For Immediate Release

Texas Coastal Exchange Launches 1000-Mile Living Shoreline Project

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Today the Texas Coastal Exchange (TCX) is publicly announcing its program to design a 1000-mile living shoreline for the Texas coast. This project is designed to mitigate the destructive impacts of sea level rise on estuarine wetlands while creating new revenue streams for coastal landowners. The project is funded by a grant from John Teutsch of Seattle, Washington, and The Meadows Foundation.

Estuarine wetlands, which line bay systems from Corpus Christi to Port Arthur, are threatened with destruction by sea level rise. The goal of this project is to design a nature-based structural support and adaptation mechanism for some or all of the 500,000 acres of estuarine wetlands along the Texas Gulf coast using constructed oyster reefs.

Estuarine wetlands are important for several reasons. They are critical habitat for shrimp, crabs and flounder which underpin the commercial and recreational fishing industries, representing $4.1 billion in sales and 38,000 jobs in Texas annually. From a climate perspective, coastal wetlands actively remove approximately 2 tons of carbon dioxide per acre per year and store it in the soil for the long term. These estuarine wetlands also provide significant quality-of-life benefits for humans and are critical habitat for both migratory and coastal fish-eating birds.

As the sea level rises due to climate change, these coastal wetlands will be more prone to die-off and sloughing, eliminating a significant contributor to the natural carbon capture and storage process while potentially releasing millions of tons of currently stored carbon dioxide into the air. This loss will also destroy habitat that is critical to marine life, threatening the economic, ecologic, and quality-of-life benefits for Texans. This project is intended to protect and stabilize these wetlands for decades into the future, giving time for inland wetland expansion.

The first step in the 1000-mile shoreline project is to identify the sites suitable for living shoreline construction. This analysis will involve an evaluation of the shorelines of the Texas coast from Sabine Lake to Corpus Christi, specifically the location of existing oyster reefs, the location of estuarine wetlands and adjacent fresher wetland systems and coastal land elevation. Several of these variables are shown in the figure below from Region 2 of the Texas coast, which includes Matagorda Bay.

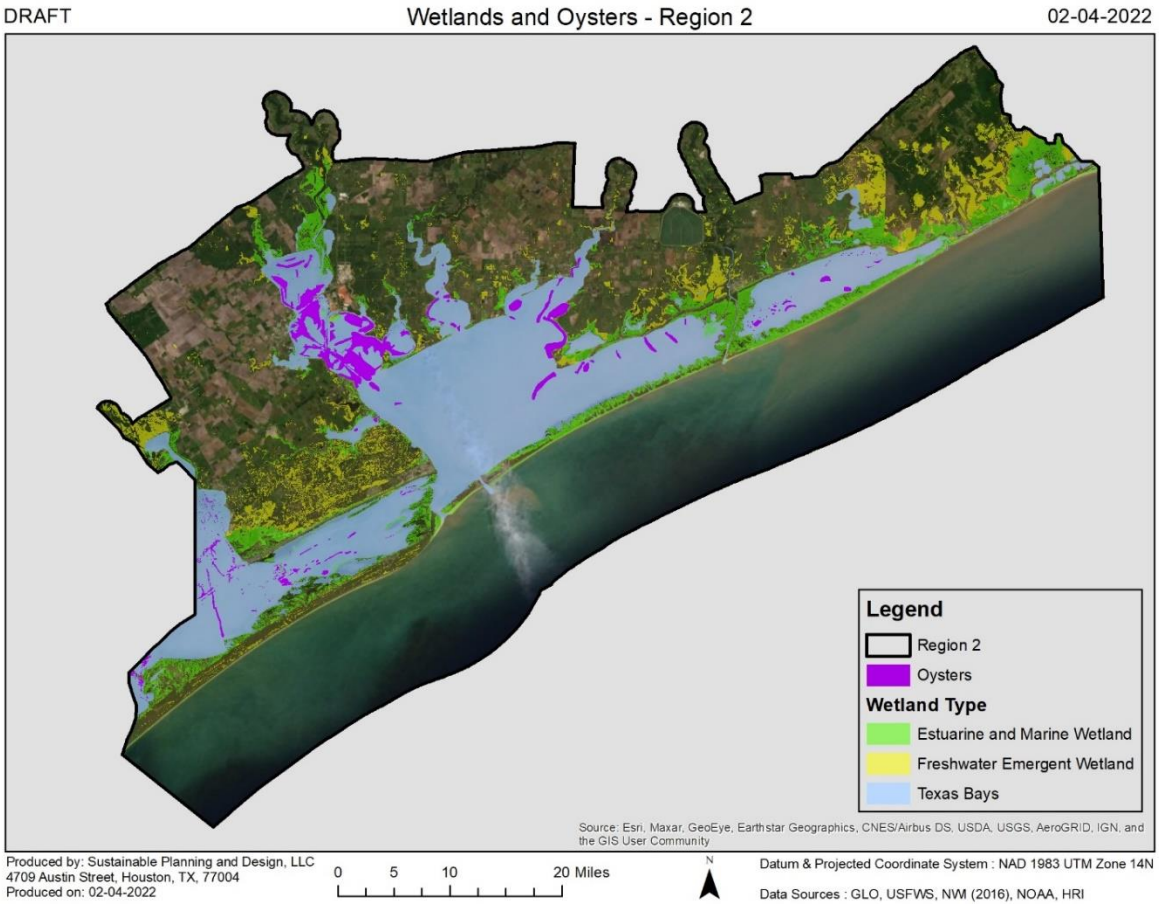

Figure 1. Base information assembled for suitability analysis for living shoreline. Information prepared by Sustainable Planning and Design by Jace Hodder and Emily Fucile.

According to Jim Blackburn, Chair of the Texas Coastal Exchange, “This project is about coastal strategic thinking and adaptive design in the era of climate change. Sea level rise poses an existential threat to coastal wetland systems in Texas, the U.S. and the world. This project is about protecting an ecosystem that is a critical part of our economy and quality of life, as well as a key tool for reducing atmospheric carbon in the future.”

The Teutsch and Meadows grants will fund the design phase of this multi-year project. During this phase, TCX will determine if these reefs can prevent or mitigate the loss of an existing carbon sink along with associated emissions. It will also be evaluated if these living shorelines can preserve the function of estuarine wetlands and allow for their expansion inland as sea level rises.

To create new revenue streams for coastal landowners, TCX will work with BCarbon, a nature-based carbon credit certifier formed by a stakeholder group from the Baker Institute at Rice University. This partnership will address a key problem facing wetland protection: landowners have little incentive to allow inland migration of wetlands as the sea level rises. TCX and BCarbon hope to change this by studying the carbon dioxide removal and storage efficiency of

the targeted wetlands and oyster reefs and using the results of the study to support the issuance of negotiable carbon credits. These credits will compensate landowners for the important climate function of their land, creating the necessary incentive to expand wetlands inland.

“Living shorelines are certainly feasible,” offered Lalise Whorton Mason, the chief designer for the Texas Coastal Exchange. “We have seen numerous examples at a much smaller scale. What is unique about this effort is that we are investigating this type of protection at a very large scale which will have huge public benefits if we are successful.”

Over the long term, many individual landowners and non-governmental organizations will need to join with Texas Coastal Exchange to make this project a reality, as will the General Land Office of the State of Texas.

“This project is about a vision and the collaboration to realize it,” said Blackburn. “Right now, we are setting the process in motion through design.”