Phase 4 of the Barataria Landbridge Project begins at the intersection of Bayou Rigolettes and the Barataria Waterway in Jefferson Parish, Louisiana. It extends about 31,500 feet southward along the east bank of Bayou Rigolettes and ties in to the northern limit of Phases 1 and 2.

The Barataria Landbridge is deteriorating, quickly eroding due to poor soils and increased fetch lengths. Analyses performed by the U.S. Geological Survey show that roughly 88%, or approximately 28,000 feet of the project's shoreline length, is experiencing an erosion rate of 26 feet per year.

The project's main objective is to reduce or eliminate shoreline erosion along 31,500 feet of shoreline.

To reach this goal, a rock revetment was constructed, incorporating six openings to allow the exchange of water and organisms.

The proposed project was an integral part of the Landbridge Concept. The project will be maintained for the full 20-year project life, with the effects lasting beyond.

This project was selected for Phase I (engineering and design) funding at the January 2002 Breaux Act Task Force meeting. Project construction was completed in 2005. It is included as part of Priority Project List 11.