

WEST VIRGINIA

DEPARTMENT OF ENVIRONMENTAL PROTECTION



2022 AML Contract 2 Project South

December 13, 2022



RESPEC.COM



RESPEC OVERVIEW

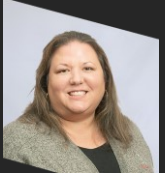
ABOUT US

PARTNERS

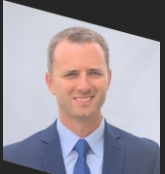
PROJECTS



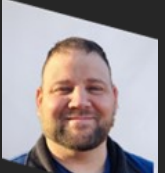
TECHNICAL ADVISOR
John Morgan



PROJECT MANAGER
Whitney Faulkner



ASSISTANT PROJECT MANAGER
Michael Anderson



FIELD SERVICES
Chris Burford

ABOUT US

We are a consulting engineering firm committed to **solving the challenges of inactive mine reclamation and closure and supporting permitting activities.**

50 YEARS

Founded in 1969 in Rapid City, South Dakota, we have over 50 years of experience.

515



EMPLOYEE-OWNERS

26+

OFFICES



AML RECLAMATION AND REMEDIATION

- Bureau of Land Management
- Kentucky Division of Abandoned Mine Lands
- Maryland Bureau of Mines
- Ohio AML
- Oklahoma Conservation Commission
- Montana DEQ, Abandoned Mine Section
- Utah Division of Oil, Gas and Mining
- Virginia Department of Natural Resources
- Office of Surface Mining – Washington State
- West Virginia Division of Environmental Protection

Offices in
West Virginia



37+ YEARS

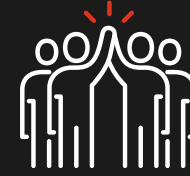
of AML project work

100+ AML PROJECTS

For State & Federal Agencies

PARTNERS

We partner with others for the
best solutions for West Virginia



Quality Engineering, Surveying, and Consulting
Services for Construction, Mining and Oil & Gas.

CORE COMPETENCIES

Civil Site Design /
Engineering / Planning

Underground / Surface
Mine Engineering

Environmental
Permitting

Geotechnical Engineering
& Drill Management

Surveying

DIFFERENTIATORS

Superlative
Design Services

Timely / Accurate /
Professional

Control Costs

Multiple Alternatives &
Solutions

Professional
Competency



PROJECTS

CONTRACT 2 PROJECT SOUTH

01

CROWN HILL REFUSE, SLIDE AND DRAINAGE

02

MORRIS CREEK TREATMENT

03

SUMMERLEE AMD TREATMENT

04

PRICE HILL COMPLEX — POND CLEANING

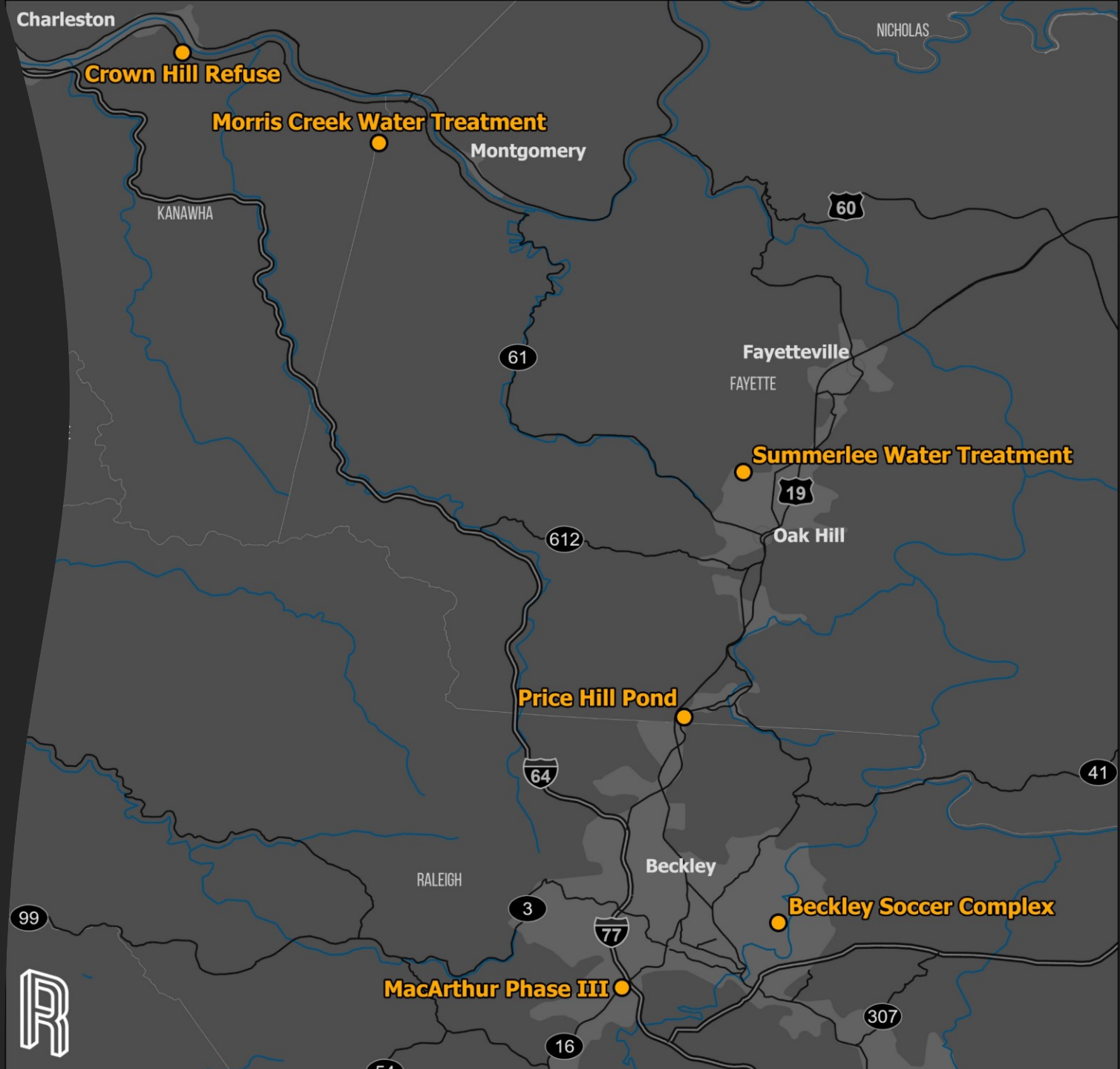
05

BECKLEY SOCCER COMPLEX

06

MACARTHUR SUBSIDENCE

WE KNOW THE CHALLENGES



CROWN HILL REFUSE, SLIDE, AND DRAINAGE

Key Issues

- / Open/Collapsed Portals
 - / AMD Draining from open portals
 - / Wet & Dry Seals
- / Slide
 - / 600' upslope & approximately 100'. ~1.2 Acres
 - / Secondary Slide forming
- / Refuse
 - / Potential for coal refuse combustion
 - / Site has existing coal blocks and refuse that will not require remediation

Site Constraints

- / EROE - completed
- / Difficult access
- / Division of Highways permit needed due to proximity
- / Slope Stability



Main Active Landslide



Main Active Slide Material



Collapsed and Draining Entry-Iron Laden Drainage



Collapsed and Draining Entry-Top of Main Slide

MORRIS CREEK TREATMENT

Key Issues

- / Failure in passive AMD treatment system (3 ponds) that was installed in 2014
- / AMD coming from multiple sealed mine entries

Site Constraints

- / EROE-Complete
- / Power Supply
- / USACE Permit
- / Multiple Counties

Design Phase

- / Remove existing system
- / Construct New System (Possibly Active)
- / Extend electrical lines

**Grant Application Estimated
Construction Cost - \$1.2M**



Estimated Design Schedule

Activity / Task	Q1-2023	Q2-2023	Q3-2023	Q4-2023	Q1-2024	Q2-2024
Purchase Agreement	█					
Public Advertisement	█	█				
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)	█	█	█			
Conceptual Plan Review (50% Complete)		█	█			
Preliminary Plan Review			█	█		
Permitting/NPDES/WMDOH/USACE				█	█	
Environmental Consultations/Assessments					█	█
Construction ROE						█
Publish Final Design						█

SUMMERLEE AMD TREATMENT

Key Issues

- / Existing Passive Treatment Failing
 - / Highly acidic surface runoff and mine drainage from refuse pile
 - / 3-4 GPM surface runoff
 - / AMD flowing freely into Wolf Creek of the New River
 - / Clogged with iron sludge and debris

Site Constraints

- / EROE – completed
- / Public Participation
- / Waste Disposal
- / Power Supply



PRICE HILL COMPLEX — POND CLEANING

Key Issues

- / 4 Sediment Ponds original installed for iron settling no longer working
- / Previous AML project
- / Maintenance rounds have been completed at the site
 - / Berm
 - / Dike
 - / Dipping

Site Constraints

- / Sludge Disposal
- / No Ownership

Design Phase

- / Remove and Replace Existing Ponds



Grant Application Estimated Construction Cost - \$500,000

Estimated Design Schedule

Activity / Task	Q1-2023	Q2-2023	Q3-2023	Q4-2023
Purchase Agreement	■			
Public Advertisement	■	■		
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)	■	■	■	
Conceptual Plan Review (50% Complete)		■	■	
Preliminary Plan Review			■	■
Permitting/NPDES/WMDOH/USACE				■
Environmental Consultations/Assessments				■
Publish Final Design				■

BECKLEY SOCCER COMPLEX

Key Issues

- / Subsidence
 - / ~450 LF Scarp Line
 - / Average 3' deep and ~40 in in width
- / Open/Collapsed Portals
 - / 9 Different locations
 - / Wet & Dry
- / 3 Dangerous Highwall Locations
 - / ~1900 LF to be Reclaimed

Site Constraints

- / EROE - COMPLETED
- / Heavy utilized public facility
 - / Soccer Fields
 - / Hilling and Bilking Trails
- / Access to portals from trail system
- / Public interaction



BECKLEY SOCCER COMPLEX

Design Phase

- / Grouting Underground Mine Works
- / Sealing Portals
- / Highwall Reclamation
- / Parking Lot Reconstruction



Grant Application Estimated
Construction Cost - \$1.8M

Estimated Design Schedule

Activity / Task	Q1-2023	Q2-2023	Q3-2023	Q4-2023	Q1-2024	Q2-2024
Purchase Agreement	█					
Public Advertisement	█	█				
Initial Site Investigations (Survey, Mapping, Drilling, Water Sampling)	█	█	█			
Conceptual Plan Review (50% Complete)			█	█		
Preliminary Plan Review				█	█	
Permitting/NPDES/WMDCH/USACE				█	█	
Environmental Consultations/Assessments				█	█	
Construction ROE					█	█
Publish Final Design						█

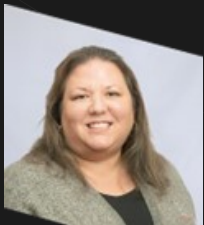


**WE ARE COMMITTED
TO DEDICATING** the
necessary resources
to complete projects
efficiently and in a
timely manner.



THANK YOU

WE LOOK FORWARD TO
YOUR QUESTIONS



WHITNEY FAULKNER

Project Manager

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