



Figure 15. Location of the ecologically significant Nueces River Tidal Segment (TNRCC segment 2101) between Calallen Dam and Nueces Bay (Base map source: TxDOT county files).

### Nueces River Tidal

The tidal segment of the Nueces River (TNRCC stream segment 2101) runs from the Calallen saltwater barrier (Fig. 18) about 12 miles to its confluence with Nueces Bay (Fig. 15). The ecological significance of this segment is based upon the following criteria:

1. Biological function - This tidal segment supports extensive estuarine wetlands (Figs. 16 & 17)<sup>12</sup>. These wetlands, and the tidal river segment itself, support valuable commercial and recreational estuarine fisheries and wildlife resources<sup>1,5</sup>.
2. Hydrologic function - Historically, the Nueces River distributed fresh water to the head of the deltaic marshes via channels such as Rincon Bayou. Human alterations have rerouted that water directly into Nueces Bay. The Federal Bureau of Reclamation, in an effort to partially compensate for the alterations, dredged a channel from the river to Rincon Bayou (Fig. 19). The goal was to provide more water (when the river floods) to the water-starved estuarine wetlands like those shown in Figure 20. The productivity of the estuarine wetlands could be greatly increased if even more water could be rerouted.
3. Riparian conservation areas - Nueces River Park (City of Corpus Christi), along the river on both sides of IH-37, is very popular for camping, fishing, and as a boat launch site. It also is site CTC 075 on the Great Texas Coastal Birding Trail<sup>10</sup>. Riparian woodlands attract migrating songbirds in the spring.
4. High water quality/exceptional aquatic life/high aesthetic value - This segment supports a very diverse and abundant population of estuarine fish and shellfish, and therefore a very high level of recreational boating and fishing due to its proximity to Corpus Christi<sup>1</sup>.
5. Threatened (T) or endangered (E) species/unique communities - Rare species that occur in or along this segment include the brown pelican (Fed. & St. E), piping plover (Fed. & St. T), reddish egret (St. T), snowy plover, white-faced ibis (St. T), wood stork (St. T), and possibly migrating whooping cranes (Fed. & St. E); the opossum pipefish (St. T); the Gulf saltmarsh snake, indigo snake (St. T), and diamondback terrapin<sup>9</sup>. The deltaic marshes of the Nueces River, although starved for freshwater inflow, are an irreplaceable natural resource of considerable economic value.



Figure 16. Estuarine wetlands associated with the tidal segment (TNRCC segment 2101) of the Nueces River. Source: Odem and Annville DOQs, 1995, 1m CIR<sup>2</sup>.

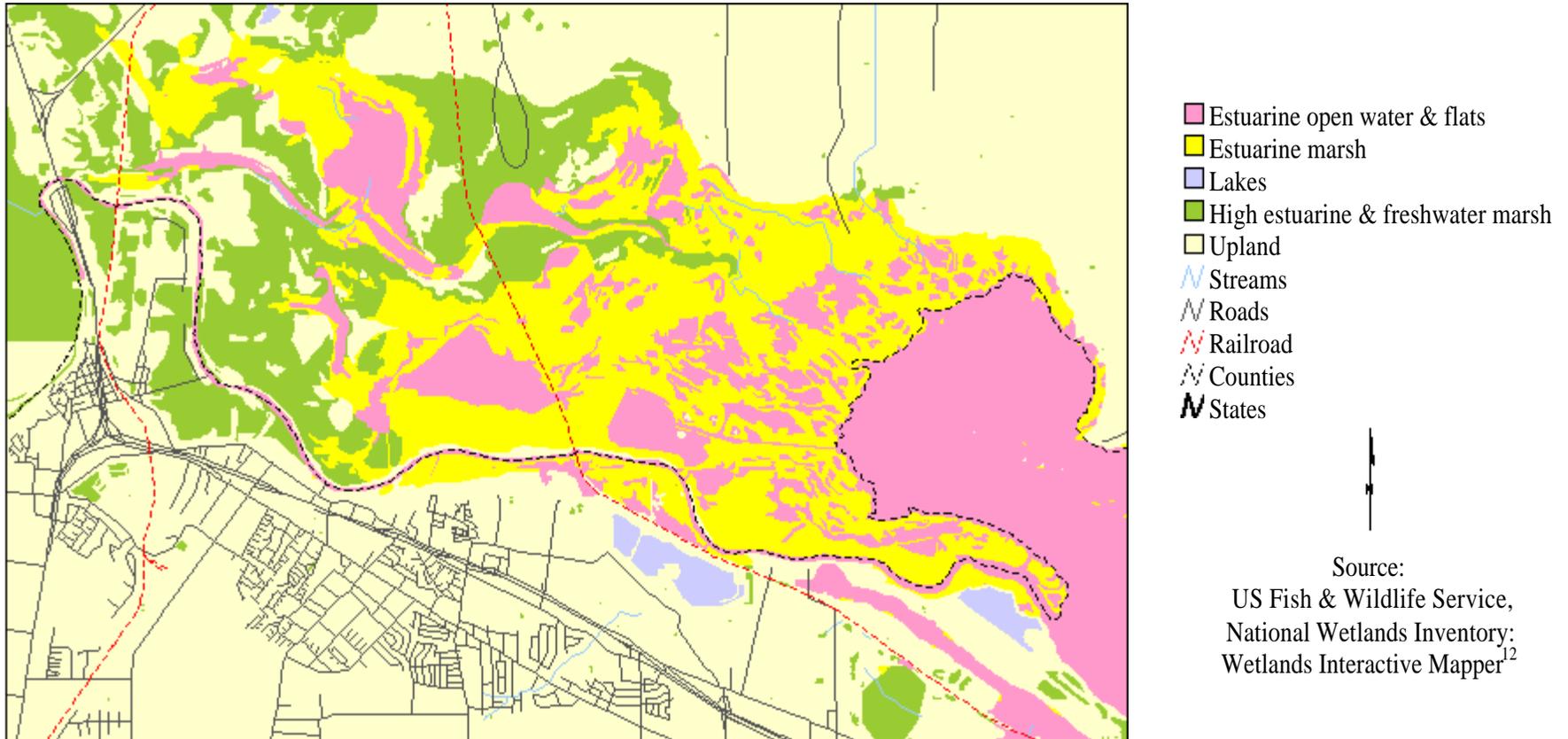


Figure 17. Mapped wetland habitat of the Nueces River Delta (See Fig. 16).



Figure 18. The saltwater barrier on the Nueces River at Calallan, Texas.



Figure 19. The dredged channel between the Nueces River and Rincon Bayou just downstream of IH-37.



Figure 20. Ir regularly flooded intertidal estuarine wetlands within the Nueces River Delta marsh.