



# Copper Environmental Consulting

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QUALITY ENVIRONMENTAL AND ENGINEERING CONSULTING SERVICES AND A COMMITMENT TO SAFETY

## Statement Of Qualifications



Only the right people with the right experience can achieve the best project outcome.

Copper Environmental Consulting has a deeply experienced team dedicated to offering high-quality environmental and engineering services to our clients. Our expertise crosses environmental disciplines and also encapsulates the construction management and health/safety fields.

Copper Environmental is a growing business that continues to emphasize client-centered values. We tailor focused expertise to individual clients, hire only the most valuable personnel and remain flexible to client demands. Quality is our top priority to ensure maximum customer satisfaction and trust.

Our small-business mindset offers big rewards for clients. We find opportunities that result in continuous environmental and operational improvement, decreased project-management burden and lower lifecycle project costs. Throughout our work, we maintain a commitment to safety. Copper Environmental has received the Contractor Performance Award from BP Remediation Management for the past three years of incident free work.

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**Contractor Performance  
Award for the past 3 years**

Our team holds a collective wealth of knowledge and skill. Individually, our team members have direct experience in the mining, energy and construction industries. Founder Dave McCarthy has broad environmental expertise and fosters a climate of innovation and excellence within the company.

**Reliable and  
Safe Operations**



Copper Environmental has experienced tremendous growth in four primary areas:

1

WATER TREATMENT, INCLUDING DISTRIBUTION DESIGN, TREATMENT SYSTEMS AND OPERATIONS AND MAINTENANCE

2

CIVIL AND ENVIRONMENTAL ENGINEERING DESIGN, INCLUDING RECLAMATION, MUNICIPAL AND MINING DESIGN, PERMITTING AND CONSTRUCTION

3

PROJECT CONTROLS AND MANAGEMENT, INCLUDING COMPLIANCE ASSURANCE AND COST ESTIMATING

4

DATA MANAGEMENT, INCLUDING GIS SERVICES, REAL-TIME DATA COLLECTION AND DATABASE MANAGEMENT

Our experience transcends engineering disciplines with a focus on the environmental, civil, and process engineering sectors.

Our team possesses specific experience with regard to water resources, water treatment systems, process engineering, geochemistry, surface water monitoring and analysis, civil engineering design, mine reclamation design, data collection/management and project management.

We consistently see our projects through to successful completion, achieving visible accomplishments. For example, we have provided technical and operational support for multiple water treatment systems in the Western and Central US that range in flow between 50 gallons per minute and 5000 gallons per minute, meeting stringent regulatory requirements.

Our experience has included project management, technical support, and strategy development on numerous issues including regulatory compliance requirements, Superfund characterization studies, and site closure strategy. As part of these duties we have coordinated and managed regulatory and stakeholder interaction; conducted sampling of soil, surface water, and groundwater; managed project permitting requirements; developed technically defensible reports; and participated in agency negotiations.

Our technical expertise extends into many regulatory environments including state specific requirements, Federal RCRA requirements, and extensive Superfund (CERCLA) experience.

**“We consistently see our projects through to successful completion, achieving visible accomplishments.”**

treating a  
MAXIMUM OF  
**5000**  
gallons per minute

meeting  
stringent  
performance  
standards

[HORSESHOE BEND WATER TREATMENT PLANT]



## Leviathan Mine Site, California

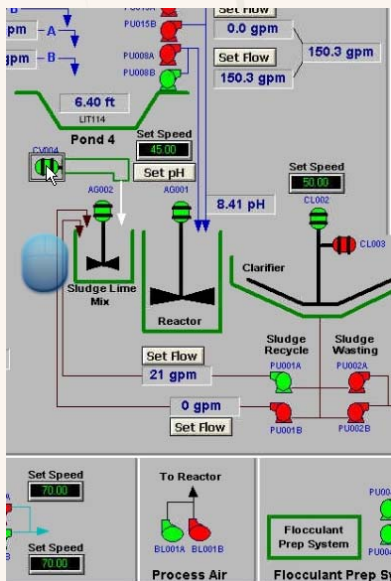
Copper Environmental provides technical and compliance assurance related to water treatment design, operation, maintenance and monitoring issues. Copper Environmental also coordinated and managed regulatory and stakeholder interaction, and participated in active strategy development and agency negotiation related to water treatment issues, surface water quality and Remedial Investigation/Feasibility Studies. Copper Environmental conducted

technical assurance reviews associated with a number of water treatment systems at the site that are intended to remove metals from a number of source waters, including a high density sludge lime treatment system, and a semi-passive bioreactor water treatment system. Copper Environmental also conducted Health/Safety/Security/Environmental (HSSE) Audits on behalf of the client, which were successful in identifying and

improving work site hazards and high-risk behavior. Copper Environmental provided technical support and review for the

### Providing technical and compliance assurance.

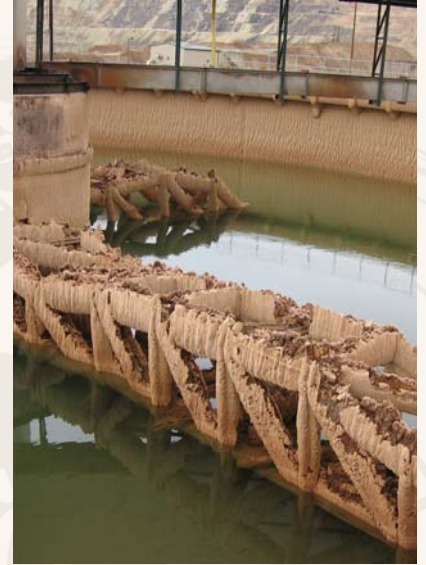
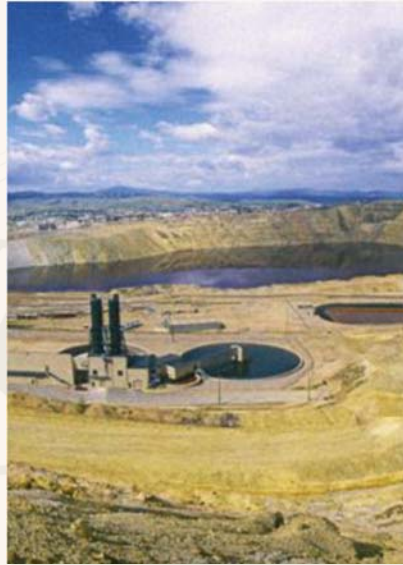
development and implementation of two separate SPCC Plans, along with technical assurance related to the design of an above ground storage tank and fuel delivery system. In addition to the water treatment system O&M duties at the site, Copper Environmental provides technical and project management support.



## Butte Mine Flooding Project, Montana

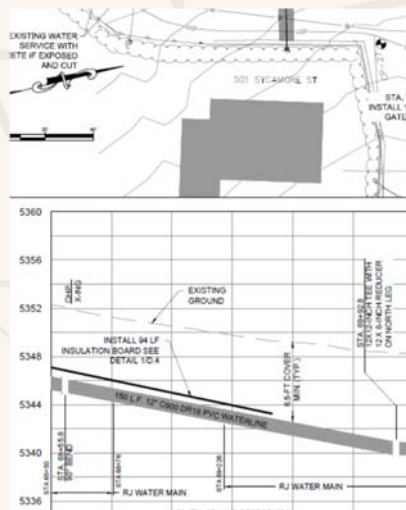
Copper Environmental personnel have provided project management services and technical support related to all aspects of the project, including design, construction and O&M of a 7 million gallon per day water treatment plant. Copper Environmental conducted evaluations of treatment and operational effectiveness and drafted compliance documents. Copper Environmental provides technical support and strategy associated with water treatment plant maintenance and operational issues, including optimization of effluent water quality, management of chemical scaling, and evaluations of equipment life cycle cost. Copper Environmental also assisted with property owner and responsible party interaction, including the development of strategy regarding water rights issues.

“...design, construction and O&M of a 7 million gallon per day water treatment plant.”



## Anaconda-Deer Lodge County Waterline Replacement, Montana

ADLC selected Copper Environmental to provide engineering design, surveying, and construction oversight services for the replacement of municipal water supply transmission lines. The project design component consisted of topographic surveying; borehole drilling and soil characterization; system conveyance and pressure drop calculations; and developing construction specifications. Construction oversight responsibilities include preparing contractor bid materials, documenting as-built conditions, and field oversight.





## Rico Mine Site, Colorado

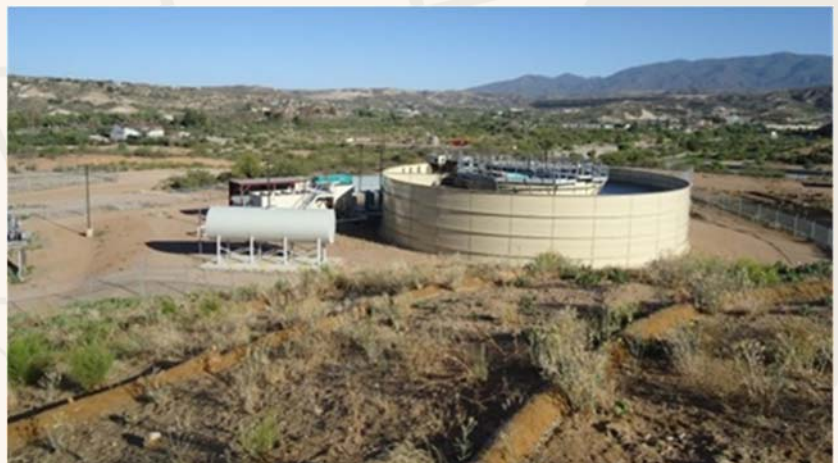
Copper Environmental personnel administered all aspects of project management for the project, which consisted of elevated metal concentrations in surface water, ground water, and residential soils in a small community in western Colorado. Project activities included the initiation of large scale residential yard soil sampling and removal activities; development of water treatment effluent discharge standards; evaluation of water treatment alternatives; and development of a capital cost estimate for installation of a High Density Sludge Water Treatment plant. Personnel of Copper Environmental organized local, state, and federal agency negotiations that successfully resulted in avoidance of Superfund listing.

“...successfully resulted in avoidance of Superfund listing.”



## Wastewater Reclamation Facility, Arizona

Copper Environmental personnel provided land planning, permitting, civil engineering design, and construction oversight services for the development of a 640,000 gallon per day wastewater reclamation facility in the Town of Miami, Arizona. Services included multi-agency coordination; development of preliminary and final design reports; hydraulic design; evaluation of siting alternatives and treatment technologies; construction, operation and maintenance cost estimates; permitting; coordination of all civil, geotechnical, electrical and structural design components; and construction inspection and QA services.



## World Trade Center, New York

Copper Environmental personnel assisted with developing a web-based GIS application using MapServer that provides secure access to multiple databases storing various types of environmental and meteorological data associated with assessing the dispersion of chemical constituents from the collapse of the World Trade Center towers in New York City. A web charting tool was designed to provide a visual assessment of the data and a download portal that allows the user to download specific data from the databases. A log-in database was also developed to track who was using the web application, their IP address, and what files they were viewing. The log-in database also could identify any attempted unauthorized access to the website.

“...engineering design services for the construction of a 400,000 gallon acid effluent tank”



## Acid Storage Tanks, Arizona

Copper Environmental personnel provided civil engineering design services for the construction of a concrete/high-density polyethylene lined, approximately 400,000 gallon acid effluent tank and two 1.3 million gallon process acid storage tanks. Services included process pumping and piping system; controls; lighting; spill containment facilities; coordination of all civil, geotechnical and structural design components; and construction QA.





## Mine Utilities Corridor, Arizona

Copper Environmental personnel provided design, construction management and construction inspection and QA/QC for relocation of several miles of natural gas, acid effluent, sulfuric acid, industrial water, potable water and process solution pipeline systems. Services included piping systems design; dual containment design and environmental considerations; coordination with mine operations for system shutdown during new piping tap-in; and permitting as required for potable water system modifications, and construction oversight.



## Mine Reclamation Planning, Arizona

Copper Environmental personnel developed a mine reclamation plan for the Miami and Safford Mines, located in Arizona, including characterization, development and delineation of Post Mining Land Uses (PMLU) throughout the mine site, and development of final reclamation cost estimate for the establishment of the PMLUs.



## Solution Pond Facility Upgrade, Arizona

Copper Environmental personnel performed all aspects of project management and engineering services for upgrading a 2.5 acre solution pond located at an in-active gold mine in western Arizona. Project activities included site characterization; facility upgrade design incorporating removal of 40,000 cubic yards of soil; capture and evaporation of discharge from a closed heap leach pile; a leak collection and removal system and bird protection program; Aquifer Protection Permit negotiations; construction/closure/post-closure cost estimating; pre-construction planning; construction management, oversight and QA; and O&M.





## Permitting Services, Multiple States

Copper Environmental personnel have supported clients with the development, submittal and maintenance of multiple environmental, development and construction permits in several states, including Montana, Colorado, California, New Mexico, and Arizona. Permitting support has included Aquifer Protection Permits, State Mine Inspector Reclamation Planning, Storm Water Management permits and plans, Spill Prevention Control and Countermeasures Plans, Army Corps of Engineers Nationwide Permits, Bureau of Land Management Plan of Operations, United States Forest Service Environmental Assessments, Nuclear Regulatory Commission permits, city and county development permits and plans, floodplain delineation and permitting, and State Historic Preservation Office cultural resource inventories.



▶ We find opportunities that result in

continuous operational improvement

and lower lifecycle project costs.

decreased project-management burden

# SERVICES



WATER TREATMENT

CIVIL ENGINEERING

RECLAMATION

WATER RESOURCES AND  
HYDROLOGY

PROCESS ENGINEERING

PERMITTING

DATA MANAGEMENT

TECHNICAL AND  
COMPLIANCE ASSURANCE

CONSTRUCTION  
MANAGEMENT

HEALTH AND SAFETY  
CONSULTING

Copper Environmental is dedicated to seeking opportunities for continuous improvements to your projects while decreasing project-management burdens and reducing costs.

We are exceptionally knowledgeable in the fields of water treatment and transmission systems, process engineering, water resources characterization, and site closure planning. Our team also excels at providing project management services, civil engineering, construction supervision, and health/safety oversight.

Copper Environmental is a minority owned business that is continually growing. Copper Environmental currently employs 18 technical staff members with bachelor degrees and 6 master degrees. We currently have 6 Registered Professional Engineers and 2 Certified Wastewater Treatment Operators.

provide high quality  
engineering  
consulting products  
and services

at a reasonable cost.





## WATER TREATMENT

- > Design, operation, and maintenance related services
- > Project management and technical input
- > System optimization
- > Effluent sampling and compliance monitoring
- > Geochemistry and geochemical modeling
- > Mining and municipal water treatment experience

## CIVIL ENGINEERING

- > Site layout, grading, and drainage design
- > Stormwater runoff modeling and system design
- > Water distribution design and master planning
- > Road design and construction oversight
- > Surveying
- > CAD and Civil3D design

## RECLAMATION

- > Residential yard soil sampling and removal
- > Tailings removal and facility capping
- > Infiltration modeling and store/release cover design
- > Solids repository siting and design
- > Stream restoration/aquatic habitat design
- > Development of wildlife and recreational habitat improvements

## HEALTH AND SAFETY CONSULTING

- > Health and safety oversight
- > Control of work implementation and management

## WATER RESOURCES AND HYDROLOGY

- > Hydrogeological assessments
- > Groundwater and surface water compliance monitoring
- > Hydrologic and hydraulic modeling
- > Floodplain Evaluations

## PROCESS ENGINEERING

- > System evaluation and optimization
- > Hydraulic and process modeling
- > Project management

## DATA MANAGEMENT

- > Real-time data collection and management
- > GIS Services
- > Database development, maintenance and reporting

## CONSTRUCTION AND PROJECT MANAGEMENT

- > Construction supervision/oversight
- > Quality Assurance/Quality Control
- > Construction risk management
- > Contractor oversight

## TECHNICAL AND COMPLIANCE ASSURANCE

- > Strategy development
- > Agency negotiation
- > System design review





Copper Environmental  
Consulting

Copper Environmental is  
ready to help

We welcome the opportunity to  
discuss your project or overall  
project development

**[www.copperenv.com](http://www.copperenv.com)**

### Montana

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