

Sea Level Rise and Coastal Flooding Impacts Viewer



Gwen Shaughnessy

IMSG, NOAA Coastal Services Center

Available via NOAA Digital Coast Tools

<http://www.csc.noaa.gov/digitalcoast/tools/slrviewer>

DIGITAL COAST
NOAA Coastal Services Center

Home About Data Tools Training Approaches In Action

More than just data...

The Digital Coast also provides the tools, training, and information needed to turn these data into the information most needed by coastal resource management professionals. [Read more...](#)

questions or comments, please [contact us](#). [Give us your feedback!](#)

Sea Level Rise and Coastal Flooding Impacts Viewer

NOAA Coastal Services Center

Overview In Action Support Get It How

Overview

[View the current status of the tool.](#)

Being able to visualize potential impacts from sea level rise is a powerful teaching and planning tool, and the Sea Level Rise Viewer brings this capability to coastal communities. A slider bar is used to show how various levels of sea level rise will impact coastal communities. Completed areas include Mississippi, Alabama, Texas, Florida, and Georgia, with additional coastal counties to be added in the near future. Visuals and the accompanying data and information cover sea level rise inundation, uncertainty, flood frequency, marsh impacts, and socioeconomics.

Launch Now

- #### Features
- Displays** potential future sea levels
 - Provides** simulations of sea level rise at local landmarks
 - Communicates** the spatial uncertainty of mapped sea levels
 - Models** potential marsh migration due to sea level rise
 - Overlays** social and economic data onto potential sea level rise
 - Examines** how tidal flooding will become more frequent with sea level rise

Approaches

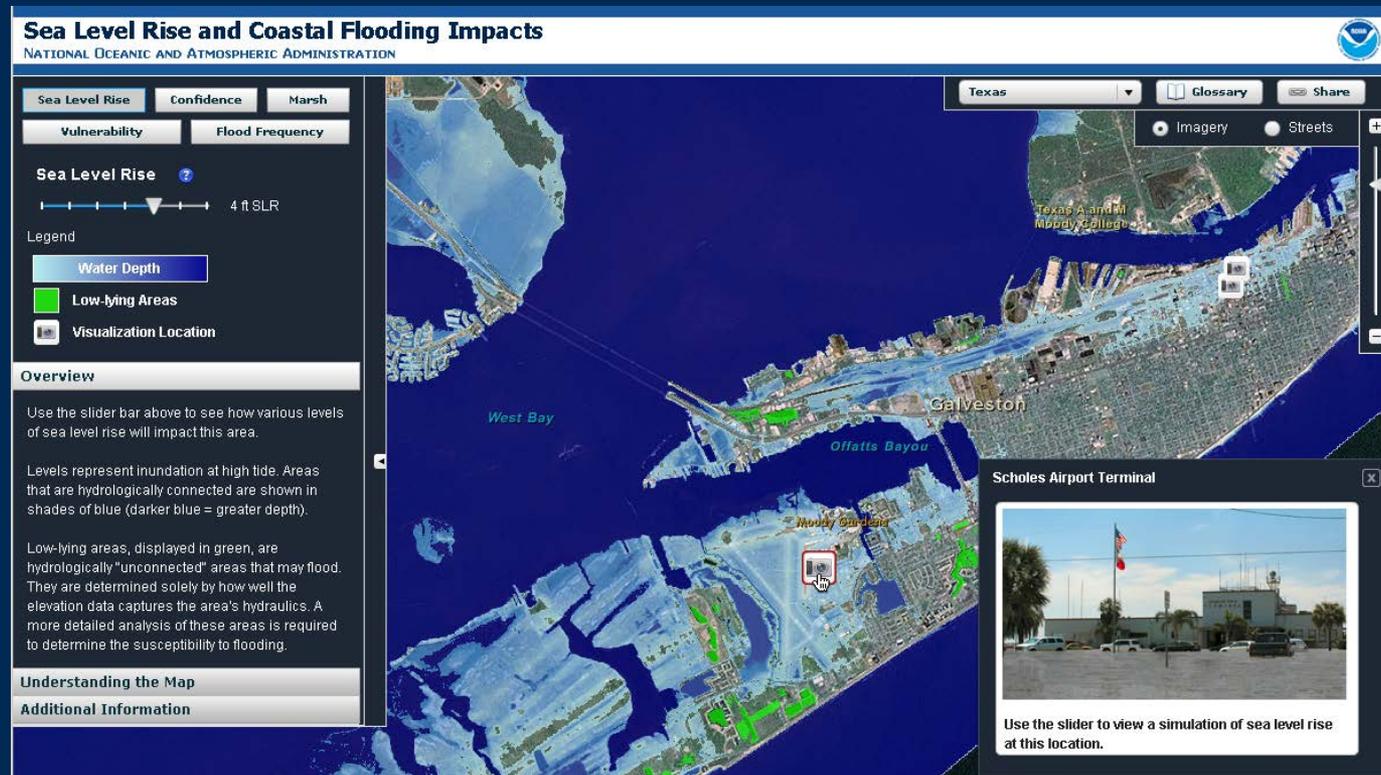
- [Coastal Inundation Toolkit](#)
Understand the basics and get the tools that will help make your community more resilient.
- [Offshore Renewable Energy Planning](#)
Get the data and tools needed to make siting decisions.
- [Conserving Coastal Wetlands for Sea Level Rise Adaptation](#)
Learn spatial techniques and get resources to prioritize wetland conservation.

Featured Resources

- [Social Coast](#)
Social science data can help address coastal issues. Find highlights of economic and demographic data, and also tools and methods, that can be applied to solve real issues.
- ["Marshes on the Move"](#)
- [Sea Level Rise and Coastal Flooding Impacts Viewer](#)
- ["Incorporating Sea Level Change Scenarios at the Local Level"](#)

Components: Impacts of Sea Level Rise

- Visualize impacts for mean higher high water 6-foot sea level rise scenarios overlaid on aerial imagery, street map, and terrain map.



“Seeing” the Impacts

Sea Level Rise and Coastal Flooding Impacts

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



Sea Level Rise Confidence Marsh

Vulnerability Flood Frequency

Sea Level Rise ?

▼ ———— Current MHHW

Legend

- Water Depth
- Low-lying Areas
- Area Not Mapped
- Visualization Location

View Levels

Overview

Use the slider bar above to see how various levels of sea level rise will impact this area.

Levels represent inundation at high tide. Areas that are hydrologically connected are shown in shades of blue (darker blue = greater depth).

Low-lying areas, displayed in green, are hydrologically “unconnected” areas that may flood. They are determined solely by how well the elevation data captures the area’s hydraulics. A more detailed analysis of these areas is required to determine the susceptibility to flooding.

Understanding the Map

Additional Information



CanVis



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY

“Seeing” the Impacts

Sea Level Rise and Coastal Flooding Impacts

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Sea Level Rise Confidence Marsh Vulnerability Flood Frequency

Sea Level Rise 6 ft SLR

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Understanding the Map

Additional Information

Mississippi Imagery Streets

HOLMES JACKSON CALHOUN LIBERTY GULF FRANKLIN

SANTA ROSA OKALOOSA WALTON WASHINGTON PANAMA CITY

Baytowne Wharf

Use the slider to view a simulation of sea level rise at this location.

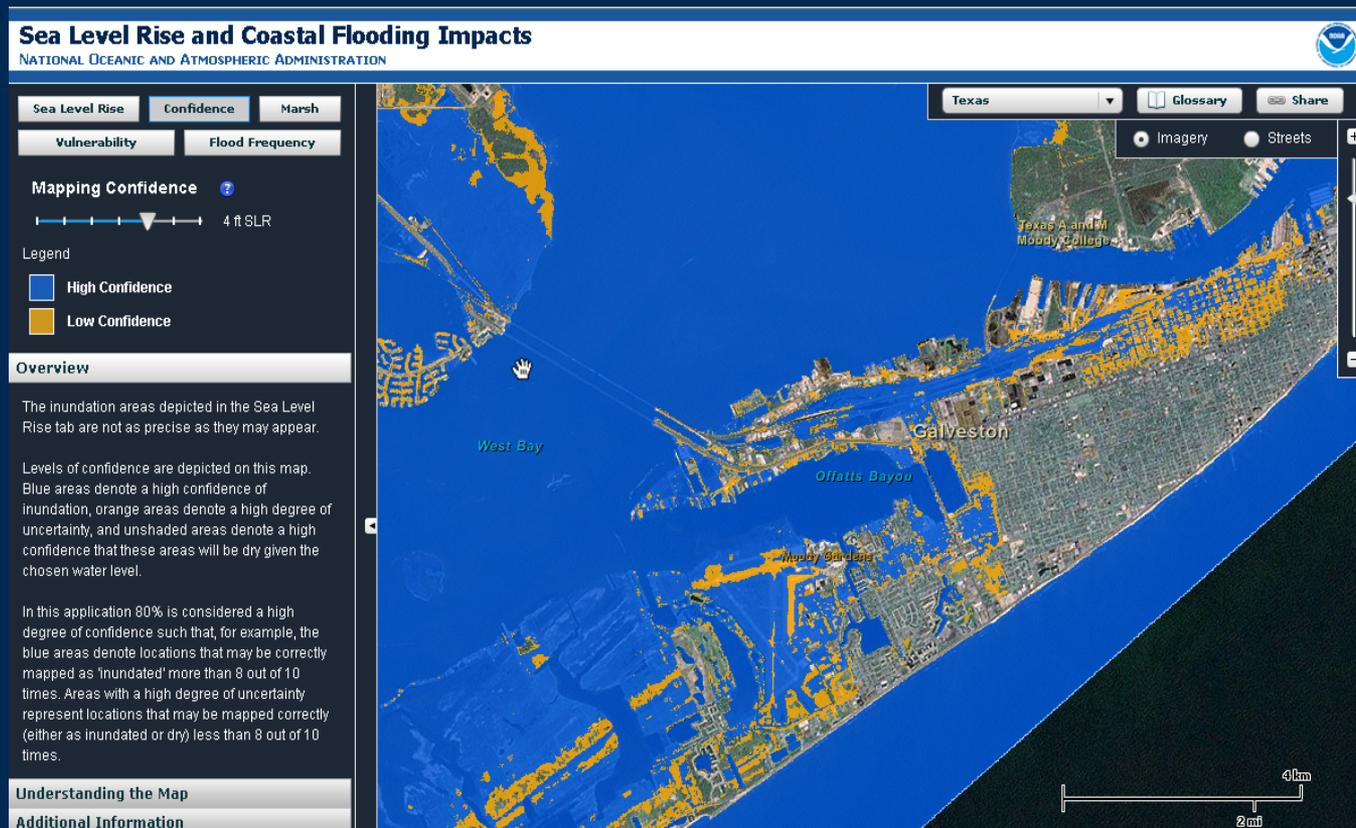
CanVis



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Components: Communicate Mapping Confidence

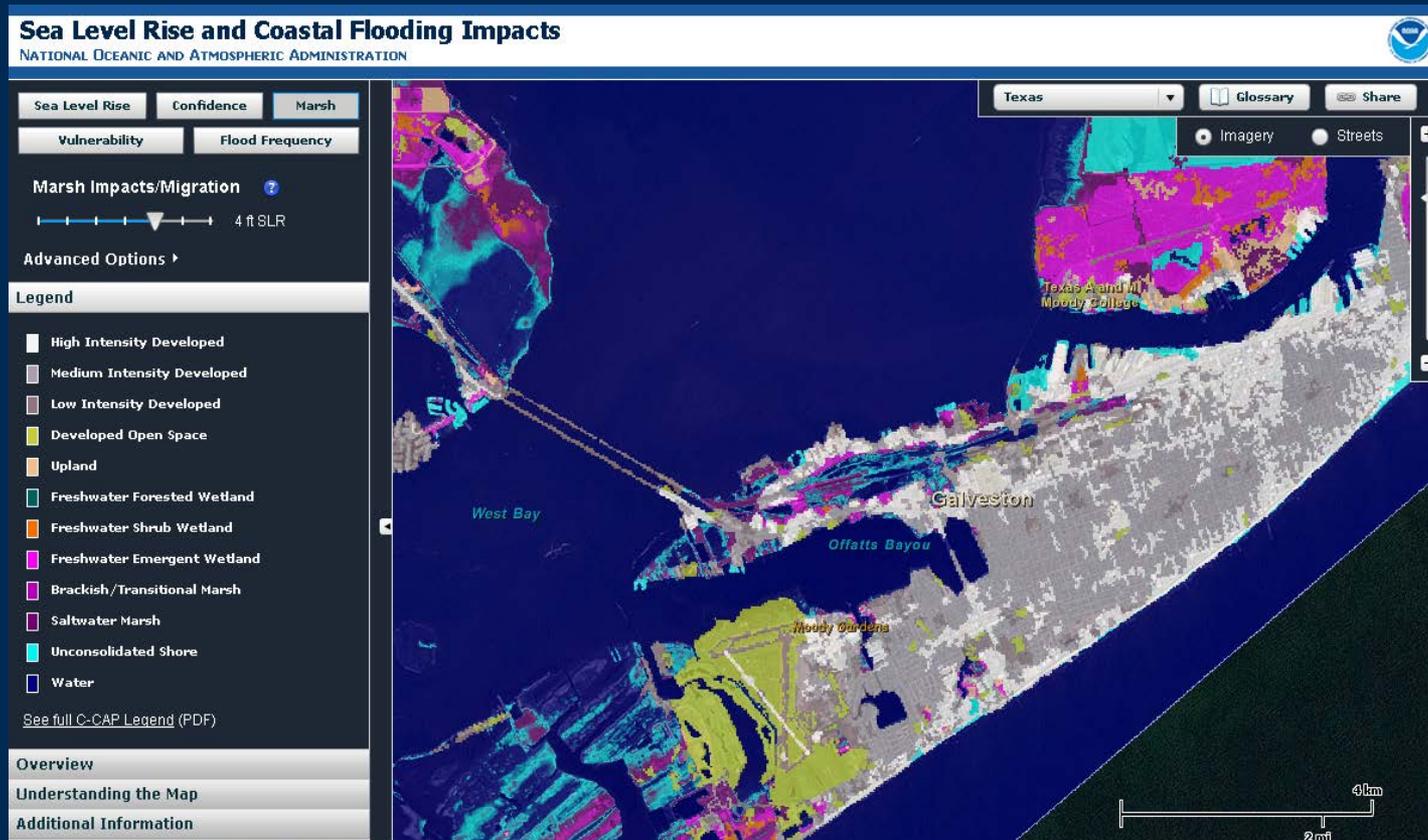
- Visualize the mapping confidence of the inundation area.



Components:

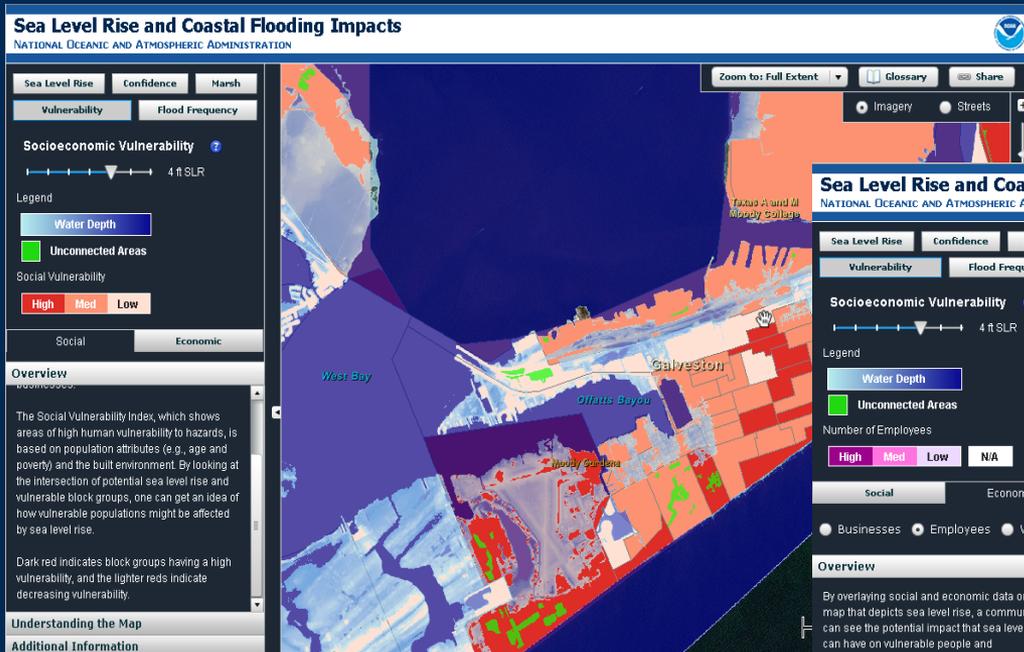
Visualize Marsh Impacts

- Visualize the impacts of sea level rise scenarios on marshes using Coastal Change Analysis Program (C-CAP) data.

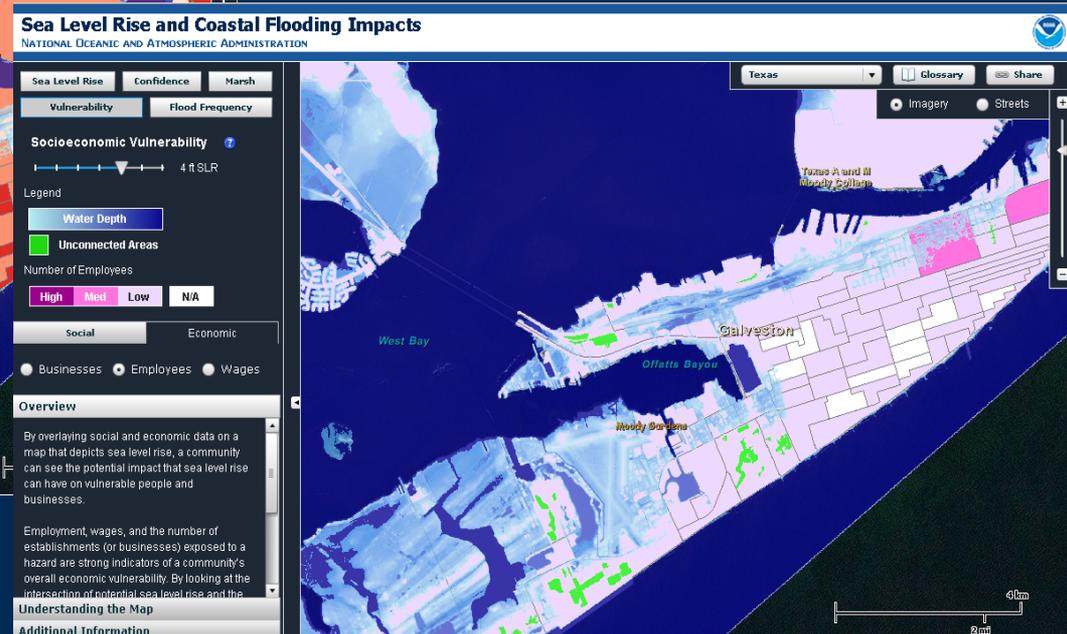


Components: Social and Economic Vulnerability

- Consider impacts of flooding on society and economy.



Social Vulnerability Index (Cutter)



Bureau of Labor Statistics (Department of Labor)
- Businesses, employees, wages

Components: Coastal Flood Frequency

- Communicate that today's flood is tomorrow's high tide. Consider the increased frequency and duration of everyday flooding.



Using the Sea Level Rise Viewer for Participatory Meetings

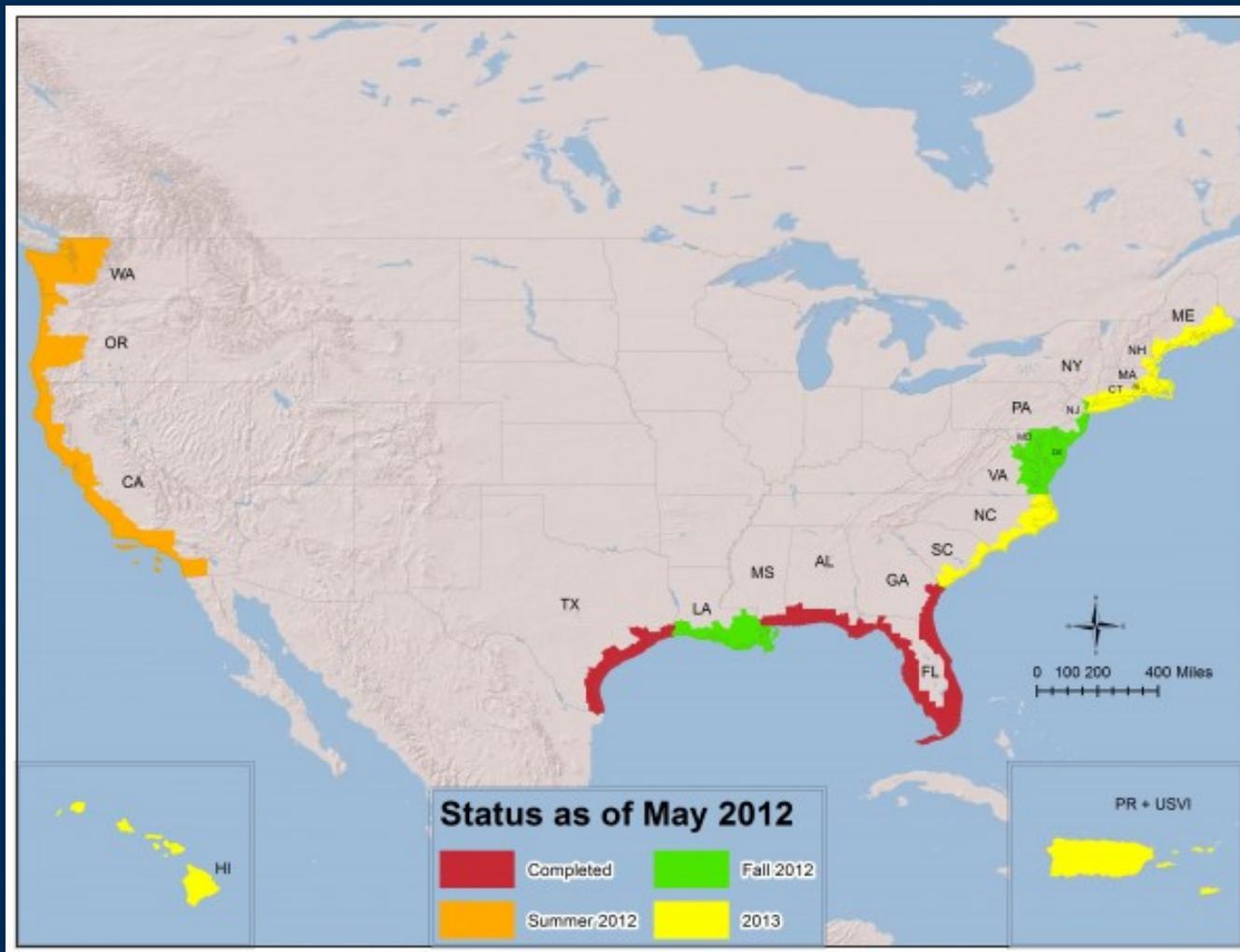


Example: Port of Long Beach Climate Adaptation and Coastal Resiliency Planning

- Exposure screening
- Common understanding of local risk
- Quickly view and discuss depth scenarios
- Save extent and share



Anticipated Release Dates



Thank-you!

Rebecca Smyth

Rebecca.smyth@noaa.gov

<http://www.csc.noaa.gov/slr>