Strategic Plan for the Digital Coast

2016 to 2021

Office for Coastal Management

Table of Contents

OFFICE FOR COASTAL MANAGEMENT

"Coastal management" is the term used by communities and organizations working to keep the nation's coasts safe from coastal hazards, rich in natural resources, and economically strong. The national lead for these efforts is NOAA's Office for Coastal Management, an organization devoted to partnerships, science, and good policy. The agency, housed within NOAA's National Ocean Service, oversees major initiatives that include the Coral Reef Conservation Program, Digital Coast, National Coastal Zone Management Program, and National Estuarine Research Reserve System.

Learn more at coast.noaa.gov.

DIGITAL COAST

The Digital Coast is an enabling platform developed to meet the unique needs of the coastal management community. The slogan says it all—"more than just data"—since the website also delivers the tools, training, and information needed to make these data truly useful. Content comes from many sources, all of which are vetted by NOAA.

The Digital Coast is managed by NOAA's Office for Coastal Management, in coordination with the Digital Coast Partnership, a group that includes 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, The Nature Conservancy, and Urban Land Institute.

Visit the Digital Coast at coast.noaa.gov/digitalcoast.

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2016

Executive Summary

The Digital Coast vision: To be the most widely used and respected community resource for addressing coastal management issues through the use of data, tools, training, and partnerships.

Digital Coast is government done right. The focus is on coastal communities striving to protect their citizens, infrastructure, and economy from coastal hazards and other threats and challenges. This initiative helps communities be effective, creative, and science-based in their approach.

The website is the most visible part of the effort, delivering the data, tools, training, and information most needed by the coastal resource management community. The effort's success is based in large part on the Digital Coast Partnership. These organizations represent the user community and ensure the relevance of the content. These partners and other content contributors use the Digital Coast as a catalyst for bringing diverse organizations together to work toward common coastal management goals.

Operational since 2007, the Digital Coast has become a foundational resource for the coastal management community. The Digital Coast is poised to do even more by building on past successes, expanding its reach, and providing increased capacity for target audiences. This strategic plan provides the blueprint for that vision.

STRATEGIC PRIORITIES

The Digital Coast continues to be defined by the value provided for the target audience and the nation. Continued reliance on evaluation, user input, and emerging technology helps the effort keep pace with the needs of the coastal management community and formed the basis of the visionary steps provided below. This document outlines what will be done using current funding levels and what can be done should additional funding become available.

1. **Advance the Digital Coast Partnership**. Strengthen, expand, and leverage key organizational partnerships to extend the reach and increase the value of the Digital Coast for target audiences.

2. **Increase Availability of Core Coastal Data Sets**. Ensure Digital Coast audiences have access to trusted sources of the accurate, high-quality data needed to inform coastal resource management decisions.

3. **Provide Actionable Decision-Support Resources**. Deliver contextual tools and capacity-building resources that help decision-makers fully understand the issues and be better prepared to make informed decisions.

4. **Expand NOAA and Interagency Collaborations**. Increase engagement with NOAA programs and those of other federal agencies to fill the key information and expertise gaps of Digital Coast users.

5. **Enhance the Digital Coast Platform**. Ensure the Digital Coast platform provides a dependable, engaging, and effective gateway for target audiences to explore, identify, access, and successfully use the helpful products and services.

Introduction

Digital Coast serves NOAA's broad constituency and continues to deliver a key element of NOAA's mission—"to share knowledge and information with others." The Digital Coast effectively demonstrates the application and value of environmental intelligence in decision-making.

To meet a coastal community's goals for safety, economic prosperity, and overall well-being, coordinated and well-informed actions over the long term are needed. NOAA's Office for Coastal Management administers several programs focused on this task, including the implementation of the Coastal Zone Management Act and the Coral Reef Conservation Act, and provides relevant financial, informational, and technical assistance for organizations working to address coastal issues.

Equally important is how this office conducts business. Partnerships play a critical role, since the majority of the programs involve participation by a wide range of active partners from the public and private sectors. The Office for Coastal Management not only facilitates and leads the initiation and long-term success of these partnerships, but also uses the partnership opportunities as a means for all involved to work together across geographic and organizational boundaries.

The Digital Coast mimics this line of attack using a three-pronged approach to meet target audience needs and help the nation reach its coastal management goals.

1. Digital Coast **Platform** – The user-friendly website provides easy access to the data, information products, and capacity-building resources that originate from a variety of sources.

2. Digital Coast **Products and Services** – The focused data, tools, and training products and services are specifically chosen to meet the high-priority needs of the coastal management community.

3. Digital Coast **Partnership** – Key partnerships were developed to directly engage target audiences and contribute to the development and delivery of the most useful products and services possible.

The design and functionality of the Digital Coast platform, as well as the products and services accessible through it, are driven by the key priorities of the coastal resource management audience, decision-makers at all levels of government, and private business. This audience greatly benefits from accurate and timely data on the dynamic coastal environment.

The Digital Coast Partnership provides a critical foundation for implementing this user-driven approach. Partnership organizations represent user networks from county, state, and federal governments, nonprofits, and the private sector. The memberships, which include planners, engineers, insurers, real estate developers, coastal resource managers, scientists, educators, conservationists, and geospatial technologists, number over 100,000 people. While Digital Coast information services are available to the public, the partnership enables the focus to be on the strategic information needs related to coastal communities. The large membership of the organizations associated with the Digital Coast increases the awareness and use of Digital Coast products and services.

The Digital Coast is managed by NOAA's Office for Coastal Management, in coordination with the Digital Coast Partnership, a group that includes 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, The Nature Conservancy, and Urban Land Institute.

Operating Framework

NOAA's Office for Coastal Management provides leadership and operational support for the Digital Coast. Product and service development and delivery are supported primarily by the office's base operating budget, although other offices within NOAA, such as the National Geodetic Survey, have contributed funding and staff support. Partnership engagement, coordination, and contribution continue to be a major area of emphasis. Developing and maintaining this robust partnership requires regular, substantive interactions and intentional investments in activities that build and strengthen organizational relationships and keep Digital Coast products and services relevant to target users. Examples of such interactions include working groups such as the Integrated Ocean and Coastal Mapping Program and Federal Geographic Data Committee (FGDC) steering groups.

Although Digital Coast is managed by NOAA's Office for Coastal Management, the products and services provided are not limited by the interests or contributions of a single program or agency. Digital Coast provides access to a carefully selected suite of data, tools, and training resources from many sources, each selected because they help the target audience address high-priority coastal issues. The information contributions come from cooperating partners across multiple local, state, and federal agencies, private firms, academic institutions, and nongovernmental organizations. Cooperating partners help to fill critical data and information needs for Digital Coast users. When using these contributions, Digital Coast does not duplicate the resources, but instead leverages them in a strategic and cost-effective manner for additional decision-support value to coastal users. As the number of users increases, so does the reach and return on investment for each of the participating organizations.

Guiding Principles

The following guiding principles apply to all components of the Digital Coast. These guiding principles also provide useful criteria for evaluating Digital Coast outcomes.

- **Guiding Principle 1 – Inform coastal decision-making**

  "More than just data" is the site's slogan, since the Digital Coast is not only a trusted source for data, but also provides the related training, tools, and information needed to make each data resource truly useful. Coastal decision-makers in government, nonprofits, and businesses look to Digital Coast for the value-added, issue-based, capacity-building products and services that enable users to realize the maximum benefit of the information provided. The data analysis and visualization tools, plus the training and capacity-building resources, help public and private sector users augment their capabilities and stretch their resources. A recent survey indicated that over 70 percent of users say they could not have performed their jobs adequately without the resources accessible through the Digital Coast.

- **Guiding Principle 2 – Provide value for the target audience and for the nation**

  Digital Coast was conceived and developed with a thorough, documented understanding of stakeholder needs and continues to be driven by the priorities of its diverse audience. For the target audience there is value in authoritative data sources and nationally available tools and training resources. For the nation, there is cumulative value in the consistent use of these resources to reduce economic and environmental losses. Currently, users from over 5,000 communities access Digital Coast resources each quarter. The projected return on investment is currently estimated at 411 percent.[1]

- **Guiding Principle 3 – Evolve continuously and sustainably**

  Digital Coast is a system of multiple components (platform, products and services, partnerships) that must work together and evolve together to remain relevant and successful. Changes to the Digital Coast are made for a variety of reasons, including the changing needs, priorities, and capabilities of coastal decision-makers; coastal events, such as coastal storms, that reshape the landscape; science and technology advancements; and changing partnership commitments, including new partnerships. It is essential to include incremental improvements for ongoing operational support and to plan appropriately for the larger scale transformational "leaps" necessary to take Digital Coast to the next level. Digital Coast strategies are flexible and scalable enough to meet both situations.

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[1] National Oceanic and Atmospheric Administration (NOAA). 2015. *Projected Benefits and Costs of the Digital Coast*. NOAA Office for Coastal Management, Charleston, SC. Accessed at *coast.noaa.gov/data/docs/digitalcoast/benefits-costs.pdf.*

Objectives and Key Strategies

Building on the guiding principles, the objectives and strategies below set the stage for Digital Coast implementation priorities, operational plans, and investment strategies. Also included under each objective is a strategy highlighting known gaps that cannot be addressed under the current funding scenario. These gaps represent priorities to be addressed when funding becomes available.

- Objective 1 – Advance the Digital Coast Partnership
- Objective 2 – Increase Availability of Core Coastal Data Sets
- Objective 3 – Provide Actionable Decision-Support Resources
- Objective 4 – Expand NOAA and Interagency Collaborations
- Objective 5 – Enhance the Digital Coast Platform

Objective 1 – Advance the Digital Coast Partnership

Strengthen, expand, and leverage key organizational partnerships to extend the reach and increase the value of Digital Coast for target audiences.

The Digital Coast Partnership was formed to ensure that diverse stakeholder issues and priorities drive the development and delivery of data, tools, training, and information products. These non-federal partner organizations also take an active role in outreach, helping their members and stakeholders understand how to access and use Digital Coast resources. The partner organizations also collaborate in the development of new products and services offered through Digital Coast, helping to facilitate critical audience input and feedback from their members.

The Digital Coast Partnership also convenes and facilitates place-based demonstration activities. To do this, a coastal issue, such as flooding, is chosen, as well as a location. Digital Coast resources are combined with targeted contributions from across the partnership and key federal agencies to provide a demonstration project for the chosen location.

The success of the Digital Coast relies on the partnership organizations and the relationships among those organizations. Developing and maintaining these relationships and providing venues for partnership collaboration and cooperative product development remains a top strategic priority.

KEY STRATEGIES

- Provide partnership forums for sharing Digital Coast information, strengthening product development, and leveraging efforts across partner organizations.
- Identify and support partnership outreach opportunities and demonstrations of Digital Coast resources for use by partner organization members and stakeholders.
- Leverage partner organization member conferences, workshops, resources, and webinars to help meet user needs for Digital Coast training and technical assistance.
- Expand the number of partner organizations, strategically targeting additional organizations that offer diverse perspectives and memberships beyond the existing members.
- Identify and prioritize partnership-driven local projects, bringing together a diverse cross-section of practitioners and facilitating their use of Digital Coast and partner resources to address place-based coastal issues.

FUNDING GAPS

Partnership-Driven Local Projects: These projects require additional resources to support implementation activities. While project ideas will be further refined and prioritized through the Digital Coast Partnership, several opportunities previously identified by stakeholders include planning for proposed development; applying for Community Rating System credits under the National Flood Insurance Program; preparing adaptation strategies for near- and long-term coastal flooding scenarios; and implementing effective risk communication strategies.

Digital Coast Fellowship Program: Build upon the successful 2012-2014 pilot to institute a Digital Coast Fellowship program, placing two-year, postgraduate fellows with Digital Coast partner organizations to advance the common mission of building resilience in coastal habitats and communities. Digital Coast fellows assist the partners in building the capacity of their very expansive member networks and in broadening nationwide access and use of the products and services used to address high-priority coastal management issues.

Objective 2 – Increase Availability of Core Coastal Data Sets

Ensure Digital Coast audiences have access to trusted sources of the accurate, high-quality data needed to inform coastal resource management decisions.

Environmental and societal data represent the fundamental information needed to make informed decisions about coastal issues. Coastal counties are five times more densely populated than other parts of the country and are growing rapidly. Despite this population density, much of the 95,000 miles of U.S. shoreline does not have current, accurate geospatial data and maps. The pace of coastal growth, combined with coastal vulnerability to hazards and sensitivity of high-value ecosystems, make it critical for coastal communities to make data-informed decisions about their future.

While Digital Coast does not have the resources to meet all demands for coastal data, the website plays an important role by meeting high-priority needs, especially the foundational data sets that include elevation, land cover and land use, and economics.

Communities continue to ask for improved elevation data and related mapping products to better understand evolving coastal flood risks and vulnerabilities. Decision-makers in government and private business rely on land cover and land use data to better understand and address the impacts of the dynamic coastal environment on communities and ecosystem resources. People also use these data as they pursue nature-based infrastructure solutions for hazard risk reduction.

Public and private sector users depend on the Digital Coast data that help them understand ongoing job trends and assess economic impacts on coastal economies from various activities.

In addition to providing direct access to critical coastal data, the Digital Coast also serves as the premier example of NOAA's and the Department of Commerce's commitment to efficient and effective stewardship of geospatial resources. The Digital Coast epitomizes the collaboration and accountability goals established in the *FGDC's National Spatial Data Infrastructure Strategic Plan* by providing standards-compliant data and metadata, coordinating data holdings through efforts such as the Integrated Ocean and Coastal Mapping efforts, and providing data acquisition mechanisms for interagency and intergovernmental data purchases.

KEY STRATEGIES

- Develop and provide access to high-resolution topography and bathymetry data, prioritized for geographies at high risk from coastal flooding.
- Continue to update NOAA's coastal land cover data (also called "C-CAP") on a five-year cycle, including regional analyses of land cover change trends over time in coastal watersheds.
- Continue to provide detailed time-series data on the ocean and Great Lakes economy by developing and annually updating the Economics National Ocean Watch (ENOW) data.
- Increase the availability of Digital Coast data in mapping and image service formats for use in online mapping applications.
- Continue to emphasize open data and standards compliance as priorities for data development and delivery.
- Contract with private sector geospatial firms for data acquisition and expertise, leveraging their technological innovation and cost-effective acquisition capabilities and strategies.
- Develop a Digital Coast sub-group within federal Integrated Ocean and Coastal Mapping efforts to enhance Digital Coast user access to partner data.

FUNDING GAPS

Availability of Priority Coastal Data Sets: Despite the emphasis on addressing high-priority data needs through implementation of the strategies above, significant data gaps will continue. The gaps can be filled through supplemental funding opportunities. Key data priorities include

- Expanding coverage of high-resolution topography and bathymetry data to support coastal flood modeling and shoreline and ecosystem management applications.
- Providing additional parcel-level coverage of high-resolution (1-meter) land cover data to support development of regional stormwater management and natural infrastructure strategies.
- Developing the coastal economic data needed to support ecosystem services valuation and project benefit-cost analysis.
- Increasing applicability of newly emerging social science data sets (e.g., values, well-being, etc.) to risk communication and coastal stewardship decisions.

Through well-coordinated federal acquisition strategies, the private sector geospatial industry can help to cost-effectively fill these critical data gaps as additional funding opportunities and partnerships, including partnerships with other agencies, become available.

Objective 3 – Provide Actionable Decision-Support Resources

Inform coastal decision-makers by providing the tools and capacity-building resources needed to address complex coastal issues.

Providing actionable resources for coastal decision-makers happens by integrating the data, tools, and information into applications and training resources that support specific tasks and decisions. Digital Coast users often view this approach as a critical tool of their trade, since the resources have proven relevance and are designed to help the user learn new approaches and apply their own professional knowledge and expertise more effectively. Efficiency is also realized because the Digital Coast brings

together the most relevant information resources, often leveraging high-value products from multiple sources, and integrating them into user-friendly and use-appropriate applications. Maximizing the use of mapping and other data leads to the innovative re-use of the data for additional products, thus more effectively addressing national geospatial needs.

Today's coastal manager is requesting effective tools and community engagement opportunities to help them identify, visualize, and address the vulnerability of community assets to impacts of extreme events such as flooding, storms, and drought, as well as chronic hazards such as erosion, subsidence, and saltwater intrusion. Their needs include tools that allow for time-series analysis; tools that combine information on trends in development, economics, hazard risks, and projected future conditions; and tools that allow practitioners to add their own data. They are looking for innovative solutions, such as natural and nature-based infrastructure, to reduce hazard risks and improve and maintain existing ecosystem services.

Training is another growing focus area for the Digital Coast. Many coastal decision-makers need help improving their capacity to effectively use Digital Coast resources, stay current with continuously evolving technology, and accelerate their ability to address community-specific coastal issues, using risk and vulnerability assessments and developing climate adaptation strategies. Digital Coast continues to evolve to meet more of these needs through a range of resources, instructional activities, and demonstration of data utility. These resources include a variety of face-to-face and online resources that enhance participants' knowledge, skills, and job performance.

KEY STRATEGIES

- Continue to provide and enhance tools that help coastal decision-makers address current and evolving risks and vulnerabilities to coastal hazards by providing quick and easy access to complex data and information made easier to understand and use.
- Develop new tools and training that help coastal decision-makers design and implement effective community and ecosystem resilience measures, with an emphasis on assessing natural and nature-based infrastructure alternatives and integrating ecosystem services into benefit-cost evaluations.
- Increase peer-to-peer sharing about applications and outcomes of Digital Coast tools, expanding user-generated content for existing features such as "Stories from the Field" and the "GeoZone Blog" and exploring additional opportunities to emphasize actions and results.
- Develop a "Digital Coast Academy" that evolves the current "Training" section into a more robust collection of learning resources, including on-site instructor-led classroom trainings, online instruction in applying Digital Coast tools, and self-guided courses, guides, quick references, videos, issue-based webinars, and peer-to-peer case studies.
- Continue expanding NOAA and the Office for Coastal Management's regional geospatial coordination and knowledge-transfer cadre, ensuring there is expertise and capability in each region to provide on-the-ground technical assistance for Digital Coast's data, tools, and training resources.
- Communicate the existence of decision-support tools created by NOAA and other partners to ensure the development of complementary (not duplicative) resources for coastal communities.

FUNDING GAPS

Increased Leveraging of High-Quality Tools: Tool development and maintenance can be costly, which is why many organizations, including NOAA, limit development and support to a relatively small and focused suite of high-priority tools. But a steady increase in the technical capabilities of the coastal management audience has resulted in not only a sustained high demand for tool resources, but also increasing incidents of tool development from within the coastal management community. By coordinating efforts and hosting these resources on the Digital Coast, tool developers benefit from the coordinated focus, improved accessibility, expanded audience, diminished possibility of duplication, and more efficient use of development dollars. Providing this growing range of tools on the Digital Coast is also good for the consumer, since users can find what they need from one website, a website that also helps them understand which tool is best for which job and provides the additional information (data, training, technical resources) needed to get the optimum use from the tools.

Expanded Instructional Applications: Digital Coast is addressing the knowledge needs of decision-makers through a blended suite of learning resources that include traditional training courses, as well as a broader array of topical or task-based instructional products. To continue moving this knowledge-building approach forward, there is a need to further curate the full suite of training resources in Digital Coast for increased functionality under the "Digital Coast Academy." Key functionality improvements include allowing users to select and follow tailored learning progressions to meet targeted knowledge-level and learning needs. Improvements also include exploring effective ways to issue certificates (or digital badges) for users upon course completion, and working with other agencies and training suppliers to seek appropriate certifications of curricula. Finally, there is also a need to further explore and pursue opportunities to better leverage the training and education resources and capabilities of the Digital Coast partners.
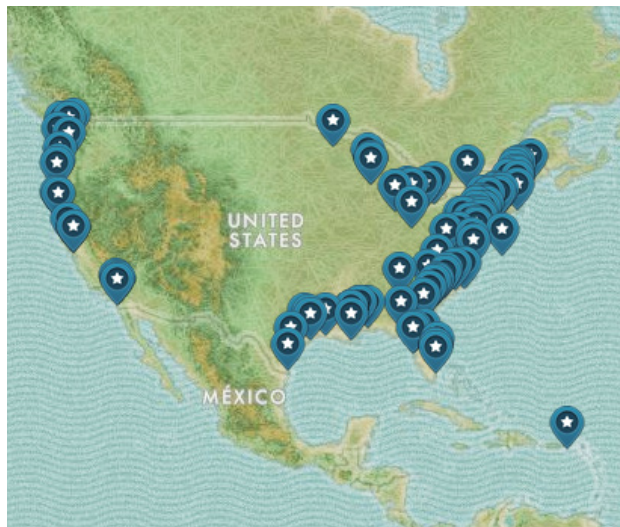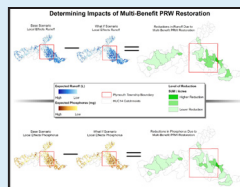

Stories from the Field

This popular component of the Digital Coast contains short write-ups that describe the many ways communities are using Digital Coast resources to address coastal issues.
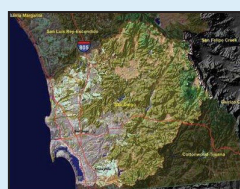

Building Storm Reach and Resilient Communities in New Jersey

A research reserve adapted Digital Coast tools and maps for this far reaching task.

Prioritizing Wetland Restoration Efforts in Wisconsin

A Digital Coast tool, OpenNSEPCT, was used to identify restorable wetlands as a means of controlling nonpoint source pollution.

Assessing the Impact of Impervious Surfaces on Water Resources in Southern California

Coastal land cover data (C-CAP) proved to be a helpful resource for this project.

Objective 4 – Expand NOAA and Interagency Collaborations

Fill key information and expertise gaps for the user by increased engagement with NOAA programs and those of other federal agencies.

Digital Coast integrates strategic data, tools, and training resources from numerous contributors to help coastal decision-makers address complex issues that are relevant to the goals of many different federal programs. While this has been a successful endeavor, there are additional opportunities to improve collaborations across NOAA and with other federal agencies to help fill high-priority information and expertise gaps identified by users. By doing so, the Digital Coast can expand the reach and outcomes of coordinated, interagency activities. Through strategic collaborations, outputs from interagency science and technology activities can be transformed into targeted products and services for coastal decision-makers and delivered to additional users through Digital Coast.

Spotlight on Data Contributor: NOAA's National Geodetic Survey provides high-resolution, remotely sensed, and spatially referenced emergency response imagery that is made available to Digital Coast users. The rapid acquisition and dissemination of this imagery supports homeland security and emergency response needs. These images have assisted with recovery efforts along coastlines affected by a variety of disasters, including hurricanes, northeasters, and earthquakes. Link – *coast.noaa.gov/ dataregistry/search/collection/info/emergency*.

KEY STRATEGIES

- Leverage social science capacity and expertise across NOAA and other agencies to address needs of Digital Coast users.
- Develop applications of NOAA's integrated water modeling products based on Digital Coast user needs for integrated flood risk information.
- Maximize applicability of Digital Coast resources to aid in the implementation of the federal government's national preparedness goals, especially by supporting state and local hazard mitigation and disaster recovery capabilities.
- Leverage hazard, climate, and ecosystem information and expertise across NOAA to address the community resilience and natural and nature-based infrastructure needs of Digital Coast users.

FUNDING GAPS

Interagency Project Testbed: The Digital Coast provides a user-driven testbed that could be especially valuable for interagency product development. For example, Digital Coast users have expressed a need for products that provide visualization and supporting data about the dynamic nature of flood risk on a local scale, accompanied by various cost-benefit analyses options for nature-based risk management alternatives. Several agencies, including NOAA, U.S. Geological Survey, U.S. Army Corps of Engineers, and Federal Emergency Management Agency, are responsible for different elements of this complex science, engineering, and policy challenge. While these agencies currently are working together to modify and package a set of complementary tools, a compelling need exists for the joint development of a more seamless decision-support solution and data integration approach. A suggested approach is an interagency project testbed, incentivized through joint agency funding, with Digital Coast serving as the mechanism for facilitating partnerships, user engagement, reducing uncertainties, and delivering the collaborative product.

Objective 5 – Enhance the Digital Coast Platform

Ensure the Digital Coast platform provides a dependable, engaging, and effective gateway for target audiences to explore, identify, access, and successfully use products and services.

The Digital Coast platform is the primary online delivery system for the data, tools, training, and other resources provided to the coastal decision-maker audience. This platform consists of the web-based user interface and the infrastructure that supports the efficient and effective delivery of all Digital Coast products and services. The platform complies with all government infrastructure technology policies and security requirements, and it needs to be effectively maintained, expanded as necessary to accommodate additional resources and technology changes, and enhanced as practicable to improve performance and address user feedback. As the front door to Digital Coast, the website must be extremely effective at engaging and communicating with users. Because Digital Coast is a gateway to a wide range of products and services, users must be able to quickly and effectively discover and access relevant resources. As the number of users increases and content grows, this priority becomes even more important to the success of Digital Coast. Digital Coast partners in particular assist in identifying opportunities for improvement of the platform.

KEY STRATEGIES

- Develop and enhance website features and functionality to improve discovery of relevant products and services.
- Maintain and enhance the backend infrastructure that allows users to have seamless access to Digital Coast content from across the site.
- As Digital Coast use continues to expand, especially among private sector users in the insurance, engineering, and development sectors, ensure that content continues to be easily understood, accessible, and usable by all audiences.
- Continuously assess user feedback and industry trends.
- Improve the website analytics and reporting framework to ensure that organizations contributing data, tools, training, and information resources can use the information to track outcomes and their product performance.

Closing Thoughts

The Digital Coast team is proud of the contribution this resource has made to the federal government and the coastal resource management community.

As stated numerous times in this document, "partnerships" make it work. Partnerships ensure the continued focus and relevance of the effort—and allow such a broad array of products and services to be provided from one site. Partners working together provide the economies of scale and lessen duplications of effort for all aspects of this endeavor. Partnerships are what it takes to address the nation's coastal management challenges of today and tomorrow.

This strategic plan, a vision taken from all who have contributed to this effort, showcases how NOAA's Digital Coast will put forth its energies, and additional funding if it becomes available, to do even more by building on past successes, expanding its reach, and providing increased capacity for the nation's coastal communities.

Partners and Contributors

DIGITAL COAST PARTNERSHIP
In addition to NOAA, the Digital Coast Partnership includes

- American Planning Association – *http://www.planning.org/*
- Association of State Floodplain Managers – *http://www.floods.org/*
- Coastal States Organization – *http://www.coastalstates.org/*
- National Association of Counties – *http://www.naco.org/*
- National Estuarine Research Reserve Association – *http://nerra.org/*
- National States Geographic Information Council – *http://www.nsgic.org/*
- The Nature Conservancy – *http://www.nature.org/*
- Urban Land Institute – *http://www.uli.org/*

DIGITAL COAST CONTRIBUTORS
Each organization contributes data, tools, and information to the Digital Coast effort. This approach makes it easier for coastal communities to find the resources they need, and helps the contributing partners expand the reach of their services. Participation in the Digital Coast also provides a starting point for various collaborative opportunities, through projects initiated by the Digital Coast Partnership or simply through the knowledge gained by using and contributing to the Digital Coast.

This list is updated as additional content is added to the website. To see the most up-to-date list, visit *coast.noaa.gov/digitalcoast/contributing-partners*.

NONGOVERNMENTAL

American Planning Association
Association of State Floodplain Managers
Center for Ocean Solutions
Climate Central
Coastal States Organization
MarineMap Consortium
Multi-Resolution Land Characteristics
    Consortium
National Association of Counties
National Estuarine Research Reserve
    Association
National States Geographic Information Council
Natural Capital Project
NatureServe
OpenTopography
Puget Sound Lidar Consortium
Save the Bay
The Nature Conservancy
Urban Land Institute

STATE

American Samoa Department of Commerce
California Coastal Conservancy
California Coastal Conservancy
California Ocean Protection Council
Coastal Georgia Regional Development Center
Dauphin Island Sea Lab
Delaware Coastal Program
Delaware Department of Natural Resources and
    Environmental Control
Florida Department of Environmental
    Protection
Florida Division of Emergency Management
Florida Fish and Wildlife Conservation
    Commission
Georgia Department of Natural Resources
Guam Bureau of Statistics and Plans
Hawaii Department of Land and Natural
    Resources
Hawaii Emergency Management Agency
Hawaii Office of Planning
Maryland Department of Natural Resources

Massachusetts Office of Coastal Zone
    Management
Mississippi Department of Environmental
    Quality
New Jersey Department of Environmental
    Protection
New York Department of Environmental
    Conservation
North Carolina Department of Environment and
    Natural Resources
Northwest Florida Water Management District
Oregon Department of Forestry
Oregon Department of Geology and Mineral
    Industries
Oregon Parks and Recreation Department
San Francisco Bay Conservation and
    Development Commission
South Carolina Department of Natural
    Resources
Southwest Florida Water Management District
St. Johns River Water Management District
Texas Water Development Board

PRIVATE

ASA
Dewberry
Digital Globe
Esri
Fugro EarthData
I.M. Systems Group
Image Matters
MDA Federal
Photo Science
TetraTech
The Baldwin Group
Warren Pinnacle Consulting
Woolpert

FEDERAL

Bureau of Economic Analysis
Bureau of Labor Statistics
Bureau of Land Management
Bureau of Ocean Energy Management

Environmental Protection Agency
Federal Emergency Management Agency
MarineCadastre.gov
NASA Wallops Flight Facility
National Aeronautics and Space Administration
National Center for Ecological Analysis and
	Synthesis
National Cooperative Soil Survey
National Estuary Program
National Geospatial-Intelligence Agency
National Oceanic and Atmospheric
	Administration
National Park Service
National Renewable Energy Laboratory
NOAA Center for Coastal Fisheries and Habitat
	Research
NOAA Center for Operational Oceanographic
	Products and Services
NOAA Coral Reef Conservation Program
NOAA Great Lakes Environmental Research
	Laboratory
NOAA Integrated Ocean and Coastal Mapping
	Program
NOAA National Geodetic Survey
NOAA National Geophysical Data Center
NOAA National Marine Protected Areas Center
NOAA National Marine Sanctuaries
NOAA National Ocean Service Special Projects
NOAA National Weather Service
NOAA Office for Coastal Management
NOAA Office of Coast Survey
NOAA Office of General Counsel
NOAA Office of Habitat Conservation
NOAA Office of Response and Restoration
Padilla Bay National Estuarine Research Reserve
U.S. Agency for International Development
U.S. Army Corps of Engineers
U.S. Census Bureau
U.S. Census Bureau Longitudinal Employer-
	Household Dynamics
U.S. Department of Agriculture
U.S. Fish and Wildlife Service
U.S. Geological Survey
USACE Jacksonville District

USACE National Coastal Mapping Program
USACE St. Louis District
USDA Forest Service Remote Sensing
	Applications Center
USDA National Agroforestry Center
USDA Natural Resources Conservation Service
USGS Coastal and Marine Geology Program

COUNTY
Broward County, Florida
Cayuga County, New York
Chatham County, Georgia
City of Baltimore, Maryland
County of Hawaii, Hawaii
County of Kauai,Hawaii
Harris County Flood Control District, Texas
King County, Washington
Miami-Dade County, Florida
Monroe County, Florida
Oconee County, Georgia
Pearl River County, Mississippi
St. Johns County, Florida
Volusia County, Florida

ACADEMIA
Clemson University Baruch Institute
Duke University
Florida International University
Oregon State University
Scripps Institute of Oceanography
University of Connecticut
University of Connecticut Center for Land Use
	Education and Research
University of Hawaii Maps, Aerial Photos, and
	Geographic Information Systems Library
University of Queensland Australia
University of Rhode Island Coastal Resources
	Center-Sea Grant
University of South Carolina Hazards and
	Vulnerability Research Institute
University of Texas
University of Washington Climate Impacts
	Group
Washington Sea Grant