



CHIEF OF ENGINEERS
ENVIRONMENTAL ADVISORY BOARD
WASHINGTON, D.C. 20314-1000 (CECW-P)

Lieutenant General Todd T. Semonite
Commanding General and Chief of Engineers
U.S. Army Corps of Engineers
441 G Street NW
Washington, DC 20314-1000

June 11, 2019

Subject: U.S. Army Corps of Engineers (Corps) Regional Strategic Assessments

Dear LTG Semonite,

Each Corps Division was asked to undertake a regional assessment of the "drivers and trends" leading to the year 2035. The Chief of Engineers Environmental Advisory Board (EAB) was asked to review the initial regional strategic assessment from the South Atlantic Division (SAD) and provide comments from the EAB perspective. We understand that SAD's Strategic Assessment was the first to be completed and the Corps is interested in comments that might inform other assessments that are on-going or will be done in the future.

At the January 10, 2018 Public Meeting in Florida, the EAB provided verbal comments to you. This letter report formally documents those comments. Reviewing SAD's 20-year Strategic Assessment stimulated suggestions and ideas for future reports as well as raised questions about the purpose and goals of the assessments. The SAD Assessment used a number of drivers that the Division may/will need to respond to over the next 20 years such as those outlined in the IWR USACE Civil Works Program - Future Directions Report (2016). The Assessment emphasizes civil works and notes that there may be requirements for modification of existing projects or undertaking new projects in response to these drivers, especially for flood risk management and navigation purposes. The Assessment further mentions water management and environmental restoration. Finally, the Assessment builds upon the SAD Future Directions initiative. The Division has done a good job with looking out 20 years and identifying challenges that will affect future directions.

The EAB is pleased to provide you with the following four recommendations for other regional assessments and strategies. We note that these recommendations are also in line with a number of your points related to "achieving the vision", particularly addressing challenges, seizing opportunities, and developing relations with stakeholders and partners.

1. Clearly articulate purpose of the strategic plan. The purpose of a regional assessment report needs to be clearly stated so that plans are developed in accordance.

The clear purpose will also identify the audience for the assessment. The EAB suggests that regional assessments might be useful for:

- a. Developing a regional perspective on future challenges.
- b. A particular audience such as Division management, rotating Division Commanders and/or Headquarters.
- c. Guidance for budget decisions for staffing needs.
- d. Identification both of issues and geographic areas that may create more demand for Corps action.
- e. Identifying challenges and opportunities in each Division both to set priorities and to begin the task of planning to meet identified challenges. A critical self-assessment provides an opportunity for the Divisions to prepare to take on challenges. The EAB felt strongly that this should be an aspect of regional assessments.
- f. Identifying vulnerabilities.

2. Extend the timeframe of the plan. The EAB is concerned that a 20-year timeframe is too limited to assess changes that may result from climate change, population growth and watershed and coastal land use across all the Corps mission responsibilities. Looking at 50 years might allow for better and more informed assessments and opportunities to meet identified challenges. For example, building current and new partnerships and redirecting funds will require longer time periods.

Even if the regional assessments remain with a 20-year time frame and certainly if they encompass 50 years, there should be shorter tactical goals or objectives perhaps at 5 year intervals. This allows for monitoring and review of plans at the discretion of an incoming Division Commander.

3. Address a more complete set of challenges. The EAB notes that a number of additional challenges should be addressed.

- a. Impacts of predicted climate change and changes in watershed use on invasive species.
- b. Challenges to public health where it touches upon Corps missions (e.g. disaster response; public health emergencies).
- c. How mission responsibilities in a region might be critically stressed by projected changes.
- d. Ways in which changing patterns of climate and resulting water quantity result in commonly used engineering and building codes and maps that are no longer accurate (e.g. flood plain changes; frequency of storm changes). This is the problem of non-stationarity recently reported by the National Academies¹ and further explored in a DOD workshop in 2017 titled "Non-stationary weather

¹ National Academies of Sciences, Engineering, and Medicine, Attribution of Extreme Weather Events in the Context of Climate Change, Washington, DC, The National Academies Press, 2016, 186 pp., doi:10.17226/21852.

patterns and extreme events: Informing design and planning for long-lived infrastructure²."

4. Identify opportunities. The EAB suggests that there are a number of opportunities that provide the Corps with enhanced approaches to meeting identified challenges at the regional level. Many of these are already used by Divisions, but the EAB felt that listing them together and identifying common/synergistic needs might offer a holistic approach.

- a. Continue the move as is happening in some Divisions to integrate across Corps business lines and mission areas to enhance the probability of action under one mission enhancing other mission areas.
- b. Look for opportunities between the civilian and military operations of the Corps within a region.
- c. When challenges are identified that may have a requirement for increased understanding and knowledge, include the Corps' environmental labs as part of a collaboration. Partnerships must be considered not only as challenging to develop, but also as opportunities to meet identified challenges and develop collaborations. The EAB views partnerships at several scales (e.g., regional and national, as well as within division) as part of the solution not only part of the challenge. Part of the assessment and strategic planning is to identify partners throughout the geographic area of the Division who will be able to help achieve the results and goals in the plan. Along these lines the EAB notes that potential partners include regional organizations, NGOs, industry and jurisdictions/authorities. Partnerships promote common understanding of challenges and predictions about the future, support continuing any initiatives through changes in command, and generate support in the region and perhaps congress.
- d. Explicitly include a risk assessment framework so that vulnerabilities and limitations are identified in assessment and addressed in planning. Risks include limits to financial and staff resources as well as effects of climate change and other global changes on Division civil works responsibilities across missions, as well as military preparedness within a Division's geographic boundaries.

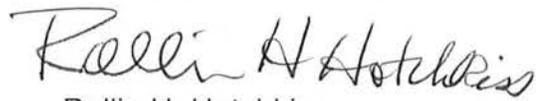
It should also be noted that entirely independent responses from Corps divisions might not be particularly helpful. While it was helpful to see SAD's initial response, there are many strategic assessments that bridge common assessment issues such as hurricane and earthquake planning, freshwater flooding, etc. Where appropriate, independent assessments must be integrated. Learning from the SAD Assessment, the Corps may wish to generate a template that allows the divisions to identify features purely unique to their division, issues/needs common to adjoining divisions, and Corps wide challenges and opportunities.

The lead EAB member on this task was Dr. Mary Barber. We hope our comments will be useful and look forward to working with your staff to implement our recommendations.

²<https://serdp-estcp.org/content/download/46665/436260/file/Nonstationarity%20RC%20Workshop%20Report.pdf>

The Chief of Engineers Environmental Advisory Board
Subject: Regional Strategic Assessments

Sincerely,



Rollin H. Hotchkiss
Chair, Environmental Advisory Board

Encl

CF:
Chief, Planning and Policy Division
Chief, Environmental Division
Chief, Engineering and Construction Division
Chief, Operations and Regulatory Division
Director, ERDC, Environmental Laboratory