bureau of Land Management (BLM).

## Mine Mill Site Reclamation\* | BHP

Ambrosia Lake, New Mexico | March 2013 thru 2016 | \$23 Million

**Senior Project Manager** for site reclamation and building demolition at a former uranium mine site. Project included reclamation of over 2,000,000 cubic yards of material, clearing and grubbing, excavation of 15,000 feet of stormwater channels, installation of 275,000 cubic yards of rock armor per NRC specifications, onsite geotechnical testing, processing and installation of 180,000 cubic yards of shale radon barrier, placement of 115,000 cubic yards of frost protection material, and removal of twelve buildings including the former uranium processing building and a bridge. The work was performed within an MSHA-regulated site and per the specifications of the NRC-approved work plan.

## Construction of a Cap and Cover System over Mine Waste\* | Nu-West

Soda Springs, Idaho | March 2011 | \$3 Million

**Senior Project Manager** for the construction of an impermeable cap and cover system over an existing waste dump at an active mine facility. The cap and cover system covers approximately 23 acres, most of which lie on a 3:1 slope terminating at an active haul road. Project included clearing and grubbing, excavation and site balance using existing waste material (30,000 CY waste rock relocated), installation of an 8-inch deep foundation/liner bedding layer (25,000 CY of sand), installation of GCLL liner material, 12-inch gravel drainage layer installation (38,000 CY of crushed rock), installation of over 2 miles of various sized perforated drainage piping above the liner, installation of a 2-foot cover layer (74,000 CY of topsoil and riprap), and installing various catch basins, holding tanks, and interconnecting piping to convey runoff from the cap area into an existing stormwater retention pond system at the mine site. All layers of the cap system were derived from an onsite borrow source and sized/produced to various gradations using mobile screening and crushing equipment. Work was performed under the close scrutiny of the US Forest Service (USFS), Bureau of Land Management (BLM), and Idaho Department of Water Resources (IDWR).

## Phosphorous Mine Reclamation\* | Agrium

Georgetown Canyon, Idaho | March 2012 | \$3.6 Million

**Senior Project Manager** for former phosphorous mine reclamation project. The project included relocating 37,000 cubic yards of stockpiled ore material, left over from the mining operations, to construct soil caps over an existing site clarifier, slurry pit, and furnace structure. The slurry pit and clarifier both received a three-part liner system (GCL, LLDPE, and geosynthetic drainage net), totaling over 350,000 square feet of material. Liner cover soils were excavated from an onsite borrow source and processed 21,000 cubic yards into various gradations, using an onsite screen plant. Approximately 7,500 cubic yards of rock riprap were produced by blasting and screening material from an onsite borrow source for use in lining drainage swales and protective covers. Site dewatering and drainage improvements include the installation of various drainage structures, culvert piping, and over 2,200 feet of stream restoration.

*\*Experience prior to joining Burns & McDonnell*

# STEVE CORNING

## Construction Field Support



Steve is a Superintendent for Burns & McDonnell and has worked in the remediation and construction industries for over 30 years. Experience includes sites managed under CERCLA, RCRA, TSCA, and numerous state agency regulations. Additional experience includes large scale earthmoving, lagoon closure, landfill capping and closure, mine reclamation, water treatment, waterways and creek restoration/relocation, surgical excavation, and wetlands creation. Projects include various in situ remediation systems for both groundwater and soil including vapor extraction, air sparging, soil mixing with chemical oxidation, groundwater pump and treat, and LNAPL recovery. Demolition experience includes below and above ground tank demolition, building demolition, power plant demolition, water tower demolition, bridge demolition and pipeline abatement and demolition.

### TRAINING AND CERTIFICATIONS

- ▶ OSHA 40-HR HAZWOPER
- ▶ OSHA 8-HR HAZWOPER (supervisor training)
- ▶ OSHA 30-HR and 10-HR
- ▶ MSHA Training

1 YEAR WITH BURNS & MCDONNELL

30 YEARS OF EXPERIENCE

### Uranium Mine Demolition and Reclamation\* | BHP

Ambrosia Lake, New Mexico

\$23 million | **Senior Superintendent** site reclamation and building demolition at a former mine uranium mine site. Project included reclamation of over 2,000,000 cubic yards of material, clearing and grubbing, excavation of 15,000 feet of storm water channels, installation of 175,000 cubic yards of rock armor per Nuclear Regulatory Commission (NRC) specifications, onsite geotechnical testing, processing and installation of 180,000 cubic yards of shale radon barrier, placement of 115,000 cubic yards of frost protection material, demolition and removal of 12 buildings including the former uranium processing building, processing tanks, water tower demolition and bridge demolition. The work was performed within an MSHA regulated site and per the specifications of the Nuclear Regulatory Commission (NRC) approved work plan.

### Townsite Mine and Mill Remediation\* | Freeport McMoran

Clarkdale, Arizona

\$30 million | **Construction Management/Oversight** for the residential remediation of over 400 residential properties due to legacy mining activities in the area. Steve was responsible for coordinating safety meetings, stakeholder engagement, planning, quality control, site safety, schedule, reviewing means and methods for removal and installation of materials from each property. In total, over 250,000 yards of material was removed within city limits working in and around power lines, underground utilities, and restricted work areas.

### Construction of a Cap & Cover System Over Mine Waste\* | NU-WEST

Soda Springs, Idaho | March 2011

\$3 million | **Superintendent** for the construction of an impermeable cap and cover system over an existing waste dump at an active mine facility. Cap and cover system covers approximately 23 acres, the majority of which lies on a 3:1 slope terminating at an active haul road. Project included clearing and grubbing, excavation and site balance using existing waste material (30,000 CY waste rock relocated), installation of an 8-inch-deep foundation/liner bedding layer (25,000 CY of sand), installation of GCLL liner material, 12-inch gravel drainage layer installation (38,000 CY of crushed rock), installation of over 2 miles of various sized perforated drainage

# STEVE CORNING

(continued)

installing piping above the liner, installation of a 2-foot cover layer (74,000 CY of topsoil and riprap), and installing various catch basins, holding tanks, and interconnecting piping to convey runoff from the cap area into an existing storm water retention pond system at the mine site. All layers of the cap system were derived from an onsite borrow source and sized/produced to various gradations using mobile screening and crushing equipment. Work performed under the scrutiny of the US Forest Service (USFS), Bureau of Land Management (BLM) and Idaho Department of Water Resources (IDWR).

## Reclamation of a Former Uranium Mine Access Road And Cover System\* | BHP

Gallup, New Mexico

\$1.5 million | **Superintendent** for the reclamation of spoils from uranium mining activities. GHD completed a pre-construction survey to verify existing conditions, delineate work areas, and determine site access points. We then excavated, placed, and compacted over 25,000 cu. yd. of material in a new waste storage area established on top of an existing waste storage area in such a manner so as not to impact surface drainage water. Following that, GHD backfilled and graded the road to promote drainage, additional shaft closure work was completed, the waste storage area was subsequently covered with 6 inches of imported material, and over 6,000 linear feet of wattles were installed. Finally, GHD hydroseeded all disturbed areas.

## Demolition of a Former Power Plant | Power South

Lowman, Alabama

\$15 million | Construction Manager for demolition and removal of a former coal power plant. Project included abatement of all hazardous and non-hazardous materials (e.g., asbestos, pcb oil, lead paint) tactical removal of miscellaneous conveyors systems, demolition of two 220-foot stacks, off loaders, rail systems, miscellaneous support buildings, underground utilities, crushing and sizing of concrete and final regrading and restoration.

## Demolition of Mine Infrastructure and Remediation\* | BHP

Angels Camp, California

\$5 million | **Construction Manager** for demolition and removal of infrastructure for a former gold mine. Project included removal of process lines, buildings, and miscellaneous equipment. Site grading was performed to enhance drainage of the site to the former gold pit, site improvements included new pumps and lines for collection and treatment of acid rock drainage (ARD) from the surrounding tailings piles and liner repair.

## Miscellaneous Mine Support Activities | U.S.

Arizona, Utah, Idaho, California, Illinois

**Construction Manager** for over mine site support activities that have included installation of miles of HDPE pipe, access road installation and maintenance, water management, survey support, pump station installation and maintenance, site monitoring and maintenance, drilling oversight, fence installation and maintenance, land clearing, dust control, and winter plowing.

## Remedial Cleanup Former Papermill\* | Weyerhaeuser

Plainwell, Michigan | 2019-2020

\$4.5 million | **Superintendent** for remedial work at a former paper manufacturing site. The project included removal and disposal of 7,500 tons of overburden, 17,000 tons of non-TSCA PCB impacted soils, 5,000 tons of TSCA PCB impacted soils, import and placement of 23,000 cubic yards of fill, import and placement of 4,000 cubic yards of topsoil, demolition of miscellaneous buildings, active dewatering, and site restoration.

*\*denotes experience prior to joining Burns & McDonnell*



# MIKE MUNSELL, CHST, SPRAT

## Safety



Michael serves Burns & McDonnell as a Senior Safety & Health Specialist. His experience includes working in health, safety, telecommunication, and security. He has worked with on-boarding new employees, safety training and qualification, site audits, accident investigations, emergency preparedness and substance abuse programs. Prior to joining Burns & McDonnell, Mike served as a Regional Safety Manager for another local consulting firm. He

also spent more than five years as a Safety Manager for Crossland Heavy Contractors. Michael has supported some of Burns & McDonnell's largest design-build and EPC projects across the region for our Water, Global Facilities, Aviation and Federal practices.

### EDUCATION

- ▶ Bachelors, Construction, 2005

### REGISTRATIONS

- ▶ Construction Health & Safety Technician

6 YEARS WITH BURNS & MCDONNELL

18 YEARS OF EXPERIENCE

## Environmental Sampling, Outside Sewer and Foundation Removal, Former Sunflower Army Ammunition Plant | US ARMY CORPS OF ENGINEERS

De Soto, Kansas | Jul 2017 - Jul 2022

**Project team.** Environmental sampling for the removal of over 170,000 linear feet of outside sewer line and over 30 MEC foundations. The project also involved stormwater sampling as required by Storm Water Pollution Prevention Plan and National Pollutant Discharge Elimination System Permit.

## Siloam Springs Water Treatment Plant Upgrades Design-Build | SILOAM SPRINGS ARKANSAS

Siloam Springs, Arkansas

**Project team.** Due to rapid population growth in Northwest Arkansas combined with aging infrastructure, the City of Siloam Springs desired to improve and expand its water supply and water treatment plant to meet higher demands from 9 MGD to 12 MGD. Burns & McDonnell evaluated the existing plant, developed technical alternatives, evaluated project delivery alternatives, proceeded with full design of the raw water piping and water treatment plant upgrades, and managed all construction activities at risk. Due to rapid population growth in Northwest Arkansas combined with aging infrastructure, the City of Siloam Springs needs to improve and expand its WTP to meet higher demands. Burns & McDonnell is currently evaluating the existing plant, developing technical alternatives, evaluating project delivery alternatives and proceeding with full design of the WTP upgrades. Our team developed a comprehensive and defensible water demand projection that reflects population growth and projected meter counts by customer class, wholesale water contracts, non-revenue water, and dry year water use adders. This information allowed the Burns & McDonnell team to evaluate the adequacy of existing water supply and develop recommendations for long-term supply and demand compatibility. Mike provided on-site construction observation.

## Wichita Northwest Water Facility | WICHITA WATER PARTNERS JOINT VENTURE

Wichita, Kansas | 2020 - Ongoing

**Project team.** The City's existing water treatment plant is 85 years old and lacks necessary redundancies, making it vulnerable to failure. Under progressive design-build delivery, our integrated team is building a new, fully redundant 120 MGD Northwest Water Facility (NWWF). The facility is designed to treat water from three

# MIKE MUNSELL, CHST, SPRAT

(continued)

different sources: wellfield water, surface water and water from the City's ASR Surface Water Treatment Plant, which adds efficiency and drought resiliency. Construction of the \$500 million treatment facility is ahead of schedule and under budget, with substantial completion scheduled for June 2024. The City's existing water treatment plant is 80 years old and lacks necessary redundancies, making it vulnerable to failure. Under progressive design-build delivery, our integrated team is building a new, fully redundant 120 MGD Northwest Water Facility (NWWF). The facility is designed to treat water from three different sources: wellfield water, surface water and water from the City's ASR Surface Water Treatment Plant, which adds efficiency and drought resiliency. The project broke ground in October 2020 and will be complete by January 2025. Mike helped review the site-specific safety plan and provided support during construction. He also monitored subcontractors and developed mitigation plans as necessary.

## KTA Bridge Raisings | Kansas Turnpike Authority

2016 - Ongoing

**Safety specialist.** Since 2016, Burns & McDonnell has raised 44 bridges along the Kansas Turnpike up to 21 inches to accommodate and encourage freight traffic, streamline maintenance, and improve safety in nearby communities. Using the progressive design-build (PDB) approach, the team cut the project cost significantly and reduced the time needed to complete the work by half, as compared to traditional design-bid-build methods. Burns & McDonnell, serving as a turnkey design-build contractor, developed a bridge bundling technique that safely and efficiently raised the bridges overactive interstate traffic.

## IKE Transportation Program | Kansas Department of Transportation

Multiple Locations | Nov 2020

**Safety specialist.** KDOT selected IKE Transportation Partners (ITP), a joint venture of Burns & McDonnell and Garver, to serve as its program management consultant (PMC) for the full 10-year IKE Transportation Program. ITP provides oversight of all projects in the \$9.9 billion program through assistance with project planning, program review and support, industry engagement and public involvement. ITP provides project-level support activities, including preliminary design, environmental studies, ROW acquisition, final design, construction engineering and inspection. KDOT also leverages technical skills within ITP to assist with integration of new technology, process improvements, asset management and resource planning. This staff supplementation allows KDOT to deliver on legislative commitments and strengthen the agency to deliver future programs.

## Stillwater Water Treatment Plant Preconstruction (CMAR) | STILLWATER UTILITIES AUTHORITY

Stillwater, Oklahoma | Jun 2022

**Project team.** This is a \$250 million construction-management-at-risk pursuit to upgrade the City of Stillwater's 24 MGD WTP. The Phase 1 preconstruction effort and project development includes critical assessment of the raw water delivery system, including the integrity of the existing 36" raw water line and the WTP existing equipment, processes and operations. Mike reviewed the site-specific safety plan and provided support during construction. He also monitored subcontractors and developed mitigation plans as necessary.

# ANGELINE CROWDER, AICP

## Environmental Coordinator



As the Senior Land Use Planner/Section Manager for Burns & McDonnell in Environmental Services, Angeline works on all aspects of land use planning, local government permitting, public involvement, and routing and siting. Angeline works with clients on various aspects of their development projects, including public hearings, public involvement, community meetings, and field visit coordination.

Angeline has worked on projects across the country, including Virginia, West Virginia, Maryland, Pennsylvania, Ohio, South Carolina, North Carolina, Florida, New York, California, Illinois, and Texas.

### PROGRAMMATIC PROJECT MANAGEMENT

#### Dominion Energy Environmental Services | Virginia

Main point of contact related to Environmental Services for Dominion Energy project teams and internal Burns & McDonnell teams. Work with Burns & McDonnell teams on portfolio of projects, including:

- ▶ Security Fence Upgrade Program
  - Conditional Use/Special Exception permitting
  - Variance applications
  - Site plan amendments
  - Building permits
  - DEQ permitting
  - Stormwater permitting
- ▶ EPC projects
  - Local land use permitting
  - Provisional Use Permit
  - Stormwater permitting
- ▶ Environmental and Non-Environmental Permitting
- ▶ Routing/Siting

#### Community Outreach | BGE Operation Pipeline

##### Baltimore, MD and Surrounding Area

- ▶ Work directly with the BGE Operation Pipeline Project Managers for outreach efforts for on-going upgrade projects.
- ▶ Supervise and oversee the Outreach team assigned to the project in coordination with internal Program leads.
- ▶ Provide monthly updates and reports on outreach efforts and inquiries from the communities.

### LAND USE PLANNING & PUBLIC INVOLVEMENT

#### Conditional Use Permit & Rezoning – Solar Facility | Virginia

- ▶ Work directly with Client project team, locality, and state staff, as well as Burns & McDonnell project team on conditional permit application process.

### EDUCATION

- ▶ Master of Urban and Regional Planning
- ▶ BA, Public and Urban Affairs; Foreign Language French

### REGISTRATIONS

- ▶ American Institute of Certified Planners (AICP)

**7** YEARS WITH BURNS & MCDONNELL

**20** YEARS OF EXPERIENCE

# ANGELINE CROWDER, AICP

(continued)

- ▶ Work in conjunction with and provide guidance for Client on preparation for open house event – venue location, collateral, notifications, mailing lists.
- ▶ Compiling application components for submission with help from the project team. Helping to craft the narrative and documentation needed for the application.

## Special Use Permit and Site Plan for Relocated Regulator Station | Duke Energy – Piedmont Natural Gas

North Carolina

- ▶ Worked directly with Town staff to determine Special Use Permit needed and the process required.
- ▶ Worked with PNG project team and Burns & McDonnell team to prepare and submit application.
- ▶ In conjunction with the project team, presented to Town Planning Commission during public hearing.
- ▶ Presented application to Town Council during public hearing.
- ▶ Worked with Town staff after Town Council meeting to coordinate for the Town to rezone the desired property
- ▶ After approval of Rezoning and Special Use Permit, worked with the Town Staff to submit site plan for approval to move into construction.

## ROUTING & SITING

### Propel New York Energy Project - Long Island Offshore Wind PPTN | Electric Transmission

New York

- ▶ Worked with the Project team directly on routing and GIS efforts.
- ▶ Coordinated with client Project team on deliverables.
- ▶ Assisted in project write up and editing for associated reports.

### Substation Siting Study | Electric Transmission

Orange County, Florida

- ▶ Work with the project team to determine schedule, study area, constraints, and factors to be evaluated during the process.
- ▶ Work with the GIS team to identify and obtain information needed for evaluation.
- ▶ Work with the project team and GIS team to identify potential sites for a substation.
- ▶ Work with the localities to determine potential requirements.
- ▶ Arrange and conduct team field visit to all identified potential sites within the study area.
- ▶ Conduct ranking interviews with the team members to determine ranking of sites.
- ▶ Create government regulation information document for review of potential sites.
- ▶ Write the siting report in conjunction with the project team.

# CHRIS L. YOW, MCE, PE

## Stream Restoration



Chris is a civil engineer with over 22 years of stream restoration project experience and has completed all four levels of Wildland Hydrology's (Rosgen) natural channel design courses. Chris has completed projects throughout the U.S. but has focused his efforts in the Appalachian Mountains of the mid-Atlantic region (WV, VA, NC). His stream restoration project experience has been driven by a variety of client goals

which include stream and wetland mitigation, TMDL compliance, asset protection, flood reduction, aquatic habitat restoration and aesthetic enhancements for municipal parks. In addition to being an accomplished engineer, Chris is an experienced project manager and is accustomed to delivering under tight deadlines to meet his clients' goals. He is dedicated to building trust with his clients and delivering innovative, cost-effective, and goal-driven results on every project.

### EDUCATION

- ▶ MCE, Civil Engineering
- ▶ BS, Civil Engineering

### REGISTRATIONS

- ▶ Professional Engineer (WV, VA, KY, NC, TN, TX)
- ▶ Wildland Hydrology (Rosgen, Natural Channel Design) Levels I, II, III and IV.

**1** YEAR WITH BURNS & MCDONNELL

**22** YEARS OF EXPERIENCE

### Richland Creek Stream and Wetland Mitigation Bank

Owenton, KY | 2022-present

Chris is the lead designer, engineer and manager of a stream restoration design team that includes five (5) Burns & McDonnell engineers, four scientists and a subconsultant. In addition, Chris will oversee management of several contractors during construction to restore and enhance approximately 30,000 linear feet (LF) of perennial stream, 17,000 LF of intermittent stream, and 64,000 LF of ephemeral stream. This project will also enhance or restore 325 acres of riparian area, remove four small dams, and restore/create eight acres of wetlands. The project design team is currently finalizing design drawings and specifications. Construction for Phase I is scheduled to begin in fall of 2024.

### George Washington Village Stream Restoration | U.S. Department of Defense

Fort Belvoir, VA | 2022-present

Chris is the lead construction inspector and manager of a contractor for this 700 LF restoration project. The project is addressing a large head-cut that moved several hundred feet upstream and created lateral instability of stream banks. This lateral instability and erosion posed a threat to critical infrastructure at Ft. Belvoir. The design includes step-pools and cascades within a confined and steep valley (7% slope). The project is currently under construction and is scheduled for completion in April 2024.

### Fish Creek Watershed Assessment\* | Private Client

Marshall/Wetzel Counties, WV | 2012

Chris served as Project Manager and stream restoration Subject Matter Expert (SME) to identify, assess, and prioritize stream and wetland restoration opportunities in the Fish Creek Watershed, totaling 250 square miles. The assessment studied 25 sub-watersheds of the Fish Creek Watershed in Marshall and Wetzel counties of West Virginia and Greene County of Pennsylvania. The study included a desktop analysis using GIS data and a field analysis to assess stream parameters such as riffle embeddedness, stream bank stability, channel incision/entrenchment, quality of stream habit and riparian buffers. Each sub-watershed received a geomorphic



# CHRIS L. YOW, MCE, PE

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health score and a score to quantify feasibility of project implementation. The product of these two scores gave each sub-watershed an overall score by which they were ranked. The top five ranked were then analyzed in more detail to identify specific project mitigation sites.

## **Harts Run (Tributaries) Stream Restoration\* | Private Client**

Greene County, PA | 2012-2013

Chris served as project manager and lead designer to restore approximately 500 linear feet of headwater channels that were severely impacted from a slope failure. Chris led survey, assessment, design and construction document preparation for restoration of these headwater channels. Impact limits to the headwater channels were delineated based on geomorphic parameters measured in the field. Construction documents called for extensive sediment removal and restoration of steep headwater streams with log and boulder weirs. Streambank seeding, planting and riparian buffer enhancement were also implemented for stability.

## **Glade Creek Stream Restoration\* | City of Roanoke**

Roanoke, VA | 2021-2024

Chris served as the lead designer and Engineer of Record for 3,000 LF of restoration to address severe lateral bank erosion and vertical incision due to excessive urban runoff. Tasks included a geomorphic assessment, nutrient loading estimates (BANCS Model), hydrologic modeling, hydraulic modeling, construction drawings, specifications, and cost estimating. The design included low water constructed inner berm features to capture excess sediment and floodplain benches near the bankfull stage to capture additional sediment and reduce flood elevations. Chris's design overcame many constraints to achieve the client's goals, including consultation and permitting with the U.S. Fish and Wildlife Service to protect the Roanoke Logperch (*Percina rex*) during construction. The project is currently under construction and will be completed in March 2024.

## **Wells Branch Stream Enhancement and Stormwater Drainage Improvements\* | City of Austin**

Austin, TX | 2021-2023

Chris served as Project Manager and Engineer of Record for 1,800 LF of urban stream enhancement, stormwater drainage design, a regenerative stormwater conveyance (RSC) channel, and a culvert upgrade for greater flow conveyance. Chris modeled several alternatives to replace the culvert, the most cost-beneficial solution was a single span bridge which removed three homes from the 100-year flood zone. Stream improvements included bank stabilization and instream structures to reduce erosion and improve aquatic habitat. This project is scheduled for construction in 2025.

## **Little Sugar Creek (Multiple Projects) \* | Mecklenburg County Stormwater Services**

Charlotte, NC | 2005-2022

Chris served as Project Manager, Engineer of Record, and Construction Inspector for several phases of stream restoration and enhancement along Little Sugar Creek. Little Sugar Creek is the hydrologic centerpiece of the Charlotte, thus Charlotte-Mecklenburg Stormwater Services has conducted many projects over the last 20 years to improve hydraulic, geomorphic, and ecologic function while implementing recreational amenities and greenway components. Chris was involved in the following phases: Westfield Reach, Liz Hair Reach, Central Piedmont Community College Reach, Freedom Park Reach and the Midtown Reach totaling over 15,000 LF. Chris collaborated with scientists and landscape architects to incorporate amenities such as educational platforms and signage, outdoor classrooms, and greenways. Many stormwater BMPs were also implemented, including constructed wetlands and bioretention cells.

*\*denotes experience prior to joining Burns & McDonnell*

# BRIAN JAMES O'NEILL

## Environmental Assessment & Monitoring



Brian is an aquatic ecologist who serves the environmental planning and permitting needs of state and federal utilities, transportation, private/commercial developers, and municipalities throughout the country. Primary areas of expertise include ecological assessments, hydrographic studies and hydrodynamic modeling, aquatic and terrestrial habitat assessment and restoration, and local, state and federal permitting such as Clean Water

Act §404,401, §316 (a) and (b), and Endangered Species Act §7 consultations and NEPA.

### Mine Reclamation\* | Teck Cominco

Iron County, Missouri

**Project Scientist** responsible for aquatic and terrestrial assessment services to support reclamation of the approximately 300-acre Magmont Mine tailings area. Led fish and macroinvertebrate surveys immediately below the tailings pond and in reference reaches downstream. Led herpetological surveys onsite and downstream of the tailings area. Assisted with bat mist-netting surveys. GIS analyses were completed to estimate groundwater pollutant concentrations and tailings depth within the former tailings pond. Completed annual vegetation monitoring, reporting and permitting requirements.

### Mine Closure\* | Teck Cominco

Eureka County, Nevada

**Project Manager and Technical Lead** responsible for completing an ecological risk assessment to support closure activities of the Buckhorn Mine, an open-pit precious metals recovery operation with a history dating back to 1910. The methodology followed U.S. EPA Guidelines for Ecological Risk Assessment and the Bureau of Land Management's Risk Management Criteria for Metals at Bureau of Land Management Mining Sites. Assessments included human, terrestrial, and aquatic receptors. Completed fish, macroinvertebrate, and water quality sampling and analyses, and terrestrial and aquatic habitat assessments on the approximately 820-acre project site. Served as the principal author for the risk assessment document including problem formulation, analysis, and risk characterization.

### Endangered Species Survey\* | Confidential Client

Moundsville, West Virginia

**Aquatic Ecologist and Project Manager** for a mussel survey on the Ohio River to support the proposed development of a new combined-cycle power plant. The survey was conducted at the proposed intake and outfall locations to evaluate whether impacts to mussels would occur due to the project. Led agency coordination of the proposed survey work plan and negotiated mussel relocation requirements.

## EDUCATION

- ▶ Master of Urban Planning, Land Use and Environmental Planning
- ▶ Master of Science Zoology - Fisheries Ecology
- ▶ Bachelor of Science Zoology - Fisheries
- ▶ Rosgen Levels I-IV - River Geomorphology Assessment and Design, Wildland Hydrology

## REGISTRATIONS

- ▶ USFWS Native Endangered and Threatened Species Recovery Permit - Mussels and Fish (2010 - present)
- ▶ SCUBA - PADI Open Water

**8** YEARS WITH BURNS & MCDONNELL

**22** YEARS OF EXPERIENCE

# BRIAN JAMES O'NEILL

(continued)

## Endangered Species Survey | Marathon Pipe Line, LLC

Catlettsburg, Kentucky and Kenova, West Virginia

*Aquatic Ecologist and Project Manager* for a mussel survey on the Big Sandy River to support maintenance dredging at the MPL Oil Dock barge fleet and mooring areas. Consultation with USFWS and WVDNR included approval of the survey work plan and a survey results report. The survey was conducted to determine if native mussels occur within the project's vicinity and to minimize potential impacts on protected species.

## Environmental Permitting\* | Confidential Client

Wood County, West Virginia and Washington County, Ohio

*Aquatic Ecologist and Project Manager* for long-term mussel monitoring effort required under a Biological Opinion on the Ohio River for dredging operations at a barge offloading facility. Responsibilities included the development of a mussel monitoring work plan and coordination of agency concurrence, and assistance with mussel survey, and survey reporting.

## Environmental and Biological Assessments\* | Kentucky Transportation Cabinet

Central and Eastern Kentucky

*Project Manager and Aquatic Biologist* completed over 30 biological and environmental assessments and other supporting documents for compliance of state transportation projects with NEPA requirements. Projects included habitat assessments, fish, macroinvertebrate, and mussel surveys in waters with the potential for federally threatened and/or endangered species to occur. Assisted with habitat and mist net surveys for protected bat species. Completed water/wetland delineations and surveys for federally protected flora within project rights-of-way. For projects where potential take or other significant environmental impacts could occur, conservation measures were provided for proper avoidance, minimization, and/or mitigation of impacts; examples include wetland creation, enhancement or restoration, mitigation banking agreements, stream relocation, restoration, and enhancement, and wildlife habitat restorations.

## River Restoration\* | Various Clients

Kentucky and Indiana

*Project manager and Technical Lead* completed over 3,000 linear feet of stream restoration using natural channel design and bioengineering methodologies, primarily in urban streams. Relocation of approximately 900 linear feet of stream to accommodate a commercial development project. Applied Rosgen Level I-IV training in stream assessment, design, and monitoring projects. Stream restoration projects have included construction oversight and remedial stream and riparian work as necessary. Assisted in long-term monitoring for successful wetland establishment at mitigation sites including wetland mitigation banks. Monitoring included vegetation, hydrology, and stability components to satisfy 404/401 requirements.

## Mixing Zone Studies | Confidential Client

Virginia and Hawaii

*Aquatic Ecologist and Technical Lead* for three mixing zone studies at shipyard maintenance facilities in estuarine and marine waterbodies. CORMIX modeling was used to predict the mixing performance of discharges from new or modified discharge structures under varying environmental and discharge flow rates. Discharges include storm and seepage waters and once-through cooling water for nuclear-powered vessels. The models evaluate near-field mixing within the zone of initial dilution to support reasonable potential to exceed analyses for discharge permitting.

\*denotes experience prior to joining Burns & McDonnell

# DENNIS MCBRIDE

## Treatment



Dennis serves Burns & McDonnell as a Sr. Water and Wastewater Treatment Consultant with experience including system design, operations, and in-service roles. His experience includes power, mining and metals, oil and chemicals industries, and semiconductor giving him the unique ability to assess plants and situations from a number of perspectives. He has experience designing and operating many types of systems, including pretreatment, demineralization,

wastewater treatment, and water conservation including zero liquid discharge. His broad experience has been utilized to support plant startups and troubleshoot issues in many areas of water and wastewater systems. His experience includes the development of the HERO<sup>®</sup> (High Efficiency Reverse Osmosis) system, which allowed one system to reduce its demand for makeup water by more than 40%. He has designed or consulted on systems on five continents. Dennis is active in the water and wastewater treatment communities, having presented to the International Water Conference (IWC), ASME, AiCHE, NACE, and the ABMA. He also annually presents an introduction to water treatment course at the IWC. He serves on the Executive Committee of the IWC and is a past General Chairman (2012) as well as the recipient of the International Water Conference Merit Award (2014).

## EDUCATION

- ▶ Bachelors, Metallurgical Engineering

**7** YEARS WITH BURNS & MCDONNELL

**42** YEARS OF EXPERIENCE

## Water Treatment

Water treatment experience includes pretreatment encompassing clarification, filtration, and purification. End uses of the water treatment experience includes boiler makeup (both high- and low-pressure systems), condensate systems, cooling water makeup, etc. Along with the experience of treating the water mechanically, Dennis has experience with the associated chemical treatments. Treatment technologies include physical/chemical systems, membrane systems, chemical treatments, etc.

## Wastewater Treatment

Once plant water has served its useful purposes, it frequently must be treated to be returned to the environment. Dennis' experience includes dechlorination of cooling waters, pH adjustment, ammonia reduction, and metals treatment (includes copper, nickel, and selenium). Wastewater has been treated in power, mining, oil and chemicals, and semiconductor industries. Treatments include physical/chemical systems and membrane systems.

## Water Conservation

Much of Dennis' experience includes water conservation projects. This experience includes development of Zero Liquid Discharge (ZLD) systems as well as innovative means to reuse or repurpose water streams. Recent projects include;

- ▶ Mine tailings treatment
- ▶ Development of the HERO<sup>®</sup> process increasing reverse osmosis recovery from 50% to 85% at its initial installation (recoveries are significantly higher now after further development)
- ▶ Recovery of oily water streams for reuse in boiler makeup treatment systems
- ▶ Recovery of degasifier condensate reducing both water and ammonia usage

# JOE KOPAJTIC, PWS

## Environmental Assessment & Permitting



Joe Kopajtic is a Professional Wetland Scientist managing a team of environmental specialists focused on compliance with environmental law and permitting for complex and challenging projects in the energy, transportation, and industrial markets. He has been in the natural resources management field for over 17 years and has managed or served as a technical specialist on projects around the United States for various clients in both the private and public sectors.

Joe brings tactical insight to projects that require an understanding of local, state, and federal environmental regulatory law to streamline processes to expedite permitting schedules and achieve project success. He is widely regarded as a skilled wetland scientist and permit strategist who is sought after for his ability to assess permit needs on complex projects. Joe's commitment to making his clients successful and his comprehensive understanding of environmental law make him a valued partner for any project team. Joe is known for a detailed and pragmatic approach to schedule management and project controls. He has a long-standing history of quality relationships with government regulatory agencies, a demonstrated proficiency for coordinating with clients and subcontractors, and a passion for responsible environmental resource management and regulatory compliance.

### Clare Street Westport Substation Redevelopment | BGE

Baltimore City, Maryland | June 2021 - Present

**Project Manager.** Managed the environmental studies, permitting efforts, and subconsultants for a complex multi-year redevelopment project in Baltimore City, Maryland. Responsible for the comprehensive tracking, management, and scheduling of all permitting necessary for project completion. Through close coordination with Baltimore City Department of Housing and Community Development (DHCD) and Maryland Department of the Environment (MDE), successfully acquired permits on time avoiding project delays.

### Eastern Shore Solar Projects | Enel Green Power

Caroline, Queen Anne's, and Talbot Counties, Maryland | March 2021 - Present

**Project Manager.** Managed multiple field teams for environmental evaluations of three large solar projects totaling more than 4,000 acres of survey area on the Delmarva Peninsula of Maryland. Evaluations included a preliminary desktop analysis of environmental resources, wetland delineation and stream assessments, forest stand delineation, a survey of "specimen" trees, and preparation of reports summarizing the findings of field investigations. Coordinated with the project team and provided expert consultation on permitting needs and limitations. Conducted site reviews with members of MDE and received approval of wetland delineations. Successfully negotiated with state and county agencies to ensure compliance with applicable regulations while maximizing the useable area for the project.

## SPECIALITIES

- ▶ Professional Wetland Scientist
- ▶ Forest Conservation Qualified Professional
- ▶ Chesapeake Bay Conservation Permit Needs Assessments
- ▶ Environmental impact analysis
- ▶ NEPA compliance

## EDUCATION

- ▶ BS Biology
- ▶ BS Environmental Science

**3** YEARS WITH BURNS & MCDONNELL

**17** YEARS OF EXPERIENCE



# JOE KOPAJTIC, PWS

(continued)

## Enclave Solar | Invenergy

Sussex County, Virginia | March 2023 - September 2023

**Project Manager.** responsible for managing wetland delineation efforts of a 3,000-acre site on an expedited schedule. Applied expertise on delineation techniques for heavily disturbed areas from silviculture and logging activity. Managed up to six different delineation teams at one time over an eight-week period to meet the project schedule. Delivered detailed GIS shapes and technical reports ahead of schedule. Coordinated with Virginia Department of Environmental Quality (VADEQ) and US Army Corps of Engineers (USACE) for a Jurisdictional Determination.

## Misenheimer Solar | EDP Renewables

Stanly County, North Carolina | April 2022 - Present

**Project Manager.** Tasked with managing the construction compliance and monitoring efforts for a 74-megawatt facility in Stanly County, North Carolina. Applied expertise with permitting and construction during routine site inspections to ensure compliance with local, state, and federal regulations. Providing oversight of reports documenting the findings of site inspections and training presentations with construction contractors.

## Maroon Solar | Strata Renewables

Culpeper County, Virginia | June 2022 - November 2022

**Project Manager.** Managed and conducted wetland delineation, stream assessment, Phase I Environmental Site Assessment, and Jurisdictional Determination for a solar development project in Culpeper County, Virginia. This project is characterized by challenging landscape heavily impacted by the logging industry and required a creative approach to environmental evaluations. Currently pursuing a revision to a previously established Jurisdictional Determination.

## Valley Solar Generation | NextEra

Rockingham County, Virginia | March 2021 - September 2021

**Environmental Manager.** Managed the environmental studies for an approximate 460-acre proposed solar generation project in Rockingham County, VA. Services included wetland delineation, threatened and endangered species analysis, cultural resource compliance, and an evaluation of Virginia's Ecological Core areas. This project contained numerous environmental and natural resource constraints. The project team coordinated with USACE, VADEQ, and local cultural/historic preservation groups to generate creative solutions to protect known resources while achieving the goals of the project.

## BGE Granite Pipeline Feasibility Study | Environmental Scientist

Baltimore City and Baltimore County, Maryland

**Senior Environmental Scientist.** Investigated the feasibility of constructing a 15-mile, 24-inch natural gas pipeline in the City of Baltimore and Baltimore County, MD. Several pipeline corridor alternatives were assessed for wetlands and waterways, floodplains, threatened and endangered species, forested areas, cultural and historic resources, parklands, conservation areas, and hazardous waste sites via use of existing aerial photography, U.S. Geological Survey mapping, and state and county GIS data. Responsible for coordinating with local, state, and federal government agencies to determine road and rail crossing requirements, erosion and sediment control, and environmental permitting regulations.

# MICHELLE MAYFIELD

## Permitting & Compliance (Wastewater Treatment)



Michelle's primary area of expertise is federal and state wastewater and stormwater compliance for numerous municipal and industrial entities, including municipal separate stormwater systems (MS4s), petroleum refineries, electrical utilities and organic/inorganic chemical industries. This work included compliance assurance programs, auditing, permit applications, sampling, data validation, discharge monitoring reports, stormwater

pollution prevention plans, reasonable potential analyses, sample and analysis plans, permitting strategy developments and regulatory agency negotiations. Michelle has been involved with numerous multi-media assessments for industrial clients, and has assisted in public outreach efforts.

### EDUCATION

- ▶ M.S. Agronomy
- ▶ B.S. Environmental Science,

1 YEAR WITH BURNS & MCDONNELL

29 YEARS OF EXPERIENCE

### Wastewater Modeling Study for a Coal-Fired Power Plant\* | Confidential Client

West Virginia, Ohio, and Texas

**Sampling & Analysis Lead.** Developed a sampling analysis plan and facility water balance to facilitate the development of a high-fidelity, predictive, dynamic model of all water and wastewater processes. Tasks included collaboration with modelers, laboratories, and engineers to ensure adequate discharge and operational data was collected. The model was modular, allowing the simulation of processes, coal sources, facility operation and implementation of dry ash handling practices to estimate final wastewater discharges and identify necessary air and water controls.

### Coal Combustion Residual (CCR) Pond Closure Compliance Strategy | Various Confidential Clients

Ohio, Pennsylvania, Indiana

**Wastewater Lead.** Analytical data was assessed to determine optimal wastewater treatment targets expected to address future water quality-based and technology-based effluent limitations under National Pollutant Discharge Elimination System (NPDES) permits. Approach taken included modeling reasonable potential analyses (RPA) to exceed water quality criteria and total maximum daily loads (TMDLs), and assessing current and proposed effluent limitation guidelines. Several projects included the modeling numerous scenarios to account for options in routing, mixing, and final receiving streams. Data was used to design wastewater treatment plants and/or negotiate NPDES permit limits with regulators.

### NPDES Antidegradation and Antibacksliding Analysis | Confidential Client

Ohio

**Wastewater Permitting Lead.** In addition to modeling the RPA to exceed water quality criteria and assessing current and proposed effluent limitation guidelines as described above, this project included a detailed assessment and documentation of the state's Antidegradation and Antibacksliding regulations and recent policies in permitting new outfalls for the discharge of CCR and other facility closure waste streams. Part of a larger project, this information was used to develop a closure strategy that was protective of the environment, cost-effective, and achievable within the allowed regulatory timeframes.

# MICHELLE MAYFIELD

(continued)

## NPDES Permit Application for a Greenfield Liquid Natural Gas Facility | Venture Global Plaquemines, LLC

Louisiana

**Wastewater Permitting Lead.** Prepared permit application packages for process wastewater, stormwater, and sanitary wastewater discharges under the NPDES permitting program and the sanitary package plant installation under local ordinances. Work included preparation of a detailed narrative description, water flow diagrams, and application forms. The NPDES application form included an Environmental Assessment Statement which evaluated alternative sites and impacts to the environment and environmental justice communities. Support was also provided to secure the final permit, including negotiations with the permitting agencies.

## Fatal Flaw Analysis for the Siting of New Greenfield Electric Utility Plants\* | Confidential Client

Louisiana, Mississippi, North Carolina, South Carolina, & Texas

**Task Manager & Water Lead.** Task Manager and team member in site selection and analysis projects for new power plant construction sites including diagnosing environmentally resilient and publicly favorable locations.

Tasks included:

- ▶ Preparation and distribution of multi-discipline site evaluation reports.
- ▶ Participated in public hearings and response to public comments on environmental impacts to new plants.
- ▶ Developed NPDES applications and application strategies for multiple new plants. Tasks included communications with State and Federal Agency permitting personnel to ensure permit acceptance, preparing anti-degradation assessments, consultation with clients on scheduling and strategy, assisting in multi-media presentations to potential public opposition groups, and the preparation of Best Management Practices (BMPs);
- ▶ Assess the reuse of Publicly Owned Treatment Works (POTW) wastewater for Cooling Tower;
- ▶ Alternative no-discharge assessments.
- ▶ Anti-degradation evaluations.
- ▶ Performing surface water evaluations to project discharge toxicities, ambient impacts, potentials for Total Maximum Daily Loads, and over lapping Zones of Impact, and
- ▶ Developing sampling strategies to provide legal protection under the NPDES application (i.e., "Permit as a Shield")

## SPCC and SWPPP for Petroleum Refinery | Chevron Products Company, Pascagoula Refinery

Pascagoula, Mississippi

**Project Manager and Technical Lead.** Developed the Spill Prevention, Control and Countermeasures (SPCC) and Storm Water Pollution Prevention (SWPP) Plans for Chevron's largest refinery in the US, producing over 7 million gallons of gasoline a day. The project included use of volumetric data collected by Unmanned Aerial Vehicles (UAVs, aka drones) to confirm volumes for secondary containment structures and potential failure scenarios. The SWPP included updates required by NPDES permit recently reissued by Mississippi Department of Environmental Quality. Both the SWPP and SPCC incorporated recent facility changes, verified drainage management, and updated facility maps.

\*denotes experience prior to joining Burns & McDonnell

# PATRICK MEIER

## Permitting & Compliance (Environmental Construction)



Patrick Meier is a Senior Wetlands Scientist within the Environmental Services Division at Burns & McDonnell. His primary responsibilities include wetland delineations and assessments, submittals and field confirmations for Jurisdictional Determination (JD) requests, as well as construction compliance monitoring, including erosion and sediment control and stormwater management inspections, and preparing stormwater pollution prevention plans. Additional responsibilities include

biological and floristic surveys, plant community analysis, stream channel restoration monitoring, soils analysis, threatened and endangered species surveys, invasive species identification and control, and technical writing. Patrick has 18 years of environmental and regulatory experience working with State/Local and Federal agencies.

### EDUCATION

- ▶ BA, Environmental Studies
- ▶ Minor, Biology

### CERTIFICATIONS

- ▶ Professional Wetland Scientist
- ▶ HAZWOPER 40 Hour Certification

9 YEARS WITH BURNS & MCDONNELL

18 YEARS OF EXPERIENCE

Patrick has experience delineating jurisdictional Waters of the U.S. (WOUS) and conducting construction compliance inspections within the states of Virginia, North Carolina, West Virginia, and Pennsylvania for projects associated with electric transmission line construction and rehabilitation, gas and oil pipelines, residential and commercial development, roadway construction, and storm and sanitary sewer construction. Patrick has also conducted WOUS delineations for gas and oil pipelines in Iowa, Louisiana, and Texas and on solar projects in Virginia, Maryland, and Pennsylvania. Furthermore, he also has extensive experience with monitoring wetland and stream channel mitigation banks, developing and conducting invasive species control plans, monitoring and reporting of on-site erosion and sediment control plans, and Virginia Water Protection permit compliance within the State of Virginia.

### Boone Area Reinforcement Project | AEP

West Virginia | October 2018-Present

**Environmental Lead** - tasked with over-seeing erosion and sediment control (E&SC) inspections and stormwater pollution prevention plan (SWPPP) compliance for a multi-phase transmission project for AEP (Client). Tasks include compliance audits for SWPPP implementation, oversight and coordination with sub-contractors, communicating with client contacts, and reviewing contractor environmental plans (EMP).

### PPL Lancaster – Harrisburg Super Region | PPL

Pennsylvania | March-December 2017

**Permitting and Compliance Specialist** tasked with overseeing permitting contactors and conducting permitting and compliance audits for multiple electrical transmission and substation projects within the Lancaster – Harrisburg, Pennsylvania Super Region for PPL (Client). Patrick's tasks included managing permit and construction contractors, reviewing permit application submittals and contractor environmental management plans (EMP), conducting on-site erosion and sediment control and permit compliance inspections, and providing monthly status reports to client.

### P-40 Pipeline | Enterprise Products Operating, LLC

Pennsylvania | June-November 2016

**Erosion and Sediment Control (E&SC) Inspector** tasked with weekly monitoring of various pipeline rehabilitation "dig" sites for proper E&SC management and post-construction restoration of vegetative cover as required by state and local regulatory permits. Consulted with client and contractors regarding potential violations and recommended maintenance and remediation efforts.

# PATRICK MEIER

(continued)

*Wetlands specialist* for post construction survey of wetland conditions and acreage at permitted disturbance areas. Patrick's duties consisted of field survey using sub-meter GPS, sample point data analysis, and report write-up for client and regulatory authorities.

## Jack's Pump Station | Enterprise Products Operating, LLC

Pennsylvania | September-November 2016

*E&SC Inspector* tasked with weekly monitoring of stream channel rehabilitation efforts located within a client-manned natural gas pump station. Patrick's duties consisted of documenting post-restoration conditions of stream channel, stabilization conditions, and consulting with client and contractors regarding recommended maintenance and remediation efforts.

## Enclave Solar Project | Invenergy

Virginia | March 2023 – May 2023

*Senior wetland scientist* tasked as field lead for managing field staff, conducting wetland and stream channel delineations, and environmental surveys for a proposed solar facility. Patrick's responsibilities included delineating WOUS boundaries, use of sub-meter GPS units and GIS tablets, uploading of GPS data, filling out U.S. Army Corps of Engineers wetland and stream channel data forms, submittal of daily safety and progress reports, data, field team management, and peer review of deliverable to the client.

## Southern Spirit Transmission Project | Southern Cross Transmission LLC

Louisiana | January 2023-Present

*Senior wetland scientist* tasked as field lead for conducting wetland and stream channel delineations and environmental surveys for future construction of a proposed electrical transmission line. Responsibilities included delineating WOUS boundaries, use of sub-meter GPS units and GIS tablets, uploading of GPS data, filling out U.S. Army Corps of Engineers wetland data forms, threatened and endangered species habitat assessment, and field team management.

## Gillis Access Project | T.C. Energy

Louisiana | August 2022-May 2023

*Wetland scientist* tasked as field lead for conducting wetland and stream channel delineations and environmental surveys for future construction of a proposed natural gas pipeline. Responsibilities included delineating WOUS boundaries, use of sub-meter GPS units and GIS tablets, uploading of GPS data, filling out U.S. Army Corps of Engineers wetland data forms, drafting and submitting formal wetland report to client and regulatory agencies, threatened and endangered species habitat assessment, and field team management.

## Lebanon Solar Project | Enel Green Power, North America

Pennsylvania | June 2021-July 2021

*Wetland Scientist* tasked with conducting wetland and stream channel delineations and environmental surveys for a proposed solar facility. Patrick's responsibilities included delineating WOUS boundaries, use of sub-meter GPS units and GIS tablets, uploading of GPS data, filling out U.S. Army Corps of Engineers wetland and stream channel data forms, submittal of daily progress reports and data, field team management, and peer review of deliverable to the client.

## Line 475 | Piedmont Natural Gas

North Carolina | April 2020-February 2021

*Wetland specialist* tasked with conducting wetland and stream channel delineations and environmental surveys for future construction of a proposed solar facility. Responsibilities included delineating WOUS boundaries, use of sub-meter GPS units and GIS tablets, uploading of GPS data, filling out U.S. Army Corps of Engineers wetland and stream channel data forms, drafting and submitting formal wetland report to client and regulatory agencies, threatened and endangered species habitat assessment, and field team management.



# DAVE MCLANE, PE

## Mining



Dave is a professional mining engineer and the mining manager for Burns & McDonnell. His top priority is ensuring the safe and successful execution of design and EPC projects for clients in the mining industry. With 13 years of experience in project management, engineering and construction, Dave has successfully managed complex underground and surface mining projects worldwide. Dave has worked with owner and contractor teams to develop new mines and restart previously closed operations.

### EDUCATION

- ▶ Bachelors, Mining and Mineral Engineering
- ▶ Master of Business Administration, Finance Emphasis

### REGISTRATIONS

- ▶ Professional Engineer (AZ, NV)

**3** YEARS WITH BURNS & MCDONNELL

**13** YEARS OF EXPERIENCE

### **Patriot Coal – Hobet 21 Coal Mine\***

Boone County, WV | 2010-2011 | Mine Engineering

Worked with engineering and operations teams to plan, track, and report mine production at the Hobet 21 surface mine. The mine operated multiple front-end loader and dragline production units. Coal was transported to preparation plant and rail tipple facility via overland conveyor.

### **Bremond Mine Loading Station | Vistra Energy**

Robertson Co., Texas | 2020 - 2022

**Mining Consultant.** Value Engineering and Detailed Design for a 6Mtpa train loading system for a new lignite coal mine. The design includes civil, structural, mechanical, electrical, and controls design elements. The facility consists of a grizzly, hoppers, feeder breaker, conveyors, radial stacker, sumps, fire protection, and batch weigh train loading system.

### **NEW GOLD - NEW AFTON Expansion Project | New Gold Inc.**

Kamloops | Apr 2020 – Jun 2022

**Mining Consultant.** Mining consultant supporting the program management team during the assessment and execution of the mine expansion. My support considered operational challenges and risk, mining costs, and overall mine development schedule and associated facilities and infrastructure.

### **Barrick – Cortez Hills Underground\***

Elko, Nevada | 2011-2015 | Mine Engineer

Responsible for 3-year mine forecast, monthly rolling mine plan, mining/haulage efficiency, and production compliance. Completed successful commissioning of North Blind Bore 1500 hp fan and underground ventilation network change-over.

### **CARGILL CAYUGA MVR SYSTEM | Cargill, Inc.**

Lansing, New York | Aug 2020 – Oct 2021

**Project Manager.** Manager of technical and professional services for the engineering phase of a mechanical vapor recompression system to treat wastewater from underground salt mining operations. This is phase 2 of a

# DAVE MCLANE, PE

(continued)

3 phase EPC project which will provide an alternative to storing wastewater brine solution in underground ponds.

## **Mission Mine Energy Storage and Photovoltaic Generation Project | ASARCO**

Sahuarita, Arizona | March 2021 - Present

**Project Manager.** Leading a team of solar, battery storage and electrical engineers working on a decarbonization strategy. The project includes an examination of current operations, infrastructure needs, and operational changes necessary to deploy technologies that reduce the operations carbon footprint.

## **Castle Mountain Mine Power Supply Project | Equinox Gold**

San Bernardino Co., California | March 2021 – May 2021

**Project Manager.** Leading a team of electrical engineers evaluating power supply options in support of the Castle Mountain Mine Phase 2 Expansion. The evaluation includes traditional and renewable power options.

## **NGM CORTEZ 995V DESIGN | Nevada Gold Mines**

Crescent Valley, Nevada | Jun 2020 - Aug 2020

**Project Manager.** Manager of technical and professional services for electrical design at the Goldrush Underground Project. The project evaluated the feasibility of transitioning from a 480V to 995V electrical system for all fixed and mobile underground equipment, focusing on safety, cost, and operational flexibility.

## **Newmont – Chaquicocha Underground Mine Development**

Cajamarca, Peru | 2019-2020 | Mining Lead

Led mining, ventilation, geology, and geotechnical teams in completion of mining and infrastructure design, capital development, and initial production for the Chaquicocha Sulfides and Oxides ore bodies. The deposit was high-sulfidation, epithermal gold located in the Yanacocha mining district. The planned mining of 3,000 tpd is achieved via longhole stoping with cemented backfill and multiple ramp accesses. The project infrastructure included an office dry complex, maintenance shops, service and wastewater systems, power, pumping, ventilation, and batch plant.

## **Goldcorp - Cerro Negro Mariana Norte Mine Development**

Santa Cruz Province, Argentina, | 2017-2018 | Mining Lead

Responsible for mine design, development and production schedules for next phase of active high-grade gold mine complex. Worked onsite with engineering and production teams to update and integrate development plans for successful transition to new ore body.

*\*Indicates work done prior to joining Burns & McDonnell*

# TYLER J MCKEE, PE

## Geotechnical (Land Restoration & Subsidence)



Tyler is a senior geotechnical engineer in Burns & McDonnell's geotechnical department in Kansas City, MO. He completed his MS degree in Geotechnical Engineering before joining Burns & McDonnell nine years ago. He is a registered professional engineer in the state of Missouri, Kansas and Florida.

Tyler has contributed to a variety of projects related to geotechnical engineering. These projects primarily include foundation design, slope stability, seepage, and settlement evaluations for substation, transmission line, aviation facilities, coal generating stations, and refineries.

His responsibilities include supervising and coordinating subsurface investigations, evaluating geotechnical laboratory test data, and performing geotechnical-related design and subsequent construction observation activities. He has experience in preparing construction specifications, geotechnical engineering reports, and deep foundation design (drilled shafts, direct embedded poles, Augered Cast-In-Place piles, helical anchorage systems).

He is proficient with several state-of-the-art computer programs for use in geotechnical design. Among these are Ensoft's LPILE, SHAFT, and P-Y Wall programs for deep foundation and retaining wall design, Digioia, Gray & Associate's MFAD program for the design of laterally loaded deep foundations, RocScience's Settle3 software, UTexas4 slope stability software, GeoStudio's SLOPE/W and SEEP/W. Tyler has applied his geotechnical experience to a wide variety of projects.

### Transmission Lines and Substations | Various Clients

#### USA and CANADA | 2014-Present

Tyler has assisted and lead the geotechnical investigation and design efforts for numerous transmission line and substation projects throughout the Midwest, Northeast, Southeast, and southern United States. numerous clients including, but not limited to, ComEd, DTE, Duke Energy, Beaches Energy, Orlando Utilities Commission (OUC), Altalink, First Energy, Tri-State G&T, and International Transmission Company (ITC). Tyler has provided technical scope for and coordinated the geotechnical investigations and reviewed subconsultant geotechnical reports. Design activities primarily included drilled shaft and direct-embedded pole design, with some specialty helical anchor design.

### Oak Mound – Waldo 138kV Transmission Line | FirstEnergy Corporation

#### Clarksburg, West Virginia | 2014-2015

Completed drilled shaft, direct embedded steel monopole and guyed rock anchor designs for overhead transmission structures and substation equipment near Clarksburg, West Virginia. Unique project considerations included variable slopes, variable rock quality and depth, and existing coal mines.

### EDUCATION

- ▶ BS, Civil Engineering
- ▶ MS, Geotechnical Engineering

### REGISTRATIONS

- ▶ Professional Engineer (MO, KS, FL)

9 YEARS WITH BURNS & MCDONNELL

9 YEARS OF EXPERIENCE

# TYLER J MCKEE, PE

(continued)

## **Cacapon Substation | FirstEnergy Corporation**

Great Cacapon, West Virginia | 2023-Present

Performed slope stability analyses for improvements for existing substation near Great Cacapon, West Virginia. Unique project considerations included variable slopes, variable rock quality and depth, and existing coal mines.

## **C-17 2-Bay Hangar at Pittsburgh International Airport | US Air National Guard Facility**

Moon Township, Pennsylvania | 2016

Performed drilled shaft designs for a new C-17 two bay hangar unit at the Air Reserve Station at Pittsburgh International Airport.

## **Limestone Mine Reclamation Project| USC Technologies, Inc.**

Kansas City, Kansas | 2016-Present

Provided consulting services for limestone mine reclamation.

## **Todd Creek Wastewater Treatment Project**

Kansas City, Missouri | 2021-Present

Performed risk review for proposed wastewater treatment project at greenfield site potentially located over future underground quarry.

# ROBYN S. SUSEMIHL

## NEPA



Robyn Susemihl is a Senior Project Manager who has led various projects in the energy and transportation sectors. Her responsibilities have included operations management, project management, environmental fieldwork coordination, environmental surveys, site characterization studies, and data collection and report preparation. She has a broad range of project experience in the management and oversight of

complex projects, large teams, numerous subcontractors, regulatory coordination, and public relations. Robyn is highly experienced in overseeing project components from concept to construction including site assessments, scoping; budget development; environmental and cultural fieldwork; environmental strategy and permitting; coordination among multiple regulatory agencies, public scoping and open house meetings; and implementation of environmental conditions. Robyn has worked with federal and state environmental agencies across much of the U.S. through the National Environmental Policy Act (NEPA) process, which requires consultations, permits, and approvals under the Sections 10, 404, 401, and 408 of the Clean Water Act, Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, and the Clean Air Act among others.

### EDUCATION

- ▶ BS, Biology

### REGISTRATIONS AND TRAINING

- ▶ Understanding & Executing Integrity Management Programs
- ▶ Leadership & Management Skills for Women
- ▶ USACE Wetland Delineation Training
- ▶ FERC Environmental Review and Compliance for Natural Gas Facilities
- ▶ OSHA 12-hr Certification

**9** YEARS WITH BURNS & MCDONNELL

**20** YEARS OF EXPERIENCE

### SPLNG Stage 5 Expansion Project | Cheniere Energy

Louisiana | 2023 - Present

**FERC Application Support** for the proposed expansion of the Sabine Pass LNG Facility in southwest Louisiana. The project consists of the proposed installation of multiple liquefaction trains, a new pipeline from existing assets in Jefferson County, Texas, across the Sabine River, terminating within the LNG facility. Consistent with NEPA, Section 3 and Section 7c of the Natural Gas Act requires the applicant to prepare an Environmental Report consisting of 13 resource reports. Robyn has provided senior technical review of multiple reports and has written sections of multiple reports to prepare for the Draft FERC Filing at the end of 2023.

### Cumberland Project – Third-Party Consultant | Kinder Morgan/FERC

Tennessee | 2021 - Present

**NEPA Third-party consultant and project manager** who supported the FERC for a natural gas infrastructure project in western Tennessee. For this project, Burns & McDonnell attended open houses, and reviewed the applicant prepared resource reports to support preparation of an Environmental Impact Statement (EIS) for the project. The project consists of 32 miles of new natural gas pipeline in Dickson, Houston, and Stewart Counties, Tennessee. Key responsibilities included coordination and attendance at public comment sessions, review of the applicant's resource reports, administrative, draft, and final versions of the EIS under the direction of FERC Staff. Our team maintained a database of public, regulatory, and non-regulatory organizations' comments filed to the FERC docket as part of the Draft EIS Public Comment Period. Once FERC is prepared to issue an Order, additional responsibilities will include the preparation of a draft Environmental Insert (to be included in the Order), review and comment on the applicant's Implementation Plan, Variance Requests, and requests for Notice to Proceed with construction-related activities. Order Issuing Certificate issued in January 2024.



# ROBYN SUSEMIHL

(continued)

## Environmental Aspects Inventory | Confidential Client

Multi-state Review | 2019 - 2021

**Project manager** for a confidential evaluation of all regulated environmental aspects owned and operated by a large, multi-state natural gas company. This Environmental Health and Safety Compliance and Inspection (EHS) project includes inventories at over 100 facilities in seven states to document any additions or removals of regulated equipment or materials. All findings were documented in a report to the client under Attorney-Client Privilege.

## Mountaineer XPress Project Third-Party Environmental Compliance Monitoring | Columbia Gas Transmission

West Virginia | 2018 - 2021

**Third-party consultant and project manager** overseeing a team of six environmental compliance monitors during construction of the Mountaineer XPress Pipeline. Responsible for addressing landowner issues, reviewing and approving variance requests, ensuring compliance with federal and state permit conditions, and maintaining all records, reports, and budgets for approximately three years.

## Mountaineer XPress Project EIS | Columbia Gas Transmission

West Virginia | 2015 - 2018

**Third-party consultant and project manager** who supported the FERC for a natural gas infrastructure project in West Virginia. Coordinated and participated in FERC's Public Scoping meetings along the 164-mile project corridor. Responsible for reviewing and commenting on the applicant's draft resource reports and coordinated the preparation of the Draft and Final Environmental Impact Statement. Coordinated and lead the FERC Public Hearings to obtain public input and comments on the Draft EIS. Managed and tracked 100's of public and agency comments. Additional responsibilities included managing a team of resource experts and coordinating regularly with FERC's Staff and Cooperating Federal and State Agencies.

## Gulf XPress Project EIS | Columbia Gulf Transmission

West Virginia | 2015 - 2018

**Third-party consultant and project manager** who supported the FERC for a natural gas infrastructure project in West Virginia. Coordinated and participated in FERC's Public Scoping meetings along the 164-mile project corridor. Responsible for reviewing and commenting on the applicant's draft resource reports and coordinated the preparation of the Draft and Final Environmental Impact Statement. Coordinated and lead the FERC Public Hearings to obtain public input and comments on the Draft EIS. Managed and tracked 100's of public and agency comments. Additional responsibilities included managing a team of resource experts and coordinating regularly with FERC's Staff and Cooperating Federal and State Agencies.

## SPLNG Third Berth Expansion Project | Cheniere Energy

Louisiana | 2018 - 2020

**Project manager** for new Third Berth at the existing Sabine Pass LNG Terminal in Louisiana. Managed the preparation and submittal of Federal Energy Regulatory Commission (FERC) Resource Reports, USACE Individual Permit Application, participated in the pre-filing process, initial agency consultations and an open house meeting. The FERC and USACE applications were filed in October 2018. FERC issued its Environmental Assessment in August 2019, and the Order was issued in February 2020. The USACE IP was received in June 2020. Notice to Proceed was received from FERC in July 2020.

# GREG SMITH II, REA

## Land Services



Greg excels in managing all phases of utility and infrastructure projects from siting to acquisition and on through construction support. Greg has fourteen years of experience providing real estate solutions for utility companies and public agencies and has worked with numerous utilities and midstream companies. Greg is tasked with managing complex projects, client retention, and growth of the right-

of-way sector. His background in law and alternate dispute resolution provides a unique advantage in contract and easement negotiations and understanding client needs and expectations in a rapidly evolving industry. Greg is also experienced in managing right-of-way agents, title specialists, and supporting staff to achieve project deadlines and meet deliverable requirements.

### EDUCATION

- ▶ JD, Law
- ▶ BS, Psychology
- ▶ BA, English and Communications

### REGISTRATIONS

- ▶ Notary Public (OH)
- ▶ International Right of Way Association

**6** YEARS WITH BURNS & MCDONNELL

**14** YEARS OF EXPERIENCE

### Portfolio Manager | Duke Energy/Piedmont Natural Gas

North Carolina, South Carolina, Ohio, Indiana, Kentucky | 2019 - Present

**Program Manager.** Greg manages dozens of right of way projects across the Duke Energy footprint. This role required scoping, staffing, and ensuring an effective execution plan, meeting project deadlines, tracking and monitoring project financials, technical assistance to resolve issues as they arise, and the overall responsibility for all administrative direction and management with the supervision and coordination of activities of the project team.

### Ramsey Road | Duke Energy/Piedmont Natural Gas

Williamston-Washington, North Carolina | 2019 - 2020

**Program Manager.** Greg supported title, survey, acquisition, and construction efforts on a 88 parcel, 5-mile, 8-inch natural gas distribution line driven by DOT road widening along the US-17 corridor. This role required scoping, staffing, and ensuring an effective execution plan, meeting project deadlines, tracking and monitoring project financials, technical assistance to resolve issues as they arise, and the overall responsibility for all administrative direction and management with the supervision and coordination of activities of the project team.

### Multiple Gas Transmission Lines | Duke Energy/Piedmont Natural Gas

North Carolina | 2017 - 2021

**Program Manager.** This role required scoping, staffing, and ensuring an effective execution plan, meeting project deadlines, tracking and monitoring project financials, technical assistance to resolve issues as they arise, and the overall responsibility for all administrative direction and management with the supervision and coordination of activities of the project team. These projects were incredibly time-sensitive with a short acquisition window and also required the coordination of a special use permit with landowners. To date, all projects have been completed on time and without condemnation. The project included the following:

- ▶ Line 472 - Garner, North Carolina

# GREG SMITH II, REA

(continued)

- ▶ 12-parcel, 1-mile, 12-inch natural gas transmission line driven by DOT road widening along the NC-42 corridor.
- ▶ Line 204 - Williamston-Washington, North Carolina
- ▶ 55-parcel, 10-mile, 8-inch natural gas transmission line driven by DOT road widening along the US-17 corridor
- ▶ Line 208 - Ahoskie-Camden, North Carolina
- ▶ Retrofitting and relocation of main line valve sites along an 80-mile natural gas transmission line involving. Construction coordination on over 500 landowners and easements on 82 landowners

## Natural Gas Distribution | Duke Energy/Piedmont Natural Gas

Eastern Region, North Carolina | 2018 - 2019

**Program Manager.** Greg supervised on-call Right-of-Way Agents for various acquisition support services in Piedmont Natural Gas' Eastern service region of North Carolina. Duties and responsibilities include pipeline and station acquisition, routing and siting, and survey coordination and support. This role requires frequent interaction and negotiation with both private landowners and government entities or agencies.

## Electric Distribution Carolinas East and West | Duke Energy

Eastern Region, North Carolina | 2018 - 2019

**Program Manager.** Greg supervised on-call Right-of-Way Agents for various acquisition support services in both the East and West regions of Duke Energy service region of North Carolina. Duties and responsibilities include easement and station acquisition, routing and siting, and survey coordination and support. This role requires frequent interaction and negotiation with both private landowners and government entities or agencies. Storm damage and response was also a component and agents were dispatched to respond in emergent situations.

## Independence Energy Connection | Transource Energy

York and Franklin Counties, Pennsylvania | Harford and Washington Counties Maryland | 2019 - Present

**Project Manager and Supervisor** supporting title, survey, acquisition, and construction efforts on a multistate 196 parcel, 45 mile, 230kV Greenfield Transmission in Pennsylvania and Maryland. This role required scoping, staffing, and ensuring an effective execution plan, meeting project deadlines, tracking and monitoring project financials, technical assistance to resolve issues as they arise, and the overall responsibility for all administrative direction and management with the supervision and coordination of activities of the project team.

## North Findlay – North Baltimore #2\* | American Electric Power

Findlay, Ohio | 2016 - 2017

**Lead Right-of-Way Agent** for a 12-mile 69Kv multi-component electric transmission line rebuild project. Support was provided from survey permitting through construction reclamation. Total home acquisitions were negotiated, as well as distribution of underground easements for a substation expansion component of the project. Junior agents were trained and support staff were utilized as a part of the acquisition team. The entire line was secured with no condemnations.

*\*Experience prior to joining Burns & McDonnell*

**EXPERTISE**

-  In-situ Remedy Design / Implementation
-  Water Treatment Plant Design/Operation
-  Cutting Edge Technologies
-  Technical Expert
-  Acid Mine Drainage

**OVERVIEW**

Jim Harrington is both Chief Executive and Chief Technical Officer of Ensero Solutions, leading the Ensero environmental operations in the United States and Canada. He has expertise in applying cutting-edge technologies to enhance the performance of complex, high-profile water treatment and remediation projects on mining-impacted land (active and abandoned). He designs remedies to address inorganics, metals and radionuclides in processing wastes, soil and groundwater.

**TOTAL YEARS OF EXPERIENCE | 30**

**EDUCATION**

M.Sc. – Biochemistry and Molecular Genetics, University of Idaho  
B.Sc. – Microbiology, University of Idaho

-  Ensero Solutions
-  Shepherd Miller
-  Arcadis
-  Green World Science

**Selected Project Experience**

**Gold King Mine/Bonita Peaks Mining District | Environmental Restoration/USEPA and EA Engineering, Science and Technology/USACE Omaha | Gladstone Interim Water Treatment Plant | Silverton, Colorado | Technical Lead/Project Oversight**

Led the team that designed and built (in 21 days) an interim water treatment plant to mitigate the effects of the high-profile August 5, 2015 Gold King mine release of acid rock drainage to the Animas River. Plant incorporates lime precipitation, clarification, and use of geotextile bags to treat up to 1200 gpm of acidic water from the underground mine. Responsible for ongoing operations 24/7, throughout the year at high elevation and intense cold. Managed challenges which arose due to high flows during spring run-off. Evaluated sludge optimization and handling options to streamline activities.

**Former Mount Nansen Mine Remediation Project | Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) | Water Treatment and Permitting | Yukon, Canada | Technical Lead, Executive Sponsor**

Executive sponsor for Ensero, who with JDS form the Mount Nansen Remediation project. Leading the multidisciplinary team per the Remediation and Security Agreement with Canada. Evaluated and provided water treatment options and supported the project in obtaining the Type B Water Licence for Care and Maintenance program. Provided technical oversight for the construction of a water treatment plant to manage tailings seepage, dewatering, and acid surface water. The nominal WTP treatment capacity is 15 m3/hr, with a maximum capacity of 27.5 m3/hr. Constituents of concern include total suspended solids (TSS), arsenic, iron, manganese, zinc and effluent toxicity (LC50.). The basic unit operations in the facility include lime precipitation, inclined plate clarification, sand filtration and effluent neutralization. The WTP was commissioned in April 2022 and has been treating water effectively (24/7) since.

**United Keno Hill Mines/Keno Hill Silver District | Elsa Reclamation and Development Company Ltd. / Crown-Indigenous Relations and Northern Affairs Canada | Reclamation, Closure Planning, Environmental Monitoring and Reporting | Yukon, Canada | Technical Lead/Technical Manager**

Managed closure planning project, including site assessment of 38 historic mine and mill sites, engineering studies, environmental assessment, care and maintenance, and closure design. Led risk assessment of environmental, physical hazards, and operational management issues for district-wide closure planning. Oversaw design and implemented interim water treatment operations for zinc and other heavy metals for mine adit drainages, using lime-based precipitation and sulfate-reducing bioreactors. Designed in situ treatment remedies and oversaw pilot tests including hydrology and hydrogeology studies, groundwater-stream interface studies, and tracer tests. Provided senior technical consulting and closure planning for district-wide surface water, groundwater, waste rock, tailings and underground workings. Oversaw district-wide modeling of contaminant loading and attenuation processes. Managed cover design, soil amendment studies, cover plant selection using reference area.

**Rio Tinto Mine | Rio Tinto Working Group | Treatability Testing | Elko, Nevada | Technical Lead/Technical Manager**  
Bioreactor full scale treatability test for tailings pond drainage that had very high copper, zinc, and cadmium concentrations. Treatability study involved creation of a sulfate reduction bioreactor that included recycle to overcome metals toxicity issues and avoid geochemical fouling. Contributed to EE/CA of water treatment options including several active treatment approaches, semi-passive treatment approaches including bioreactor, sorption systems, and wetlands.

**Grey Eagle Mine | Glencore | Pilot In-Situ Treatment | Happy Camp, California | Senior Technical Lead**  
Oversaw team to design and implement a full-scale treatability test of a combined lime neutralization and in-situ organic - supported sulfate reduction process to mitigate acid mine drainage and reduce loading to the downstream treatment facility. Treatability test included drilling wells into saturated mine pool, injection of neutralization reagents, organic carbon reagents, and tracer materials.

**Barite Hill Mine | US EPA Region 4 | In-situ Water Treatment | South Carolina | Senior Technical Consultant**  
Designed treatment for extremely acidic (intermittently negative pH) pit lake and groundwater seepage pathways adjacent to Hawes Creek using in-situ neutralization and sulfate reduction technology. Project nominated for EPA National Science Award. Work successfully performed under a fixed price contract.

**Equatorial Tonopah Mine | Equatorial Tonopah Inc. | In-situ Pit Lake Treatment | Nevada | Senior Design Consultant**  
In support of the mine closure, designed and implemented a remedy to treat a 50 million-gallon pit lake impacted with metals. In-situ treatment included adding alkalinity, iron and organic carbon to induce metals precipitation and/or encapsulation of metals in reduced form. Activities included regulatory negotiation on behalf of the client, procurement of contractors and materials, and oversight of implementation. Also managed the revegetation and reclamation of the pit lake shoreline to create a sustainable ecosystem to prevent long term acidification of the pit lake area.

**Gilt Edge Mine Superfund Site | EPA Region 8 | In-situ Groundwater Treatment | South Dakota | Senior Engineer**  
Treated an acidic pit lake with an in-situ remedy. Amendment additions were timed with natural pit lake mixing events to maximize amendment contact with contaminants. Additionally, designed a gas phase modification system in the Ruby waste dump. The project won the E3 Honors award for "Best Small Project 2006" from the American Academy of Environmental Engineers and the ACEC.

**Platoro Mine | Union Gold | In-situ Water Treatment | Platoro, Colorado | Technical Lead**  
Designed an in-situ acid mine pool pretreatment system using alkalinity and organic carbon treatment delivered via a single injection. Initial treatment benefits lasted for 4 years, followed by periodic injections, reducing high levels of arsenic and zinc in situ by 95% or greater. Subsequent project phases included transfer of lime neutralization water treatment sludge into the mine pool to increase alkalinity and to dispose of sludge in a stable subaqueous environment.

**Silver King Mine | ERDC/CIRNAC | In-situ Mine Water Treatment | Yukon | Technical Lead/Technical Manager**  
Led team to evaluate feasible options for management of water flowing from historic adit at a rate that averaged around 15 liters/second (240 gpm), in extreme cold northern environment. After options assessment, chose in-situ treatment technology to improve water quality sufficient to achieve direct discharge to surface water. Pilot test of in-situ technology began with dewatering to achieve hydraulic control, injecting organic carbon reagents into the mine workings to create microbial sulfate reducing conditions within the mine workings, and using a tracer test to assess hydraulic retention time. Optimization of the treatment system over time resulted in the pilot test becoming the permanent remedy.

**Former Schwartzwalder Uranium Mine | Colorado Legacy Land, LLC/Cotter Corp | Mine Water Treatment and Site Reclamation | Golden, Colorado | Technical Consultant and Oversight**  
Provide technical oversight for mine water management including mine dewatering, in-situ and ex-situ water treatment process selection, design and implementation for water treatment solutions, regulatory negotiation and management of permits and permit amendments for all work phases. Water treatment plant design uses reverse osmosis (RO) treatment with ion exchange for polishing. Oversee use of Ensero patented technology for in-situ mine pool water management and treatment that involves injection of RO concentrate into the mine pool, thereby directly addressing contamination at the source. Led evaluation of passive treatment options and reclamation design optimization. Oversee reclamation activities including water diversion design and construction, waste rock removal and disposal within mine workings, stream restoration, and site reuse evaluation.



# FORMS

ABANDONED MINE LANDS (AML) CONTRACTOR INFORMATION FORM

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

**Part A: General Information**

Business Name: \_\_\_\_\_  
 Tax ID #: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, & Zip: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_  
 Email Address: \_\_\_\_\_

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

If you plan to certify the existing AVS information or submit updates under Part C, you must include an OFT. Instructions for downloading an OFT from the AVS can be found at: <https://www.osmre.gov/sites/default/files/2022-02/OMB%201029-0119%20instructions.pdf>. If you require assistance you may contact the AVS Office by phone at: 800-643-9748, or by email at: [avshelp@osmre.gov](mailto:avshelp@osmre.gov).


**Part C: Certifying and updating information in the AVS**

Select one of the options, follow the instructions for the selected option, sign, and date below.

I, \_\_\_\_\_, have express authority to certify that:  
 (Print Name)

1. Our business is listed in the AVS. The information is accurate, complete, and up to date. (If you select this option, you must attach an Entity OFT from the AVS to this form). Do not complete Part D.
2. Our business is in the AVS. The information needs to be updated. (If you select this option, you must attach an Entity OFT from the AVS to this form). Complete Part D to provide the missing or corrected information.
3. Our business is not listed in the AVS. The information needs to be added. Complete Part D to provide the information.

\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

**Part D: OFT Information**

Contractor's Business Name: \_\_\_\_\_

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

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

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State, Zip: \_\_\_\_\_  
 Begin Date: \_\_\_\_\_  
 End Date: \_\_\_\_\_  
 % Ownership: \_\_\_\_\_  
 Position/Title: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

Name: \_\_\_\_\_  
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 Position/Title: \_\_\_\_\_  
 Phone Number: \_\_\_\_\_

**PAPERWORK REDUCTION STATEMENT**

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

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



CREATE AMAZING.

110 Franklin Road SE, Suite 700  
Roanoke, VA 24011  
[burnsmcd.com](http://burnsmcd.com)