### Deepwater Horizon Oil Spill Natural Resource Damage Assessment

# Artificial Reef Creation Off the Texas Coast

## **Phase III Early Restoration Project**

#### PROJECT DESCRIPTION

This factsheet describes four artificial reef projects that will increase diving and fishing opportunities. The Ship Reef Project will sink a ship to create a reef off Galveston. However, if the Ship Reef Project becomes technically infeasible (e.g., due to a lack of appropriate ship options), an alternative reef project off Corpus Christi (Corpus Artificial Reef) will be implemented instead. The Corpus Artificial Reef and two other projects, Matagorda Artificial Reef and Freeport Artificial Reef, will deploy specially designed concrete structures to create new reefs or enhance existing reefs. Below is more information about each project.

#### **Ship Reef Project Description**

The Ship Reef Project will enhance fishing and diving opportunities by sinking a ship to create an artificial reef approximately 67 miles offshore of Galveston, Texas in the Gulf of Mexico. Texas will acquire and sink a suitable ship that is at least 200 feet long. The ship will be cleaned of hazardous substances to meet U.S. Environmental Protection Agency (EPA) criteria, as well as undergo all required federal and state inspections, including inspection by the U.S. Coast Guard and the Texas Parks and Wildlife Department (TPWD). The project area (HI-A-424) is 80 acres of sandy substrate at a water depth of approximately 135 feet.

The High Island 424 (HI-A-424) site was selected after an evaluation of 35 permitted reef sites, and after consideration of numerous other factors, including water depth, proximity to other reef sites and shipping lanes, navigational concerns, buoy marking requirements, proximity to the Flower Gardens Banks National Marine Sanctuary, interference with future petroleum operations, and stakeholder input.

The addition of a ship reef off the northern coast of Texas has wide support from divers, anglers, fisheries managers, the public, and local governments. Ships are constructed of durable and stable material and, once sunk, form complex habitats for attracting marine life, provide recreational opportunities for divers and anglers, and generate economic returns to local communities. The diving community has expressed interest in a ship reef designed

specifically for diving. The TPWD Artificial Reef Program recently received a petition of support for a ship reef project from the Texas Gulf Council of Diving Clubs with more than 500 diver signatures. The estimated cost is \$1,919,765. The total cost for ship remediation, towing, sinking and related work could be \$3-4 million, with additional funding to be provided from the Texas Artificial Reef Program.

## Corpus Artificial Reef Project Description (alternative if Ship Reef Project is not feasible)

The Corpus Artificial Reef Project will increase the amount of reef materials in a currently permitted artificial reef site (MU-775) located within Texas state waters in the Gulf of Mexico and approximately 11 miles from Packery Channel, near Corpus Christi Bay, Texas. Previous deployments placed artificial reef materials into the northwest quadrant and in the center of the 160-acre reef site. The project will place predesigned concrete pyramids in the remaining portions of the 160-acre project area onto sandy substrate at a water depth of 73 feet.

The location for the Corpus Artificial Reef Project was selected after request for and consideration of public input and in accordance with site selection guidelines set out in the Texas Artificial Reef



Diver near an artificial reef off the Texas Coast

Fishery Management Plan (TPWD 1990). Consultations began with the Saltwater-Fisheries Enhancement Association and the City of Corpus Christi over the concept of reefs off Corpus Christi in Texas state waters in 2009. The location was approved through several city council meetings where numerous people provided comments in support of the project. The total estimated cost of the project is \$1,919,765.

## Matagorda Artificial Reef Project Description

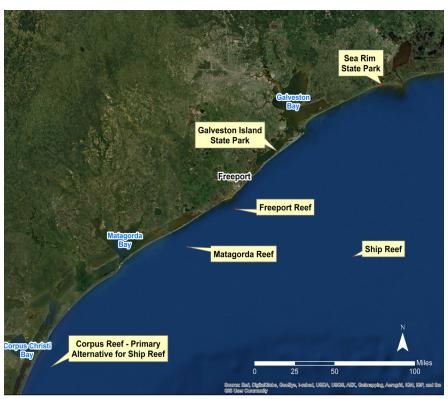
The Matagorda Artificial Reef Project will create a new artificial reef site (BA-439) within Texas state waters in the Gulf of Mexico, approximately 10 miles (8.7 nautical miles) offshore of Matagorda County, Texas. The project will create 160 acres of artificial reef, through deployment of concrete pyramids onto sandy substrate at a water depth of 60 feet. The total estimated cost of the project is \$3,552,398.

## Freeport Artificial Reef Project Description

The Freeport Artificial Reef Project will increase the amount of reef materials in a currently permitted artificial reef site (BA 336), the George Vancouver (Liberty Ship) Artificial Reef, located within Texas state waters in the Gulf of Mexico and approximately six miles from Freeport, Texas. The current reef site is permitted for 160 acres, but only has materials in 40 acres. The project will place predesigned concrete pyramids in the remaining portions of the 160-acre permitted area onto sandy substrate at a water depth of 55 feet.

This is a legacy reef originally permitted in 1976 with the sinking of the George Vancouver Liberty Ship. The reef permit was later transferred from the Texas Coastal and Marine Council to the TPWD in the 1980s before the TPWD's Artificial Reef Program was formally established. The TPWD Coastal Resources Advisory Committee, composed of agency and industry representatives, provided input on reef expansion. The reef is utilized by numerous recreational fishermen and the George Vancouver Liberty Ship has attracted divers over the years. Commercial fishermen avoid the reef site as it is a well-known "wreck" marked with a navigational buoy and on NOAA charts. The total estimated cost of the project is \$2,155,365.

Texas experienced a loss of recreational use along the Texas coast during the spill, including recreational fishing, beach use, camping, diving, and wildlife viewing, among other activities. The artificial reef projects will enhance opportunities for public use and enjoyment of natural resources, helping to address recreational losses.



Locations of all Phase III early restoration projects in Texas

# FOR MORE INFORMATION CONTACT

Dale Shively
Artificial Reef Program Leader
Texas Parks and Wildlife Department
dale.shively@tpwd.texas.gov
512-389-4686



Red snapper at an artificial reef off the Texas coast. Artificial reefs support diverse marine life communities, including game fish important for sport anglers and commercial fisheries.

















