



## CESM Model

CESM is guided by a Technical Advisory Committee (TAC) of industry and consulting professionals who **identify issues of concern to the hard-rock mining and rock products industries.**

The CESM model emphasizes collaboration with industry partners through **industry-academic research cooperatives.** The TAC meets biannually to help prioritize and develop the research and educational initiatives of CESM.

## Management Team

- Dr. Alicja Babst-Kostecka, Director
- Dr. Julia W. Neilson, Co-Director
- Lacey Bouzan Singh, Program Coordinator

## Interdepartmental Collaboration

CESM facilitates broad cross-campus collaboration between University of Arizona academic partners from the Colleges of Agriculture, Life and Environmental Sciences, Engineering, Science, and Public Health.

Close collaboration is maintained with the School of Mining and Mineral Resources (SMMR), the Lowell Institute for Mineral Resources (IMR) and their associated centers for innovation including the Geotechnical Center of Excellence.

## Get in touch!



LEARN MORE

✉ [CESM@cals.arizona.edu](mailto:CESM@cals.arizona.edu)



Center for  
Environmentally  
Sustainable Mining



*Securing our Future  
through  
Sustainable Mining*



[cesm.arizona.edu](http://cesm.arizona.edu)



# Our Mission “

*To develop research and educational initiatives that address environmental sustainability issues associated with mining and rock products operations in arid and semi-arid environments.*



## CESM Objectives

- Support research that provides more effective and efficient tools for ecosystem regeneration and waste stabilization following mine closure.
- Provide quantitative tools to make reclamation a data-driven science.
- Provide site-specific guidelines for quantitative ecosystem assessment prior to mine development as a baseline for future reclamation metrics.
- Quantification of carbon sequestration potential as a post-mining land use objective in arid lands.
- Facilitate neutral tech transfer to state and national policy makers and regulators.
- Facilitate active participation of communities impacted by mining operations.
- Provide critical training for undergraduate and graduate students as future members of a well-trained workforce, key to sustainable mineral resource development.
- Provide professional development courses and conferences.

## Focal Areas

Revegetation

Characterization

Mitigation

Recovery

Monitoring

Management



*“Sustainable mineral resources require innovative approaches that address environmental and social impacts on communities and ecosystems.”*