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New Guidance Available for Use of Non-NOAA Tide Gauge Records to Compute Relative Sea Level Change

ALEXANDRIA, VIRGINIA. The U.S. Army Corps of Engineers has released new guidance for use of non-National Oceanic and Atmospheric Administration (NOAA) tide gauge records for calculating relative sea level change.

The Engineering and Construction Bulletin ([ECB 2013-27](#)), issued September 9, 2013 and expiring September 9, 2015, outlines concepts and goals, provides guidance and introduces a tool, available on the Responses to Climate Change [website](#), that can be used to estimate relative sea level change using long-term tide gauge records other than NOAA National Water Level Observation Network tide gauges.

The bulletin establishes a procedure to develop future relative sea-level rise scenarios from non-NOAA tide gauges approved for use by USACE in coastal areas where necessary to augment NOAA gauges. Examples of such long-term non-NOAA tide gauges are those operated by the U.S. Army Corps of Engineers (USACE) or the U.S. Geological Survey (USGS). At this time, all such gauges are located in the state of Louisiana, but the area covered by the gauges is expected to increase during the next several years.

The guidance applies to all coastal Civil Works designs and studies that require computations of relative sea level change through augmentation of NOAA's National Water Level Observation Network (NLWON) tide gauges. An accompanying [web tool](#) that helps to compute relative sea level change is provided on the Responses to Climate Change website. The bulletin also includes an appendix with instructions for computing relative sea level change from long-term non-NOAA tide gauges that are not yet included in the web tool. This guidance alters instructions found in EC 1165-2-212.

Adaptation to sea level change is a critical component of USACE climate change resilience. Methods and tools such as the one introduced here help reduce uncertainty, improve consistency and simplify work processes. IWR's Climate and Global Change team played an instrumental role in the development of the bulletin.

The authors of the bulletin include William Veatch (USACE New Orleans District), Patrick O'Brien (USACE Engineer Research and Development Center Environmental Laboratory), Heidi Moritz (USACE Portland District), Mark Huber (Army Geospatial Center) and Kate White (Institute for Water Resources). Mark Huber developed the web tool to accompany the guidance.

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