



*Image: Lane Lefort Photography*



# MAPS OF BTES

## Watershed and Basins

### Where is the BTES?

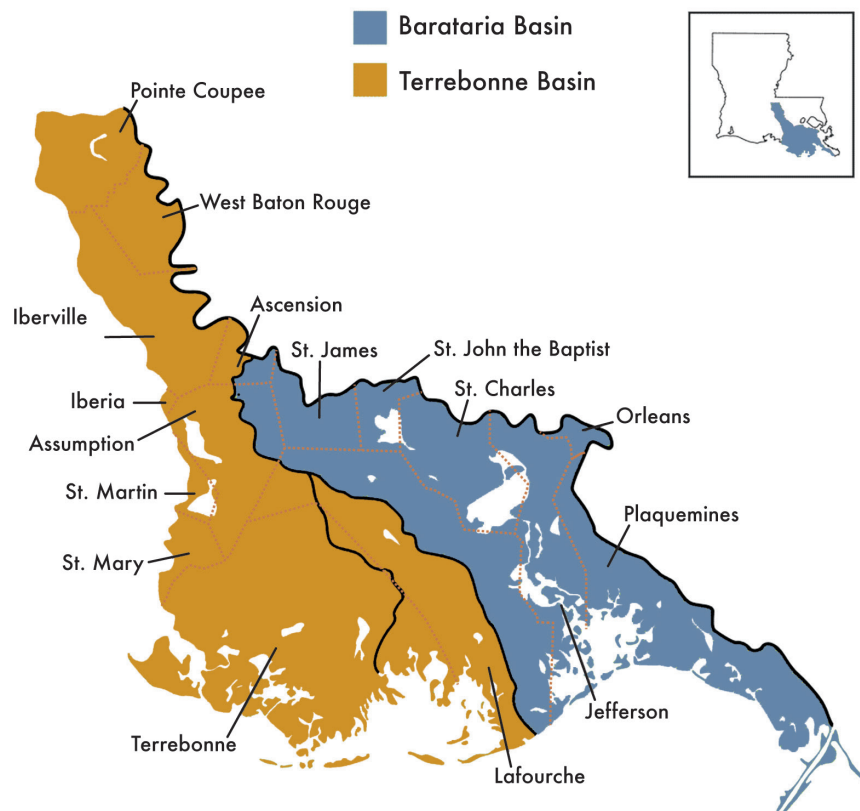
Louisiana is frequently associated with beautiful swamps that provide home to diverse plant and animal communities. Many of these common visuals associated with Louisiana's bayou country are found in this estuary system. The triangular shaped region that lies in the east southeast part of the state is the home of the Barataria-Terrebonne estuary.

The Barataria-Terrebonne estuarine complex encompasses the 4.2 million acres of wetlands, ridges, forests, farmlands, and communities between the Mississippi and Atchafalaya River Basins in southeast Louisiana. The southernmost edge of the estuary is bound by the Gulf of Mexico. This land was built by the Mississippi River depositing its sediments over thousands of years. While geologically young, BTNEP's area is approximately 95 times larger than our nation's capital. (The BTES is approximately 4,200,000 acres; Washington D.C., the U.S. capital, is presently approximately 44,000 acres.)

The estuary contains all or part of 16 parishes including: Pointe Coupee, West Baton Rouge, Iberville, Iberia, Ascension, Assumption, St. James, St. John the Baptist, St. Martin, St. Charles, St. Mary, Orleans, Terrebonne, Lafourche, Jefferson, and Plaquemines.

The watershed of the BTES includes the Mississippi River drainage basin. This is the third largest drainage basin in the world. The drainage basin includes all or part of 31 states and two Canadian provinces. It drains 41 percent of the landmass of the 48 contiguous states in the central U.S. The basin acts like a funnel bringing water down to the estuary and Gulf of Mexico.

Although the estuary is at the mouth of the largest drainage basin in North America, it is being deprived of sediments that once built up the land. According to the USGS's analysis in 2016, Louisiana lost an average of 16.6 square miles of land a year from 1985 to 2010, which equates to roughly a football field per hour. In total, the state lost 2,006 square miles of land between 1932 and 2016 — an area over 1.2 times larger than Rhode Island. The BTES is at the heart of the loss. Louisiana's land loss involves three main factors: reduced sediment flow from the Mississippi River and its tributaries, subsidence, and sea-level rise. These factors are both natural and human-made.



*Barataria-Terrebonne Basins. Image: BTNEP*

Louisiana marshes need a source of sediment to survive. Historically, the Mississippi River provided the sediment. Now, however, levees confine the sediment to the river thus bypassing the marshes and ultimately depositing it on the continental shelf in the Gulf. Today, the river carries up to 80 percent less sediment than it did a century ago. Dams, reduction in land clearing and tilling, and implementing conservation measures that reduce erosion upriver are the major causes of the reduction. Canal dredging and marsh fragmentation added to the loss. Thus, even if all of the levees along the Mississippi River were removed today, the marshes would still receive significantly less sediment than they did in the 1800s.

Our coastal marshes constantly undergo a natural process called “subsidence” which results in the land slowly sinking. In the past, the rate of sediment building equaled or surpassed the rate of sinking and the level of the marsh remained above the level of the sea. Still, some sediment does move into coastal marshes during hurricanes and winter cold fronts when wind-driven waves stir mud on the bottom of shallow bays. The volume of this sediment, however, is usually inadequate to counter the effects of subsidence. The existence of levees, canal banks, roadbeds, railroad embankments and changes upriver contribute to the problem of inadequate sediment distribution in our coastal marshes.



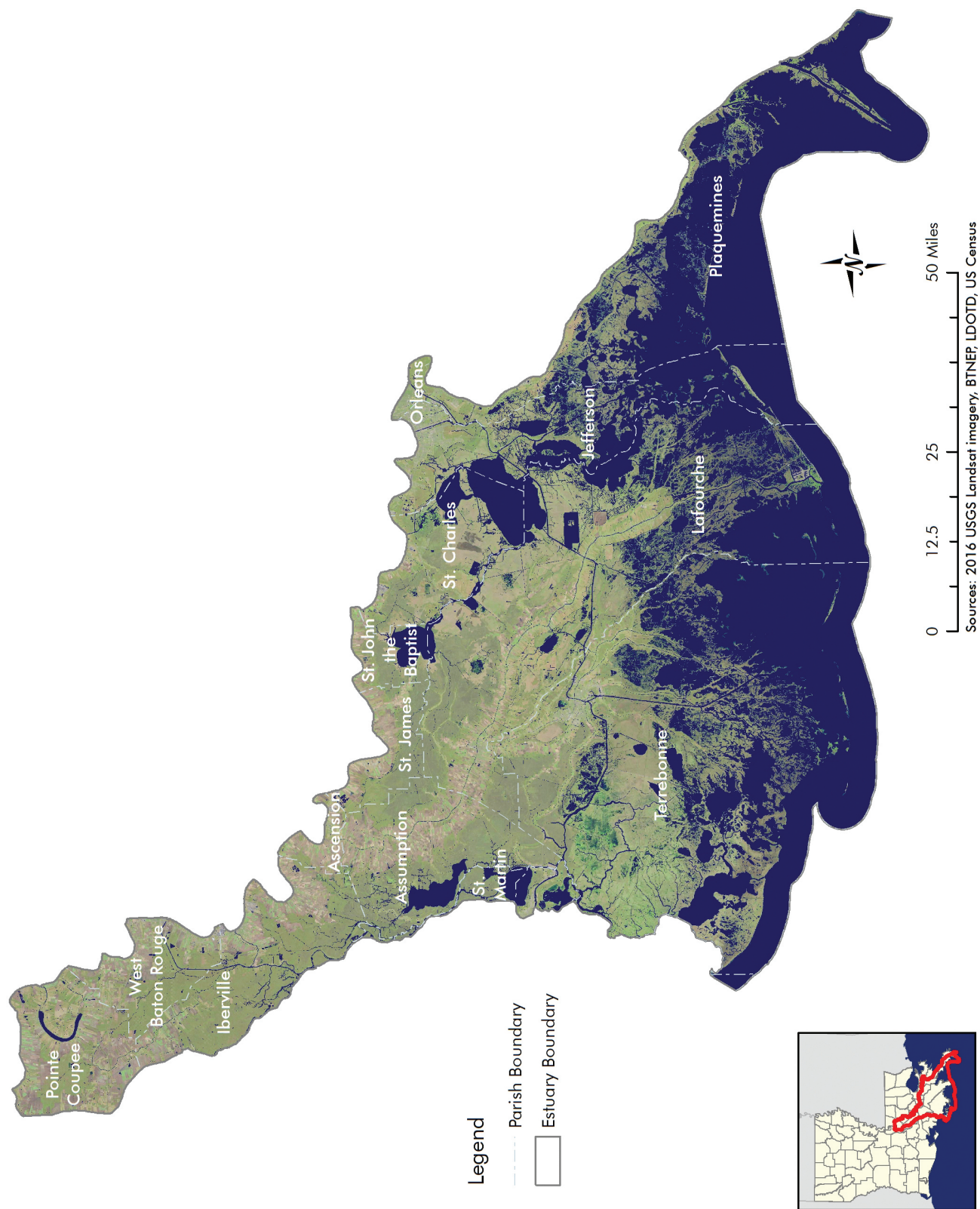
*The Mississippi River Watershed is the watershed for the BTES. Image: BTNEP*

Relative sea level rise in Louisiana has been estimated to be six times the average rate of other coastal areas because of the amount of subsidence being experienced. Some land loss and sea level rise will inevitably continue, but with awareness of the issues, a strong sense of stewardship, and a commitment of cooperation from all stakeholders, we can turn the tide.

Wetlands are special habitats in our nation and provide homes to a variety of mammals, birds, fishes, shellfish, and amphibians. Wetlands also act as water collectors and water quality improvers. Wetlands clean water that carries non-point source (NPS) pollution. A variety of microorganisms that live in the waters of wetlands consume waste material. Wetlands contain water during heavy rain events, reduce storm surge of hurricanes, and return

surface water to aquifers. Wetlands provide erosion control by trapping sediment and providing a footing for wetland plants. Each of the wetland habitats in the estuary also provides resources that are used for business, economic, social, recreational, and cultural interactions. This fertile estuary also supports people throughout the country who depend on it for its natural resources of shrimp, oysters, crabs, oil and gas, sugar, and lumber as well as recreational activities such as hunting, fishing, or ecotourism.





Map of the Barataria-Terrebonne Estuary

More Than Just Maps

# BTNEP CULTURES

Groups Who Live in Louisiana's Estuaries

