

Questions that arose from the Critical Zone Collaborative Network webinars on 7/16/2019 , 7/24/2019, and 8/6/2019 are arranged topically with compiled answers.

1. **New Program.** The Critical Zone Collaborative Network replaces the Critical Zone Observatories. Funding for the latter ends with the current fiscal year (FY19) and will not be continued.
2. **International Collaboration.** This is also addressed in the FAQs in the solicitation. Sites outside the U.S require specific justification for inclusion in a proposal explaining why no U.S. locations are suitable. Sites operated by foreign collaborators can be part of a cluster as long as no U.S. funds are supporting them; international partners should seek support from their own national agencies.
3. **Data Management.** Data collection and initial processing will normally be done by the Thematic Clusters. The Coordinating Hub will make sure that the data structure, formatting, and metadata are compatible across the network. The Hub will be responsible for maintaining the network data repository. The Hub is not expected to support data collections at the Clusters, either financially or logistically.
4. **Clusters and Sites.** Thematic Clusters are united by research themes or science questions. Clusters may consist of one or more sites operated by different institutions. Sites are the places where interdisciplinary research will be conducted in support of Cluster science themes. It is conceivable that sites may be used by more than one thematic cluster and data collected at these sites will be shared. New locations for monitoring sites are welcome as are current CZOs, LTER locations, and other legacy data collection locales.
5. **Science and Data.** Clusters should be assembled to address and overarching science questions. Data collected should be appropriate to the goals. If the science question can be addressed by mining legacy data, that would be an appropriate aspect of a Thematic Cluster proposal. Developing and testing models using data are also reasonable to include in proposals.
6. **Engagement Plan.** Clusters should explain the procedures to permit the use of the facilities by research teams that are not part of the Thematic Cluster. These teams could have topics aligned with the Cluster or they might pursue other Critical-Zone research that will augment and benefit from the infrastructure. The Thematic Cluster is not expected to support other research groups financially. On the other hand, the Coordinating Hub may offer seed grants to outside groups to encourage research at the sites managed by Thematic Clusters.
7. **Establishing a Collaborative.** NSF does not have any “dating service” for locating other potential collaborators for a Thematic Cluster. You should use your usual networking opportunities at professional meetings and websites to promote your ideas and align them with potential partners.
8. **Budget.** The program expects to allocate \$7.5 million per year to support Thematic Clusters and up to \$1 million per year for the Hub. The upper limit for Coordinating Hub proposals is \$1 million annually. In theory, proposals for Thematic Clusters can be up to \$7.5 million/year, although the size of the budget request should be aligned with the scope and goals of the Cluster. Budget allocation to various categories depends upon the needs of the specific proposal. There is no minimum or maximum to the number of sites that can be included in a Thematic Cluster proposal; the size should be appropriate to the research questions driving the project.

9. **Limits on Numbers of Proposals.** Institutional and individual limits on proposals apply to all proposals submitted to the competition, not just the lead proposal in a collaborative project. Limits do not apply to subawards to other organizations. If more than the maximum number of allowed proposals are submitted by an institution or PI, then those that are received at NSF after the limit has been reached will be returned without review.
10. **Size of Collaborative Proposals.** There is no limit on the number of separate proposals from multiple institutions that can form a collaborative project. The goals of the project must justify the size and budget requested. As with all NSF proposals, the number of PIs and co-PIs are limited to five per cover sheet.
11. **Network and Coordination.** The formal network will be established during the negotiations that follow selection of successful proposals. The formation of the network will be codified in the Cooperative Agreements between NSF and awardees. At this time there will be initial agreement among the awardees on shared measurements and data formatting.
12. **Use of Existing Sites.** Incorporating existing monitoring sites into a Thematic Cluster is encouraged where feasible and appropriate to the research goals. Operators of these sites can be PIs on collaborative proposals or they can include letters of collaboration affirming that they will accomplish the tasks outlined in the project description. It is possible that a site can be part of more than one Thematic Cluster with either collaborative mechanism.
13. **Relationship to Core Programs.** Smaller proposals that focus on a single aspect of the Critical Zone, such as hydrology or biogeochemistry, should be submitted to core EAR programs. This call solicits those that are interdisciplinary, bigger in scientific scope, and may be larger in budgetary scale than typical for core programs.
14. **Interdisciplinary Aspects.** Research into the Critical Zone is an interdisciplinary effort. Team members with expertise outside of the Earth Sciences are welcome. The size and expertise of the team will depend upon the research agenda of the proposal. It is anticipated that ad hoc reviewers and panelists will span a wide range of disciplines. Co-reviews by other NSF programs or divisions is not expected.
15. **Scale and Scope.** A goal of the Network is to examine Critical-Zone processes, structure, and function that are applicable beyond the confines of a single watershed or drainage basin. Successful proposals will articulate how the research plan will support this goal.
16. **Broader Impacts.** Each proposal is expected to articulate broader-impacts activities in accordance with NSF review criteria. Hub proposals should describe plans for national education, outreach, and communication with the scientific community. Thematic Cluster proposals should specify activities of a local or regional nature and the means for connections with other Thematic Clusters. REU programs could be part of the Broader Impacts and these would be included in the proposal budget. REU supplements should not be expected.