

PPL24 PROJECT NOMINEE FACT SHEET
January 30, 2014

Project Name: St. Joseph Bay Shoreline Protection and Marsh Creation

Project Location:

Region 2, Barataria Basin, Lafourche Parish, southwest of Little Lake

Problem:

Historic wetland loss in the area was caused mainly by altered hydrology from canals and levees, wind erosion and the shoreline of Little Lake, sediment deprivation, and natural subsidence. Based on the hyper-temporal analysis conducted by USGS for the extended project boundary of the Northwest Turtle Bay project during PPL21 analysis, loss rates in the area are estimated to be -0.61% per year for the period 1984 to 2011. Using maps from 1998 and 2012, shoreline erosion rates were calculated along the St. Josephs Bay area. Shoreline erosion rates in that area ranged from 76 f.t/yr to 10 ft./yr. A 6,615 LF section of shoreline was estimated to have an average erosion rate of 10 ft./yr and a second section (9,134 LF) was estimated to have an average erosion rate of 40 ft/yr.

Goals :

The goals of the project are to 1) protect approximately 15,749 feet of critical shoreline, 2) protect approximately 116 acres of marsh habitat, and 3) create approximately 208 acres of marsh and nourish approximately 149 acres of marsh (357 acres total) with dredged material from Little Lake.

Proposed Solutions:

The proposed project would protect approximately 15,749 feet of critical shoreline and preserve 116 acres of existing marsh by constructing a foreshore rock dike along the shoreline at the 1.5 foot contour. Maintenance of the shoreline protection feature would be included.

The proposed project would also create approximately 208 acres and nourish approximately 149 acres of marsh using sediment hydraulically dredged from Little Lake. Existing canal spoil banks, emergent marsh, and segments of containment dikes will be used to guide the distribution of the dredged material. Containment dikes will be degraded/gapped as necessary to reestablish hydrologic connectivity with adjacent wetlands.

Preliminary Project Benefits:

1) What is the total acreage benefited both directly and indirectly? Approximately 556 acres would be benefited directly.

2) How many acres of wetlands will be protected/created over the project life? The total net acres protected/created over the project life is approximately 305 acres.

3) What is the anticipated loss rate reduction throughout the area of direct benefits over the project life (<25%, 25-49%, 50-74% and >75%). 50-74%

4) Do any project features maintain or restore structural components of the coastal ecosystem such as barrier islands, natural or artificial levee ridges, beach and lake rims, cheniers, etc.

This project would contribute to protection of the Central Barataria Basin Landbridge and protect a portion of the Little Lake shoreline.

5) *What is the net impact of the project on critical and non-critical infrastructure?* There are several camps and oil and gas infrastructure that would benefit from this project as well as numerous pipelines would benefit from reducing land loss in the area.

6) *To what extent does the project provide a synergistic effect with other approved and/or constructed restoration projects?* This project would work in sync with BA-2, BA-27, BA-20, BA-23, BA-03a, BA-26, BA-36 (and associated CIAP project), and BA-41, contributing to protection of the Central Barataria Basin Landbridge.

Identification of Potential Issues:

The proposed project has the following potential issues: there are pipelines in the project area and in Little Lake. Little Lake is designated as an oyster seed ground. O&M is also included for the shoreline protection feature.

Preliminary Construction Costs:

The estimated construction cost including 25% contingency is \$25 M.

Preparer(s) of Fact Sheet:

Robert Dubois (337) 257-4345 robert_dubois@fws.gov