



Support for Sand and Gravel Operations

CEC provides professional engineering and science services for sand and gravel mining operations – from reserve evaluations before mining starts, to environmental compliance during active mining, to reclamation after the mining is complete.

PERMITTING AND EXPLORATION

The licensed professionals at CEC develop, execute, and professionally document subsurface exploration programs that best suit the geological circumstances. Data is acquired by modern and conventional drilling techniques, geophysical methods, and tabletop GIS evaluations to determine the extent and quality of the sand and gravel deposits.

CEC's scientists, engineers, and environmental and ecological specialists provide information and plans needed to secure permits for air quality, mining, water quality, land reclamation, and post-mining land use for new or expanding mines. CEC is fluent in public relations and is able to articulate complex technical issues to audiences that may be new to the concepts of planning, permitting, operating, and closing a mine. Services include the following:

- Environmental and Civil Engineering Permitting/Design
- Hydrogeologic Investigations/Groundwater Monitoring
- Stream and Wetland Permitting/Mitigation Assistance
- Air Quality Permitting/Monitoring
- Compliance Tracking/Database Management
- Stormwater Management (NPDES, SWPP/SPCC Plans)
- Watershed Planning/Water Quality Improvement

OPERATIONS

CEC assists operators with compliance of state and federal environmental laws. CEC routinely conducts air emission source testing and can facilitate mining operators with a large variety of water quality issues while focusing on finding the most cost-effective approach to compliance. CEC can address redesign and/or rebuilding of roadways and slope failures, as well as the design of new drainage controls. Services include the following:

- Compliance Audits/Program Development
- Geologic Exploration and Mine Planning
- Survey/Geospatial Services (Conventional, LiDAR, Drone, 3D Scanning)
- Wastewater Management/Treatment
- Reclamation/Closure
- Environmental Audits and Due Diligence

CLOSURE

To bring mining sites into compliance with land reclamation and preferred land-use requirements, CEC stays up to date with new reclamation regulations and policies and can track conformity with new and existing rules. CEC solves both simple and challenging post-closure water-quality problems, returning land to post-mining use profitability.

