

USACE releases a report on Screening-Level Assessment of Projects with Respect to Sea Level Change

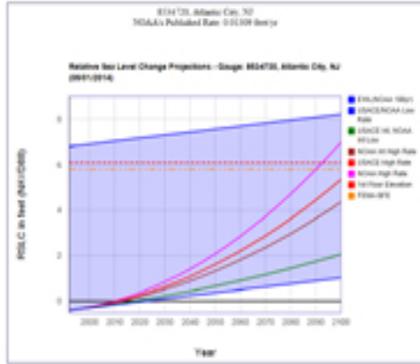
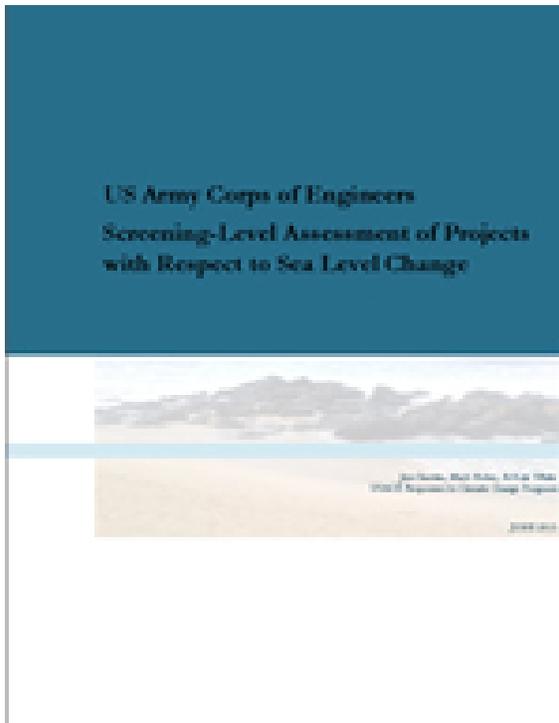


Figure 1: Example results from the sea level change calculator showing projected sea level changes when the NOAA GEV-computed 100yr return level water elevation is added to the USACE low rate sea level curve. Also shown are the FEMA Base Flood Elevation.

Figure 1: Example results from the Sea Level Change Calculator showing projected sea level changes when the NOAA GEV-computed 100yr return level water elevations are added to the USACE Low rate sea level curve. Also shown are the FEMA Base Flood Elevation



ALEXANDRIA, VIRGINIA. The U.S. Army Corps of Engineers (USACE) has released [Screening-Level Assessment of Projects with Respect to Sea Level Change](#) (pdf, 1.33 MB). The report is the first in a series of progressively more detailed screening assessments and detailed assessments of the most vulnerable projects and those with the highest consequences. The screening level assessments were completed using the Comprehensive Evaluation with Respect to Sea Level (CESL) web tool and relies on information developed by other agencies, including the Federal Emergency Management Agency (FEMA), National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS).

Climate change is among the major challenges of the 21st century facing USACE, and can impact all areas of missions and operations. USACE climate preparedness and resilience policies require USACE to integrate climate change adaptation planning and actions into USACE missions, operations, programs, and projects, using the best available and actionable climate science and climate change information at the appropriate level of analysis, and to consider climate change impacts when undertaking long-term planning, setting priorities, and making decisions. USACE has been a leader in collaborating with other agencies to integrate and translate climate science into actionable information for decision makers, developing technical guidance to address climate change impacts and adaptation, and developing tools to support adaptation decision-making. This report demonstrates USACE leadership through completion of a nationwide screening-level assessment of the vulnerability of existing USACE projects to the effects of changing sea levels.

This report contains a description of the development of CESL, including district staff feedback; the process used to collect the initial vulnerability assessment (IVA) data; and the results of the screening and development of the next steps. The level of participation from USACE districts supports improved professional and technical competence at the district level

with respect to sea level change. This is an important factor in mainstreaming climate change adaptation as called for in USACE climate preparedness and resilience policies.



Figure 2: CESL screenshot showing the map of the United States with project locations marked by colored dots.

About one-third of the 1431 projects potentially impacted by sea level examined in the study were identified as being vulnerable to changing sea levels now or in the future. The vulnerable projects were ranked and sorted by priority for more detailed examination in later studies. About 100 projects were classified as having high or very high vulnerability.

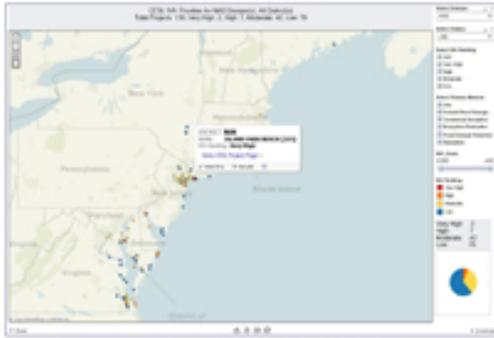


Figure 3: Screenshot showing the North Atlantic Ocean's risk priority level of an example of the pop-up window with list of a particular project.

The results of this screening level analysis are providing a foundation for USACE to continue a program of progressively more detailed screening assessments before embarking on detailed assessments of the most vulnerable projects and those with the highest consequences. The CESL tool used in USACE screening-level analyses can be made available to others who wish to perform similar coastal vulnerability assessments. This technical transfer has already begun, with the transfer of the technology to Army staff for Installations, Environment, and Energy in 2015-2016. Other users are encouraged to work with the contractors to evaluate the necessary modifications to suit their own particular purposes. By developing, testing, and making this toolkit available to others, USACE is well-aligned with the recommendations of the White House State, Local, and Tribal Leaders Task Force released in November 2014.

Learn More:

- [Screening-Level Assessment of Projects with Respect to Sea Level Change \(pdf, 1.33 MB\)](#)
- [Comprehensive Evaluation of Projects with Respect to Sea-Level Change](#)