Cheniere Au Tigre Sediment Trapping Demonstration (TV-16)
Coastal Wetlands Planning, Protection and Restoration Act
2001 and 2005 Photomosaics and Land-Water Analyses

Project Description:
This project is located in southeastern Vermilion Parish, Louisiana, on the shoreline of the Gulf of Mexico, approximately 15 miles (24 km) south of Intracoastal City. Cheniere Au Tigre is part of the chenier plain, which developed during the past 5,000 years through westward littoral transport of Mississippi River Delta sediments, in combination with deposition of local fluvial sediments. The development of cheniers coincided with eastward shifts in the course of the Mississippi River. Cheniers are erosional beach ridges composed of sand and shell fragments that parallel the current shoreline. Yields in the project area have occurred as beach and backshore marsh have converted to open water. Shoreline retreat in this area between 1964 and 1989 was measured to be 25.6 ft yr\(^{-1}\) (8.1 m y\(^{-1}\)). This loss has resulted primarily from erosion scouring caused by the same littoral currents which can also contribute to sediment accretion. The construction of rock breakwaters serves to protect the current shoreline of Cheniere Au Tigre and prevents further wave-induced erosion. Each breakwater is 200 ft (61 m) long, with a 120-ft gap (37 m) between segments. These segments were constructed parallel to the shoreline at a distance of 200 ft (61 m) offshore. Settled elevation of the rock segments will be 3.5 ft (1 m) above marsh elevation.

Land/Water Analysis:
To determine land/water analysis, aerial photographs were scanned and habitats were classified according to “Classification of wetlands and deepwater habitats of the United States” (Cowardin and others, 1979). All areas characterized by emergent marsh, scrub-shrub, upland, and dunes that are not affected by tide were classified as land. Areas characterized by open water, aquatic beds, and mud flats were classified as water.

2001 and 2005 Acreages

<table>
<thead>
<tr>
<th>Class</th>
<th>2001</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
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<tr>
<td>Water</td>
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<td>&lt;1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

Scale = 1:2,500

Data Source:
The land/water data were obtained from color infrared aerial photography at 1:1,000 scale on March 11, 2001, and April 17, 2005. Project Location is shown here at 1:2,500 scale.

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