USACE
Climate Change and Sea Level Rise

Jeff Gebert - USACE - Philadelphia District
USACE Mission Areas

- **Navigation**
  - Breakwaters and Jetties
  - Harbors
  - Navigation Channels and Ocean Disposal Sites
- **Hydropower**
- **Reservoir Regulation; Water Supply**
- **Coastal Storm Damage Reduction**
  - Beach fills
  - Shoreline protection structures
- **Flood Damage Reduction**
  - Dams, levees, floodwalls
- **Ecosystem Restoration**
- **Emergency Response**
- **Recreation**
- **Regulatory**

Climate change has the potential to impact all USACE mission areas.
Responses to Climate Change (RCC) Team Structure

**HQ and CoP Advisory Team**

**Interagency Technical Support Team**

**Program Management Team Leads**
- Rolf Olsen, PhD
- Kate White, PhD, PE

**Adaptation Implementation Framework**

- Regional Climate Impact Assessments
- Adaptation Challenges and Opportunities
- Vulnerability Assessment and Reporting
- Climate Change Adaptation Communication

**Pilot and Demonstration Projects**

- Technical PDT “Cloud”

- Sealevel Change Adaptation
- Coastal Storm Adaptation
- Hydrology to Support Adaptation
- Snow, Glacial and Ice Impacts and Adaptation
- Water Management Adaptation
- Regulatory Aspects
- Ecosystem Adaptation
- Greenhouse Gas Accounting
- Unknown Additional
Procedures to Evaluate Sea Level Change Impacts, Responses, and Adaptation

Engineering Technical Letter Team

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1. **Purpose.** This circular provides United States Army Corps of Engineers (USACE) guidance for incorporating the direct and indirect physical effects of projected future sea-level change in managing, planning, engineering, designing, constructing, operating, and maintaining USACE projects and systems of projects. Recent climate research by the Intergovernmental Panel on Climate Change (IPCC) predicts continued or accelerated global warming for the 21st Century and possibly beyond, which will cause a continued or accelerated rise in global mean sea-level. Impacts to coastal and estuarine zones caused by sea-level change must be considered in all phases of Civil Works programs.

2. **Applicability.** This Circular applies to all USACE elements having Civil Works responsibilities and is applicable to all USACE Civil Works activities. This guidance is effective immediately, and supersedes all previous guidance on this subject. Districts and Divisions shall inform CECW of any problems with implementing this guidance.

3. **Distribution Statement.** This publication is approved for public release; distribution is unlimited.
20th Century SLR Rates, US East Coast, ft/century

Eastport, ME
Bar Harbor, ME
Portland, ME
Seavey Island, ME
Boston, MA
Woods Hole, MA
Nantucket Island, MA
Newport, RI
Providence, RI
New London, CT
Bridgeport, CT
Montauk, NY
Port Jefferson, NY
Willetts Point, NY
New Rochelle, NY
The Battery, NY
Sandy Hook, NJ
Atlantic City, NJ
Cape May, NJ
Philadelphia, PA
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Fernandina Beach, FL
Mayport, FL
Miami Beach, FL
Vaca Key, FL
Key West, FL

43 gages
Maine

NYC