**Draft Proposed Strategic Communications**

**Coastal Science and Engineering Collaborative (CSEC)**

**20 APR 17**

The CSEC provides for systematic integration of Research and Development (R&D) into US Army Corps of Engineers (USACE) Civil Works (CW) practice for improved district project execution, via collaboration of US Army Engineer Research and Development Center (ERDC), USACE, Galveston District (SWG), Texas General Land Office (GLO), Texas A&M University (TAMU), and an expanding partnership of organizations with aligned interests for Sustainable and Resilient Regionally Integrated Infrastructure (SRRII) in Texas on America’s Energy Coast.

The CSEC as currently developed is in effect a Public-Public-Private Partnership (P4) business model. It pools the knowledge, expertise, and resources of willing and able collaborators and financial supporters to close priority science and engineering gaps that significantly improve the efficiency, effectiveness, and productivity in practice. By combining talent across agencies at multiple levels in agreed-upon objectives for informing coastal science and engineering in fields such as Engineering with Nature (EWN), the "whole becomes greater than the sum of the parts".

This results in increased focus, quality, and rate of technology development and transfer into practice, strategically synchronized in timeliness with end-user application needs. The CSEC concept is paramount for delivering innovative solutions to the toughest CW Program problems beyond traditional practice that are relevant to and resonant with a wide range of interested and affected parties. This "Strengthen the Foundation" initiative will improve upon districts "Delivering the Program" according to stakeholder expectations under increasingly challenging water resources management requirements.

Besides being a strategic enabler to systematic Science and Technology (S&T) infusion into district practice, CSEC includes a "build the bench" component for sustaining and growing technical competencies across USACE at the cutting edge. The collaborators of CSEC are developing a Coastal EWN graduate course curriculum for offering at TAMU Department of Ocean Engineering (OCEN). The initiative aims to begin in Fall 2017 with a Coastal EWN graduate seminar.

The CSEC is coordinating with the ERDC Graduate Institute to update the Memorandum of Agreement (MOA) with TAMU and offer the course virtually to those at TAMU and USACE, in a combination of classroom and virtual learning. Members of ERDC, as well as others who are qualified in USACE, will be requested to serve as topical lecture series Subject Matter Experts (SMEs) in the course. The CSEC will inform full development of the Coastal EWN graduate course program for subsequent implementation in coordination with TAMU OCEN.

TAMU OCEN is highly interested in this graduate course program development and would also like to work with CSEC to develop a Coastal EWN graduate course book of instruction. Besides building the USACE bench of existing employees, CSEC will reach out to and recruit TAMU OCEN students via this academic endeavor to seek student and permanent careers with USACE, whether in practice at a districts, or in R&D at ERDC.

CSEC at SWG is also advancing the state-of-practice with partnerships and collaboration that breaks new ground through: (1) strong District leadership with a multi-agency structure and associated relationships that opportunistically fit mission needs, (2) ERDC providing the subject matter expertise to inform, advise, and influence the technical scope of studies and projects, selectively integrating R&D in these sequences to provide for “living laboratory” prototype conditions.

ERDC is the central broker and information clearinghouse of the CSEC concept across districts enterprise-wide in the future for forming "chapters" such as at SWG for this purpose. In that role, ERDC will enable "Achieving the Vision" of best-in-class technical transfer business practice and competency building across USACE with synergies that are otherwise not possible.

Opportunities to apply the approach used in development of the CSEC at SWG have potential to be explored for applicability in other Districts/regions. Some initial contacts have been made in this regard by ERDC proponents. Important considerations in identifying and pursuing these opportunities include:

* The level of interest of the District, university, and other agency partners,
* Availability of resources to support the investment in time and energy needed to fuel the engagement, and
* The nature of the technical challenges and opportunities within the District/region.

The combination of challenges and opportunities will vary by District and region, and these conditions will ultimately determine how other ERDC-District-University partnerships would be developed and implemented.

The CSEC concept may or may not be for every coastal district. The SWG Deputy District Engineer for Programs and Project Management (DPM) intends to seek out selective engagement of fellow DPMs across USACE where conditions are right for them to consider cultivating their own unique CSEC opportunity, based on scalable characteristics that will make them successful via support of the Communities of Practice (CoPs).

A small group of DPMs, working with ERDC leaders as a cross cutting team, will be sought to describe best practices and develop a menu of successful elements of a wider CSEC. The team will examine SWG’s case and other examples to identify and propose goals for further maturing the CSEC value proposition at the enterprise level. The CSEC leadership in Texas will report on progress in identifying additional opportunities at future meetings of the USACE R&D Steering Committee. This may also be a topic of interest for future DPM Forums and Executive Governance Board meetings.