The project is located on Point Au Fer Island, approximately 30 miles south of Morgan City, Louisiana, in Terrebonne Parish. The project is divided into two areas. Area 1 consists of saline and brackish marshes on the southeastern portion of the island between Mosquito Bay and the Gulf of Mexico. Area 2 consists of brackish marsh on the southwestern portion of Point Au Fer.

Pipeline canals and access channels on Point Au Fer Island are conduits for saltwater intrusion into the island's interior marshes. During periods of low river flow in which the input of fresh water declines, the elevated salinity levels cause the breakup of the island's marshes. In addition, storm-induced breaches along sections of the gulf shoreline immediately adjacent to oilfield canals also allow salt water to penetrate the island's interior.

Under Phase 1, a series of wooden plugs reinforced with oyster shells was constructed in two major natural gas/oil pipeline canals on the eastern half of the island. Under Phase 2, a rock shoreline stabilization structure was built along a thin stretch of beach separating the Gulf of Mexico from a minerals access canal. The project has reestablished the natural hydrology of the island, preventing saltwater intrusion into the island's interior brackish marshes and protecting over 4,000 acres of wetlands habitat.

The shoreline erosion rate along the plugged canals (Phase/Area 1) has not been reduced. Visual observations indicate that the shoreline stabilization project (Phase/Area 2) has halted erosion, but monitoring data is still under analysis. This project is on Priority Project List 2.