



**US Army Corps
of Engineers®**

ENGINEERING AND CONSTRUCTION BULLETIN

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SUBJECT: USACE Environmental and Engineering Geophysics (EEG) sub-Community of Practice (sub-CoP) under the Geotechnical, Geology and Materials Community of Practice (GGM CoP)

CATEGORY: For Information

1. References:

- a. ER 25-1-8, USACE Communities of Practice, 31 March 2011

2. **Purpose.** The purpose of this ECB is to provide information on the mission and activities of the Environmental and Engineering Geophysics sub-Community of Practice (sub-CoP).

3. The Mission of the Environmental and Engineering Geophysics sub-CoP is to facilitate the sharing of information and resources, and act as a proponent for the application of geophysical methods across all USACE missions through the advocacy and enhancement of the technical expertise of every member of the EEG sub-CoP. To support the EEG mission, this sub-CoP focuses on the following critical activities:

- a. Effectively share knowledge and educational opportunities throughout the sub-CoP, maximizing opportunities for face-to-face meetings within the sub-CoP and EEG community.

- b. Promoting diverse and comprehensive training opportunities, to include field and classroom training, distance learning (e.g. webinars), and developmental assignments (e.g. field, lab, and design).

- c. Maintaining core competencies as a world class engineering organization.

- d. Identifying subject matter experts (SMEs) capable of providing expert support within USACE.

- e. Identifying research needs and promoting the dissemination of new technologies.

- f. Building technical networks across the nation for mentoring and leveraging of expertise.

- g. Maintaining an inventory of geophysical equipment and establish a network for allowing access to equipment and technical resources across districts.

- h. Promoting engagements with other government agencies, universities, and professional societies.

- i. Promoting consistency within the community to enhance quality and facilitate regionally integrated execution.

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- j. Reviewing and identifying common software needs and support corporate software licenses.
 - k. Forecasting future mission needs and changing priorities to maintain technical relevancy.
 - l. Identifying, collecting, and disseminating the best practices and lessons learned.
 - m. Advocating for sufficient in-house work and capabilities to attract and retain expert technical staff and build the bench for the future.
4. The EEG management group conducts quarterly teleconferences and an annual face-to-face meeting in conjunction with the National GG&M CoP Meeting. It is the responsibility of the management group to: provide annual updates; define the objectives, organization, and operating guidelines; serve as advocated for the EEG; coordinate with and support other CoPs, Centers, and Programs; ensure full dissemination of activities; maintain the TEN site; adjust performance as needed; and select members and team leaders for the TFTs and AHTs.
5. EEG Ad Hoc Teams (ADTs) and EEG Technical Focus Teams (TFT) address specific issues or requirements as needs arise. The assigned AHT or TFT team leader(s) will brief the EEG sub-CoP management group at least annually on the issues specific to the team. Focus areas may include but are not limited to technical developments throughout industry and USACE; Subject Matter Experts (SMEs) identification; training; USACE Research & Development; technical software assessments; and software evaluation. AHT and TFT team members will be authorized by the EEG sub-CoP Management Group.
6. All Districts are encouraged to join the quarterly calls and webinar discussions as well as support other EEG activities. Information regarding the EEG sub-CoP is posted and maintained at the following TEN page: <https://apps.usace.army.mil/sites/TEN/wiki/GGMGeophysics.aspx>
7. **Point of Contact.** The point of contact (POC) for the EEG sub-CoP is Dr. Lewis Hunter, PhD, PG, CESP-K-ED-GG, 916-557-5368. HQUSACE point of contact for this ECB is Mr. Marty Goff, P.G., CECW-CE, 202-549-1166.

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Encl.

Attachment A – USACE Engineering & Construction Geotechnical, Geology and Materials Sub-Community of Practice for Environmental and Engineering Geophysics

CHARTER
USACE ENGINEERING & CONSTRUCTION
GEOTECHNICAL, GEOLOGY AND MATERIALS
SUB-COMMUNITY OF PRACTICE FOR
ENVIRONMENTAL AND ENGINEERING GEOPHYSICS

1. PURPOSE

The US Army Corps of Engineers (USACE) issued ER 25-1-8, USACE Communities of Practice (CoP) in March 2011 to provide the general policy and framework for the establishment, sustainment, operations, roles and life cycle of CoPs across the organization. The CoP concept supports effective communication, learning, and relationship development within the USACE team. From ER 25-1-8, the Guiding Principles for the implementation of effective CoPs are that:

- a. Communities are formed around shared interest in accomplishing the USACE mission.
- b. Communities are built on a foundation of trust, exhibited by the open and self-less sharing of expertise and knowledge.
- c. Communities provide value to their members in professional growth and learning, recognition and satisfaction of contributing, and assistance in problem solving.
- d. Communities are engines of learning by advising to bring together knowledge and expertise across the entire Corps.
- e. Communities are built on relationships among members, with ties to other communities, outside agencies and stakeholders.
- f. Communities promote communication through the use of technology and face-to-face meetings.
- g. Communities differ from a team, as an enduring source of knowledge transfer and support to each Corps mission in need.
- h. Communities exist outside of the normal organizational structure, being unbound by geography, organization, or hierarchy as one learning organization.

In 2018, the Geotechnical, Geology and Materials (GG&M) Community of Practice recognized that there has been an expanded utilization of geophysics across USACE, and that this field has been applied to a variety of Corps missions. It was determined that a sub-community of practice focused on geophysics is appropriate to further expand the knowledge base and expertise of the CoP. This Charter provides operational guidance to the USACE Environmental and Engineering Geophysics (EEG) sub-Community of Practice (sub-CoP). The strength of the EEG sub-CoP is essential to ensure a common understanding and continued high level of technical expertise and capabilities within the discipline of geophysics.

2. MISSION STATEMENT

The mission of the Environmental and Engineering Geophysics sub-CoP is to facilitate the sharing of information and resources, and act as a proponent for the application of geophysical methods across all USACE missions through the advocacy and enhancement of the technical expertise of every member of the EEG sub-CoP.

3. OBJECTIVES

To support the EEG stated mission, this sub-CoP will focus on the following critical activities:

- a. Effectively sharing knowledge and educational opportunities throughout the community, maximizing opportunities for face-to-face meetings within the GG&M CoP and EEG sub-CoP.
- b. Promoting a wide range of training opportunities, to include field and classroom training, distance learning (e.g. webinars), and developmental assignments (e.g. field, lab, and design).
- c. Maintaining core competencies as a world class engineering organization.
- d. Identifying subject matter experts (SMEs) capable of providing support within USACE.
- e. Identifying research needs and promoting the dissemination of new technologies.
- f. Building technical networks across the nation for mentoring and leveraging of expertise.
- g. Maintaining an inventory of geophysical equipment and establish a network for allowing access to equipment and technical resources across districts.
- h. Promoting engagements with other government agencies, universities, and professional societies.
- i. Promoting consistency within the community to enhance quality and facilitate regionally integrated execution.
- j. Reviewing and identifying common software needs and support corporate software licenses.
- k. Forecasting future mission needs and changing priorities to maintain technical relevancy.
- l. Identifying, collecting, and disseminating the best practices and lessons learned.
- m. Advocating for sufficient in-house work and capabilities to attract and retain expert technical staff, and build the bench for the future.

4. ORGANIZATION

- a. The EEG sub-CoP will be managed by a group of senior USACE geophysicists, or related professionals across the Corps to form a management group. This management group is to be selected based on the individuals highly specialized experience and knowledge in geophysics and having positions with national visibility over one or more USACE programs that use or could benefit from geophysical applications.

- b. Ad Hoc Teams (AHTs)/Technical Focus Teams (TFTs) will be stood-up to address specific issues or requirements as needs arise. Initial AHT and TFT team members will be authorized by the EEG sub-CoP management group. The assigned AHT or TFT team leader(s) will brief the EEG sub-CoP management group at least annually on the issues specific to the team.

5. RESPONSIBILITIES

- a. **EEG Management Group.** It is the ultimate responsibility of the EEG sub-CoP management group to:
- Provide an annual update to GG&M CoP regarding all activities of the EEG sub-CoP.
 - Define the objectives, organization and operating guidelines for the EEG sub-CoP.
 - Serve as advocates for the EEG sub-CoP in achieving its objectives, to include providing input and advice on sub-CoP matters to GG&M CoP, HQ senior leadership.
 - Coordinate with and support other CoPs, Centers, and programs (e.g. Environmental CoP, Risk Management Centers, Dam and Levee Safety, Planning, etc.) to ensure that the technical expertise of the EEG sub-CoP is being leveraged.
 - Ensure full dissemination to the EEG sub-CoP members of activities being done by other CoPs and Centers that affect the EEG sub-CoP.
 - Ensure that the EEG sub-CoP TEN site is maintained as the central, online source of information, activities, and lessons learned for the membership. (<https://apps.usace.army.mil/sites/TEN/GM/Pages/default.aspx>)
 - Develop metrics to track and adjust sub-CoP performance as needed in meeting its stated objectives.
 - Select members and team leaders for the TFTs and AHTs, and review activities and membership annually. Monitor activities by these teams for compliance with CoP guidelines and for consistency among teams.
- b. **EEG TFTs.** Within its focus area, each TFT will perform duties as identified in the documents establishing the TFT. These duties may include, but are not limited to:
- Become aware of ongoing technical work throughout USACE; become aware of technical developments throughout industry; and develop a strategy to share key information and lessons learned.
 - Identify specialized topics, and identify SMEs who may be contacted for assistance in those topics; identify appropriate SMEs to represent USACE in the professional community by participating on committees and making presentations; evaluate needs for additional expertise within USACE; and evaluate needs for formalized USACE centers of expertise.
 - Become familiar with USACE and other training opportunities; evaluate training opportunities against USACE technical needs; define course content for any in-house training, and recommend development teams and

trainers; and share information about training opportunities with the community.

- Become familiar with current USACE Research and Development work units; facilitate technical transfer of key R&D outputs; and recommend and prioritize additional research.
 - Assess technical software; evaluate software against USACE technical needs; recommend additional software development; and recommend corporate software for common use throughout USACE.
- c. **EEG AHTs.** The EEG management group will define membership and responsibilities of AHTs.

6. OPERATING GUIDELINES

- a. **EEG Management Group.** The management group will conduct quarterly teleconferences and an annual face-to-face meeting in conjunction with the National GG&M CoP Meeting. Unanimous agreement among assigned members will establish actionable tasks and actions, such as standing-up a TFT or AHT, distributing ECBs, or other activity that can have a beneficial or deleterious effect on the advancement of geophysical practices applied in USACE programs.
- b. **EEG AHTs and TFTs.** Each AHT and TFT should meet face-to-face annually in conjunction with the National GG&M CoP meeting, supplemented with virtual or in-person meetings as needed. Each TFT will govern its activities to address TFT-specific tasks and assignments. AHTs and THTs shall not publish information under the auspices of the EEG sub-COP without written authorization from the EEG management group.
- c. **EEG and GG&M Website.** The EEG sub-CoP will utilize a website as its primary means to disseminate information. The EEG management group will determine which sub-CoP members have content editing privileges. The approved website for use by all E&C CoPs and sub-CoPs is the GG&M TEN website: <https://apps.usace.army.mil/sites/TEN/GM/Pages/default.aspx>.

Information regarding the EEG sub-CoP is posted and maintained at the following GG&M TEN page:

<https://apps.usace.army.mil/sites/TEN/wiki/GGMGeophysics.aspx>.

- d. **Additional Guidelines.** As the sub-CoP gains experience with sub-CoP operations, these guidelines are expected to become more comprehensive.

7. FUNDING

Sub-CoP activities are unfunded, therefore all participation is voluntary and must be funded by each participant's district office until funding for the sub-CoP activities become available.

8. APPROVAL

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