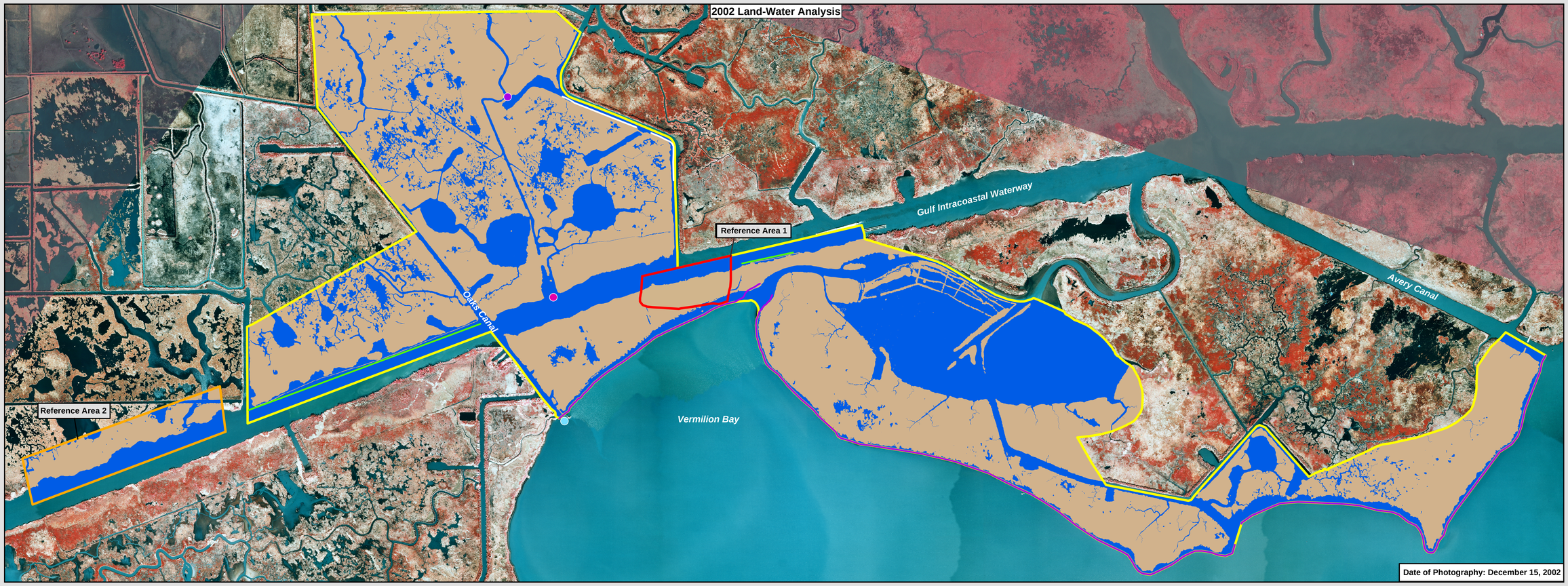
Oaks/Avery Canal Hydrologic Restoration, Increment 1 (TV-13a)

Coastal Wetlands Planning, Protection and Restoration Act

2002 and 2006 Land-Water Analyses



Project Location Background:
Oaks/Avery Canal Hydrologic Restoration project area is located in the extreme eastern portion of Vermilion Parish and southwestern portion of Iberia Parish, north of Vermilion Bay. The Vermilion Bay shoreline makes up most of the southern boundary of the project area. The major tributaries and waterways within the project area are Oaks Canal to the west, Avery Canal on the east, and the Gulf Intracoastal Waterway (GIWW), which traverses the project area east to west.

Project Strategies:
The project consists of several unrelated restorative components designed to address different land-loss problems within the project area: protection of Vermilion Bay shoreline with vegetative plantings; protection of GIWW bankline with rocks dikes; and stabilization of water level variability north of the GIWW and east of Oaks Canal.

The Vermilion Bay shoreline is subject to high-energy, wind-driven waves because of the large fetch of Vermilion Bay. Vegetative plantings provide protection for erosion-impacted areas by stabilizing sediment with live root mass. Aboveground plant structures also dissipate wave energy.

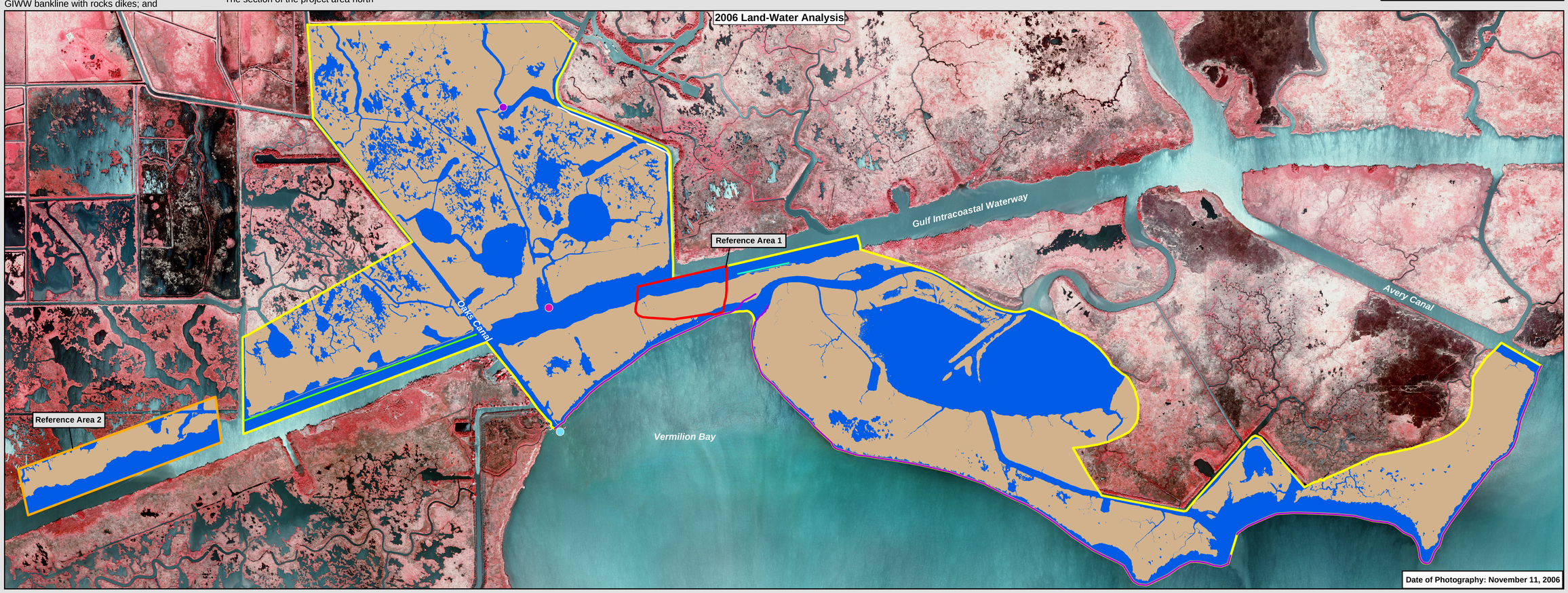
Boat wakes from heavy commercial traffic subject the banks of the GIWW within the project area to erosion. To address this issue, wave protection from marine traffic has been provided along sections of the GIWW by freestanding dike sections of rip-rap material placed approximately 25-30 feet from the existing "cut" bank. The section of the project area north of the GIWW and east of Oaks Canal is currently subject to increased effects of tidal action and frontal storm passage, and from water surges created by daily barge traffic in the GIWW. A low-sill rock weir was set two feet below marsh level, approximately 150 feet north of this area to the GIWW, to stabilize water levels. An existing spoilbank (from the weir, south to the Intracoastal Canal) was refurbished to prevent the possibility of water flow bypassing the structure.

Class		2002 Land-Water Acreage Results			2006 Land-Water Acreage Results		
		Project Area	Reference Area 1	Reference Area 2	Project Area	Reference Area 1	Reference Area 2
Land		1,911	30	69	1,865	18	66
Water		975	17	57	1,021	29	60
Total		**2,886**	**47**	**126**	**2,886**	**47**	**126**

Comments:
On September 24, 2005, Hurricane Rita made landfall near the Texas-Louisiana border at Category Three strength with sustained winds around 120 mph. Significant damage along the Louisiana coast was caused by high winds and high storm surge. Intracoastal City, which is 11 miles west of the TV-13a project, recorded a water level of 10.73 feet above NAVD 88.

Reference:
http://pubs.water.usgs.gov/ds220

- Project Area
- Reference Area 1
- Reference Area 2
- Rock Dike
- Spoilbank Refurbishment
- Vegetative Shoreline Protection
- Rock Plug Closure
- Low Sill Rock Weir/Bank Paving
- Sheetpile Weir



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and
Louisiana Department of Natural Resources
Coastal Restoration Division
Lafayette Field Office

Project Location



Vermilion Parish
and
Iberia Parish

Scale 1:12,000

0.5 0 0.5 1 1.5 2 Miles

0.5 0 0.5 1 1.5 2 Kilometers

Data Source:
The land-water data were derived from 1:12,000 scale, color infrared aerial photography acquired December 15, 2002 and November 11, 2006. All areas characterized by emergent vegetation, upland, wetland forest, or scrub-shrub were classified as land, while open water, mud flats, and aquatic beds were classified as water. Data for the 2002 Land-Water Analysis were overlaid on a 2005 Color Infrared Digital Orthophoto Quarter Quadrangle.

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