The State of Georgia and the Digital Coast

The Digital Coast is a partnership effort and community resource for organizations that manage the nation's coastal resources.

Initiated and led by the National Oceanic and Atmospheric Administration (NOAA) Office for Coastal Management, the Digital Coast provides geospatial data and the tools and methods needed to turn these data into useful information. Digital Coast resources range from high-resolution data to on-site training opportunities. People use these resources to address timely coastal issues, including land use, coastal conservation, hazards, ocean planning, community resilience, and coastal economics, all of which are of critical importance to the state of Georgia. The site was launched in 2008.

Georgia Benefits

The numbers below are from fiscal year 2015.

DIGITAL COAST BY THE NUMBERS

9,532 Georgia visitors to the Digital Coast website

203 Georgia communities that used the Digital Coast

3,948 Gigabytes of high-resolution elevation data available for the state

456,615 Total visitors to the Digital Coast website

411% Return on investment*

*More information on the benefits and costs of the Digital Coast can be found here: *http://1.usa.gov/1O8fFDa*

DATA

Georgia elevation, land cover, aerial imagery, and county-level socioeconomic data, provided by various trusted sources, are available through the Digital Coast's Data Access Viewer. Some of the most commonly accessed Georgia-based data are highlighted below.

Coastal Lidar

coast.noaa.gov/digitalcoast/data/coastallidar

Over 3,948 gigabytes of high-resolution elevation data covering Georgia's entire coastal zone are available. This type of data is critical to the development of models that examine potential local flooding impacts from coastal storms and sea level rise.

Land Cover

coast.noaa.gov/digitalcoast/data/ccapregional

Land cover data provide inventories of coastal intertidal areas, wetlands, and adjacent uplands for the coastal regions. These data are used to identify high-priority landscapes for Georgia's coastal protection and restoration efforts.

Economics: National Ocean Watch

coast.noaa.gov/digitalcoast/data/enow

This program provides time-series data on the ocean and Great Lakes economy, which includes six economic sectors dependent on the oceans and Great Lakes. Georgia's coastal counties can use this information to gain insight into their local coastal economies.

TOOLS

The Digital Coast website provides access to over 50 data analysis, visualization, and other decision-support tools that assist coastal managers in deriving critical information from coastal data sets. Many of these tools are web-based, which extends the reach of GIS functions to anyone with an Internet connection.

Coastal County Snapshots

coast.noaa.gov/digitalcoast/tools/snapshots

Complex local data sets are automatically formatted into easy-to-understand stories, complete with charts and graphs, with this web tool. Local officials use the snapshots as a planning tool, since the information helps them assess their county's resilience to flooding and understand the benefits provided by natural resources.

C-CAP Land Cover Atlas

coast.noaa.gov/digitalcoast/tools/lca

This tool from the Coastal Change Analysis Program (C-CAP) 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 of interest (salt marsh losses to open water, for instance) can be highlighted. This type of information is useful for planning purposes. Georgia's officials can use this tool to analyze marsh migration.

Economics: National Ocean Watch Explorer

coast.noaa.gov/digitalcoast/tools/enow

Making Georgia's economic data easier to use is the goal of this tool. The economic data provided by the Digital Coast focus on six sectors that depend 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 the largest contributors to Georgia's coastal economy in various parts of the state, which sectors are growing and declining, and which account for the most jobs, wages, and gross domestic product.

CanVis

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 can help Georgia visualize sea level rise and green infrastructure techniques.

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.

TRAINING

In fiscal year 2015, 37 Georgia coastal professionals received training on a variety of technical and process-based topics through the Digital Coast (*coast.noaa.gov/digitalcoast/training/list*). Courses taught participants a variety of skills, such as coastal community planning and development and how to map coastal inundation.

GEOSPATIAL CONTRACTING

Through the Digital Coast, coastal organizations in need of geospatial data or services benefit from the use of the NOAA Office for Coastal Management's Coastal Geospatial Services Contract (*coast.noaa.gov/idiq/geospatial.html*). This contracting vehicle provides a way for local, state, and federal agencies to take advantage of a streamlined process to obtain services from the nation's top geospatial firms. In fiscal year 2015, over $3.6 million was awarded to private geospatial firms to conduct mapping projects in the Southeast coastal zone, including the acquisition and processing of imagery data.

DIGITAL COAST IN ACTION

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

Identifying Areas Vulnerable to Sea Level Rise in Georgia

coast.noaa.gov/digitalcoast/stories/tybee

The City of Tybee has been experiencing the effects of sea level rise for decades. The city needed an adaptation plan and a way to visualize the effects of future sea level rise. Using the NOAA Office for Coastal Management Sea Level Rise Viewer, planners worked to identify the areas of the island most vulnerable to sea level rise. After identifying the areas, planners were able to develop a plan to deal with current problems of flooding and frequent high tides, as well as future sea level rise.

Identifying Navigational Conflicts near Potential Offshore Energy Sites

coast.noaa.gov/digitalcoast/stories/navigation

The Mid-Atlantic is a growing hotspot for potential offshore energy projects, and the U.S. Coast Guard is tasked with making sure these offshore areas don't conflict with shipping lanes. Using Automatic Identification System shipping data from MarineCadastre.gov, the Coast Guard analyzed shipping lanes in comparison to wind energy areas designated off the coast. Using these data sets saved the project team valuable time and allowed for easy assessment for potential conflict.

Filling in Data Gaps for Coastal Planning in Georgia

coast.noaa.gov/digitalcoast/stories/georgia-tech

To efficiently prepare for offshore wind energy development, the Georgia Coastal Zone Management Program knew it had to fill data gaps. The coastal program created the Georgia Coastal Marine Planner to compile data sets from a variety of sources in order to live up to its motto, "Faster. Friendlier. Easier." MarineCadastre.gov filled some of the data gaps, which cut down on time and effort needed to collect new data. The Georgia Coastal Marine Planner began as an effort for offshore wind and evolved into a source of data for a variety of offshore planning projects.

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.