

# AML & Mine Closure Services



Cutting edge technology, adaptability, experience and diversity. This is what enables **MEC** to deliver world class sustainable solutions to Federal Agencies. **MEC** is a Federal and State certified Small Business providing strategic engineering, environmental, and social solutions for Abandoned Mine projects in California. Our local expertise ensures relevant experience and effective costs controls.

We deliver a broad range of services and advice, ranging from abandoned mine lands, cap and liner design, environmental permitting, geotechnical, water and tailings management, to closure and reclamation. Our experienced and highly trained team will ensure you get the best advice, and the highest level of service.

## AML Inventory

- ❖ Site Assessment, Investigation and Mapping
- ❖ Land Ownership Investigation
- ❖ Mining Claim Information
- ❖ Engineering and Design
- ❖ Database Development
- ❖ Subsidence Assessment
- ❖ Slope Stabilization and Highwall Reduction
- ❖ Erosion and Sedimentation Control
- ❖ Quality Control
- ❖ Stream Channel Restoration

## Cultural Surveys

- ❖ Establishing an Undertaking
- ❖ Historic Property Identification
- ❖ Adverse Effect Determination
- ❖ Adverse Effect Resolution

## Mine Site Investigation

- ❖ Preliminary Site Investigation
- ❖ Investigation/Waste Characterization
- ❖ Optimization of Water/Seepage Management and Site Closure
- ❖ Cost Benefit Studies
- ❖ Alternative/Feasibility Studies
- ❖ Site Ground Water Conditions/ Migration Evaluation

## Construction Management

- ❖ Contract Management
- ❖ Cost Proposal Review
- ❖ Observation Reporting
- ❖ Design Change Management
- ❖ Deep Mine/Bore Hole Seals
- ❖ Project Close Out
- ❖ Long Term Performance Monitoring
- ❖ Bidding/Construction Contract Negotiations
- ❖ Public Meetings

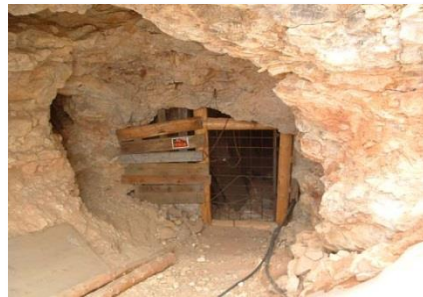
## Engineering Services

- ❖ Cap Design
- ❖ Vegetated Evapotranspiration Soil Covers
- ❖ Slope Stability Evaluations
- ❖ Seepage Analyses
- ❖ Settlement and Subsidence
- ❖ Geotechnical Characterization

## Mine Waste Management

- ❖ Project Management/Planning
- ❖ Closure Planning and Design
- ❖ Waste Pile Design
- ❖ Stability Evaluation
- ❖ Repository Design and Construction
- ❖ Remedial Design Implementation
- ❖ Detailed Drawings Design
- ❖ Specifications and Schedules
- ❖ Reclamation/Restoration Services

Our team of professionals has direct, hands-on experience with abandoned mine projects in California, Arizona, Nevada and Oregon. Our team members have worked side-by-side with the BLM, NPS USFWS and USFS on multiple projects.



### Water Management

- ❖ Ground Water Metal Mitigation Evaluation
- ❖ Water and Wastewater Treatment
- ❖ Surface/Storm Water Evaluation
- ❖ Storm Water Pollution Prevention Plans (SWPPP)
- ❖ Hydraulic Diversion Channel Design
- ❖ Dewatering
- ❖ Site Water Geochemical Evaluation
- ❖ Acid Rock Drainage Evaluation
- ❖ Passive Biological Treatment Evaluation
- ❖ Mine Waste Management
- ❖ Project Management/Planning
- ❖ Closure Planning/Design
- ❖ Waste Pile Design/Stability Evaluation
- ❖ Repository Design and Construction
- ❖ Remedial Design

### Environment and Biology

- ❖ Cavernicolous Bat Surveys and Identification
- ❖ Wildlife Resource Management
- ❖ Terrestrial and Upland Habitat Restoration
- ❖ Endangered Species Identification & Management
- ❖ Ecological Restoration
- ❖ Wetland, Stream and Watershed Restoration Design
- ❖ Wildlife Management Plans
- ❖ Habitat Enhancement Plans
- ❖ Resource Impact Mitigation

### Environmental Compliance

- ❖ Environmental Assessments
- ❖ Environmental Compliance
- ❖ Integrated Resource Management
- ❖ Biological Assessments
- ❖ Natural Resource Damage Assessments

### Ecological Services

- ❖ Ecological and Human Health Risk Assessments
- ❖ Wetland, Stream and Watershed Restoration Design
- ❖ Wildlife Management Plans
- ❖ Habitat Enhancement Plans
- ❖ Resource Impact Mitigation
- ❖ Long-term Monitoring
- ❖ Cleanup and Reclamation Plans
- ❖ Contractor Oversight and Environmental Monitoring
- ❖ Baseline Surveys
- ❖ Wetland Delineations
- ❖ Noxious Weed Surveys and Control Plans
- ❖ Endangered, Threatened and Special Status Species Surveys
- ❖ Stream Surveys/Assessments
- ❖ Water Quality Analysis



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