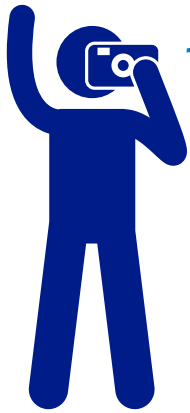


# RHODE ISLAND RELIES ON THE DIGITAL COAST



**3,322**

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



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

## DATA

**623** gigabytes of high-resolution elevation data available for Rhode Island.



## TOOLS

**50+** decision-support tools applicable for Rhode Island challenges.



## TRAINING

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



## GEOSPATIAL SERVICES

Over **\$590,000** in private-sector geospatial services awarded for the Northeast region.



## INFORMATION



- Thirteen percent of the population in Newport County lives in a floodplain.
- Almost 20 percent of the state is developed.
- Tourism and recreation is the largest employer among the state's ocean-dependent economic sectors.



**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 Rhode Island.*

**Digital Coast**  
[coast.noaa.gov/digitalcoast](http://coast.noaa.gov/digitalcoast)



# Rhode Island Recap

*NOAA and the Digital Coast are devoted to supplying Rhode Island 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 Rhode Island, 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 623 gigabytes of high-resolution elevation data covering Rhode Island'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—coastal intertidal areas, wetlands, adjacent uplands, development, 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 Rhode Island'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 coastal economy in Rhode Island 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. Rhode Island's officials have found it particularly helpful as they work to use green infrastructure to mitigate the impacts of flooding and climate change.

## Economics: National Ocean Watch Explorer

[coast.noaa.gov/digitalcoast/tools/enow](https://coast.noaa.gov/digitalcoast/tools/enow)

This tool makes economic data easier to use. The economic data provided by the Digital Coast focus on six business sectors dependent on the oceans and Great Lakes: living resources, marine construction, marine transportation, offshore mineral resources, ship and boat building, and tourism and recreation. This tool helps users discover which sectors are growing and declining, and which account for the most jobs, wages, and gross domestic product for coastal communities, the state, and the nation.

## CanVis Visualizations

[coast.noaa.gov/digitalcoast/tools/canvis](https://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. Managers in Rhode Island use this tool to help stakeholders visualize the effects of sea level rise.

## OpenNSPECT

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

This tool is being used to investigate potential water quality impacts from development, other land uses, and climate change. The tool simulates erosion, pollution, and their accumulation from overland flow. Uses include helping communities identify areas for restorable wetlands and riparian buffers to reduce pollution and flooding in watersheds.

## 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 2016, over \$590,000 was awarded to private geospatial firms to conduct mapping projects in the Northeast 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 Rhode Island.

### Economic Scorecard Helps Coastal Communities Assess Best Places for Offshore Wind Facilities

[coast.noaa.gov/states/stories/economic-scorecard-helps-coastal-communities](https://coast.noaa.gov/states/stories/economic-scorecard-helps-coastal-communities)

Although other nations have used offshore wind facilities for decades, the technology is relatively new to the U.S. and the growth potential is large. Some communities, however, are concerned that wind facilities might have a negative impact on coastal tourism and recreation. For this reason a “scorecard” was developed that ranks potential impacts for 113 Atlantic coast geographies, primarily counties. Community profiles were also created for the 70 counties most vulnerable to negative impacts from wind energy facilities. This information is used by counties assessing the pros and cons of wind energy facilities. The Bureau of Ocean Energy Management created these assessments using economic data provided through NOAA's Digital Coast and its Economics: National Ocean Watch initiative.

### Developing an Economic Baseline for Recreation and Tourism on the Atlantic Coast

[coast.noaa.gov/digitalcoast/stories/economic-baseline](https://coast.noaa.gov/digitalcoast/stories/economic-baseline)

The development of offshore wind farms in the U.S. has potential unknown effects on the recreation and tourism industries. To get a handle on this issue, the Bureau of Ocean Energy Management sponsored development of an economic baseline for these industries. By using Economics: National Ocean Watch data, researchers were able to develop a scorecard that is used to inform development along the East Coast.

## **New Tool to Predict Storm Inundation**

[coast.noaa.gov/states/stories/new-tool-to-predict-storm-inundation](https://coast.noaa.gov/states/stories/new-tool-to-predict-storm-inundation)

The Rhode Island Coastal Management Program, working with the University of Rhode Island and others, developed a simplified model to predict storm inundation. STORMTOOLS uses NOAA data to provide storm surge predictions for 10-, 25-, 50-, and 100-year storm events. Users can also see how sea level rise scenarios of 1, 2, 3, or 5 feet impact inundation. Different attribute features, such as the location of critical facilities, can also be layered in. This storm planning and recovery tool lets users compare modeled inundation scenarios with historical flooding events. The tool is part of a larger effort of the coastal program and its partners to improve state policies on shoreline change.

## **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.