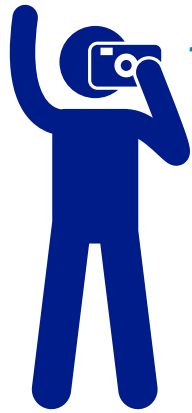


NEW YORK RELIES ON THE DIGITAL COAST



46,621

New York visitors to the Digital Coast.
(763,454 nationwide)



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

DATA

2,282 gigabytes of high-resolution elevation data available for New York.



TOOLS

50+ decision-support tools applicable for New York challenges.



TRAINING

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



GEOSPATIAL SERVICES

Over **\$150,000** in private-sector geospatial services awarded for the Northeast region.



INFORMATION



- Five percent of the population in Suffolk County lives in a floodplain.
- Forestry is the state's largest land cover category (52%).
- 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 New York.

Digital Coast
coast.noaa.gov/digitalcoast



New York Recap

NOAA and the Digital Coast are devoted to supplying New York 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 New York, 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 2,282 gigabytes of high-resolution elevation data covering New York'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—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 New York'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 coastal economy in New York 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. New York 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

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.

OpenNSPECT

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.

VDatum

coast.noaa.gov/digitalcoast/tools/vdatum

This tool converts elevation data among tidal, orthometric, and ellipsoidal vertical datums, allowing users to establish a common reference system for all elevation data sets. VDatum is also used with other bathymetric data sets to address issues related to dredging.

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 2017, over \$150,000 was awarded to private geospatial firms to conduct mapping projects in the Northeast region, including the acquisition of imagery and GIS data.

DIGITAL COAST IN ACTION

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

Building Community Resilience on Long Island, New York

coast.noaa.gov/digitalcoast/stories/longisland

Like other coastal communities, Southold, New York, deals day-to-day with recurring coastal flood risks to its people, property, infrastructure, and natural resources. To address this critical coastal management issue, several Digital Coast partners came together to work with the community in a process that can be replicated in other coastal towns. The Nature Conservancy, the Association of State Floodplain Managers, and the NOAA Office for Coastal Management provided a one-day workshop to introduce a participatory process for assessing and planning for hazards and climate vulnerability, along with key data and information resources available through Digital Coast to help implement the process. This collaborative activity strengthened connections between Southold's comprehensive plan and the town's hazards and climate resilience strategy.

Conserving and Restoring New York's Estuarine Habitats

coast.noaa.gov/digitalcoast/stories/nyestuaries

The South Shore Estuary Reserve (SSER) was established to promote the future health of the bays and adjacent uplands of Long Island's south shore, one of the most highly urbanized areas of the country. One objective of the reserve's comprehensive management plan is to "protect and restore living resources of the reserve." Analog aerial photography and soft-copy photogrammetry were used to produce highly detailed shallow-water benthic habitat maps for the reserve. A variety of organizations are using the data to support conservation and restoration efforts, including hard-clam and eelgrass restoration planning. Future mapping efforts will allow comparison of existing and new data sets to establish trend information, helping resource managers assess the progress of existing conservation projects.

Exploring Water Level Scenarios to Inform Shoreline Management on Lake Ontario

coast.noaa.gov/digitalcoast/stories/waterlevels

Shoreline management is often a tricky balance of protecting important habitats and shoreline processes, while at the same time making regulations acceptable to shoreline property owners. To help the public and regulators visualize the effects of low and high water years on Lake Ontario, lake-level drop scenarios and digital elevation models were created for The Nature Conservancy by the NOAA Office for Coastal Management. The visualizations allow regulators to better understand the effects of varying water levels so that they can make informed shoreline management decisions. They are helping the New York State Department of Environmental Conservation and the New York Department of State make decisions about siting infrastructure and issuing permits while still protecting habitat and shoreline processes.

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.