NOAA's Digital Coast Actionable Information for Communities

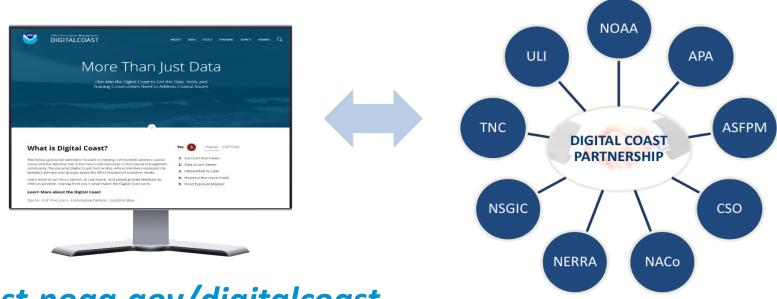


- Approach: Bring geospatial and coastal management communities together
- Outcome: An information powerhouse for coastal communities





# **Digital Coast Enabling Platform**



coast.noaa.gov/digitalcoast

## **Digital Coast Partnership**



NOAA Office for Coastal Management | 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 | The Nature Conservancy Urban Land Institute

## **Better Together**

### **Community Rating System Strategy**

- **Partners:** NOAA, The Nature Conservancy, Association of State Floodplain Managers, Coastal States Organization
- Products:

How to Map Open Space for CRS Credit (NOAA) Community Rating System Explorer (The Nature Conservancy) CRS Green Guide (Association of State Floodplain Managers and Coastal States Organization)

• **Outcome:** Guidance and tools to help communities reduce flood risk using nature-based solutions



## **Digital Coast Website**

- Data, tools, training, and case studies
- Enhanced utility and application
- Demonstration of geospatial information





## **Facilitating Use and Application**





## **Digital Coast Data**

- 70+ terabytes of highresolution elevation data, land cover data, and orthoimagery
- 200+ web mapping services
- National-level coastal data sets





## **Digital Coast Tools**

- 70 decision-support and information visualization tools
- Visualization and analysis without need for desktop GIS software

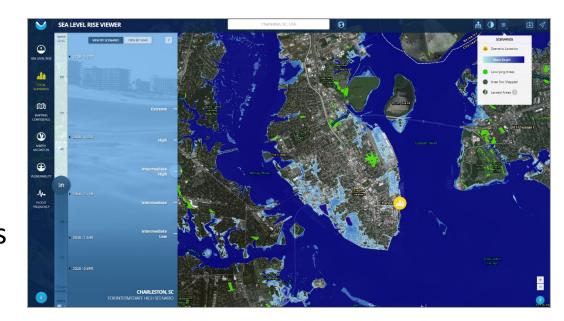




### Digital Coast Tools Sea Level Rise Viewer

- Local sea level rise projections
- Data that integrates

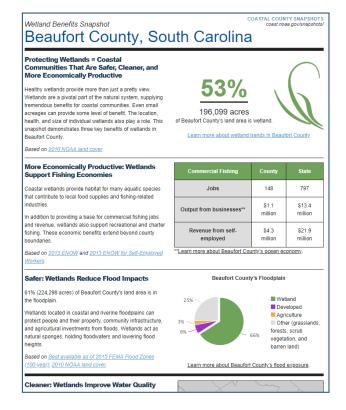
   Marsh migration
   High-tide flooding
   Socioeconomic impacts
   Mapping confidence





### Digital Coast Tools Coastal County Snapshots

- Easy-to-understand handouts, complete with charts and graphs
- Optimized to print on single sheet of paper for easy distribution



#### **Flood Exposure**

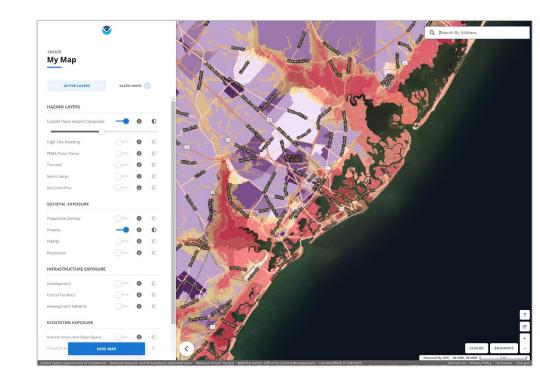
**Ocean Economy** 

#### **Wetland Benefits**



### Digital Coast Tools Coastal Flood Exposure Mapper

- Maps show people, places, and natural resources exposed to coastal flooding
- Community-based approach for assessing coastal hazard risks and vulnerabilities





## **Digital Coast Academy**

#### **Over 150 learning resources**

- Classroom and online instructor-led
- Self-guided
- Case studies
- Publications and quick references
- Videos and webinars





### Learning Resources for Adaptive Communities

### **Instructor-Led Training**

- Adaptation Planning for Coastal Communities
- Introducing Green Infrastructure

### **Publications**

- Green Infrastructure Costs and Benefits
- Introduction to Stakeholder Participation

### **Quick References**

- Assessing Adaptation Options
- Stakeholder Analysis Worksheet

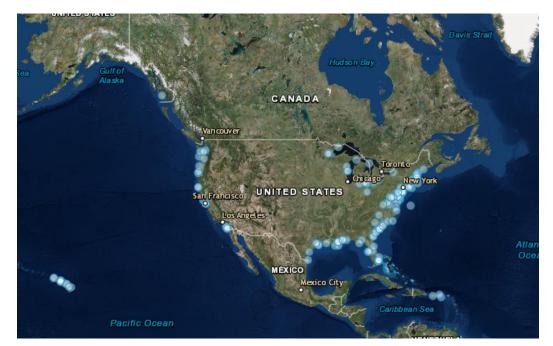
### **Case Studies**

- San Francisco Stakeholder Engagement Process
- Toledo Green Infrastructure Implementation



## **Stories from the Field**

- 115+ narratives demonstrate how users apply Digital Coast resources
- Highlight partnerships and impact

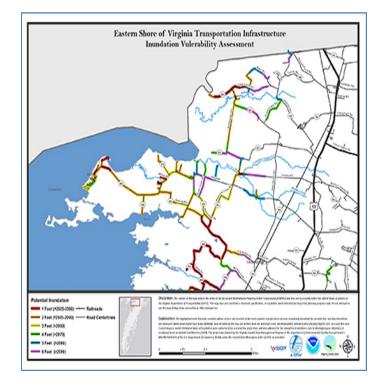




### Making an Impact

### Assessing the Vulnerability Of Transportation Infrastructure On The Eastern Shore

- Partners: Virginia Department of Transportation, Virginia Coastal Zone Management Program
- Product: Sea Level Rise Viewer
- Outcome: Determined that 33 miles of roads in region would be vulnerable to inundation within next few decades with one foot of sea level rise





### Making an Impact

### Estimating the Economic Contribution Of Gloucester, Massachusetts' Working Waterfront

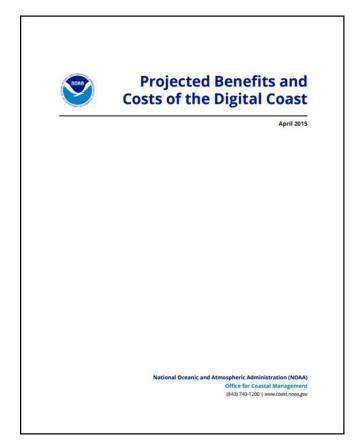
- **Partners:** Gloucester, Massachusetts, Office for Coastal Management
- Product: Economics National Ocean Watch
- Outcome: By scaling data to municipal level, harbor planners were able to tailor maritime economy profile and plan for new and emerging markets

Approximate ENOW Sector	Industry Code	Industry Description	Employment	Wages
Living Resources	3117	Seafood Product Preparation & Packaging	561	\$40,927,22
Living Resources	1141	Fishing	125	\$7,131,22
Living Resources	4452	Specialty Food Stores	74	\$2,572,67
Tourism & Recreation	7221	Full-Service Restaurants	590	\$10,583,20
Tourism & Recreation	7222	Limited-Service Eating Places	362	\$5,440,74
Tourism & Recreation	7211	Traveler Accommodation	93	\$1,629,13
Tourism & Recreation	4872	Scenic/Sightseeing Transportation, Water	46	\$904,23
Tourism & Recreation	7121	Museums, Parks and Historical Sites	39	\$1,034,30
Tourism & Recreation	7139	Other Amusement & Recreation Industries	151	\$4,312,87
Minerals	5413	Architectural and Engineering Services	44	\$2,568,87
Transportation	4883	Support Activities for Water Transport	7	\$295,02
	Glouces	Total Five F List	2092 ound nd	\$77,399,53
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## **Demonstrating Value**

- Digital Coast is expected to yield net benefit of \$117 million by 2028, equating to return on investment of 411 percent
- Study surveyed Digital Coast users, who highlighted improved efficiency and effectiveness thanks to the platform





## What's Next?

### **Strategic Plan Objectives**

- Advance Digital Coast Partnership
- Increase availability of core coastal data sets
- Provide actionable decision-support resources
- Expand NOAA and interagency collaborations
- Enhance Digital Coast platform

Strategic Plan for the Digital Coast 2016 to 2021

Office for Coastal Management





### Connect

### coast.noaa.gov/DigitalCoast



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