

**Site Conservation Plan**  
*for the*  
**Mustang Island Macrosite**

May 2001



## **Executive Summary**

---

---

### **Overview of the Mustang Island Macrosite**

The Mustang Island Macrosite encompasses the barrier island from the Kennedy Causeway to Aransas Pass, nearby rookery islands (Shamrock and Pelican Islands), and open water areas up to about a 2-foot depth around these islands. The macrosite contains typical barrier island habitats ranging from beaches and dunes to coastal grasslands, tidal flats, and fresh- and saltwater marshes. At its southern end the Mustang Island Macrosite overlaps the Laguna Madre megasite, another high priority area for The Nature Conservancy of Texas. The overlap occurs at an intersection of bay habitats and the hypersaline lagoon; however, biological and political differences between the areas make it prudent to treat the two sites separately.

Mustang Island, like other barrier islands, protects the tidal flats, lagoons, bays, and mainland behind it. The larger macrosite is a classic example of Texas coastal ecological communities. These communities are vital components of a healthy, functioning barrier island ecosystem. The suite of habitats here support notable or threatened avian species (snowy plovers, piping plovers, burrowing owls) and/or serve as wintering or breeding grounds for numerous others (peregrine falcons, reddish egrets). Several small mammals and reptiles of conservation concern inhabit the island grasslands, and the site's beaches are an occasional nesting ground for several federally protected sea turtles. Seagrass meadows on the west side of the island provide essential forage for redhead ducks and nursery, foraging and refuge areas for many other waterfowl, estuarine fish and invertebrates, including commercially harvested species. While currently fairly common along the coast, ecological communities like those on the macrosite are under considerable threat from development.

### **Human Dimensions**

There are two urban areas associated with the macrosite: Port Aransas and Corpus Christi. The 2000 projected population of Port Aransas was 2,683, compared to 383,095 in Corpus Christi; however, most of the Corpus Christi population resides southwest of the macrosite. Although the island harbors a small full-time population, part-time residents and vacationers more than double the number of people on the site during certain times of year. Vacationers and temporary residents may be—directly or indirectly—influential constituencies in local politics and certainly drive many economic processes in the community.

Historical resource uses in the area include grazing, sport and commercial fishing, waterfowl hunting, and petroleum resource exploration/extraction. Most of these uses continue today, although grazing has been replaced in many areas by residential or resort development. Current or proposed development projects include filling of wetlands, dredging of channels, creation of new channels, marina development, and beach alteration. Such activities threaten many elements of conservation concern on the site, and continued residential and resort development here is a certainty. However, there may be opportunities to foster development that complements, or at least allows, effective conservation of the site's important resources. Pursuing such opportunities is an important component of The Nature Conservancy of Texas' strategies for the site.

## **Conservation Vision and Priorities**

The conservation vision is the end toward which The Nature Conservancy of Texas will be working--the desired future state on the macrosite. The vision acts as the mold that shapes our conservation actions on the site. Below is the vision created by the planning team in 2001.

*The Mustang Island Macrosite will support a healthy local economy and coastal ecosystems. Successful conservation on the site will be defined by a reasonable mix of residential amenities and ecologically sensitive tourism enterprises, along with undisturbed open space that supports the area's many native plant and animal communities. The Nature Conservancy of Texas will build strong partnerships with local conservation and citizen action groups, academic facilities and government agencies to facilitate conservation of the element habitats within the macrosite, namely the gulf beach, rookery islands, intertidal marshes and windtidal flats, island prairies, and freshwater wetlands.*

The planning team selected six conservation priorities for this site; that is, ecological systems or communities on which The Nature Conservancy of Texas will focus its conservation efforts. The priorities are below:

- 1) gulf beaches
- 2) island prairies (dune and grassland communities)
- 3) intertidal marshes and windtidal flats
- 4) freshwater wetlands (including brackish wetlands that function as freshwater resources)
- 5) washover passes
- 6) rookery islands

## **Conclusion**

Conservation of priority systems and fruition of the larger conservation vision will be challenging. Traditional protection and conservation methods are likely to be only marginally effective here. There are limited opportunities for direct protection, and land prices make acquisition of large tracts unlikely. The most effective strategies will be those that help shift community priorities toward conservation and managed growth. Such shifts will require The Nature Conservancy of Texas to become actively involved in the Port Aransas and Corpus Christi communities and will necessitate continued, focused efforts over a number of years. The human communities of Port Aransas and Corpus Christi are poised to begin a period of rapid progress, although the exact direction of this progress hasn't been determined. A concerted community-based conservation effort, launched now, can take advantage of the building community momentum and help shape positive, long-lasting changes that benefit the extraordinary natural and human resources here.