



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

October 14, 2008

Eric Hawk  
Section 7 Coordinator  
Office of Protected Resources  
National Marine Fisheries Service  
263 13<sup>th</sup> Avenue, South  
St. Petersburg, Florida 33701

Reference: Greens Bayou site - Hazardous Substance Release Compensatory Restoration - ESA  
Section 7 Consultation

Dear Mr. Hawk:

The National Oceanic and Atmospheric Administration (NOAA), and the United States Fish and Wildlife Service on behalf of the U.S. Department of the Interior (USFWS), along with the Texas Parks and Wildlife Department (TPWD) and the Texas Commission on Environmental Quality (TCEQ)(collectively, the 'Trustees'), found that resources or resource services were lost due to the release of hazardous substances in certain areas at or adjacent to the Greens Bayou site in Harris County, Texas (the 'Site').

In order to compensate the public for these lost natural resources or natural resource services, the Trustees are proposing, as the preferred alternatives for the Site, the construction of approximately 10.89 acres of vegetated intertidal wetlands as well as the preservation in perpetuity of 100.0 acres of forested wetlands in the upper Galveston Bay, Buffalo Bayou or San Jacinto River watersheds.

Consistent with Section 7 of the federal Endangered Species Act, the Trustees are writing to seek your concurrence with our determination that the preferred alternatives are not likely to adversely affect threatened or endangered species known to utilize habitat in the vicinity of the proposed project area. Below, we provide a summary of the proposed actions, a description of the threatened or endangered species in the area, our analysis of the potential effects, and our conclusion regarding the effects of the actions on threatened or endangered species. The potential effects of the actions on designated critical habitat will not be addressed, since the location of the proposed restoration projects is not critical habitat for any listed species.

***Description of the Proposed Action***

**Marsh construction:**

The proposed restoration action involves marsh creation through excavation of fill material overburden and filling of submerged areas to achieve intertidal elevations. Over-burden will be excavated to elevations similar to the adjacent marshes. Material will be excavated from the artificial upland areas using appropriate equipment. The material will be deposited in shallow, open water areas adjacent to the artificial uplands and will be placed to elevations similar to the excavated areas, as well as adjacent restored marshes. This action is expected to provide approximately 10.89 acres of substrate for the natural recruitment and re-colonization of native, desirable marsh vegetation.

The goals of the preferred project are (1) to increase tidal exchange, thereby increasing the benthic productivity of the project area, and (2) to create an additional 10.89 acres of sustainable, functionally equivalent brackish marsh. The project will be constructed by representatives of the PRPs, with close coordination and oversight by the Trustees.



Forested wetland preservation:

The proposed restoration action consists of fee simple acquisition of 100 acres of forested wetlands threatened by development for sand and gravel mining, timber harvesting, and residential housing construction. The property will be acquired from a willing seller with clear title, with title to be held by the government of Montgomery County. A conservation easement for the same property will be held by Legacy Land Trust, and conservation easement fees will be provided for baseline biological monitoring, annual monitoring, and legal enforcement of the easement provisions. Third party rights of enforcement will also be retained by the Trustees.

The goals of the preferred project are (1) to remove the potential for mining, timber, or residential development of the property currently threatening the ecological integrity of the site, and (2) to ensure the continued provision of ecological services from the preserved property comparable to those lost due to injury to natural resources associated with the planning and implementation of the Confined Disposal Facility and Borrow Area.

***Description of the Threatened and Endangered Species***

As of July 5, 2006, three species under the jurisdiction of the National Marine Fisheries Service (NMFS) are classified as threatened or endangered under the ESA and were known to utilize habitat in the vicinity of the proposed project. Those are:

***Kemp's ridley sea turtle (*Lepidochelys kempii*)***

The Kemp's ridley is an endangered sea turtle that occurs mainly in the coastal areas of the Gulf of Mexico and northwestern Atlantic Ocean. Juveniles and sub-adults occupy shallow, coastal regions and are commonly associated with crab-laden, sand or muddy water bottoms. Small turtles are generally found in nearshore areas of the coast from May through October. Adults may be abundant near the mouth of the Mississippi in the spring and summer. Adults and juveniles move offshore to deeper, warmer water during the winter. Between the East Gulf Coast of Texas and the Mississippi River Delta, Kemp's ridleys use nearshore waters, ocean sides of jetties, small boat passageways through jetties, and dredged and nondredged channels. They have been observed within both Sabine and Calcasieu Lakes. Major threats to this species include over-exploitation on their nesting beaches, drowning in fishing nets, and pollution.

***Green sea turtle (*Chelonia mydas*)***

Green sea turtles rarely occur along the Texas coast and have been documented to nest on Padre Island national seashore. Their distribution can be correlated to water temperature, grassbed distribution, location of nesting beaches, and associated ocean currents. The primary nesting sites in U.S. Atlantic waters are along the east coast of Florida, with additional sites in the U.S. Virgin Islands and Puerto Rico (NMFS and USFWS 1991a). Females deposit up to 7 clutches, and the number of nests has been estimated to be between 350 to 2,300 nests annually. Green sea turtles nest at 2-, 3-, or 4-year intervals. Long migrations have been documented between feeding and nesting grounds. Adult green sea turtles feed almost exclusively on seagrasses growing in shallow water flats, but invertebrates and carrion are also important components of their diet (Dundee and Rossman 1989).

***Loggerhead sea turtle (*Caretta caretta*)***

Loggerheads are capable of living in a variety of environments, such as in brackish waters of coastal lagoons and river mouths. During the winter, they may remain dormant, buried in the mud at the bottom of sounds, bays, and estuaries. The major nesting beaches are located in the southeastern United States, primarily along the Atlantic coast of Florida, North Carolina, South Carolina, and Georgia (NMFS and USFWS 1991b). Loggerheads are occasional visitors to the Texas coast. The loggerhead's diet includes marine invertebrates such as mollusks, shrimp, crabs, sponges, jellyfish, squid, sea urchins, and basket

stars (NMFS and USFWS 1991b). Adult loggerheads feed in waters less than 50 meters deep, while the primary foraging areas for juveniles appears to be in estuaries and bays.

***Effects to Threatened and Endangered Species***

Due to the lower salinity range of the project area, and its location north of the marine and beach zone preferred by sea turtles, it is unlikely that the green, Kemp's ridley, or loggerhead sea turtles will utilize the area. None of these species are considered to be exposed to, or at risk of, injury due to hazardous substance releases at the Site. The estuary's habitats provide general support for any threatened and endangered species migrating through or utilizing these communities. Because the proposed project will provide beneficial habitats, no net adverse impacts are expected on any endangered or listed species found within the project area. Therefore, the Trustees determined that construction of the preferred project is not likely to adversely affect sea turtles.

***Conclusion***

Based on review of the species present in the area and the techniques being used to implement the restoration, the Trustee representative from NOAA anticipates that creation of 10.89 acres of intertidal wetland and preservation of 100.0 acres of forested wetland are not likely to adversely affect threatened or endangered species utilizing habitat in the proposed project area.

If the Office of Protected Resources disagrees with this determination and recommends additional conservation measures, please inform me within 10 days of your receipt of this letter. Please do not hesitate to contact me if you need additional information.

Sincerely,



Jean Cowan  
Marine Habitat Resources Specialist  
NOAA Restoration Center  
LSU Sea Grant Building  
Baton Rouge, Louisiana  
70803

Attachments – Draft DARP/EA

Cc: Lisa DiPinto, NOAA NOS/ARD  
Jessica White, NOAA NOS/ARD  
Sheila O'Brien, NOAA GCNR  
Administrative Record  
Russell Swafford, NOAA NMFS  
Heather Young, NOAA NMFS  
Kristopher Benson, NOAA NMFS  
Brian Hostetter, NOAA NMFS  
Tammy Ash, USFWS