Dear Colleague Letter: Opportunities for Research and Education in the Critical-Zone (ORE-CZ2)

December 12, 2023

Dear Colleague:

With this Dear Colleague Letter, the National Science Foundation (NSF) Division of Earth Sciences (EAR) within the Directorate for Geosciences (GEO) together with the Division of Equity for Excellence in Science, Technology, Engineering, and Mathematics (STEM) (EDU/EES) in the Directorate for STEM Education (EDU) continue to further expand the diversity of investigators exploring the dynamics and processes within Earth's Critical Zone (CZ), the region that ranges from the weathered bedrock beneath the soil profile up to the top of the vegetation canopy. This opportunity is a further development of the ORE-CZ competition (NSF 22-025) that added several additional projects to the Critical-Zone research effort.

The recent consensus study report from the National Academy of Science, Engineering and Mathematics (NASEM), A vision for NSF EAR 2020-2030: Earth in Time, recommended that EAR encourage exploration of the Critical Zone "to advance knowledge of water, carbon, and nutrient cycles; landscape evolution and hazards prediction; and land-climate interactions." This same NASEM report recommends that the Division of Earth Sciences "enhance its existing efforts to provide leadership, investment, and centralized guidance to improve diversity, equity, and inclusion within the Earth science community." NSF currently supports these goals through several Thematic Clusters as part of the Critical-Zone Collaborative Network and the original ORE-CZ awards. This current announcement is intended to continue the inclusion of a broad spectrum of investigators in the quest to answer fundamental questions concerning Critical-Zone function. Accordingly, this DCL seeks proposals focused on research and education on Earth's Critical Zone that also contain one or more of the following characteristics:

1. Develop education or outreach programs that are oriented towards increasing the participation of the full spectrum of talent in STEM, including faculty and students.
2. Enhance partnerships and collaboration with the current CZNet Thematic Clusters or
leverage existing infrastructure of CZNet. Information about the current Critical-Zone awards can be found at NSF Critical-Zone Collaborative Network web site and at https://criticalzone.org.

Proposals are encouraged from Minority-Serving Institutions, Primarily undergraduate institutions (PUI), non-R1 institutions, early-career researchers, or others who are not currently part of the Critical Zone Collaborative Network.

Proposals submitted in response to this DCL should be prepared in accordance with the NSF Proposal and Award Policies and Procedures Guide (PAPPG) and submitted to one of the Disciplinary Programs in the Division of Earth Sciences (EAR). Please contact an NSF Program Officer, including those listed below, to identify the program(s) most germane to the proposed topics. Proposal titles should begin with "ORE-CZ:" followed by an appropriate descriptor; proposal budgets are limited to no more than $250,000. EAR disciplinary programs have no deadlines and proposals may be submitted at any time, but proposals for this special opportunity must be submitted no later than March 1, 2024.

PROGRAM OFFICER CONTACTS

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Sincerely,

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