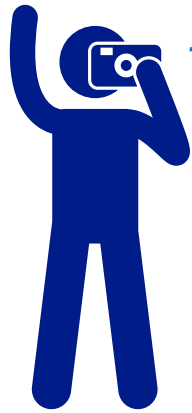


FLORIDA RELIES ON THE DIGITAL COAST



48,306

Florida visitors to the Digital Coast. (560,176 nationwide)



That's because the Digital Coast has a lot to offer Florida.

DATA

10,570 gigabytes of high-resolution elevation data available for Florida.



TOOLS

50+ decision-support tools applicable for Florida challenges.



TRAINING

182 leaders in the state used a Digital Coast training program.



GEOSPATIAL SERVICES

Over **\$1.6** million in private-sector geospatial services awarded for the Southeast and Caribbean region.



INFORMATION

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- Forty-eight percent of the population in Miami-Dade County lives in a floodplain.
- The state's coral reef track is 300 miles long and annually supports 61,000 jobs and contributes \$5.7 billion in sales and income to the economy.
- Tourism and recreation is the largest employer among the state's ocean-dependent economic sectors.

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SAVING TIME AND MONEY

411% was the return on investment calculated for the Digital Coast.

IT'S A WEBSITE.

NOAA owns the Digital Coast, but the resources inside, while vetted by NOAA for applicability and quality, come from various organizations with one common but important thread: content is solely focused on coastal community needs. The site contains not only data, but also the tools, training, and information communities need to make data truly useful. Three out of four Digital Coast users surveyed say they couldn't do their jobs without this important resource!

The short report that follows highlights Digital Coast interactions with the State of Florida.

Digital Coast
coast.noaa.gov/digitalcoast



Florida Recap

NOAA and the Digital Coast are devoted to supplying Florida with the data, tools, and information most needed by coastal communities. This report highlights the resources frequently used during this reporting period. Please visit the website (coast.noaa.gov) to learn more or contact NOAA (coastal.info@noaa.gov) with your questions or suggestions.

DATA

Data represent the core component of the Digital Coast. For Florida, data holdings include elevation, land cover, aerial imagery, and county-level socioeconomic data. Examples are highlighted below.

Coastal Lidar

coast.noaa.gov/digitalcoast/data/coastallidar

Over 10,570 gigabytes of high-resolution elevation data covering Florida's entire coastal zone are available. These types of data are critical for all types of modeling, including those that predict flooding potential.

Land Cover

coast.noaa.gov/digitalcoast/data/ccapregional

This satellite imagery is used to inventory and categorize the landscape—wetlands, development, forests, agriculture use, etc. Nothing provides a big picture view of a region like land cover data. These data are used to identify high-priority landscapes for Florida's coastal protection and restoration efforts. Comparing one year to another is also a good way to spot and document trends.

Economics

coast.noaa.gov/digitalcoast/data/enow

Information about the ocean-dependent economy in Florida helps people understand how the decisions that impact the coast can also impact the bottom line.

TOOLS

"Data alone is not enough" is a frequent Digital Coast refrain. Going the extra step and including the tools and training needed to make data truly useful is a hallmark of the Digital Coast website. Users have access to over 50 data analysis, visualization, and other decision-support tools. Examples are highlighted below.

Coastal County Snapshots

coast.noaa.gov/digitalcoast/tools/snapshots

Pick a county and hit a button to generate easy-to-understand handouts. Behind the simple charts and graphs are complex county-level data about flooding, wetlands, and economics. Local officials use the snapshots as a planning and communication tool.

Land Cover Atlas

coast.noaa.gov/digitalcoast/tools/lca

This tool makes land cover data easier to access and understand by eliminating the need for desktop GIS software. General trends in land cover change (such as forest losses or new development) are summarized, and specific changes (salt marsh losses to open water, for instance) can be documented. This type of information is useful for planning purposes. Florida officials have found it particularly helpful as they work to use natural infrastructure to mitigate the impacts of flooding and climate change.

Sea Level Rise Viewer

coast.noaa.gov/digitalcoast/tools/slr

This web mapping tool visualizes community-level impacts from coastal flooding or sea level rise. Locals can see photo simulations of how future flooding might impact local landmarks, while GIS managers can download data related to water depth, connectivity, flood frequency, socioeconomic vulnerability, and more.

CanVis Visualizations

coast.noaa.gov/digitalcoast/tools/canvis

This visualization tool helps users “see” potential impacts from coastal development or water level change. Users can download background pictures and insert objects (hotels, houses, and other features) of their choosing. This tool helped officials in Florida visualize the effects of sea level rise.

OpenNSPECT

coast.noaa.gov/digitalcoast/tools/opennspect

This tool is often used to investigate potential water quality and flooding impacts from climate change, development, and other land uses. Communities also use this information to reduce these impacts by identifying suitable areas for restoring wetlands and developing riparian buffers.

Coastal Flood Exposure Mapper

coast.noaa.gov/digitalcoast/tools/flood-exposure

Access coastal hazard risks and vulnerabilities with this tool, which creates a collection of user-defined maps that show the people, places, and natural resources exposed to coastal flooding. Coastal managers can save time and download the maps to share with stakeholders and communicate flood exposure impacts.

TRAINING

Coastal officials have to stay on top of their game, which is why the Digital Coast’s “training academy” provides over 125 learning resources, from online courses to training brought to your location. A few examples are provided below. To see the full suite, visit coast.noaa.gov/digitalcoast/training/home.

Coastal Inundation Mapping

coast.noaa.gov/digitalcoast/training/inundationmap

This classroom course provides baseline information about the various types of flooding and teaches methods for mapping current and potential flooding scenarios. The course offers 16 hours of continuing education credits for the GIS Professional (GISP) and American Institute of Certified Planners (AICP), and Certified Floodplain Manager (CFM) professional certifications.

Green Infrastructure Practices and Benefits Matrix

coast.noaa.gov/digitalcoast/training/gi-practices-and-benefits

Green infrastructure (also called natural infrastructure) is the way to go for communities looking to reduce flooding. This quick handout provides important information about some of the most common techniques in use.

Seven Best Practices for Risk Communications

coast.noaa.gov/digitalcoast/training/risk-communication

The title alone speaks to most people—this is a skill everyone benefits from. The Digital Coast has many resources devoted to this topic, but this online training course is particularly popular.

GEOSPATIAL CONTRACTING

Through the Digital Coast, coastal organizations in need of geospatial data or services benefit from the use of the Coastal Geospatial Services Contract (coast.noaa.gov/idiq/geospatial.html). This contracting vehicle provides a way for local, state, and federal agencies to use a streamlined process to obtain services from the nation's top geospatial firms. In fiscal year 2016, over \$1.6 million was awarded to private geospatial firms to conduct mapping projects in the Southeast and Caribbean region, including the acquisition of land cover and imagery data.

DIGITAL COAST IN ACTION

The following stories illustrate how Digital Coast users are applying geospatial information resources to address coastal issues in Florida.

Developing Consistent Methods for Mapping Sea Level Rise in Southeast Florida

coast.noaa.gov/digitalcoast/stories/slr-seflorida

The peninsular shape and low elevation of Southeast Florida make it vulnerable to inundation, particularly inundation from sea level rise, and the region's high population adds urgency to mapping and understanding this phenomenon. To assist the Southeast Florida counties of Monroe, Miami-Dade, Broward, and Palm Beach in developing a unified set of methods and criteria for creating sea level inundation maps, a two-day technical workshop was held in April 2010. Upon the conclusion of this workshop, the counties and the South Florida Water Management District worked together, via the Southeast Florida Regional Climate Change Compact, to develop a vulnerability assessment of the Southeast Florida region for one-, two-, and three-foot sea level rise scenarios. In terms of dollar amounts, taxable property values vulnerable across the region in the one-foot scenario are greater than \$4 billion, with values rising to over \$31 billion in the three-foot scenario.

Adapting to Sea Level Rise in Miami-Dade County, Florida

coast.noaa.gov/digitalcoast/stories/slr-miamidade

Miami-Dade County, Florida, contains some of the most populated cities in the state. The population, combined with the location and topography, makes this county particularly vulnerable to sea level rise. The Miami-Dade Office of Sustainability worked with the NOAA Office for Coastal Management to host a workshop at which county department representatives learned how sea level rise could affect the county and generated ideas for how to adapt to these changes. To help participants understand how sea level rise might impact the work of each county department, maps were developed showing how predicted sea level rise might interact with saltwater intrusion, land cover and land use, zoning, emergency facilities, human infrastructure, and important natural features. Participants used the information from these maps to identify specific actions to adapt to climate change, including creating a centralized location for recording and sharing data representing hazards, climate, and vulnerabilities; developing and implementing climate-adaptive zoning and building codes and permit process modifications; and accelerating existing restoration efforts to help protect the community against rising sea levels.

Assessing Seagrass Vulnerability Along Florida's Gulf Coast

coast.noaa.gov/digitalcoast/stories/seagrass

As sea level rises, limited exposure to sunlight decreases the survival rate of seagrass in deeper waters. Hard stabilization projects used to protect against sea level rise are also posing a threat to seagrass. Using the Digital Coast's Sea Level Rise Viewer, researchers from the University of South Florida analyzed the potential gain of habitat from inundation of the shoreline. Using these data, researchers were able to compare habitat gain and the effects of using hardened structures to protect against sea level rise within an integrated management plan.

The Digital Coast Partnership

One of the goals of the Digital Coast is to unify groups that might not otherwise work together. As a result, the Digital Coast Partnership is building not only a website, but also a strong collaboration of coastal professionals intent on addressing common needs. Currently, the eight members of the Digital Coast Partnership include the American Planning Association, Association of State Floodplain Managers, Coastal States Organization, National Association of Counties, National Estuarine Research Reserve Association, National States Geographic Information Council, Nature Conservancy, and Urban Land Institute. The responsiveness of these organizations and the direct lines of communication fostered by the effort have proven essential for ensuring the success and continuing relevance of the Digital Coast, and for allowing the platform to evolve and adapt to changing needs and priorities.