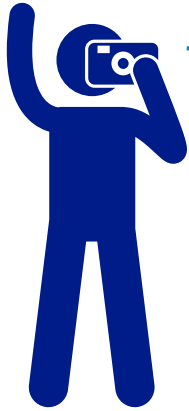


# ALASKA RELIES ON THE DIGITAL COAST



**1,511**

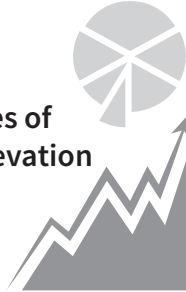
Alaska visitors to the Digital Coast.  
(560,176 nationwide)



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

## DATA

**2,037** gigabytes of high-resolution elevation data available for Alaska.



## TOOLS

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



## TRAINING

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



## GEOSPATIAL SERVICES

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



## INFORMATION



- Ocean jobs account for \$6 billion in goods and services in Anchorage County, Alaska.
- 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 Alaska.*

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



# Alaska Recap

*NOAA and the Digital Coast are devoted to supplying Alaska 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 Alaska, 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 2,037 gigabytes of high-resolution elevation data covering Alaska's entire coastal zone are available. These types of data are critical for all types of modeling, including those that predict flooding potential.

### Economics

[coast.noaa.gov/digitalcoast/data/enow](http://coast.noaa.gov/digitalcoast/data/enow)

Information about the coastal economy in Alaska helps people understand how the decisions that impact the coast can also impact the bottom line.

### Federal Offshore Energy Cadastral Areas

[coast.noaa.gov/digitalcoast/data/offshorecadastral](http://coast.noaa.gov/digitalcoast/data/offshorecadastral)

Data in this collection support offshore federal land ownership, mineral resource management, and the Energy Policy Act of 2005. These data are important for Alaska's communities as they work to safely lease areas in the Arctic for offshore energy.

### Nautical Chart Derived Data

[coast.noaa.gov/digitalcoast/data/encderived](http://coast.noaa.gov/digitalcoast/data/encderived)

These data include objects like submarine cables and regulated or managed boundaries for areas such as shipping lanes, precautionary areas, anchorages, collision regulation boundaries, and areas to be avoided. Alaskan communities use these data to ensure there are no offshore planning conflicts with navigation needs.

## 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.

## 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. This tool helped officials in Alaska visualize potential changes to waterfront areas.

## Coastal County Snapshots

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

## 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.

## Environmental Studies Program Information System

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

This tool allows coastal managers in Alaska to search more than 40 years of Environmental Studies Program Ocean Science studies. These studies inform policy decisions related to Alaska’s outer continental shelf resource development.

## MarineCadastre.gov National Viewer

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

With this tool, Alaska’s managers can either see the ocean data set they need before downloading it or view the data and begin their analysis. The national viewer has over 280 data sets that help ocean planners throughout Alaska’s waters avoid conflicts before they become an issue.

## 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.

## VDatum

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

This tool converts elevation data among orthometric and ellipsoidal vertical datums, allowing users to establish a common reference system for all elevation data sets. VDatum is also used with 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](http://coast.noaa.gov/digitalcoast/training/home).

### Coastal Inundation Mapping

[coast.noaa.gov/digitalcoast/training/inundationmap](http://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](http://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](http://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](http://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 Pacific 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 Alaska.

### Analyzing Ocean Disposal Sites

[marinecadastre.gov/uses](http://marinecadastre.gov/uses)

The Environmental Protection Agency's Alaska Operations Office is using the MarineCadastre.gov National Viewer to map ocean disposal sites used for dredged material management, fish dumping, vessel disposal, and burial at sea. Staff members can measure distances, estimate water depths, and display information on endangered species and fish habitat.

## **Establishing Baseline Habitat Conditions to Monitor Salmonid Fishery Restoration in Alaska**

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

The Klawock River watershed and lagoon system is 132 miles of streams and rivers that serve as spawning habitat for a large portion of the viable commercial salmon and trout species. After a causeway blocked off the returning path for juveniles, population stocks declined. The Nature Conservancy worked to alleviate this issue and restore balance to the fish stocks. To assess the success of this project, The Nature Conservancy used aerial imagery and remote sensing data to find, monitor, and effectively sample juvenile salmon habitat.

## **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.