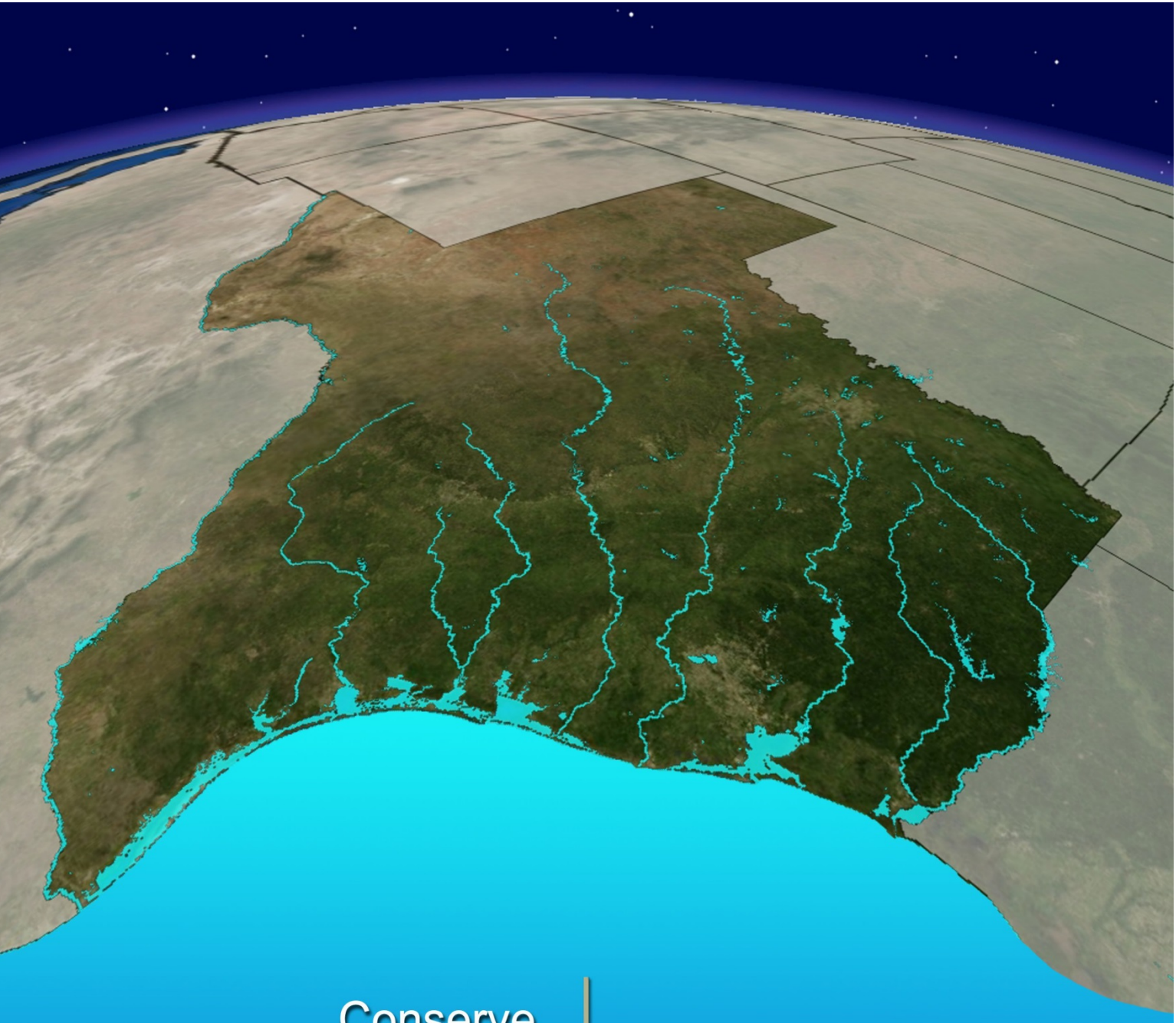


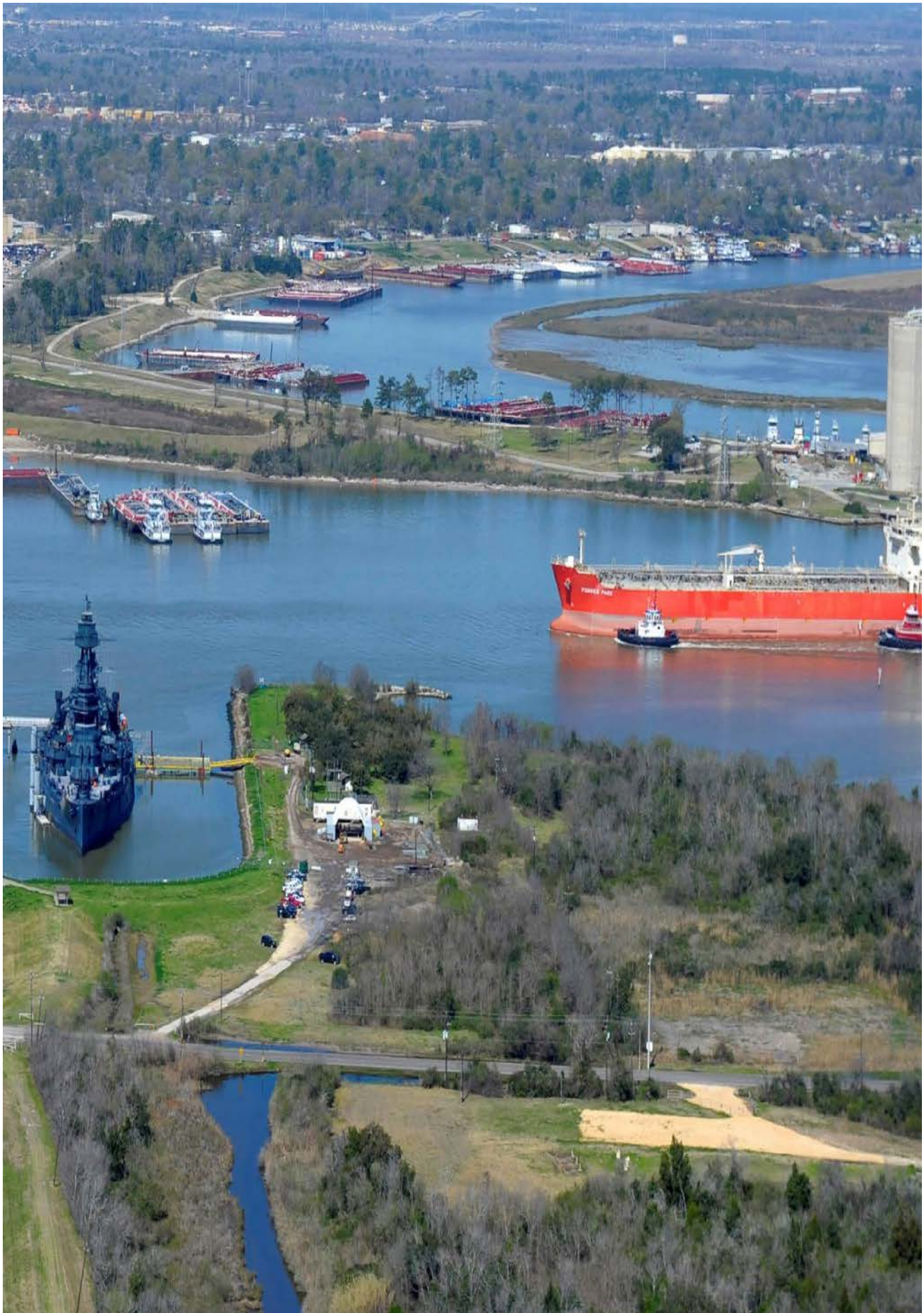
Conserve, Restore, Renew:

Framework for Implementing the RESTORE Act on the Texas Gulf Coast

RESTORE THE TEXAS COAST

August 2015

Photos courtesy of the Texas Commission on Environmental Quality, the Texas General Land Office, the Texas Parks and Wildlife Department, the U.S. Fish and Wildlife Service, the U.S. Navy, and Woody Woodrow.



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Executive Summary

Congress passed the RESTORE Act to protect and restore the natural and economic resources of the U.S. Gulf of Mexico and Gulf Coast. The Act was passed in response to the 2010 *Deepwater Horizon* (DWH) oil spill to provide funding for coastal restoration and recovery for the affected Gulf Coast states: Alabama, Florida, Louisiana, Mississippi, and Texas. The environmental and economic injuries caused by the spill were extensive. The legal aftermath of the spill will require the parties responsible to pay substantial damages to address these injuries. Through the RESTORE Act, Congress allocated 80 percent of the administrative and civil penalties related to the spill to the states and the federal government to restore and revitalize the Gulf Coast. A portion of the RESTORE Act allocation comes directly to Texas. This document builds a framework for implementing coastal restoration and revitalization under RESTORE.

The biological and economic productivity of the Texas Gulf Coast is remarkable. Texas's 367 miles of Gulf shoreline and 3,300 miles of estuarine shoreline host hundreds of thousands of acres of beach and dune systems, lagoons, seagrass beds, oyster reefs, and tidal marshes. More than 95 percent of commercially and recreationally important Gulf finfish and shellfish, and 75 percent of the nation's migratory waterfowl depend on these wetlands at some point in their life cycle. These resources, in turn, support robust sport and commercial fisheries, shrimping, and tourism, and supply a quarter of the nation's oyster harvest.

Sharing the coast are more than 6 million people who live in the 18 coastal counties of Texas. Each year more than 500 million tons of cargo traverses the Texas portion of the Gulf Intracoastal Waterway. The Port of Beaumont is the busiest military port in the world. Texas refineries, energy-related companies and chemical plants centered around Port Arthur and the Port of Houston comprise the largest petrochemical complex in the world.

Like the other four Gulf States, Texas faces challenges. Even as conservation efforts have advanced, stressors such as catastrophic weather, including a rise in relative sea

level, have taken a toll on coastal areas already compromised by development and environmental degradation. For example, Galveston experiences a major hurricane on average every 18 years. The storm surge from Category 2 Hurricane Ike reached 20 feet and pushed water almost 30 miles inland in places. Relative sea level rises when the volume of water in the oceans increases by thermal expansion or the melting of land ice (glaciers, snow packs, and ice sheets), and when the coast becomes relatively lower due to subsidence. Much of the Texas coast has experienced some amount of subsidence, up to 10 feet in eastern Harris County, due to withdrawal of groundwater or oil and gas. Of major roads in the Gulf Coast region, 27 percent lie below 4 feet in elevation. Texas has witnessed shrinking coastal habitats, changing water quality, struggling fish and wildlife populations, erosion of barrier islands and beaches, and increased vulnerability of coastal communities and economies.

Texas stands ready to address these challenges by taking advantage of ongoing work that began long ago. Texas has a history of coastal science and conservation and is a leader in the field of restoring coastal resources, such as oyster reefs and tidal marshes. In fact, the state and federal natural-resource agencies have worked closely with one another and private-sector partners, including universities and non-governmental organizations, to inventory, plan, and conserve natural resources. Texas understands the link

North jetty, Bolivar Roads

between healthy coastal habitat and healthy coastal economies, being home to hundreds of thousands of acres of state and local parks and public beaches, wildlife refuges and management areas, and a national seashore. A functional, robust coast supports a diverse and sustainable economy, from bait shops to hotels to superports.

Texas' allocation of RESTORE Act funds to specific coastal projects and programs will be reflected in plans developed and approved at the state and federal level. The overall purpose and eligibility for funding varies among the components of the Gulf Coast Restoration Trust Fund; however, projects or programs generally must carry out one of these five goals from the Act:

- Restore and conserve habitat
- Restore water quality
- Replenish and protect living coastal and marine resources
- Enhance community resilience
- Restore and revitalize the gulf economy

The RESTORE Act created the Gulf Coast Ecosystem Restoration Council, which is composed of the governors of the five Gulf states and six federal agencies, as an independent federal agency. In 2012, Governor Rick Perry designated Commissioner Toby Baker of the Texas Commission on Environmental Quality as his designee on the Council and appointed him to lead the state's effort to implement the RESTORE Act.

The Governor also created the Texas RESTORE Act Advisory Board (TxRAB), to oversee the state's efforts. Commissioner Baker, TxRAB, and the Governor's Office will develop the Texas RESTORE-related plans.

Project suggestions will be solicited from the public. The public will also have the opportunity to formally comment on the Texas RESTORE-related plans before their submission to the Council and the U.S. Department of the Treasury.

Texas stands ready to maximize this opportunity and to meet the coastal challenges of the 21st century. In Texas, opportunities abound to preserve, restore, and

conserve truly diverse and productive lands and waters. These lands and waters, in turn, can support a robust and resilient economy. The scope and scale of the RESTORE Act make it possible to support projects with far-reaching environmental benefits. The Act also creates a unique opportunity to fund projects that will promote the advancement of the coastal economy.

Introduction

On April 20, 2010, an explosion on the offshore drilling rig *Deepwater Horizon* killed 11 crewmen in the Gulf of Mexico, 41 miles off the Louisiana coast. The explosion caused a blowout at the wellhead that discharged millions of barrels of oil into the Gulf over the following 87 days. The DWH oil spill was unprecedented in size, discharging more than 10 times as much oil as the 1989 *Exxon Valdez* spill in the Gulf of Alaska according to U.S. Government estimates. The response to the DWH spill was equally unprecedented. Cleanup efforts continue, five years later in some heavily impacted locations.

On July 6, 2012, President Barack Obama signed into law the *Resource and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act*, otherwise known as the RESTORE Act. The Act dedicates 80 percent of any federal Clean Water Act civil penalties imposed because of *Deepwater Horizon* to the Gulf Coast Restoration Trust Fund. The purpose of the Trust Fund is to help address the environmental and economic impacts of the spill in the five Gulf Coast states—Texas, Louisiana, Mississippi, Alabama, and Florida.


Galveston Island State Park

The Council created by the RESTORE Act is chaired by the secretary of commerce and includes representatives from five other federal agencies and designees from the five Gulf States. The Council is responsible for distributing 30 percent of the RESTORE funds (council selected) to support science-based environmental projects that benefit the Gulf and the Gulf Coast.

Another 30 percent of the RESTORE funding (spill impact) is allocated among the Gulf states according to a formula based on spill-related shoreline impacts. Each Gulf state will submit a State Expenditure Plan (SEP) to the Council for approval to access these funds.

In addition, 35 percent of the RESTORE funding (direct) will be allocated equally among the five Gulf states. To access these funds, each Gulf state must submit a Multi-year Implementation Plan (MIP) to the Treasury Department for acceptance. The state's SEP and MIP must include projects to restore and revitalize the coastal economy, as well as projects to enhance coastal ecosystems.

As one of the five Gulf Coast states, Texas will receive millions of dollars for coastal restoration and revitalization from RESTORE over the coming years. With this opportunity comes a responsibility to ensure the effective use of RESTORE funding. To this end, a primary goal will be to engage the public in the process and work through collaborative partnerships of governmental and private stakeholders to achieve successful implementation.

This framework launches Texas' efforts to responsibly administer RESTORE by reviewing the current status of the Texas coast, discussing the history of state and regional coastal planning and setting forth initial policy guidance for project development and selection. Development of the SEP and MIP for Texas will involve many stakeholders over many years. This framework will serve as a starting point for restoration and revitalization of the Texas coast and coastal communities.


Beaumont
ORANGE
JEFFERSON
Port Arthur
CHAMBERS
HARRIS
Houston
Galveston Bay
East Bay
GALVESTON
Galveston
BRAZORIA
Freeport
JACKSON
MATAGORDA
VICTORIA
Tres Palacios Bay
Port Lavaca
Matagorda Bay
CALHOUN
REFUGIO
San Antonio Bay
ARANSAS
Aransas National Wildlife Reuge
Goose Island State Park
Copano Bay
SAN PATRICIO
Nueces Bay
NUECES
Corpus Christi
Corpus Christi Bay
Oso Bay
KLEBERG
Baffin Bay
KENEDY
Laguna Madre
WILLACY
CAMERON
Port Isabel
MEXICO
GULF OF MEXICO
NECHES RIVER
SABINE RIVER
TRINITY RIVER
BRAZOS RIVER
COLORADO RIVER
GUADALUPE RIVER
SAN ANTONIO RIVER
NUECES RIVER
TRES PALACIOS CREEK
PETRONILLA CREEK
ARROYO COLORADO
RIO GRANDE
1 Bolivar Peninsula
2 North Deer Island
3 Galveston Island
4 Follets Island
5 Matagorda Peninsula
6 Matagorda Island
7 San Jose Island
8 Mustand Island
9 North Padre Island
10 South Padre Island
Legend
Coastal Zone Boundary (CZB) (Submerged Lands)
Coastal Zone Boundary (CZB) (Lands)
Coastal Counties

1. The Texas Coastal Environment

Texas has 367 miles of Gulf-facing beaches and 3,300 miles of estuarine shoreline. More than 6 million people live in the 18 Texas counties that border the Gulf. While much of Texas' coast is healthy and productive, disappearing coastal habitats, changing water quality, coastal erosion, and increased vulnerability of coastal communities to natural and human-caused events are major concerns. An understanding of those areas of compelling concern in the natural environment and human communities of the Texas Coast is vital to prudent implementation of the RESTORE Act.

Matagorda Island, Gulf beach and bayside wetlands

The Natural Environment

The biological richness of the Texas coast is a precious asset. Its restoration and conservation are vital to both the state's heritage and its future. Of particular importance are healthy and productive oyster reefs, wetlands, water quality, fisheries and wildlife, and barrier islands and beaches. These biological and geomorphic

systems are the foundation for much of the coast's productivity, economy, and quality of life.

Oyster Reefs

Established oyster reefs provide habitat for many estuarine species of flora and fauna. They can help diffuse wave energy, reducing the damage done by tides and storms to near-shore habitats and property. Oyster reefs also function as natural bio-filters. A single adult oyster can filter about 50 gallons of water per day, removing suspended particles and improving water quality and clarity. Oyster reefs are a valuable economic asset as well. In 2012, reefs along the Texas coast produced 5.8 million pounds of eastern oysters valued at $21 million, constituting 24 percent of the nation's commercial landings.


Oyster reef

Since the 1950s, dredging to clear ship channels has significantly diminished the distribution and extent of oyster reefs on the Texas coast. Turbidity and siltation, disease, pollution, predators, commercial harvest pressure, and hypersalinity also pose formidable threats to healthy oyster populations. For example, Hurricane Ike in 2008 devastated almost 60 percent of productive oyster-reef habitat in Galveston Bay by depositing a thick layer of sediment on an estimated 6,000 acres of bay bottom. Although almost 1,300 acres of oyster-reef habitat have been constructed

since the storm, the oyster population of Galveston Bay has recovered only a fraction of its former size and productivity.

The importance of restoring the state's oyster reefs cannot be overemphasized. Even under the best conditions, it would take decades for the reefs to recover naturally. Drought, relative sea-level rise, and other challenges make the natural recovery an even more tenuous prospect. Restoration of oyster reefs along the Texas coast will have widespread beneficial environmental and economic effects.

Wetlands

Wetlands exist where land is regularly saturated with water, often where terrestrial and aquatic habitats interact. They are among the most biodiverse and productive areas in the world. The wetlands of the Gulf of Mexico generate substantial benefits to the region, from retaining and purifying water, to supporting the seafood industry, to protecting coastal regions from storm-surge flooding, to providing recreational and commercial opportunities for millions.

Wetlands, San Bernard National Wildlife Refuge

Gulf Coast wetlands provide habitat for a great variety of fish and wildlife. More than 95 percent of commercially and recreationally important Gulf finfish and shellfish, and 75 percent of the nation's migratory waterfowl depend on these wetlands at some point in their life cycle. Texas, with its vast complex of barrier-island back-bay systems, is home to more than 12 percent of all Gulf coastal wetlands.

Wetlands are being lost at an alarming rate around the globe, including North America and along the Gulf Coast. Wetlands are lost when shallow saturated areas

are drained or converted to deeper and less productive open water. Likewise, wetlands are lost when drought or upstream diversion removes water sources from the system. The loss and degradation of coastal wetlands is a worldwide epidemic, exacerbated in the 21st century by accelerating agriculture and aquaculture conversion, coastal development, introduction of invasive nonnative species, pollution, and relative sea level rise. The situation on the Gulf Coast is particularly concerning. The northern Gulf includes 41 percent of the inventory of coastal wetlands in the U.S. and 80 percent of the wetland loss, with an estimated loss of 396,800 acres of freshwater wetlands between 1998 and 2004. Annual loss of coastal wetlands in Texas is estimated at 5,696 acres (8.9 square miles) between the mid-1950s and the early 1990s. For example, the largest contiguous estuarine marsh complex in Texas, at approximately 139,000 acres, is the Salt Bayou ecosystem in Jefferson County. There, the rate of emergent marsh loss is near 1 percent per year, largely because of human-caused changes in combination with natural processes. Because of the great importance of this area for fish, wildlife, recreation, commerce and protection from storms, federal and state agencies, along with local governments and interest groups, have developed the Salt Bayou Watershed Restoration Plan to address the hydrologic issues that are leading to marsh loss. Every effort should be made to slow down these losses by targeting both strategic wetland areas for protection and damaged areas for restoration.

Water Quality

Eleven rivers and eight coastal watersheds supply freshwater to Texas coastal systems. These fresh waters flow into bays, estuaries, and lagoons, where they mix with salty near-shore Gulf waters. Water quality in Texas' tidally influenced streams, bays, and estuaries is greatly affected by these freshwater "inflows," which control salinity, nutrients, and sediments in the estuarine systems. Managing the quality, quantity, and timing of freshwater inflows is thus vital to supporting healthy biological communities and related ecosystem functions.

Matagorda Bay

Water quality is also compromised by nutrients and other pollutants contributed by point and nonpoint sources throughout the watershed. Waters entering the Galveston Bay system, for example, start in northeast Texas and flow through three of the largest cities in Texas—Houston, Dallas, and Fort Worth. Along the way, chemicals, fertilizers, wastewater, pathogens, and trash are washed into streams and rivers and transported to the coast.

Depressed levels of dissolved oxygen (hypoxia) in water have been identified in tidal streams and estuaries along the Texas coast, resulting in death or migration of species away from the hypoxic zone. The large, better-known, hypoxic area in the northern Gulf of Mexico adjacent to the Mississippi River, sometimes referred to as the "dead zone," can extend into Texas waters. The overarching importance of good water quality will likely lead to the use of RESTORE funding for water quality projects, perhaps through collaboration with a variety of stakeholder groups.

Many efforts to improve water quality are in process, including the efforts of the Bacteria Implementation Group, which addresses bacteria in streams in a 2,200-square-mile watershed around Houston.

In addition, the Texas Commission on Environmental Quality (TCEQ) manages the Total Maximum Daily Load process, designed to improve water quality in impaired or threatened surface waters in Texas. A TMDL determines how much of a particular pollutant a water body can assimilate and still meet its quality goals. It is a measurable way to target efforts to protect and improve the quality of Texas' streams, lakes, and bays.

After a TMDL is completed, state agencies and stakeholders develop an implementation plan outlining the steps necessary to mitigate pollution within the watershed. The stakeholders come together as a community to decide how to reach the intended goals, conducting public discussions about what is needed. This process enables the community to determine how best to implement a plan to reduce pollution.

Fish and Wildlife

Fish and shellfish, sea turtles, colonial waterbirds, and marine mammals are among the living coastal and marine resources most valuable to Texas. They are important because of their inherent value to the ecosystem as well as their value to the Texas commercial and recreational economies. Texas' shellfish and finfish resources are distributed across 4 million acres of aquatic habitats, including the bays and estuaries and offshore to 9 nautical miles in the Gulf of Mexico. The Texas Parks and Wildlife Department (TPWD) manages these resources to achieve sustainable stocks of commercially and recreationally important species. In addition to oysters, other well-known saltwater fisheries include black and red drum, flounder, red snapper, spotted seatrout, blue crab, and shrimp.

The Texas coast is internationally known for its birding and nature viewing. Ninety percent of duck populations and 75 percent of snow goose populations that migrate in the Central Flyway of North America winter on the Texas coast. Almost the entire population of wild endangered whooping crane winters at the Aransas National Wildlife Refuge, drawing birders from across the globe. Colonial waterbirds such as herons, egrets, gulls, terns, and ibises that nest in dense colonies, are found in abundance along the Texas Coast, although in some areas loss of rookery islands due

to erosion and sea-level rise, introduction of invasive species and feral predators, and disturbance by human activity, has resulted in displacement and decrease in numbers. Efforts to increase nesting habitat and ensure that nesting areas are free from predators have already increased bird use of several rookery islands, and more opportunities exist.

Kemp's ridley sea turtles

Of the seven species of sea turtles, Texas is home to five—leatherback, hawksbill, loggerhead, green, and Kemp's ridley—all of which are listed as either threatened or endangered. Through restoration efforts, the green and Kemp's ridley sea turtles have shown significant increases in nesting numbers. For example, wildlife officials found a record of 128 Kemp''s ridley sea turtle nests on Texas beaches in September, 2007, including 81 on North Padre Island (Padre Island National Seashore) and four on Mustang Island. The figure has been exceeded each year since, demonstrating that with the cooperation of people, fish and wildlife, populations can recover and flourish, providing abundant ecosystem services over time.

Barrier Islands and Beaches


Padre Island National Seashore

The Texas Gulf coastline includes barrier islands (Galveston, Matagorda, San Jose, Mustang, and North and South Padre), major peninsulas (Matagorda and Bolivar), and natural and human-built passes. Padre Island, which at 113 miles is the longest barrier island in the world, separates the Gulf of Mexico from the Laguna Madre, a rare hypersaline lagoon.

A large portion of Texas' Gulf-facing beach and dune complexes are composed of naturally vegetated and relatively stable dunes up to 40 feet high. However, in other areas, dunes are bare of vegetation and highly susceptible to wind erosion. Dunes, along with wetlands and reefs, defend coastal communities against the destructive power of storm-surge flooding. A recent study estimated that coastal wetlands in the U.S. provide $23.2 billion in storm-protection services annually. The Texas coast is eroding at a net average rate of over 2 feet per year, with some areas eroding more than 30 feet per year. Protection and restoration of beach dune complexes and removal of barriers to natural sediment regimes are key to maintaining the benefits provided by these dynamic natural systems.

The Human Environment

Coastal Communities


Fishing near Pelican Island

More than 6 million people live in the 18 Texas coastal counties that border the Gulf of Mexico. By 2050, the population in these counties is expected to

increase to 8.5 million. Population pressures and human alteration of land and water have an impact on natural resources. Loss of natural resources and associated processes, in turn, impact the economy and quality of life for residents and visitors. In the years ahead, conserving strategic natural areas, wiser siting of development and infrastructure, more resilient design of the built environment, and learning to work with natural processes (such as weather, currents, and sediment regimes) will be critical for balancing growth, protecting resources, and preserving the unique sense of place that Texans share.

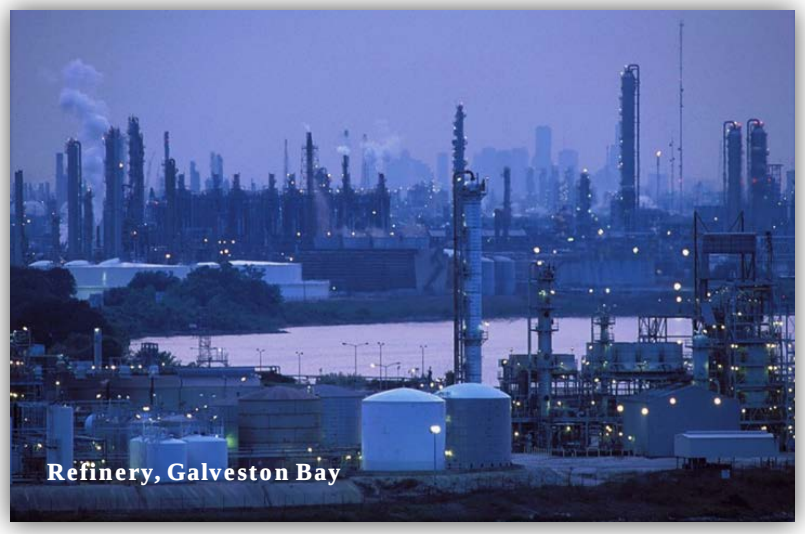

Shrimp boat

Commerce and Industry

The economic value of Texas' coast and coastal assets is staggering. Texas seafood generates $856 million in sales and provides over 14,000 jobs for Texans. Top commercial species include oysters, blue crab, red snapper, black drum, and various kinds of shrimp. Texas is also the nation's top state for waterborne commerce. The Gulf Intracoastal Waterway, which runs for 406 miles along the entire Texas Coast, is an essential component of the state and national transportation network. Barge transportation is fuel efficient and reduces both highway congestion and emissions compared to truck or rail. Texas ports generate $6.5 billion in tax revenue and support more than 1.4 million jobs.


Barge traffic

Texas' refineries, most of which are near the coast, make up more than a quarter of the nation's refining capacity. The state's largest export segment—oil and gas products—was valued at more than $57 billion in 2012. These refineries, more than 400 chemical plants, and a network of 40,000 miles of oil and gas pipelines along the Texas Gulf Coast comprise the largest petrochemical complex in the world and employ around 33,000 Texans. Houston is the center of this activity, specifically because of the capacity of its deep-water port, and the city hosts some 3,700 energy-related companies and 16 of the nation's top 20 oil pipelines. With dramatic growth in production from the Permian Basin of West Texas, the Barnett Shale formation of north central Texas, the Haynesville Shale formation of northeast Texas, and the Eagle Ford Shale formation of central and south Texas, the importance of Texas and the Texas coast to this nation's energy independence and national security continues to increase.


Refinery, Galveston Bay

Intelligent management and protection of coastal infrastructure will require thoughtful planning, the dedication of resources to maintenance and measures to mitigate natural and human-caused impacts. For example, the Gulf Intracoastal Waterway is subject to constant erosion from barge and boat traffic. The maintenance of this waterway is critical, especially because of its connection to the state's agricultural transactions. Strategic hardening now protects some of the most vulnerable shorelines, and numerous projects to help mitigate changes to hydrology that are degrading fresh and estuarine wetlands have been undertaken, but much more is needed.

Commerce and industry located along the coastal area not only contribute significantly to the local economy, but also have a ripple effect on the state's overall economy.

Coastal Resiliency

The vulnerability of Texas' coastal areas to storm damage and flooding has led to a call for increased resiliency of coastal ecosystems and communities. In this context, resiliency refers to the ability of a system to undergo extreme environmental stresses (such as storm damage, flooding, or drought) and still retain its structure, functions, and identity without a large amount of outside help. Resiliency implies the capacity for self-organization and reorganization after extreme stress and the ability to adapt to changing circumstances. The devastation caused by Hurricane Ike has made coastal resiliency a vitally important topic with local and state policy makers and legislators.

For example, several large public-works projects have been discussed that would make the Houston area more resilient to damage from storm surges. While economically justifiable, such projects require extensive analysis, hydrological modeling, engineering, possible relocation of homes, businesses and other infrastructure, and mitigation of losses and impacts to natural and cultural resources. With careful planning, however, such resiliency projects can enhance economic productivity, sustainability, and quality of life. Resiliency projects can significantly benefit the environment through mitigation, dedication of buffers and other green spaces, habitat acquisition and set-aside, beneficial use of dredged and excavated materials, and commitment to the management of freshwater inflows. Careful planning, involving a range of stakeholders, is the key. Resources dedicated for the planning of such projects might complement or leverage RESTORE Act funding to help ensure desirable economic and environmental outcomes.

The Coast as Destination


Guadalupe Delta

Millions of visitors are attracted to Texas beaches and bays each year. Under the Texas Open Beaches Act, the public has the free and unrestricted right to access Texas beaches, and much of the coast is accessible, including five state parks, five wildlife management areas, a national seashore with 70 miles of Gulf frontage, and several National Wildlife Refuges. In addition, there are some 360 public beach-access points located from the mouth of the Sabine River to the mouth of the Rio Grande.

Visitors seek out the beaches, bays, and open waters of the Gulf for a variety of reasons, including world-class fishing and bird watching, waterfowl hunting, kayaking and canoeing, beachcombing, camping, or simply seeking personal renewal through connection with the great outdoors. The Great Coastal Birding Trail is the largest nature trail in the nation, with over 300 birding sites along the Texas Coast. The entire coastal tourism sector generated $1 billion in state and local tax revenue in 2011. Wildlife tourism (hunting, fishing, and wildlife watching) contributes over $5 billion annually to the Texas economy.

Coastal tourism depends heavily on the beauty and function of coastal natural resources. The RESTORE Act gives Texans an opportunity to plan coastal projects and programs that benefit the natural environment and the people who want to spend their free time enjoying it. Tourism in Texas stands to experience expansive growth as natural resources are restored and conserved.

2. Conservation and Restoration Initiatives

Texas coastal stakeholders recognize the challenges ahead—coastal development and resource protection must be integrated and conservation of coastal resources must be balanced with increasing development pressure and growing demands on limited water supplies. The potential for natural-resource initiatives to integrate with infrastructure, economic development, and coastal resiliency efforts offers Texas an opportunity to strengthen both its economy and its natural heritage over the coming years.

Public and private investments in restoration and infrastructure rehabilitation create jobs and expand the economy in a wide variety of other industries. Coastal communities benefit because these projects employ local labor and use locally procured materials.

Installation of rock breakwater, North Deer Island

Coastal restoration generates practical long-term economic benefits as well. Every dollar spent to preserve wetlands and other natural defenses saves state and local governments an average of $4 in the long run. Restoration raises property values, increases local tax revenues, improves water quality, reduces erosion, and mitigates storm hazards.

Texas seeks to build on what has been learned through past conservation and coastal initiatives to achieve visionary, holistic, and landscape-level results. These efforts promote long-term conservation of natural resources and robust coastal economies.

Scientific Initiatives

The RESTORE Act underscores Texas' successful approach to resource management by emphasizing the use of the best available science for environmental restoration. Scientific, technical, and academic organizations in Texas have crafted innovative approaches to enhance coastal restoration and protection through research, monitoring and modeling techniques, trend analyses, and decision-support tools.

TPWD fish collection

Data collected for decades underpin the science behind Texas conservation planning. For example, the Texas Coastal Ocean Observation Network amasses wind and water data at 40 stations along the Texas coast, and the U.S. Geological Survey collects stream flow data at many rivers and streams along the coast through its network of stream gauges. In addition, important hydrodynamic and salinity transport modeling of bays and estuaries is carried out by the Texas Water Development Board. These models simulate currents and salinity conditions as a function of freshwater inflow, tides, wind, precipitation, and evaporation. One important application assists the General Land Office's Oil Spill Prevention and Response effort by forecasting water currents and the potential path of a spill.

Fish and wildlife are some of the state's greatest economic, recreational, and aesthetic assets, and serve as useful indicators of the overall health of ecosystems. Therefore, considerable scientific resources are devoted to studying these populations. The TPWD collects 8,000 saltwater biological and chemical samples each year and maintains a Fisheries Research Center in Palacios to assess populations of finfish and shellfish. The TPWD also works with the TCEQ to carry out biological investigations of tidal streams to establish water quality standards. These types of research projects are essential to an understanding of the state's coastal environment and to managing its resources.

A cornerstone of coastal research since it was established in 1971 is the Texas Sea Grant Program. The program supports responsible use of the state's Gulf and coastal resources through informed personal, policy, and management decisions. It has disbursed roughly $50 million for hundreds of studies by researchers at 22 Texas universities, colleges, and research centers. The studies have focused on complex issues such as heavy-metal and dioxin contamination in the Houston Ship Channel, coastal erosion on Texas beaches, hypoxia and red tide, freshwater inflows, and sustainable coastal development. The Texas Sea Grant Program continues to play an invaluable role in bringing resources to local stakeholders to advance environmental and economic goals.

Land-Conservation Initiatives

In the 1930s, Texas acquired its first coastal park, Goose Island State Park, and the federal government established the Aransas National Wildlife Refuge. The state system later added four more coastal parks and five wildlife management areas along the coast. The federal system now includes an additional eight National Wildlife Refuges on the coast. The Padre Island National Seashore was established in 1962 and includes more than half of Padre Island. Keeping these lands public helps to maintain the health, diversity, and productivity of hundreds of thousands of acres of barrier islands, Gulf and bay front systems, wetlands, coastal uplands, and associated estuaries.

In addition, for four decades Texas has successfully implemented voluntary restoration with private landowners, so that by 2014 more than 500 landowners on over 2 million acres in the 18 coastal counties have benefited from TPWD-approved wildlife-management plans for their properties. Public-private partnerships such as these are essential to conservation because, in Texas, unlike in other western states, the vast majority of land is privately owned.


Quintana Bird Sanctuary

Numerous private land trusts and conservation groups have helped to protect coastal lands to preserve and connect habitat, improve water quality, and restore landscapes. These organizations work with natural-resource agencies and private landowners to benefit all stakeholders.

Waters and Wetlands Initiatives

Texas contains millions of acres of wetlands. Once viewed as nuisance areas, wetlands are now widely recognized for their value to the natural and human environment. Decades of fragmentation, conversion to agricultural use, water diversions, and other human impacts have resulted in the degradation of wetlands, but tens of thousands of acres of these wetlands have already been restored by state and federal resource agencies and other interested stakeholders.

Estuary programs in Texas have been particularly successful in pulling together the partnerships required for projects such as the North Deer Island project, which successfully protected and restored over 230 acres of wildlife habitats associated with the island. In addition, the Coastal Bend Bays and Estuaries Program (CBBEP)

and the Aransas National Wildlife Refuge have restored over 2,500 acres of impacted wetlands on Matagorda Island.

Coastal-restoration projects addressing areas subject to erosion or saltwater intrusion often require the addition of sediment. A valuable source for restoring wetlands is sediment produced in the excavation and maintenance of coastal ports, harbors, and waterways. At the J.D. Murphree Wildlife Management Area along the upper coast, 1,300 acres of marsh habitat have been enhanced through beneficial use of dredged material. In fiscal 2011–13 the Galveston District of the U.S. Army Corps of Engineers dredged 65 million cubic yards of sediment from multiple areas along the Texas coast. Most of that material was disposed of in conventional dredge material piles or disposal sites, but approximately 18 percent was used beneficially to create thousands of acres of marshes, reinforce shorelines, or nourish beaches.

TPWD J.D. Murphree Wildlife Management Area

Coastal watersheds improve water quality through filtering and nutrient absorption. Activities to restore these functions and to address other impairments have increased over the last two decades. In this period the TCEQ, in partnership with the Texas State Soil and Water Conservation Service and other state and regional agencies, has strengthened its programs for identifying and addressing water quality impairments at the watershed level. Key to this effort has been an investment in science and extensive collaboration with regional and local stakeholders.

The quantity and timing of freshwater flowing to the coast is another important component of restoring coastal waters and wetlands. The term “environmental flows” describes the flow of water needed to maintain ecologically healthy streams

and rivers, as well as the bays and estuaries they feed. Without adequate provisions to protect environmental flows, reduced or altered flows degrade estuaries, marshes, and other critical coastal ecosystems. The Texas Legislature has passed a series of bills, beginning in the 1970s, to address freshwater inflows. The most recent, in 2007, created a stakeholder-driven process that looked at the best available science and submitted balanced environmental-flow recommendations for all Texas river basins and estuaries to the TCEQ. As of February 2014, the TCEQ had adopted flow standards for all coastal river systems. An adaptive management component allows for refinement of flow recommendations at least every 10 years based on new information.

Fish and Wildlife Management Initiatives

Texas strives to maintain ecologically healthy ecosystems that sustain economic and recreational opportunities for millions of anglers, hunters, birders, and other outdoor enthusiasts. The TPWD enhances coastal fisheries by developing artificial reefs off the Texas coast and by using fish hatcheries for breeding and stocking. Stocking water bodies with hatchery-bred fish supplements wild populations, helps start populations in new or renovated waters, and restores populations that have been reduced or eliminated by natural or human-caused catastrophes. For example, in 2013, the TPWD released almost 10 million spotted sea trout fingerlings and over 20 million red drum fingerlings to Texas bays.

Catching flounder

Management initiatives to restore the population of the endangered Kemp's ridley sea turtles at their primary nesting site in Mexico involve an international collaboration of individuals, coastal communities, institutions, fishing industries, universities, and nonprofit organizations. Texas is also working to protect additional nesting sites on its beaches. Volunteers and the public play a key role in identifying these sites by reporting nests. In some cases, eggs are transferred to corrals protected from predators and the elements, which maximizes the hatch rate. Releasing hatchlings on Texas beaches increases the chances these individuals will return to the same beach upon maturity to lay their own eggs.

At one time, shrimping practices resulted in significant deaths among sea turtles, so in the 1990s shrimpers were required to start using devices that allow turtles to escape and avoid drowning. In 2000, the TPWD adopted a series of shrimping regulations that included seasonal closure in South Texas inshore areas and limiting the number and size of trawls that can be used along the coast. These actions have

reduced sea-turtle mortality, and, combined with other conservation efforts, have allowed the Kemp's ridley population to continue to rebound. However, other threats remain, including floating debris, which sea turtles ingest, and the vulnerability of feeding grounds to development.


Roseate spoonbill

Hundreds of species of birds inhabit or migrate through the Coastal Bend area and many of these have been in decline. By focusing on several key islands in the region, including Tern Island, Triangle Tree Island, and Causeway Island, the CBBEP Coastal Bird Program has halted and reversed local declines in a number of waterbird species. Two management initiatives led to this success. First, the CBBEP improved nesting habitat by employing innovative methods for managing surface cover such as sand and gravel, and controlling vegetation and predators. Second, the CBBEP supports outreach to educate boaters, fishermen, and kite surfers about avoiding these islands during nesting season. These successful management methods have increased the diversity and abundance of nesting waterbirds regionally, and the CBBEP is working to apply them on a broader scale.

Coastal Planning and Management

The Texas Coastal Management Program serves as an umbrella for coastal planning and management along the Texas Coast. The Texas Legislature designated the General Land Office as the lead agency for this effort, and in this role the GLO coordinates with other state agencies that have responsibilities related to coastal matters. The Coastal Management Program addresses five primary issues of concern to coastal communities: coastal erosion, wetlands protection, water supply and water quality, dune protection, and shoreline protection.

With Section 309 Program enhancement funding, under the Coastal Zone Management Act, GLO personnel are developing a coastal planning framework and conducting outreach to assist with decision making for state and local resource management to support economic growth in a way that sustains the environment on which it depends. With coastal uses and vulnerability increasing, this initiative is integrating information for proactive planning that identifies and protects key resources to provide for long-term economic growth and environmental health and to keep our coastal communities resilient. These activities and planning tools will help balance coastal economic growth with the protection of critical habitats and ecosystems to ensure a thriving Texas Gulf Coast.

This discussion of coastal conservation, planning, and protection touches only a few of the many such activities in Texas. The depth of experience and expertise available to help shape and direct RESTORE planning is considerable. Texas will use what has been done as the foundation for the Texas RESTORE–related plans.

3. The Spill and Long-Term Recovery

The Deepwater Horizon *Disaster*

The DWH oil spill is one of the worst environmental disasters in American history. In addition to its toll on human life, the spill caused injury and death to thousands of birds, fish, and other marine and coastal wildlife and polluted water that is home to millions of marine mammals, fish, and invertebrates, and devastated miles of sensitive coastal habitat. It closed 88,522 square miles of federal waters to fishing and had an impact on hundreds of miles of shoreline, beaches, bayous, and bays. Because of the sheer magnitude of the spill, the environmental, economic, and social impact on Gulf Coast communities will persist for many years to come.

The spill added to and exacerbated the effects of years of environmental impacts on the Gulf Coast caused by tropical weather systems, extreme high tides, subsidence, industrialization, and rapid coastline development. These problems, as well as the effects of spilled oil, created economic uncertainty for hundreds of thousands of Americans. Moreover, local, state, and tribal governments faced diminished financial resources to deal with these issues due to lower tax revenues from lost economic activity and diminished property values.

The DWH oil spill clearly showed that the economy of the Gulf Coast and the health of its citizens are inextricably linked to the health of the Gulf's waters and shoreline. A significant portion of the jobs in the region are connected to companies and small businesses involved in tourism, commercial and recreational fishing, and related services. Although the oil has been removed and the beaches reopened, the lesson remains: the health of the Gulf and its shoreline and the Gulf's coastal economy go hand in hand.

Planning for Long-Term Recovery

Within weeks of the spill, President Obama appointed Secretary of the Navy Ray Mabus to prepare the long-term recovery plan for the Gulf of Mexico. In September 2010, *America's Gulf Coast: A Long Term Recovery Plan after the* Deepwater Horizon *Oil Spill* (the Mabus Report) was released. The Mabus Report addressed the need for long-term funding for ecosystem, economic, and human-health recovery, and for mechanisms to empower Gulf residents to take charge of their own recovery. The report recommended the following:

1. The President should establish the Gulf Coast Ecosystem Restoration Task Force to explore in detail the environmental needs of the Gulf Coast region. The Task Force goal would be to ensure that Gulf restoration efforts be coordinated, collaborative, and effective.
2. Congress should dedicate a significant portion of civil penalties recovered under the Clean Water Act to the five Gulf States and create a more permanent oversight organization to carry on the work of the Task Force.

In October 2010, the Task Force was created by executive order to build on the ongoing spill response and restoration to achieve long-term recovery for the Gulf. To this end, the Task Force developed the *Gulf of Mexico Regional Ecosystem Restoration Strategy*. The Strategy synthesizes the priorities and ongoing work of the Gulf Coast states, local communities, federal partners, academics, and nongovernmental organizations.

Marshland, upper Texas coast

The Strategy articulates broad restoration goals and details a series of actions that Task Force member

agencies (both federal and state) can take to support each of the goals. It also lays out a series of next steps to better align agency programs and leverage scientific and fiscal resources.

Restoration Funding from the DWH Oil Spill

Natural Resource Damages

By law, the parties responsible for an oil spill must pay the cost of restoring those resources and services to pre-spill conditions. The Natural Resource Damage Assessment (NRDA) process provides a method for damage assessment and restoration planning by state and federal natural resource trustees. Immediately after the DWH oil spill, NRDA trustees began to assess injuries to natural resources. Recognizing that damage assessment for this spill would take many years, BP, a responsible party and majority owner of the rig, agreed to work with the trustees to fund $1 billion in Gulf Coast early restoration projects.

State Funding Through the National Fish and Wildlife Foundation

In addition, as a result of the spill, Texas will receive $203 million for restoration of marsh, dune, oyster-reef, and other coastal habitats and conservation projects. This funding comes from the Gulf Environmental Benefit Fund, administered by the National Fish and Wildlife Foundation (NFWF) through a criminal plea agreement between the Justice Department with each of two of the responsible parties, BP and Transocean. The agreement require that a total of $2.4 billion be paid to the NFWF to fund projects benefiting the natural resources of the Gulf Coast affected by the spill. Payments under the criminal plea agreement also provide funding to the National Academy of Sciences for a program focused on human health and environmental protection, including issues related to offshore oil drilling, and for the North American Wetlands Conservation Fund for projects to benefit migratory bird species and other wildlife and habitat affected by the spill.

State Funding through RESTORE

On July 6, 2012, the President signed into law the Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast

States (RESTORE) Act. The RESTORE Act allocates 80 percent of the Clean Water Act administrative and civil penalties arising from the DWH oil spill to the Gulf Coast Ecosystem Restoration Trust Fund. Grants from the Trust Fund may support projects that directly benefit the coastal areas of the five Gulf Coast states.


Port Aransas

The RESTORE Act establishes the Gulf Coast Ecosystem Restoration Council. Along with representatives of six federal agencies, members of the Council include the governors of the five Gulf Coast states or their appointees. The Council took over the functions of the Task Force in planning for long-term recovery for the Gulf and the Gulf Coast. One of the first actions by the RESTORE Council was the development of its *Initial Comprehensive Plan: Restoring the Gulf Coast's Ecosystem & Economy*. The Initial Comprehensive Plan develops a broad statement of goals and objectives that will be used in the selection of projects to be funded from the RESTORE Trust Fund.

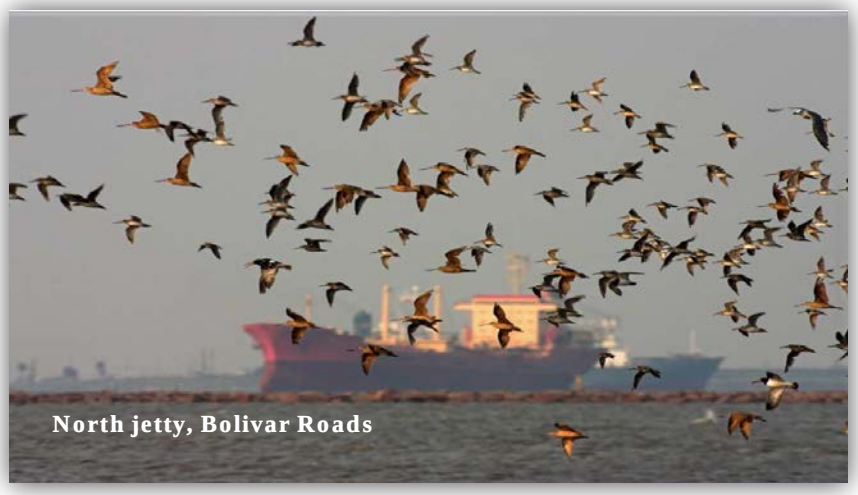
The RESTORE Act allocates 95 percent of the Trust Fund to three components: direct (35 percent); Council-selected restoration (30 percent); and spill impact

(30 percent). The U.S. Department of Treasury, the RESTORE Council, and each Gulf Coast state all have significant roles in allocating these funds.

For the Council-selected component, the Council will develop a Funded Priorities List (FPL) listing the projects to be funded from the Council's allocation of RESTORE funding from this component. Only Council members may submit projects for this component. Texas projects may be included in the FPL, but these will be reviewed and awarded in competition with projects from the other four states and from federal agencies.

Each state may develop a multi-year implementation plan (MIP) to receive funds from the direct component funding. The MIP must include a list of specific coastal projects proposed for funding. A Gulf Coast state must submit its MIP to the U.S. Department of the Treasury for acceptance. Each state will receive 7 percent of the 30 percent of funding available under this component. State MIPs must include projects to restore and revitalize the coastal economy as well as projects to enhance coastal ecosystem functions.

Each state may also develop a State Expenditure Plan (SEP) to receive funds from the Spill Impact component. The SEP must include a list of specific coastal projects. Under this component, each state will receive funding allocated under a formula based on spill-related shoreline impacts, with each state receiving at least 5 percent of the funding from this component. The state's SEP must be consistent with the Council's Comprehensive



North jetty, Bolivar Roads

Plan and submitted to the RESTORE Council for approval. As with state MIPs, the SEP must include projects to restore and revitalize the coastal economy or enhance coastal ecosystem functions.

The RESTORE Trust Fund also provides funds (2.5 percent of the Trust) to support a Gulf Coast Ecosystem Restoration Science Program. Those funds are provided directly to the National Oceanic and Atmospheric Administration (NOAA) for a monitoring, science and technology program.

Additional money from the RESTORE Trust Fund is available to the gulf states under the Centers of Excellence Research Grants Program component. States can use this money (2.5 percent of the Trust Fund to be equally distributed between the five Gulf states) to establish research centers in the Gulf Coast region. Areas of research may include:

- sustainability, restoration, and protection of the coast and deltas
- research and monitoring related to coastal fisheries and wildlife ecosystems in the region
- offshore energy development, including research and technology to improve the sustainable and safe development of energy resources in the Gulf of Mexico and its comprehensive observation, monitoring, and mapping
- sustainable and resilient growth and economic and commercial development in the region

4. The RESTORE Act in Texas

The Office of the Governor and his designee Commissioner Toby Baker lead the state's effort to implement the RESTORE Act. Commissioner Baker represents Texas on the Council and also chairs the Texas RESTORE Act Advisory Board (TxRAB), created by Governor's Office in 2013 to assist and advise in this effort. In recognition of their respective interests in the environmental and economic restoration of the Texas Gulf coast, the membership of TxRAB includes:

- Governor's Office on Economic Development and Tourism
- Public Utility Commission of Texas
- Texas Commission on Environmental Quality
- Texas Comptroller of Public Accounts
- Texas Department of Agriculture
- Texas Department of Transportation
- Texas General Land Office
- Texas Parks and Wildlife Department
- Texas Railroad Commission
- Texas Water Development Board
- Texas Workforce Commission

TxRAB members will designate key personnel to assist in developing the state plans required by the RESTORE Act—MIP and SEP. Texas is committed to an open process for developing these plans. Ideas drawn from a full range of stakeholders will strengthen this process and result in solutions best suited for Texas. In addition to providing project suggestions, the public will be invited to participate in listening sessions to be held along the Texas coast and suggest ideas on what should be included in the Texas RESTORE-related plans. The public will have the opportunity to formally comment on the plans before their submission.

The MIP (direct component) and the SEP (spill impact component) will be submitted to the governor for approval. All final decisions about the plans are within the discretion of the governor.

A website, <www.restorethetexascoast.org/>, discusses the state's activities related to the DWH oil spill. The public may also use this site to submit project applications to receive funds under the three related funding sources: the NRDA, the Gulf Environmental Benefit Fund (NFWF) and the RESTORE Act.

Texas RESTORE Act Policy Guidance

Personnel from Texas natural resource agencies and the Governor's Office drafted policy guidance to aid in setting priorities for projects and programs funded by the RESTORE Act. The guidance represents a consensus on restoration and recovery values developed by the Texas natural-resource agencies and the Governor's Office. It highlights the state's commitment to the Gulf and Gulf Coast and serves as a touchstone for standards and procedures that are being developed for the submission of projects for inclusion in the plans.

The policy guidance demonstrates the wide-ranging scope of the RESTORE Act's goals, the variety of eligible activities and the state's aim to incorporate prudent stewardship, management, and accountability in the use of these funds. Evaluation of project and program suggestions will be based on the listed areas. The policy guidance is posted at <www.restorethetexascoast.org/>. In addition, projects that enhance and complement projects funded by other DWH oil spill sources, such as NFWF and NRDA, will be of particular interest when being considered for RESTORE funding.

Building the Texas RESTORE-Related Plans

The RESTORE Act gives Texas the opportunity to address long-standing needs not possible with previous levels of funding. Texas has more undeveloped contiguous shoreline than any other Gulf state. Therefore, the opportunity to conserve and protect natural resources by using RESTORE dollars on the Texas coast is immense. RESTORE Act funds provide Texas the opportunity to address current challenges and get out ahead of future needs. RESTORE Act funds spent in Texas will benefit the entire Gulf of Mexico

because the expanse of the Texas Coast and its contributions to the entire Gulf are so great.

Along with economic objectives, Texas will pursue the following ecosystem goals in implementation of the RESTORE Act:

- implementing long-standing conservation and development plans,
- integrating the needs of people and the environment,
- anticipating changing environmental conditions and demographics, and
- placing a high value on accomplishing those goals that cannot be accomplished with current traditional funding vehicles.

Ultimately, it is the state, regional and local partnerships that will determine the success of the Texas RESTORE-related plans. Potential partners include a wide range of organizations, those that have collaborated in the past as well as groups that are new to this type of effort. These partnerships will encourage the integration of RESTORE Act funding with other new and existing programs, minimize duplication of effort, and increase leveraging of resources and expertise across funding sources. Working collaboratively will help ensure long-term viability and resiliency of RESTORE-funded initiatives through broad-based, interdisciplinary approaches. Contributions from a wide range of stakeholders are critical to ensure the vitality and durability of natural systems, human communities, and the economy of the Texas coast.

The RESTORE Act provides Texas an unprecedented infusion of funding that gives the State the opportunity to revitalize the coast to meet the needs of 21st-century Texans. This framework document represents the first step in a process that will last years and possibly decades. Decisions made now will shape the landscape and legacy of the Gulf Coast for future generations. Texas seeks to make those decisions carefully, with an eye toward learning from the past and integrating the environment and the economy for the benefit of both. These coordinated efforts will lead to a more vibrant Gulf Coast region that can benefit all Texans.

APPENDIX A.
THE RESTORE ACT

Overview

The **R**esources and **E**cosystems **S**ustainability, **T**ourist **O**pportunities, and **R**evived **E**conomies of the Gulf Coast States **Act** (RESTORE Act), signed into law in July 2012, created the Gulf Coast Ecosystem Restoration Trust Fund. The RESTORE Act authorized the Trust Fund to receive Clean Water Act penalties paid after its enactment by the companies responsible for the 2010 DWH oil spill.

The RESTORE Act also established the Gulf Coast Ecosystem Restoration Council as an independent agency in the federal government. The Council is chaired by the Secretary of the U.S. Department of Commerce. Council membership includes the governors (or their appointees) of Alabama, Florida, Louisiana, Mississippi, and Texas; the secretaries of the U.S. Departments of Agriculture, the Army, Commerce, Homeland Security, and the Interior; and the administrator of the U.S. Environmental Protection Agency.

The Trust Fund is designated for programs, projects, and activities that restore and protect the environment and economy of the Gulf Coast region. The funds are directed to the Gulf Coast region, specifically:

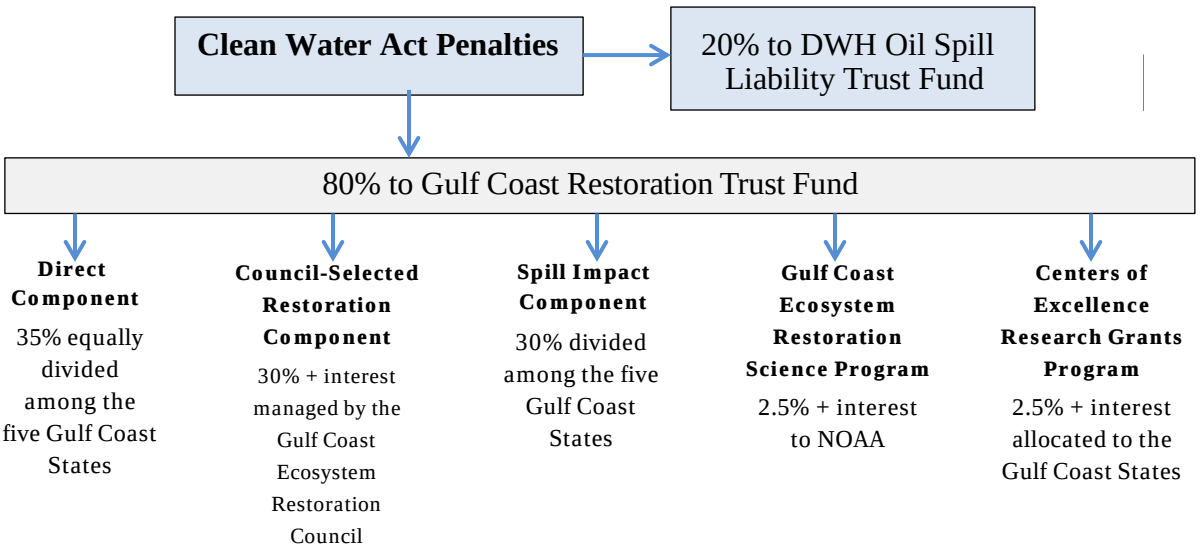
1. the coastal zones, including federal lands, that border the Gulf of Mexico
2. any adjacent land, water, and watersheds within 25 miles of a state's coastal zone
3. all federal waters in the Gulf of Mexico

In Texas, the coastal zone encompasses roughly 8.9 million acres of land and water in all or part of 18 coastal counties: Cameron, Willacy, Kenedy, Kleberg, Nueces, San Patricio, Aransas, Refugio, Calhoun, Victoria, Jackson, Matagorda**,** Brazoria, Galveston, Harris, Chambers, Jefferson, and Orange counties—see maps at www.glo.texas.gov/what-we-do/caring-for-the-coast/_documents/landing-page-folder/CoastalBoundaryMap.pdf.

Division of Civil Penalties

The RESTORE Act authorized the Trust Fund to receive 80 percent of the Clean Water Act administrative and civil penalties paid after the RESTORE Act's enactment by the companies responsible for the 2010 DWH oil spill. The Gulf Coast Ecosystem

Restoration Trust Fund is divided into five components to be used for different purposes under the umbrella of restoration (see Figure).



The first three components make up 95 percent of the Gulf Coast Restoration Trust Fund. The Gulf Coast states have a significant role in determining how the funds in these three components will be spent; however, the states' roles and responsibilities, the eligible activities, and the requirements vary for each component. The Council has responsibilities with respect to two of these components, the Council-selected Restoration Component and the Spill Impact Component, which together comprise 60 percent of the Trust Fund.

Guide to RESTORE Act	
Council's Comprehensive Plan	The Initial Plan was published in August 2013 by the Gulf Coast Ecosystem Restoration Council as *Restoring the Gulf Coast's Ecosystem & Economy*. It sets overall goals for the coordinated, Gulf-wide implementation of the RESTORE Act, as well as specific objectives for funds under the Council-Selected Restoration Component.
Multi-year Implementation Plan	Required of the states under the Direct Component.
Funded Priority List	Will include Texas projects adopted by the Council to be funded under the Council Selected Restoration Component.
State Expenditure Plan	Required of the states under the Spill Impact Component.

Direct Component: Equal-Share State Allocations

The Direct Component is made up of 35 percent of the total Trust Fund and is equally divided among the five Gulf Coast states. These funds are designated for ecosystem restoration, economic development, and promotion of tourism. The RESTORE Act gives states significant discretion to choose restoration activities under this component. Funding comes with limits and conditions, however, including audit requirements, consistency with standard procurement rules, and meaningful public input. Funds from this component may be used to satisfy the non-federal share of any cost-sharing project.

State role and responsibilities:

- Texas will develop a science-based, multi-year implementation plan (MIP) for this component.
- Texas must show that the selection of projects and programs proposed for this funding were selected based on public input.
- Texas must submit plan to U. S. Treasury for acceptance.
- Texas may amend its MIP as additional funds become available and additional projects and programs are proposed for funding.

Council-Selected Restoration Component: Council-Selected Allocations

The Council-Selected Restoration Component makes up 30 percent of the Trust Fund plus half of all the interest earned on investments. This component is administered by the Gulf Coast Ecosystem Restoration Council. Texas may apply for funding under this component. Funds from this component are designated for natural resource restoration and protection projects under the following seven objectives:

1. Restore, enhance, and protect habitats
2. Restore, improve, and protect water resources
3. Protect and restore living coastal and marine resources
4. Restore and enhance natural processes and shorelines
5. Promote community resilience
6. Promote natural resource stewardship and environmental education
7. Improve science-based decision-making processes

State role and responsibilities:

- The Texas governor's appointee will submit projects to the Council for consideration for funding.
- As a member of the Council, the Texas governor's appointee will participate in selecting projects for funding.

Spill Impact Component: Impact-Based State Allocations

The Spill Impact Component is 30 percent of the Trust Fund and is allocated to the five Gulf Coast States according to a formula based on the miles of shoreline oiled by the DWH oil spill, the distance from the spill, and coastal populations. Ecosystem and economic restoration projects are eligible under this component, and projects must be consistent with the goals and objectives of the Council's comprehensive plan. The Council will also evaluate projects for issues that cross Gulf Coast state boundaries. Funds from this component may be used to satisfy the non-federal share of any cost-sharing project.

State Role and Responsibilities:

- Texas will develop a state expenditure plan (SEP) that meets the goals and objectives of the Council's Comprehensive Plan.
- Texas will submit the SEP to the Council for approval.
- As additional funds become available under Bucket 3, Texas will amend its SEP to add projects proposed for funding.

	Direct Component	Council-Selected Restoration Component	Spill Impact Component
	Equal-Share State Allocations (35%)	**Council-Selected Allocations (30% + 50% of the interest)**	**Impact-Based State Allocations (30%)**
Lead Entities	In Texas: Office of the Governor or appointee. Federal: U.S. Treasury	Gulf Coast Ecosystem Restoration Council (6 federal and 5 state members).	In Texas: Office of the Governor or designee. Federal: Chair of the RESTORE Council
Funding Allocation	Each Gulf state receives an equal share ($^1/_5$ of component funding = 7% of Trust Fund).	No specific amounts for each state.	Funds dispersed to the 5 Gulf states based on a formula. Each state receives a minimum of 5% of total annual amount.
Planning Requirements	**Multi-Year Implementation Plan** **(*requires Treasury approval*)** Among other requirements, all states and localities receiving funds must develop a multi-year implementation plan. The state or locality must certify that projects and programs: are designed to restore and protect Gulf Coast resources; carry out one or more of the eligible activities (see below); were selected based on meaningful and broad-based public input; are based on the best available science; and were selected consistent with state procurement rules for comparable projects.	**Comprehensive Plan** **(*developed by the Council*)** The Council has many responsibilities, including approving certain state plans, establishing advisory committees as necessary, and developing a science-based comprehensive plan to restore and protect natural resources. The plan must: prioritize projects that contribute to Gulf restoration, regardless of geographic location; include provisions to "fully incorporate" the findings of the Gulf Coast Ecosystem Restoration Task Force; and include a 10-year funding plan (updated every five years) and three- year list of activities to be funded (updated annually).	**State Expenditure Plan** **(*requires limited Council approval*)** All states receiving funds must develop funding plans that list the projects that will receive grants. The plans must take into consideration the Council's Comprehensive Plan, and be "consistent with" its goals and objectives. Each plan must be approved by the Council; however, this can be satisfied by certification of one state member of the Council and the affirmative vote of the federal chair.

	Direct Component	Council-Selected Restoration Component	Spill Impact Component
	Equal-Share State Allocations (35%)	**Council Selected Allocations (30% + 50% of the interest)**	**Impact-Based State Allocations (30%)**
Eligible Activities	**Funds must be used to achieve ecological or economic restoration of the Gulf Coast.** Activities, which can include previously approved projects, must target at least one of the following: restoration and protection of natural resources; mitigation of damage to natural resources; implementation of a federally approved marine or coastal management plan; workforce development and job creation; improving state parks affected by the spill; infrastructure projects benefitting the economy or ecological resources; flood protection and infrastructure; planning assistance; promotion of tourism; promotion of Gulf seafood consumption; or administrative costs (not more than 3%).	**The Council's Comprehensive Plan must target restoration and protection of Gulf natural resources.** Except for already authorized projects or programs that would further the purpose and goals of the Council and of the RESTORE Act, priority will be given to projects and programs that address one or more of the following criteria: projects that make the greatest contribution to restoring and protecting Gulf Coast natural resources; large-scale projects and programs that are projected to substantially contribute to natural-resource restoration and protection; projects contained in existing Gulf Coast state comprehensive plans for natural-resource restoration and protection; or projects that restore long-term resiliency of natural resources most affected by the DWH oil spill.	**Funds may be used for projects, programs, and activities that will improve the ecosystems or economy of the Gulf Coast region.** These projects, programs, and activities must: be eligible activities as defined for direct component and contribute to the overall economic and ecological recovery of the Gulf Coast. No more than 25% of the funds may be made available for infrastructure projects, unless the plan certifies that the state's ecosystem-restoration needs are addressed by the plan and additional infrastructure investment is necessary to mitigate the impacts of the DWH oil spill.

Gulf Coast Ecosystem Restoration Science Program

This component is made up of 2.5 percent of the total Trust Fund, plus one-quarter of all the interest earned on investments. The funds will be used by the National Oceanic and Atmospheric Administration in consultation with the U.S. Fish and Wildlife Service to establish a new program, called the NOAA RESTORE Act Science Program. The program will pay for research, observation, and monitoring. The program will support, to the maximum extent practicable, the long-term sustainability of the Gulf Coast ecosystem, fish stocks, fish habitat, and the recreational, commercial, and charter fishing industry in the Gulf of Mexico. NOAA may transfer part of the funds to the Gulf States Marine Fisheries Commission.

Centers of Excellence

This component is 2.5 percent of the total Trust Fund plus one-quarter of all the interest earned on investments and is directed to the five Gulf states in equal amounts. Funds will be used to establish Centers of Excellence to conduct research on the Gulf of Mexico region focused on science, technology, and monitoring. States will make competitive grants giving priority to consortia (including public and private institutions of higher education and nongovernmental organizations) that demonstrate the ability to establish the broadest cross-section of qualified participants. Each center shall focus on at least one of the following disciplines:

- Coastal and deltaic sustainability, restoration, and protection, including solutions and technology that allow citizens to live in a safe and sustainable manner in a coastal delta in the Gulf Coast region.
- Coastal fisheries and wildlife ecosystem research and monitoring in the Gulf Coast Region.
- Offshore energy development, including research and technology to improve the sustainable and safe development of energy resources in the Gulf of Mexico.
- Sustainable and resilient growth and economic and commercial development in the Gulf Coast region.
- Comprehensive observation, monitoring, and mapping of the Gulf of Mexico.

APPENDIX B.
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Acronyms and Abbreviations

CBBEP	Coastal Bend Bays and Estuaries Program
Council	Gulf Coast Ecosystem Restoration Council
GIWW	Gulf Intracoastal Waterway
GLO	Texas General Land Office
GOMESA	Gulf of Mexico Energy Security Act of 2005
NFWF	National Fish and Wildlife Foundation
NOAA	National Oceanic and Atmospheric Administration (U.S. Department of Commerce)
NRCS	National Resources Conservation Services (U.S. Department of Agriculture)
NRDA	Natural Resource Damage Assessment
PCB	polychlorinated biphenyl
RESTORE Act	Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act
Strategy	Gulf Coast Ecosystem Restoration Task Force Strategy
Task Force	Gulf Coast Ecosystem Restoration Task Force
TCEQ	Texas Commission on Environmental Quality
TPWD	Texas Parks and Wildlife Department
Treasury	U.S. Department of the Treasury
Trust Fund	Gulf Coast Restoration Trust Fund
USFWS	U.S. Fish and Wildlife Service (U.S. Department of the Interior)

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