

Schicke Point Living Shoreline

Response to Matagorda Bay Mitigation Trust
RFP# 2020-2021-1



Applicant:

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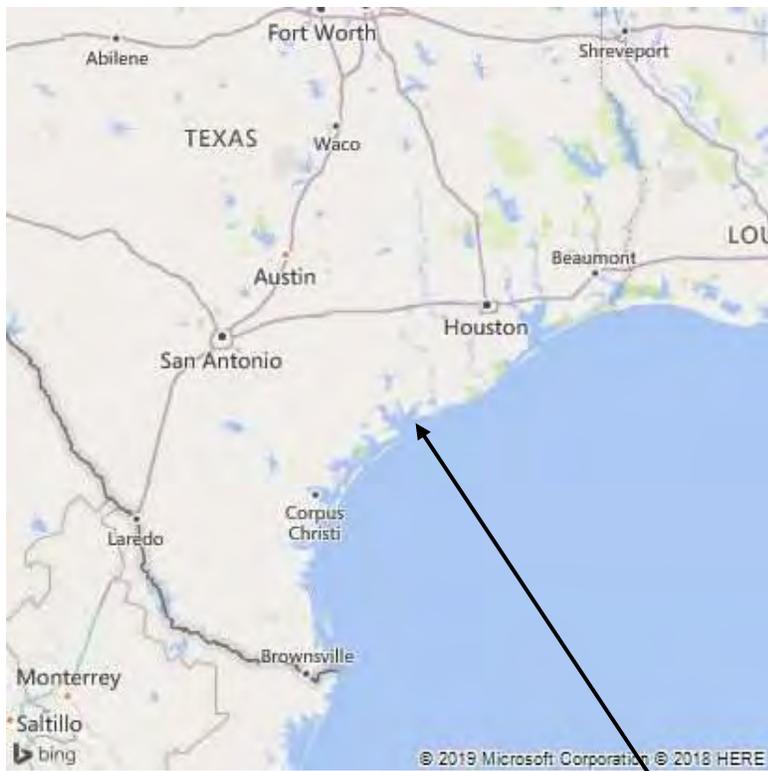


Figure 1. Project location (Google Earth photograph from December 1, 2018).



Figure 2. Schicke Point living shoreline constructed in May 2017 showing bands of sediment accumulation and Smooth Cordgrass/oyster marsh complex behind the living shoreline (July 6, 2018). Coastal forest visible in the background.



Figure 3. Schicke Point estuarine emergent marsh (persistent and regularly flooded) (February 5, 2016).



Figure 4. Schicke Point estuarine emergent marsh (persistent and regularly flooded) (March 5, 2019).



Figure 5. Schicke Point estuarine emergent marsh (persistent and regularly flooded) (April 29, 2019).



Figure 6. Schicke Point estuarine emergent marsh (persistent and regularly flooded) (April 29, 2019).



Figure 7. Schicke Point estuarine emergent marsh along the Carancahua Bay shore (persistent and irregularly flooded) (April 29, 2019).



Figure 8. Schicke Point estuarine emergent marsh along the Carancahua Bay shore (persistent and irregularly flooded (April 29, 2019)).

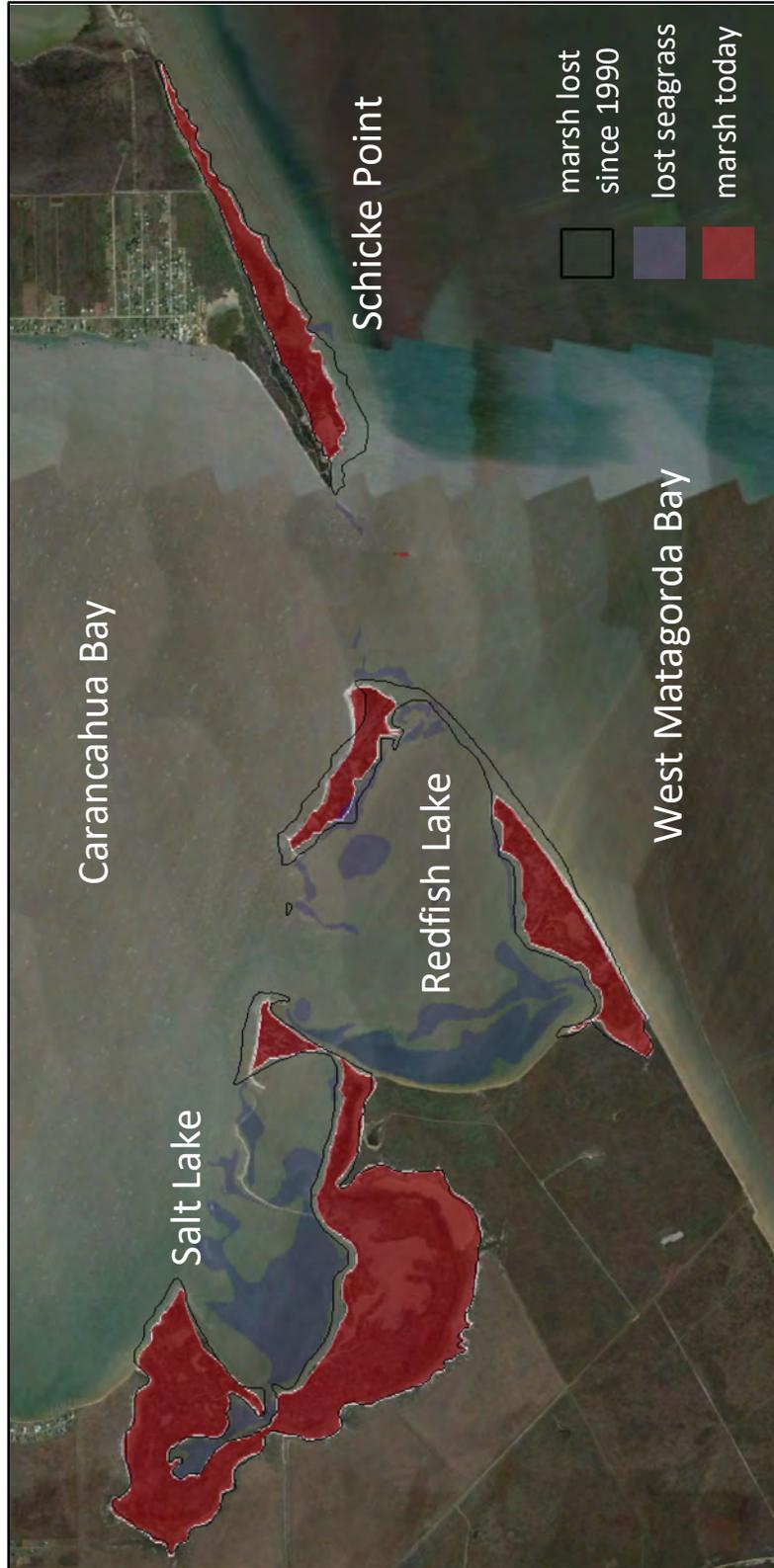


Figure 9. Carancahua Bay mouth including Schicke Point.

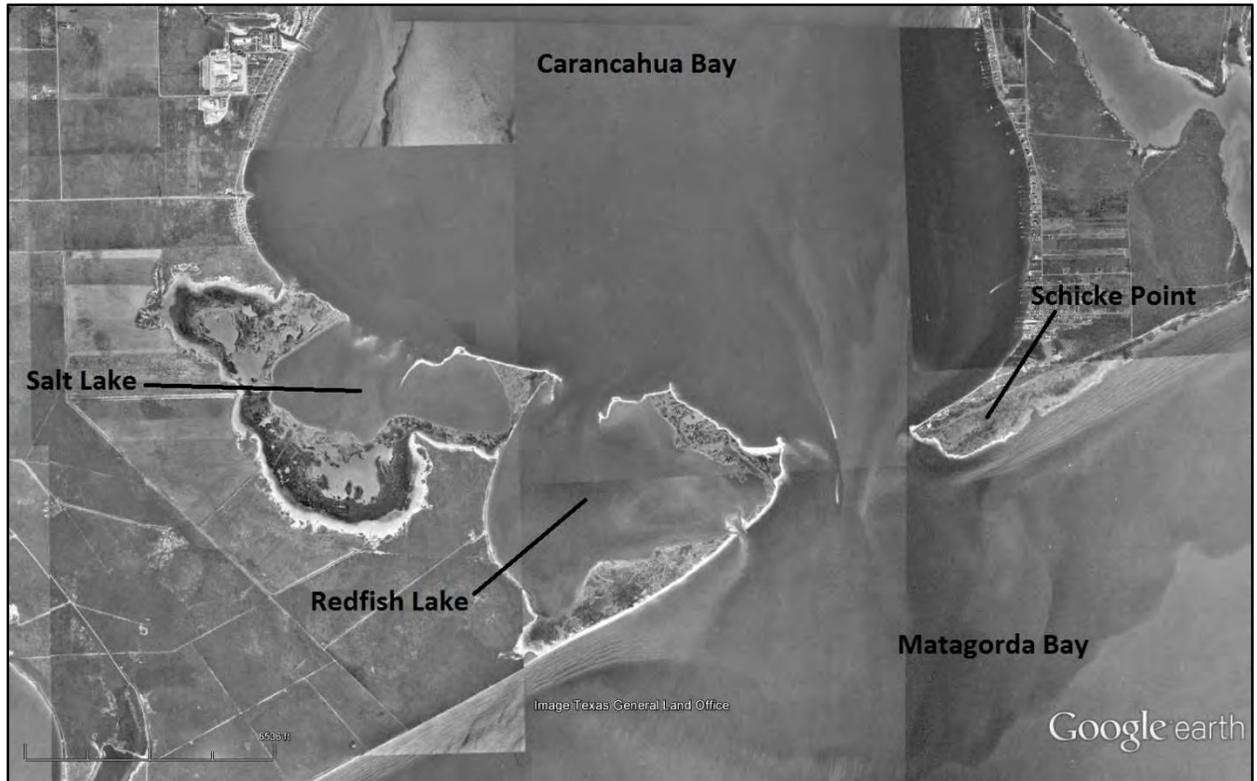


Figure 10. Erosion and marsh loss at mouth of Carancahua Bay, including Schicke Point (upper photograph taken December 31, 1989 and lower photograph taken February 2, 2016).

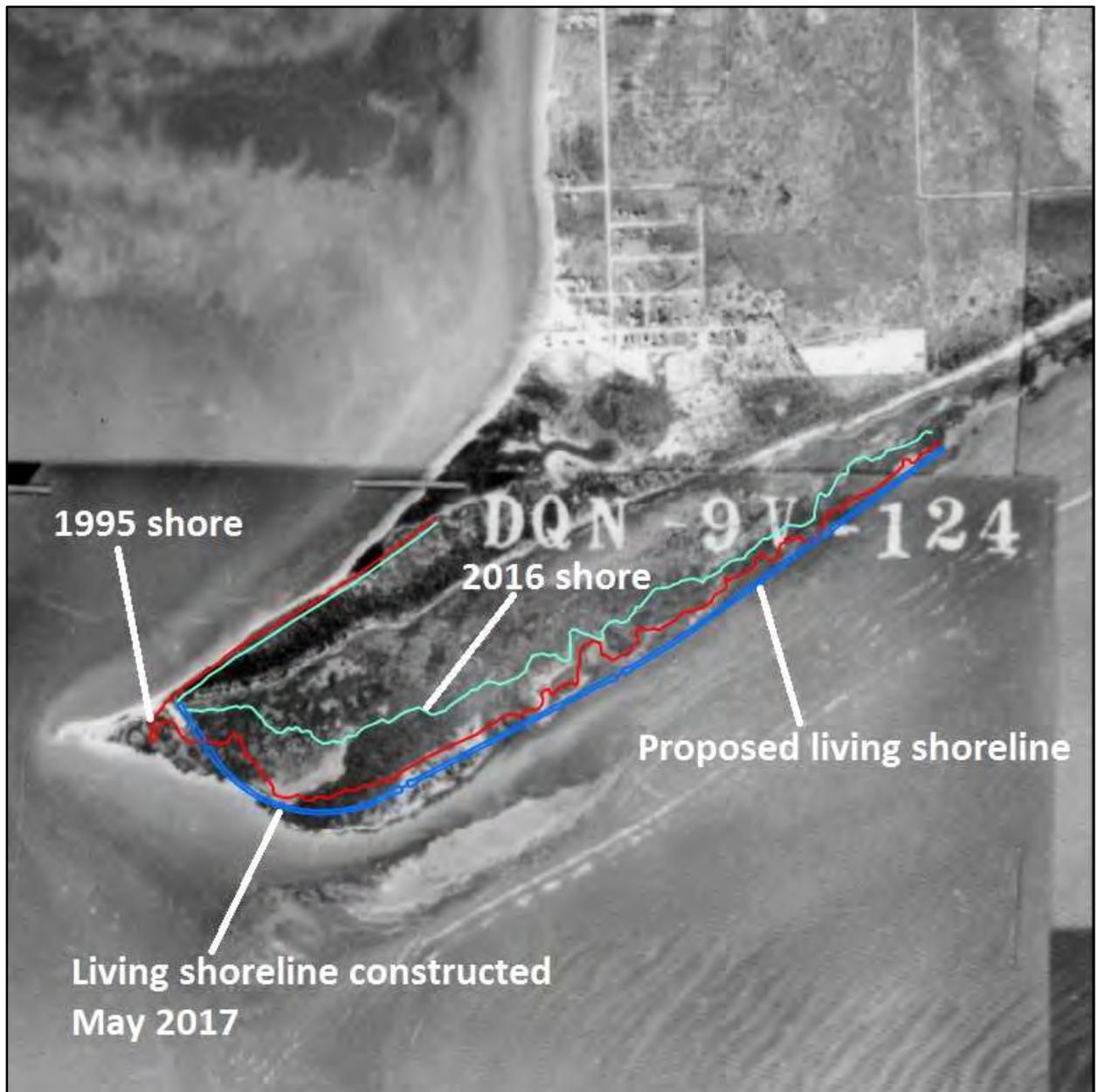


Figure 11. Schicke Point in 1958 (photograph from Agricultural Stabilization and Conservation Service).



Figure 12. Plan view of 1.3-mile living shoreline. Living shoreline has been constructed from 0+00 to 35+75. The proposed project extends the living shoreline from 35+75 to 67+98.

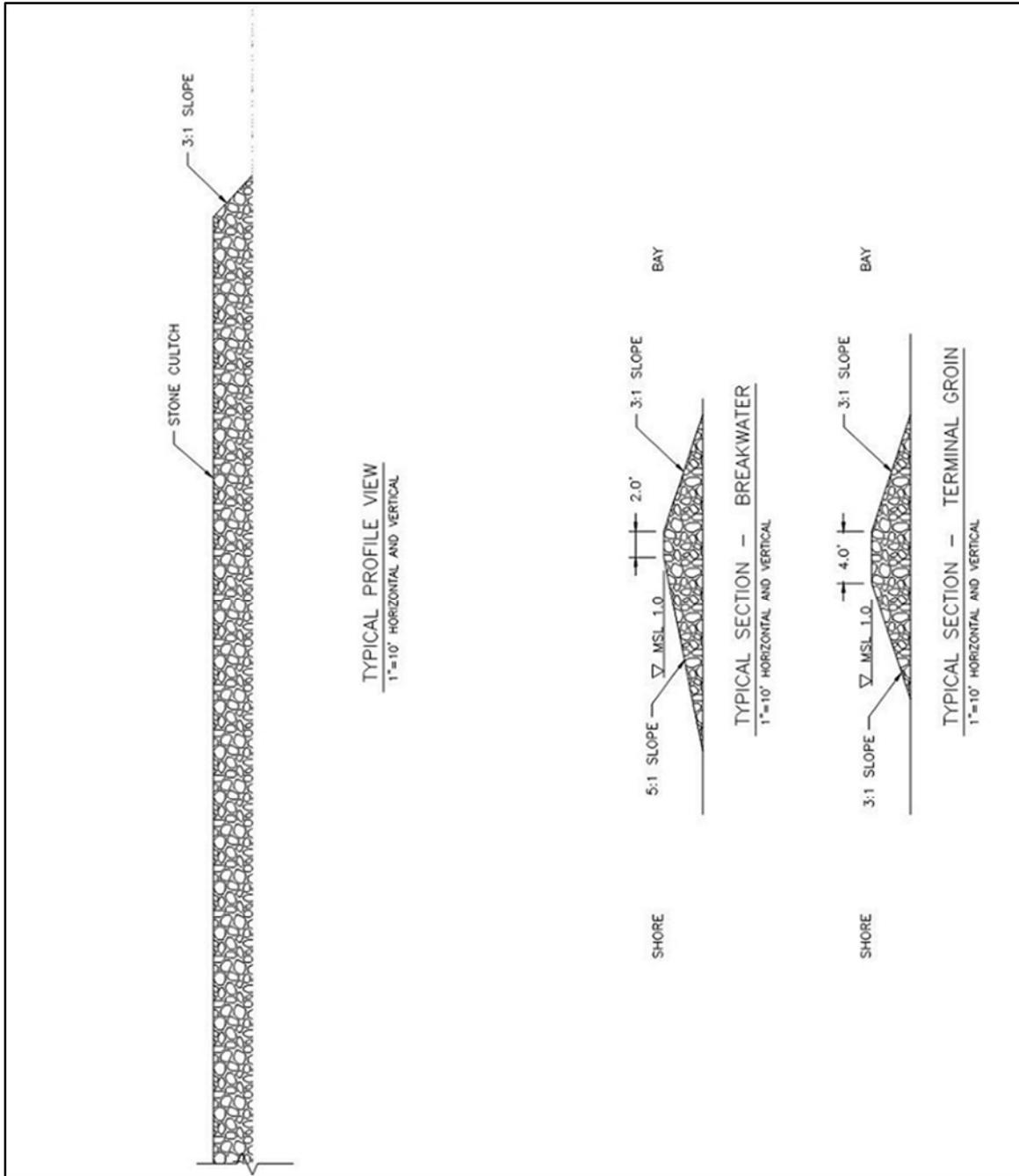


Figure 13. Cross-section views of 1.2-mile living shoreline including the proposed project.

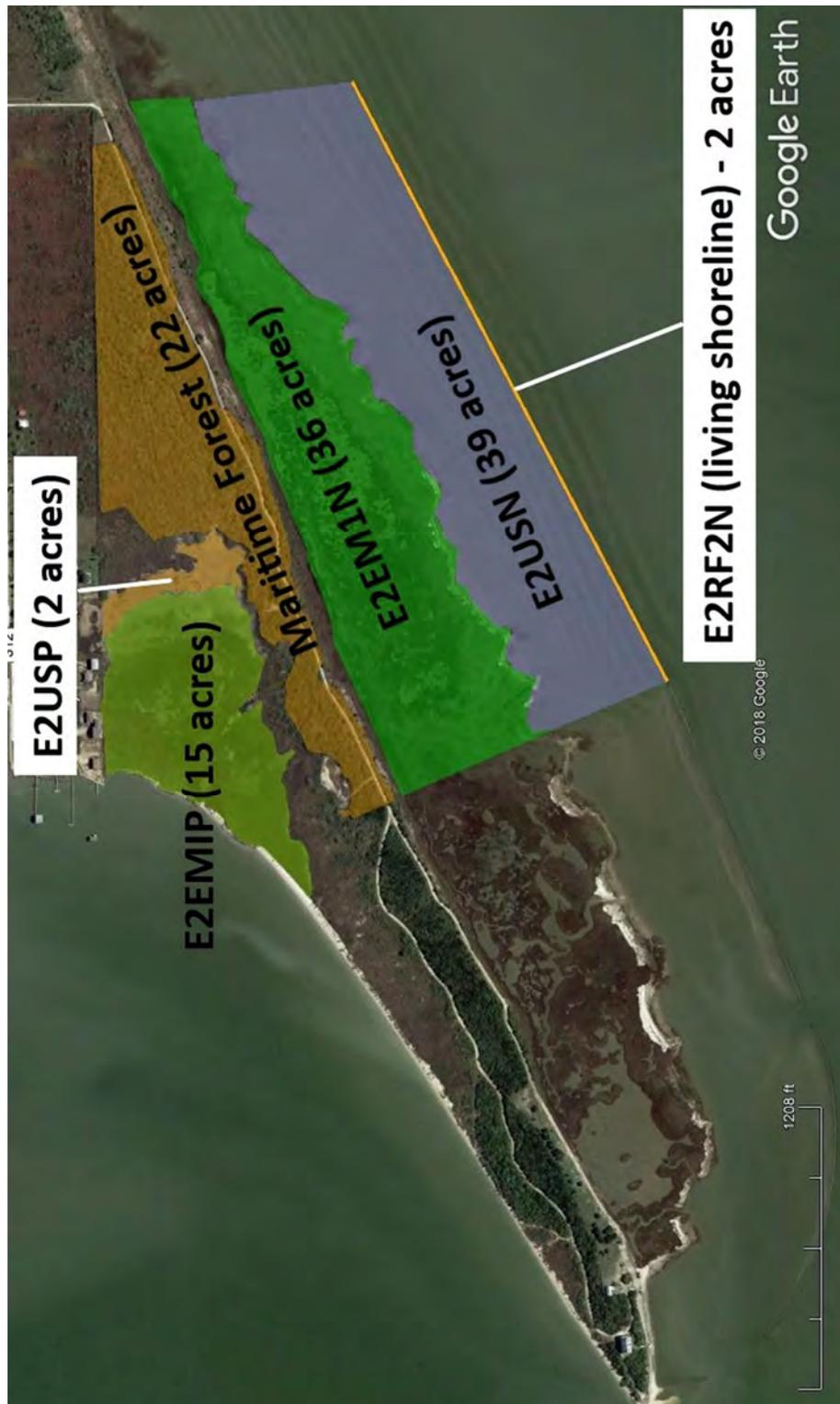


Figure 14. Wetland types and areas in project area (background photograph is from Google Earth, December 1, 2018).



Figure 15. Photograph above is dated December 2, 2016, 18 months before completion of the living shoreline. Photograph below is dated December 1, 2018, about 6 months after completion of the living shoreline. Extensive areas of sediment accumulation can be seen behind the living shoreline along with increased plant coverage of shell hash berms. The area outlined in red is the Matagorda Bay shoreline to be protected by the proposed project.



Figure 16. Sediment accumulation behind the Schicke Point living shoreline on March 5, 2019, 22 months post-construction.



Figure 17. Sediment accumulated behind the Schicke Point living shoreline constructed in May 2017 (July 6, 2018, 14 months post-construction). Marsh in the background beyond the living shoreline is the marsh proposed for protection and restoration in this proposal.



Figure 18. Polychaete communities populating sediment accumulated behind the Schicke Point living shoreline constructed in May 2017. Photographs taken March 5, 2019 during low tide.



Figure 19. Marsh erosion along the Schicke Point shoreline to be protected by the proposed living shoreline (photographs taken April 29, 2019).



Figure 20. Marsh erosion along the Schicke Point shoreline to be protected by the proposed living shoreline (photographs taken April 29, 2019).



Figure 21. Oysters colonizing Schicke Point living shoreline constructed in 2017 (March 5, 2019).



Figure 22. Oysters colonizing Schicke Point living shoreline constructed in 2017 (March 5, 2019).



Figure 23. Photo above shows pair of Sheepshead along the bay side of the living shoreline and the photograph below shows a blue crab among oysters on top of the living shoreline.



Figure 24. Algae, oysters and tunicates growing on living shoreline at Schicke Point created in May 2017 (photographs taken March 5, 2019).

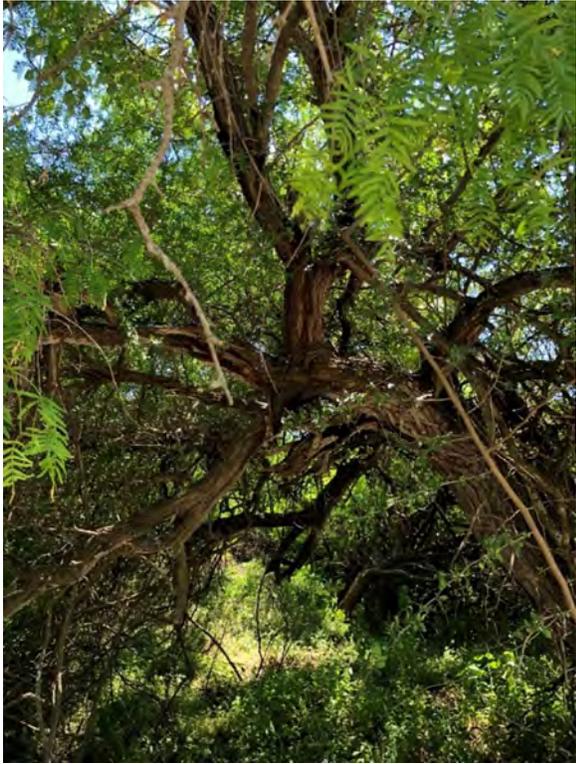


Figure 25. Tamaulipan scrub-shrub forest (April 29, 2019).



Figure 26. Tamaulipan scrub-shrub forest on the western end of Schicke Point (April 29, 2019).