NATIONAL SCIENCE FOUNDATION
2415 EISENHOWER AVENUE
ALEXANDRIA, VIRGINIA 22314

NSF 18-090

Dear Colleague Letter: Research Coordination Networks (RCNs) for Driving Convergent Science in the Critical Zone

July 12, 2018

Dear Colleague:

With this Dear Colleague Letter, the National Science Foundation (NSF) Division of Earth Sciences (EAR) within the Directorate for Geosciences (GEO) announces an intent to support one or more Research Coordination Networks (RCNs) to enable leadership and participation by new and existing groups of researchers in the field of Critical-Zone (CZ) science. The Critical Zone is generally described as that portion of the Earth that ranges from the weathered bedrock beneath the soil profile up to the top of the vegetation canopy. It is the part of the planet that supports most terrestrial life. Research in the Critical Zone is currently being supported by NSF through the Critical Zone Observatories (CZO) and other EAR programs.

The RCN program provides an opportunity for the various CZ-science research communities to communicate their research and to synthesize investigations of key CZ problems, ideas and practices. Successful RCNs will conduct conferences and meetings to establish new collaborations and enhance current cooperation among CZ-science research communities. These conferences and meetings should: (1) identify and prioritize research topics; (2) enable synthesis activities that establish a basis for new CZ science; (3) define questions that resolve scaling or mechanistic differences across multiple CZs; (4) establish mechanisms to coordinate ongoing or planned research activities; (5) develop best practices for data management that promote open sharing of information; (6) communicate information and ideas to scientists and the public outside the immediate RCN or conference; (7) propose plans to fully include women, underrepresented minority groups, veterans, and persons with disabilities, and promote a respectful, inclusive, and collaborative environment.

These coordination efforts should enable a collaborative enterprise to tackle major CZ scientific problems that neither short-term nor single discipline efforts can tackle. The RCN program facilitates networking and knowledge sharing and establishment of the directions for new science and new proposals. Note that direct research-related activities will not be funded

via this collaborative activity.

CZ RCN proposals that are submitted pursuant to this DCL are due November 1st. Proposals must follow the format and submission procedures established in the RCN solicitation, NSF 17-594. Proposers must identify one of the following EAR programs on the proposal cover sheet in the space "For Consideration by NSF Organizational Unit(s):" Geobiology & Low-Temperature Geochemistry; Geomorphology & Land-use Dynamics; Hydrologic Sciences; Sedimentary Geology & Paleobiology. Proposal titles should begin with "CZ RCN:" followed by an appropriate descriptor. CZ RCN proposals can request support for up to five years in duration and proposal budgets may request up to $500,000 ($100,000 per year). A maximum of three CZ RCN awards are anticipated.

As stipulated in NSF 17-594, eligibility is limited to institutions of higher education and non-profit, non-academic organizations. Proposals from early-career investigators are especially encouraged. The Research Coordination Networks are expected to be multi-organizational; a single organization must serve as the lead and all other organizations are identified as subawardees. Services provided by facilities or facility-like entities (such as, but not limited to, the Community Surface Dynamics Modeling System (CSDMS), Consortium of Universities for the Advancement of Hydrologic Science Inc. (CUAHSI), Incorporated Research Institutions for Seismology (IRIS), Integrated Earth Data Alliance (IEDA), National Center for Ecological Analysis and Synthesis (NCEAS) Informatics Program, UNAVCO, or other organizations) may be included as subawardees on multiple submissions.

Questions about CZ RCN proposal ideas should be directed to any of the individuals listed below:

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Sincerely,

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