



# DIGITAL COAST CONNECTIONS



*Digital Coast Connections* keeps you up to date on emerging tools, trainings, and resources from the Digital Coast Partnership and the NOAA Coastal Services Center.

[What's New in the Digital Coast?](#) | [News from our Coastal Colleagues](#) | [Upcoming Training and Events](#)

Dear Colleague,

Coastal inundation has many faces. Shallow coastal flooding that makes a mess of city streets can play out very differently from flooding caused by high tides or storm surge. And sea level rise can compound the effects of all types of inundation. The [Coastal Inundation Mapping](#) course offers the data, hands-on training, and application know-how you'll need to map your specific inundation hazards. The only requirement is basic GIS skills. Learn how communities in [Florida](#), [Massachusetts](#), and [Mississippi](#) have used coastal inundation mapping and other aids to tackle a variety of flood-related challenges.

A handwritten signature in black ink that reads "Matt Pendleton".

Matt Pendleton  
Geospatial Trainer  
NOAA Coastal Services Center



The Digital Coast's training and tools enabled officials in Galveston, Texas, to create maps and visualizations showing different sea level rise intensities (shown here: six feet of sea level rise).

# WHAT'S NEW ON THE DIGITAL COAST?

## DATA

### [Landsat Satellite Imagery](#)

Continuous time series of consistent satellite-image spectral data

### [Shallow-Water Bathymetry](#)

Non-charting bathymetric data collected in shallow, inshore areas

### [Side-Scan Sonar Backscatter](#)

Information on seafloor composition, texture, and physical characteristics throughout U.S. waters

### [Sub-Bottom Profile](#)

Information on the composition, structure, and layering of soft sediments below the seafloor

## [Lidar](#)

- 2011 Bombay Hook National Wildlife Refuge, Delaware Department of Natural Resources and Environmental Control
- 2011 Fire Island, New York, and Cape May to Absecon Inlet, New Jersey, National Geodetic Survey (NGS)
- 2010 Columbia River, U.S. Army Corps of Engineers (USACE)
- 2007 Great Lakes Michigan; and finalized processing, USACE
- 2008 Baltimore City, Maryland, U.S. Geological Survey
- 2009 Medford, Oregon, Oregon Department of Geology and Mineral Industries

## [Imagery](#)

- 2009 Hudson River, New York, New York State Department of Environmental Conservation
- 2012 Fort Moultrie, South Carolina, National Geodetic Survey (NGS)
- 2012 Murphy Island, South Carolina, NGS
- 2012 Sewee Bay, South Carolina, NGS
- 2011 Amelia Island, Florida, NGS
- 2012 Sacramento River, California, NGS
- 2012 Arroyo Colorado, Texas, NGS
- 2012 Corpus Christi, Texas, NGS
- 2012 Seadrift, Texas, NGS
- 2012 Trinity Bay, Texas, NGS
- 2012 Frederiksted Harbor, U.S. Virgin Islands (USVI), NGS
- 2012 Richmond, California, NGS
- 2012 Christiansted, USVI, NGS
- 2011 Delaware Bay, Delaware, NGS

- 2010 Long Bay, North Carolina, NGS
  - 2012 Seal Rock, California, NGS
  - 2012 Lopez Rock, California, NGS
  - 2012 Pescadero Point, California, NGS
  - 2012 Del Mar, California, NGS
  - 2012 Redwood City, California, NGS
  - 2012 Sacramento Channel, California, NGS
  - 2012 Stockton, California, NGS
  - 2012 Honeymoon Island, Florida, NGS
  - 2012 Astoria, Oregon, NGS
  - 2012 Coos Bay, Oregon, NGS
  - 2012 Seattle, Washington, NGS
  - 2012 Bangor, Washington, NGS
  - 2012 Bremerton, Washington, NGS
  - 2012 Tacoma, Washington, NGS
  - 2012 Everett, Washington, NGS
  - 2006 Apalachicola Bay, Florida, NOAA Coastal Services Center
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## TOOLS

### [Marine Geospatial Ecology Tools](#)

Includes over 250 geoprocessing tools useful to coastal and marine researchers and GIS analysts

### [Hurricane-Induced Coastal Erosion Hazards](#)

Identifies Gulf of Mexico coastline likely to experience extreme and potentially hazardous erosion during a hurricane

### [Critical Facilities Flood Exposure Tool](#)

Provides a quick assessment of a community's critical facilities and roads that lie within the Federal Emergency Management Agency's 1% annual chance flood zone

### [ENOW Explorer](#)

Allows easy interaction with Economics: National Ocean Watch (ENOW) data to show changes in the ocean and Great Lakes economy from place to place and over time

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## IN ACTION

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### [Compiling Natural Resource Data for Watershed Strategies in Hawaii](#)

The Habitat Priority Planner was used with Coastal Change Analysis Program (C-CAP) high-resolution land cover data to compile natural resource data for community consideration of a range of watershed management strategies.

### [Analyzing Sedimentation Processes to Guide Conservation in Oregon](#)

C-CAP data helped in the development of a conservation plan for the Yaquina watershed.

### [Identifying Areas for Water Quality Improvement Projects in Oahu, Hawaii](#)

The Habitat Priority Planner and the Nonpoint-Source Pollution and Erosion Comparison Tool (N-SPECT) were used with lidar and land cover data to identify sites that affect water quality in the Ko'olaupoko region.

### [Visualizing Flood Hazards with Residents and Floodplain Managers in Mississippi](#)

A demonstration of the Sea Level Rise and Coastal Flooding Impacts Viewer spurred discussion at a hazards awareness exhibit.

### [Assessing Fire Hazard Risk in Southern California](#)

C-CAP data were used to produce additional land cover information to assess the risk of fire and the proximity to urban developments.

### [Assessing the Impact of Impervious Surfaces on Water Resources in Southern California](#)

C-CAP data were used to produce additional land cover information to assess the impact of impervious surfaces on water supply.

### [Assessing Hazard Vulnerability and Resilience in Coastal Communities of the Delaware Bay](#)

New Jersey is engaging communities in hazard mitigation planning through the use of vulnerability assessment tools.

### [Establishing Baseline Habitat Conditions to Monitor Salmonid Fishery Restoration in Alaska](#)

Benthic habitat data and imagery help monitor change in the Klawock Lagoon after the construction of a culvert to restore ocean access.

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## TRAINING ADDITIONS

### Online

- [Hurricanes: Where Have They Hit? Using the Historical Hurricane Tracker](#) (webinar recording)
- [Using the New Coastal and Marine Ecological Classification Standard](#) (webinar recording)
- [Ask the Experts: Sea Level Rise and Coastal Flooding Impacts Viewer](#) (webinar recording)
- [Digital Coast Data Access](#) (webinar recording)
- [Coastal County Snapshots: An Issue-Specific Data Communication Tool](#) (webinar recording)

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## ADDITIONAL UPDATES

### [Capturing Coastal Changes with Simulated Images](#)

*Using Photorealistic Visualizations*, the Center's newest [social science series](#) publication, provides tips and examples on creating photo simulations so audiences can “see” potential coastal-change impacts.

### [Plumbing the Ocean and Great Lakes Economy](#)

A NOAA report examines the economic contributions of the oceans and Great Lakes and summarizes findings from the [Economics: National Ocean Watch](#) data set.

### **GeoZone—A Blog for Coastal Geogeeks**

[1,371 Pounds of Coffee Beans and Landsat 5](#)

[Happy Birthday Mercator](#)

[Lidar – Accuracy Versus Resolution](#)

[A Fairly Accurate Explanation of Map Accuracies](#)

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## **NEWS FROM OUR COASTAL COLLEAGUES**

[Marine Trawl Workshop Benefits Great Lakes Fisheries and Science](#)

New York Sea Grant received a U.S. Geological Survey (USGS) Great Lakes Science Center Certificate of Appreciation for co-leading (with USGS) a workshop investigating better marine trawl design.

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## **UPCOMING TRAINING AND EVENTS**

### **TRAINING**

#### **Online Training**

[CanVis](#)

September 19, 2012

1:00 to 4:00 p.m. (Eastern Time)

[Register by e-mail](#)

#### **On-Site Training**

[Planning for Meaningful Evaluation](#)

September 19 to 20, 2012

Washington State University (Spokane, Washington)

Limited space may be available. E-mail [csc.training.request@noaa.gov](mailto:csc.training.request@noaa.gov) for more information.

[Introduction to Coastal GIS](#)

September 25 to 27

Florida Department of Environmental Protection (Tallahassee, Florida)

Limited space may be available. E-mail [Chrissa Waite](mailto:Chrissa.Waite) for more information.

[Public Issues and Conflict Management](#)

September 26 to 27

Wells National Estuarine Research Reserve (Wells, Maine)

Limited space may be available. E-mail [csc.training.request@noaa.gov](mailto:csc.training.request@noaa.gov) for more information.

### **EVENTS**

[National States Geographic Information Council Annual Conference](#)

September 9 to 13, 2012

Lake Buena Vista, Florida

Send your product, personnel, or event news to [Kitty.Fahey@noaa.gov](mailto:Kitty.Fahey@noaa.gov). We'll consider it for *Digital Coast Connections*, space permitting.

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