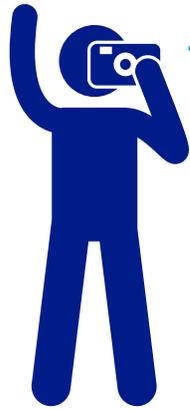


# FLORIDA RELIES ON THE DIGITAL COAST



**69,722**

Florida visitors to the Digital Coast. (672,942 nationwide)



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

## DATA

**12,509** gigabytes of high-resolution elevation data available for Florida.



## TOOLS

**50+** decision-support tools applicable for Floridas challenges.



## TRAINING

**286** leaders in the state used a Digital Coast training program.



## GEOSPATIAL SERVICES

Over **\$1 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](http://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](http://coast.noaa.gov)) to learn more or contact NOAA ([coastal.info@noaa.gov](mailto: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](http://coast.noaa.gov/digitalcoast/data/coastallidar)

Over 12,509 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](http://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](http://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](http://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](https://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](https://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.

## OpenNSPECT

[coast.noaa.gov/digitalcoast/tools/opennspect](https://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](https://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](https://coast.noaa.gov/digitalcoast/training/home).

### Coastal Inundation Mapping

[coast.noaa.gov/digitalcoast/training/inundationmap](https://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](https://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](https://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](https://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 2018, over \$1 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.

### Examining Sea Level Rise Exposure for Future Populations

[coast.noaa.gov/digitalcoast/stories/population-risk](https://coast.noaa.gov/digitalcoast/stories/population-risk)

In low-lying coastal areas, two things are increasing: population size and the frequency of coastal flooding. Many predictive models do not take increasing population numbers into consideration, which means projected risk could be higher than what is reported. Partners used NOAA Digital Coast data to model sea level rise with a population projection overlay. The team estimates that by 2100, three feet of sea level rise will affect an additional 4.2 million people, with Florida accounting for nearly half the total at-risk population. A rise of six feet will affect 13.1 million people and include 25 counties more than the previous scenario.

### Understanding Vulnerability to Sea Level Rise in Southeast Florida

[coast.noaa.gov/digitalcoast/stories/slr](https://coast.noaa.gov/digitalcoast/stories/slr)

Local governments were using a variety of inconsistent data sources, methods, and criteria to create digital elevation models to determine sea level rise vulnerability. GIS practitioners from across Florida worked with experts from NOAA's Office for Coastal Management to create consistent models using NOAA Digital Coast data. With this approach, each county was able to complete a new vulnerability assessment using regionally consistent methods. As part of this effort, a report was generated that outlines the impacts that may occur under three sea level rise scenarios. This information is playing a vital role in efforts underway to address sea level rise issues.

## **Building Capacity for Identifying Hazard and Climate Vulnerabilities in Florida**

[coast.noaa.gov/digitalcoast/stories/fl-planning](https://coast.noaa.gov/digitalcoast/stories/fl-planning)

Florida's many coastal communities are at risk from current and future flood hazards (such as hurricane storm surge, tidal flooding, and sea level rise). The ability to prepare for these hazards requires data and tools that help local planners identify areas of risk and incorporate that information into master plans and community policies. To build capacity in Florida, NOAA's Office for Coastal Management trained the Florida regional planning councils on the use of several coastal flood hazard assessment tools. NOAA also conducted workshops with stakeholders to identify hazard vulnerabilities. Communities used the resulting information and corrective actions to apply for FEMA Community Rating System credits.

## **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.