

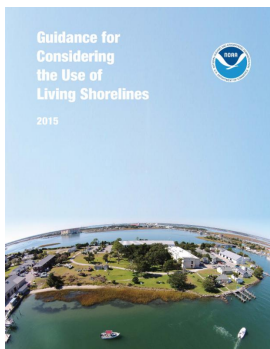
# The SAGE Report



Greetings!

Welcome to our quarterly newsletter, The SAGE Report, with updates on our current collaborative efforts. The SAGE community of practice continues to grow and each workgroup is up and running, taking on various activities. Be sure to visit [www.sagecoast.org](http://www.sagecoast.org) regularly for updates and activities and to see where you can get plugged in or discover additional information.

## NOAA Living Shorelines Guidance



NOAA encourages the use of living shorelines as a shoreline stabilization technique along sheltered coasts to preserve and improve habitats and their ecosystem services at the land-water interface. The guidance provides information on NOAA's perspective and roles regarding living shorelines implementation. The guidance describes NOAA's living shorelines guiding principles, then details NOAA's role in providing science, tools and training to

help inform the selection of appropriate techniques. Included is a discussion of the agency's role in reviewing living shoreline projects and potential effect on habitats of concern to NOAA, such as critical habitat, essential fish habitat, or protected areas. Finally, the guidance includes 12 critical questions to answer when considering a living shoreline.

### NOAA's Living Shorelines Guiding Principles:

- NOAA encourages the use of living shoreline techniques to provide, maintain, or improve habitat or ecosystem function and enhance coastal resilience.
- NOAA encourages shoreline protection methodologies that avoid or minimize channel-ward encroachment into subtidal habitat; NOAA does not promote the use of living shorelines as a means for land reclamation.
- NOAA encourages shoreline stabilization using the softest approach feasible, based on site conditions.
- NOAA encourages carefully considering regional and site-specific differences in factors such as wave energy, habitat types, and geologic setting in planning the appropriate living shorelines.
- NOAA encourages early coordination across multiple government and non-governmental entities to discuss site characteristics, history of erosion at a site, and potential challenges for proposed shoreline management approaches.
- NOAA encourages incorporating the best available regional and local shoreline science and practices into the

## Upcoming Events

American Shore and Beach Preservation Association:  
[Lighting the Way for the Coastal Future](#)  
Long Beach, NJ  
October 25-28, 2016

[A Community on Ecosystem Services 2016](#)  
Jacksonville, FL  
December 5-9, 2016

8th National Summit on Coastal Restoration on Coastal and Estuarine Restoration, and 25th Biennial Meeting of the Coastal Society: [Our Coasts, Our Future, Our Choice](#)  
New Orleans, LA  
December 10-15, 2016

## In The News

[Grant Announcement: NOAA Coastal Ecosystem Resiliency Program](#)

New VIMS publication: [The Role of Living Shorelines as Estuarine Habitat Conservation Strategies - Coastal Management 2016 44: 161-174](#)

[Corps of Engineers: new Living Shorelines Nationwide Permit - public comment period](#)

REPORT: [Developing Socio-Economic Metrics to Measure DOI Hurricane Sandy Project and Program Outcomes](#)

siting, design, construction, evaluation and adaptive management of projects.

- NOAA encourages the consideration of ecosystem services provided by a shoreline stabilization approach (such as erosion control and habitat for fish and other living marine resources) in living shoreline project design.

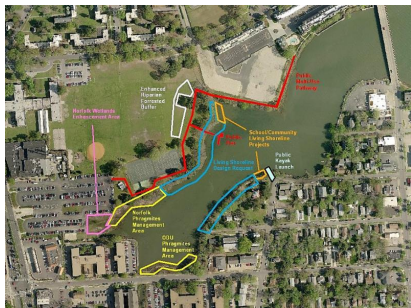
The [guidance document](#) was produced by the NOAA Living Shorelines Workgroup with participation from: National Marine Fisheries Service (NMFS), National Ocean Service (NOS), Office of Oceanic & Atmospheric Research (OAR), and Office of Program Planning and Integration (PPI).

Find the report on the [SAGE website](#) along with [other reports, publications of interest](#).

## National Infrastructure Metrics Workgroup

The National Infrastructure Metrics Workgroup (NIMS) is a working group and SAGE partner. NIMS consists of over 50 federal, state, local, NGO, academic, and practitioner workgroup members. The NIMS workgroup is developing natural infrastructure performance metrics, aligned by identified priority or mission-oriented services, coastal features, and ease of collection/methodologies. The collaboration has identified 20 coastal resilience services and associated metrics. The metrics and associated report are currently being revised for workgroup feedback, and will be released to the public by the end of Summer 2016. The NIMS workgroup goals include: (1) facilitation of the use of natural infrastructure for coastal community and ecosystem resilience; (2) develop standardized metrics; and (3) collection of relevant data regardless of project activity or planned outcome. Check the [SAGE website](#) for updates or contact the NIMS workgroup lead [Dr. Rick Bennett](#), Fish and Wildlife Service.

## SAGE in Action: Living Shoreline Project in the City of Norfolk



The Colley Bay Project is a multi-phase, multi-element effort to improve shoreline resilience of an urban, highly impacted shoreline in the City of Norfolk. All of the project planning and some of the construction preceded the start of the SAGE initiative several years ago. However, the implementation of green/

natural features, the inclusion of social and educational features, the engagement of many partners, and the potential for systems level benefits within Colley Bay, embody the principles of SAGE. With approval by the Chesapeake Bay Program of living shorelines as a water quality Best Management Practice (BMP), this project enables the City of Norfolk to get credit for pollutant load reduction toward the Chesapeake Bay TMDL. Additionally, the restoration of tidal marsh and riparian buffer improves the habitat value for aquatic and terrestrial species. Partners participated in the project with funding, planning, design, construction, planting, monitoring and assessment.

### Project Details:

Project elements include:

- Tidal marsh plantings
- Off-shore rock sill

## The SAGE Goals & Principles

- Understand impacts on people and nature along coastline
- Advance landscape-scale solutions to coastal resiliency
- Protect and enhance natural coastal features when appropriate
- Collaborate with both public and private sectors
- Develop innovative techniques and solutions to adapt coasts
- Share science, tools and demos to inform best practices
- Apply lessons learned both domestically and internationally

- Coir logs
- Riparian buffer plantings
- Phragmites management
- Public demonstration
- Public access
- Citizen science/ volunteers

Dimensions: 1,125 linear feet of shoreline

Rehabilitation: Removal of ~300 tons of rubble

Partners: Chesapeake Bay Trust, Norfolk Wetlands Board, Norfolk Departments of Planning and Public Works, Norfolk Public Schools, NOAA, Elizabeth River Project, Lafayette Wetlands Partnership, Highland Park Civic League, Norfolk Master Naturalists, Chesapeake Bay Foundation VOICES, Old Dominion University (ODU) Biology Graduate Student Organization, ODU undergraduate Marine Science Club, City Staff, BayLand, Bay Environmental, Clark Nexsen and American Eagle

Project cost:  
\$314,594

For additional information, or questions please contact Kevin DuBois via [email](#) or call 757-650-2720.

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For information about how SAGE can help protect your coastlines, visit [www.SAGEcoast.org](http://www.SAGEcoast.org).

Submit your photo of SAGE-type projects to be included in our photo bank available online. [Click here](#) and please include photographer credits, project/place and date.

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