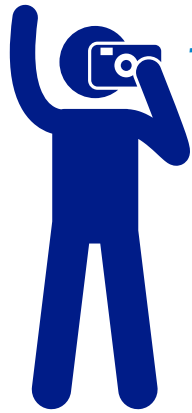


LOUISIANA RELIES ON THE DIGITAL COAST



8,297

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



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

DATA

822 gigabytes of high-resolution elevation data available for Louisiana.



TOOLS

50+ decision-support tools applicable for Louisiana challenges.



TRAINING

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



GEOSPATIAL SERVICES

Over **\$800,000** in private-sector geospatial services awarded for the Gulf region.



INFORMATION

- Twenty-four percent of the population in Orleans Parish lives in a floodplain.
- The state experienced a loss of 309 square miles of wetlands from 1996 to 2010, largely influenced by Hurricane Katrina.
- 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 Louisiana.

Digital Coast
coast.noaa.gov/digitalcoast



Louisiana Recap

NOAA and the Digital Coast are devoted to supplying Louisiana 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 Louisiana, 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 822 gigabytes of high-resolution elevation data covering Louisiana'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 Louisiana'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 Louisiana 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. Louisiana officials found it particularly helpful as they worked to assess ecosystem health after Hurricane Katrina.

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.

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 Louisiana visualize sea level rise and green infrastructure techniques.

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.

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 \$800,000 was awarded to private geospatial firms to conduct mapping projects in the Gulf region, including the acquisition and processing of GIS data.

DIGITAL COAST IN ACTION

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

Illustrating the Importance of Critical Infrastructure Data for Louisiana Coastal Parishes

coast.noaa.gov/digitalcoast/stories/criticalnola

Louisiana planners understand that critical facilities, such as police stations, hospitals, and utility facilities, need to be out of harm's way to be effective during an emergency. To assess preparedness, the Louisiana Geographic Information Center used the Coastal County Snapshots' Flood Exposure tool to identify those structures located within the flood zone. The snapshots helped the counties better prepare and respond to hazard events.

Assessing the Impacts of Hurricane Katrina in Louisiana

coast.noaa.gov/digitalcoast/stories/katrina

Breton Sound in Louisiana was one of the areas hit hard by Hurricane Katrina in August of 2005. To quickly assess the impacts and recovery from the storm, managers needed accurate land cover data. Managers used C-CAP land cover data to compare flood conditions in the two weeks following Hurricane Katrina to the same area in spring 2006. The analysis determined that in less than one year the area experienced a significant loss of marsh and the addition of open water. This information was used to help assess the overall Gulf Coast impacts in a report to Congress.

Providing Easily Accessible Maps to Aid Ecosystem Restoration in the Gulf of Mexico

coast.noaa.gov/digitalcoast/stories/ecosystem-restoration

The Gulf of Mexico faces a number of environmental stressors from wetland degradation, seasonal "dead zones," declining fisheries, and impacts from oil spills. To deal with these issues, the Gulf of Mexico's coastal management community is working hard to increase its restoration efforts. The Ocean Conservancy aimed to assist in these efforts by creating a series of maps depicting various types of ocean information. They used data from MarineCadastre.gov and the Coastal Change Analysis Program to ensure comprehensive, authoritative, and accurate information.

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.