

Resources for Climate Change Adaptation

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US Climate Resilience Toolkit (<http://toolkit.climate.gov/>)

A website that provides centralized, authoritative, easy-to-use information, tools, and best practices to help communities prepare for and boost their resilience to the impacts of climate change. The site provides links to numerous tools for accessing and analyzing climate data, generating visualizations, exploring climate projections, estimating hazards, and engaging stakeholders in resilience-building efforts -- including several that have been developed by NOAA

NOAA Tools Relevant to Climate Change Adaptation in Coastal Areas

Adapting to Climate Change: A Planning Guide for State Coastal Managers
(2010) NOAA Office of Ocean and Coastal Resource management (at <http://coastalmanagement.noaa.gov/climate/adaptation.html>)

This guide offers a framework for state coastal managers to follow as they develop and implement climate change adaptation plans in their own states.

Digital Coast Tools and Information (<http://coast.noaa.gov/digitalcoast/>)

This centralized, user-friendly, and cost-effective information repository was developed by the NOAA Office for Coastal Management for the coastal managers, planners, decision-makers, and technical users who are charged to manage the nation's coastal and ocean resources to sustain vibrant coastal communities and economies.

Sea Level Rise and Coastal Flooding Impacts Viewer

(<http://coast.noaa.gov/digitalcoast/tools/slr/>):

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. Additional coastal counties will be added in the near future.

Coastal Flood Exposure Mapper (<http://coast.noaa.gov/digitalcoast/tools/flood-exposure/>):

Supports community discussions about coastal hazard vulnerabilities and assets with maps that show people, places, and natural resources exposed to coastal flooding. Based on the [Roadmap for Adapting to Coastal Risk training](#), the tool supports users undertaking a community-based approach to assessing coastal hazard risks and vulnerabilities. Users can select their geography and create a collection of maps that can be downloaded or shared online.

Inundation Analysis Tool

(<http://toolkit.climate.gov/tool/inundation-analysis-tool>)

Coastal managers can query observations of select tidal gauges to find out how often and for how long local tides reached a specified elevation throughout their history

Coastal County Snapshots

(<http://coast.noaa.gov/digitalcoast/tools/snapshots/>):

Users select a coastal county of interest and the website does the rest, providing information that can help communities become more resilient to coastal hazards. Local officials can use the snapshots as a planning tool to assess their county's resilience to flooding and understand the benefits provided by natural resources.

Habitat Priority Planner

(<http://toolkit.climate.gov/tool/habitat-priority-planner>)

This ArcGIS extension for Spatial Analyst steps users through subjective habitat analyses to help them make conservation, restoration, and planning decisions.

Economics: National Ocean Watch

(<http://toolkit.climate.gov/tool/economics-national-ocean-watch-enow-explorer>)

Explore economic data that characterize the size and makeup of the ocean economy in the 448 coastal counties of the U.S.

VDatum

(<http://toolkit.climate.gov/tool/vdatum>)

Spatial analysts use this downloadable tool to convert topographic and/or bathymetric data to a common reference system, enabling them to fuse diverse geospatial datasets into single projects.

Climate Adaptation for Coastal Communities training

(<http://coast.noaa.gov/digitalcoast/training/climate-adaptation?redirect=301ocm>):

This three-day instructor-led course . . . covers these essentials: understanding climate science and impacts; determining community vulnerabilities; communicating effectively; identifying adaptation strategies; and finding mechanisms to implement those strategies.)

Coastal Inundation Mapping training

(<http://coast.noaa.gov/digitalcoast/training/inundationmap>):

This two-day instructor-led course offers a combination of lectures and hands-on exercises to give students a better understanding of coastal inundation issues and mapping methods using a geographic information system (GIS). The course is designed for certified floodplain managers and county, state, and municipal officials, including planners, emergency managers, and coastal resource managers.

