





ABOUT US

The Pensacola and Perdido Bays Estuary Program serves as a trusted source of information for residents, businesses, industry, and the community on issues relating to improving and maintaining the natural habitats and ecosystems of the Pensacola and Perdido Bays watersheds.

PPBEP strives to achieve a healthy and collaborative environment by:

- Elevating and increasing the importance, awareness and understanding of environmental quality.
- Employing rigorous, unbiased and scientifically sound science to inform and guide decisions, policies, and initiatives.
- Funding programs and projects that protect the environment, increase ecological resilience.
- Building a network of inclusive, multistakeholder partnerships that takes into account factors affecting the environment, the economy, and the community-at-large for the benefit of improving the quality of life for all.

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LIVING SHORELINES

WHAT IS A LIVING SHORELINE?

A **living shoreline** is a natural way to protect and stabilize coastal areas while providing benefits of a natural ecosystem. A living shoreline is an erosion control method that mimics nature, using primarily native materials like plants, sand, rock, oyster shells, and concrete structures for artificial reefs.

For our program, structures such as jetties, groins, or any other features that extend perpendicular to the shoreline do not qualify as living shorelines. Additionally, designs must incorporate native plants to be considered. Hybrid shorelines that integrate artificial oyster reefs or rocks alongside native vegetation may be eligible.

SUPPORT

Sometimes, formations of harder materials such as rock or artificial oyster reefs, are used to hold sediment and absorb wave energy.

NATIVE PLANTS

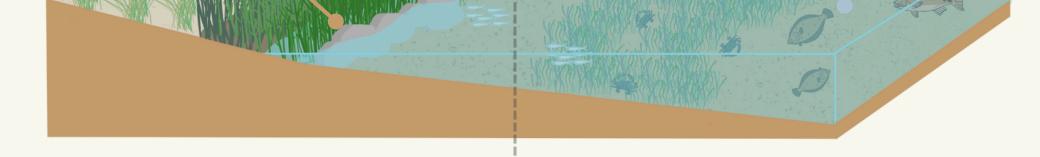
Native marsh grasses and other salt tolerant plants are planted to enhance the shoreline, filter water, and stabilize sediment.

HABITAT

By allowing a gradual transition from land to water, these natural shorelines help sustain intertidal ecosystems, unlike rigid bulkheads that can cause habitat disruption.

WILDLIFE

Living shorelines enhance wildlife habitats by promoting biodiversity, acting as vital nurseries for marine life and supplying rich foraging areas for birds, fish, and mammals.



DESIGNS

LIVING SHORELINE TYPES

The ideal living shoreline design for your property depends on factors like substrate, erosion severity, and wave energy. Often, a mix of stabilization techniques offers the best erosion protection while preserving or restoring the coastal ecosystems. Below are a few examples of living shoreline designs.

PLANTINGS ONLY

Coastal wetland plants are planted along the riparian buffer, which is an area adjacent to the water that contains vegetation. Some common wetland plants include Needle Rush and Smooth Cord Grass. All living shoreline designs implemented via the LSAP will include plantings.



PLANTINGS + COIR LOGS

Coastal wetland plants are planted along the riparian buffer. Coir logs are installed waterward of the plants. Coir logs, made from the fibrous husk of coconuts, are used to hold sediment, enhance soil structure and promote vegetation growth.





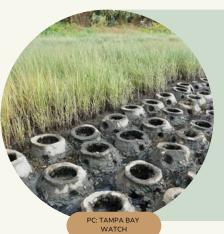
PLANTINGS + MARSH SILL

Coastal wetland plants are planted along the riparian buffer. Riprap, consisting of large stones or artificial oyster sill is placed just waterward of these plants to absorb wave energy, stabilize wetland edges, reduce erosion, and promote vegetation growth.



PLANTINGS + LIMESTONE MARLS

Coastal wetland plants are planted along the riparian buffer. Large limestone or marl rocks, typically weighing between 40- 200 lbs. each, are strategically placed offshore in high wave energy areas. These rocks help stabilize sediment, reduce wave action, and may provide habitat for wildlife.



PLANTINGS + ARTIFICIAL REEFS

Coastal wetland plants are planted along the riparian buffer. Artificial reefs are placed in the intertidal zone or offshore. These artificial reefs serve to absorb wave energy, trap sediment, and encourage plant growth. They mimic natural oyster reefs and provide habitat for marine life.

PROGRAM OVERVIEW

The Pensacola and Perdido Bays Estuary Program (PPBEP) offers the Living Shoreline Assistance Program (LSAP) to help landowners and community groups address shoreline erosion in the Pensacola and Perdido Bay watersheds in Alabama and Florida.

While bulkheads and other "hard" structures have been common solutions for erosion, living shorelines are more effective, sustainable, and cost effective over time. They better withstand storms and provide added benefits like flood mitigation, shoreline stabilization, and habitat creation.

The LSAP simplifies the living shoreline installation process by **providing guidance**, **resources**, **and a cost share option** to help you install a living shoreline on your property. As part of this program, we're also excited to offer an additional level of personalized support to selected candidates who meet specific criteria.

By choosing a living shoreline, you can protect your property, while also supporting the resilience of our coastal ecosystems. PPBEP is here to make the process easier, more affordable, and stress-free.

PROGRAM SUPPORT

BASIC SUPPORT

Our basic support empowers you to implement a living shoreline on your property! We'll provide you with easy-to-follow info packets, examples of permits, and other helpful resources to guide you through the process. And the best part? Once your project is approved, we'll reimburse you for a portion of the cost of plants and materials you used. It's all about giving you the tools you need to bring your shoreline to life!

SUPPORT OFFERED



Site visits to discuss criteria, explore design options, clarify procedural steps, and assess existing site conditions



Provide you with a list of marine contractors for living shoreline installation



Provide you with permitting examples and templates



Give you guidance on designs or feedback on proposed designs from other sources



Cost share structure for the purchasing of plants and materials. (see more on pg. 8)



Perform post-installation assessments to ensure design requirements are met



Perform a minimum of one year of quarterly postconstruction monitoring

PROGRAM SUPPORT

ADVANCED SUPPORT

If selected, our advanced support goes beyond the basics to provide hands-on assistance every step of the way. We handle the permitting, design, installation up to 500 feet, and a portion of the material costs.

Advanced support is available for a small number of selected projects, depending on the project type and available resources

SUPPORT OFFERED



Site visits to discuss criteria, explore design options, clarify procedural steps, and assess existing site conditions



Collaborating with landowners to develop project designs



PPBEP serves as permitting agent through all necessary agencies for the project



Cost share structure for the purchasing of plants and materials (see page 8)



Installation of LS by OysterCorps for up to 500 ft of shoreline



Post-installation assessments to ensure design requirements are met



Perform a minimum of one year of quarterly postconstruction monitoring

COST SHARE

COST SHARE STRUCTURE



Homeowners participating in the program will be reimbursed for the cost of approved materials purchased for **up to 500 linear feet** of a living shoreline to a maximum amount of \$14,000.

PPBEP offers funding support for plant and material costs based on the following costshare structure:

- For the first 200 linear feet of shoreline: Reimbursement is \$40 per linear foot.
- For additional shoreline beyond 200 feet: Reimbursement is \$20 per linear foot, up to a maximum of 500 linear feet total.

This funding applies **exclusively** to plant and material costs Labor costs are not covered under basic projects.

Examples

A property with 325 linear feet of shoreline:

- First 200 linear feet reimbursed at \$40/ft = \$8,000.
- Remaining 125 linear feet reimbursed at \$20/ft = \$2,500.
- Total reimbursement: \$10,500.

A property with 501 linear feet of shoreline:

• Reimbursement is capped at the program maximum of \$14,000 for plant and material costs.

PROGRAM STEPS

STEPS IN THE PROCESS

Below is an example of a step-by-step process of what living shoreline implementation could look like. Steps may vary project-by-project.

1. APPLICATION PHASE



APPLICATION: You'll complete an application to determine if you meet initial program requirements.



SITE ASSESSMENT AND LANDOWNER MEETING: If you qualify, PPBEP will schedule a site visit with you to evaluate site conditions and implementation options.



PROGRAM ACCEPTANCE: Our LSAP team will meet to discuss and either deny/approve your project.

– 2. PLANNING PHASE -



CONTRACTOR GUIDANCE:** If the project has not been designed yet, PPBEP will provide a list of trained marine contractors to contact.



DESIGN CONSULTATION:** You'll work with a third party to create your living shoreline design. We'll provide guidance and templates to make sure it fits within program guidelines.



LANDOWNER AGREEMENT EXECUTION: PPBEP will prepare a legally binding contract signed with the landowner for the program.



PERMITTING**: Owner/third party contractor will secure the permits needed for the project.



**ADVANCED SUPPORT: If you are selected for advanced support, PPBEP will essentially serve as your third party contractor. We'll work with you to create a design, and secure permitting for your project.

3. IMPLEMENTATION PHASE



CONSTRUCTION:** You'll work with your third party contractor to install the living shoreline in alignment with the approved design and permit requirements. You'll be responsible for purchasing materials, plants, and labor upfront.



CORRECTIVE ACTIONS:** PPBEP will review the project to ensure that design and permit requirements are met. If it does not, PPBEP will outline changes required to qualify for funding.



REIMBURSEMENT:** Once the completed project is approved, PPBEP will reimburse a portion of the plant and material costs. See more on page 8.



**ADVANCED SUPPORT: If you are selected for advanced support, PPBEP will oversee OysterCorps in the construction of the living shoreline project and implement any necessary corrections. The same amount of plants and material costs will be covered, so vou'll only need to pay for additional materials needed.

4. FOLLOW UP



POST CONSTRUCTION MONITORING: PBBEP will perform monitoring quarterly for a minimum of one year after construction.



SURVEY FEEDBACK: You'll receive a survey to review the LSAP process and give feedback on the program.

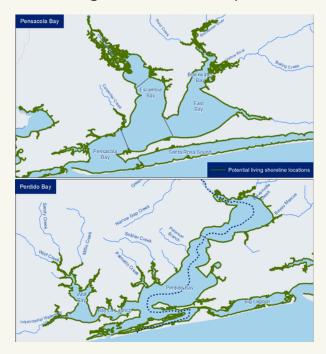


OUTREACH INITIATIVES: You'll have the opportunity (I) to participate in outreach for the program.

ELIGIBILITY

APPLYING FOR THE PROGRAM

Interested waterfront landowners located in the Perdido and Pensacola Bay watersheds are invited to apply for the program to determine their eligibility for participation and a site assessment. If an application does not meet the initial qualifications, applicants will be informed promptly. Applications may be submitted directly by waterfront landowners, by an authorized representative acting on behalf of one or more landowners, or by a community group interested in creating shared waterfront spaces.



The Program will provide assistance in two phases.

- PHASE 1 (1/1/2025-12/31/2025): Perdido Bay
- PHASE 2 (8/1/2025-12/31/2026): Pensacola Bay

DOES MY SHORELINE QUALIFY?

Curious if your shoreline would qualify for assistance? **Eligibility** is based on the following:



EROSION

You experience a slight to high degree of erosion on your shoreline



LOCATION

Your waterfront is located within the Pensacola or Perdido Bay watershed during the associated funding phase



PERMITTING

You are able to pay all permitting application costs associated with a living shoreline project. Costs depend on region and type of permit required.



SUITABILITY

You are open to having PPBEP staff assess your shoreline to determine its suitability for a living shoreline project



DESIGN

You are willing to utilize a design created or approved by PPBEP

While your shoreline may be considered, **priority** will be given to the following:



PRIORITY AREAS

Properties that are located within the priority areas. (See page 13)



COLLABORATION

Collaborative applications with neighbors or for a public use property



FINANCIAL NEED

Landowners experiencing financial hardship will be prioritized for assistance



SOFT SOLUTIONS

Projects that only require soft solutions such as planting and biodegradable materials. PPBEP staff will determine this at site assessment

ELIGIBILITY

PRIORITY AREAS

If you are located within a priority area, you are more likely to be accepted into the LSAP! These areas were identified using the Living Shoreline Suitability Model developed in partnership with researchers at Troy University taking into account factors like exposure, fetch, development status, erosion issues, and connectivity.

PERDIDO



1) Bay La Launch; 2) Soldier Creek; 3) Perdido Beach Area; 4) Roberts Bayou; 5) Weekley Bayou; 6) Gulf View Lane neighborhood and adjacent neighborhoods (Old River); 7) Northern Wolf Bay 8) Perdido Manor Dr. in Perdido Manor

PENSACOLA



1) North shoreline of Gulf Breeze west of U.S. 98; 2) North shoreline of Bayou Grande and surrounding inlets; 3) Bayou Chico; 4) Bayou Texar as far north as 12th Avenue N.; 5) Mulatto Bayou; 6) Indian Bayou

READY TO JUMP IN?

GOT QUESTIONS?

Our team is here to assist you! Feel free to reach out with any questions about the program. You can contact us at **livingshorelines@ppbep.org** You can also visit our website by scanning the QR Code or visiting our website at



www.ppbep.org/livingshorelines



READY TO APPLY?

Ready to get started? You can either scan the QR Code, or visit our website mentioned above, and click "Apply Here". Any questions you may have about the application can be directed to

livingshorelines@ppbep.org

THANK YOU TO OUR FUNDERS AND PARTNERS!

We couldn't do the work that we do without strong partnerships.

OysterCorps; Mississippi State University/Mississippi State Extension Service; The Nature Conservancy; Troy University; Florida Department of Environmental Protection; City of Orange Beach; Santa Rosa County (Florida); Escambia County (Florida), National Oceanic and Atmospheric Administration.

