

# Interdunal Swale Restoration

The Guana Interdunal Swale (freshwater marsh) formed when the Atlantic shoreline was approximately 1 mile west of its present position and sea levels were 5 to 10 feet higher. Sandwiched between two ancient dune ridges, the swale extends for roughly 7 miles along the Guana Peninsula. Between 1957 and 1962 mosquito control ditching and placement of a road severely altered the natural topography and hydrology of the area. The ditches essentially dried out the marsh in all but severe rain events, allowing hardwoods to encroach. Furthermore, the road bisected GTM's portion of the swale blocking the flow of water and fragmenting the larger healthier marsh ecosystem into two smaller marsh areas.



looking east towards kiosk  
2005



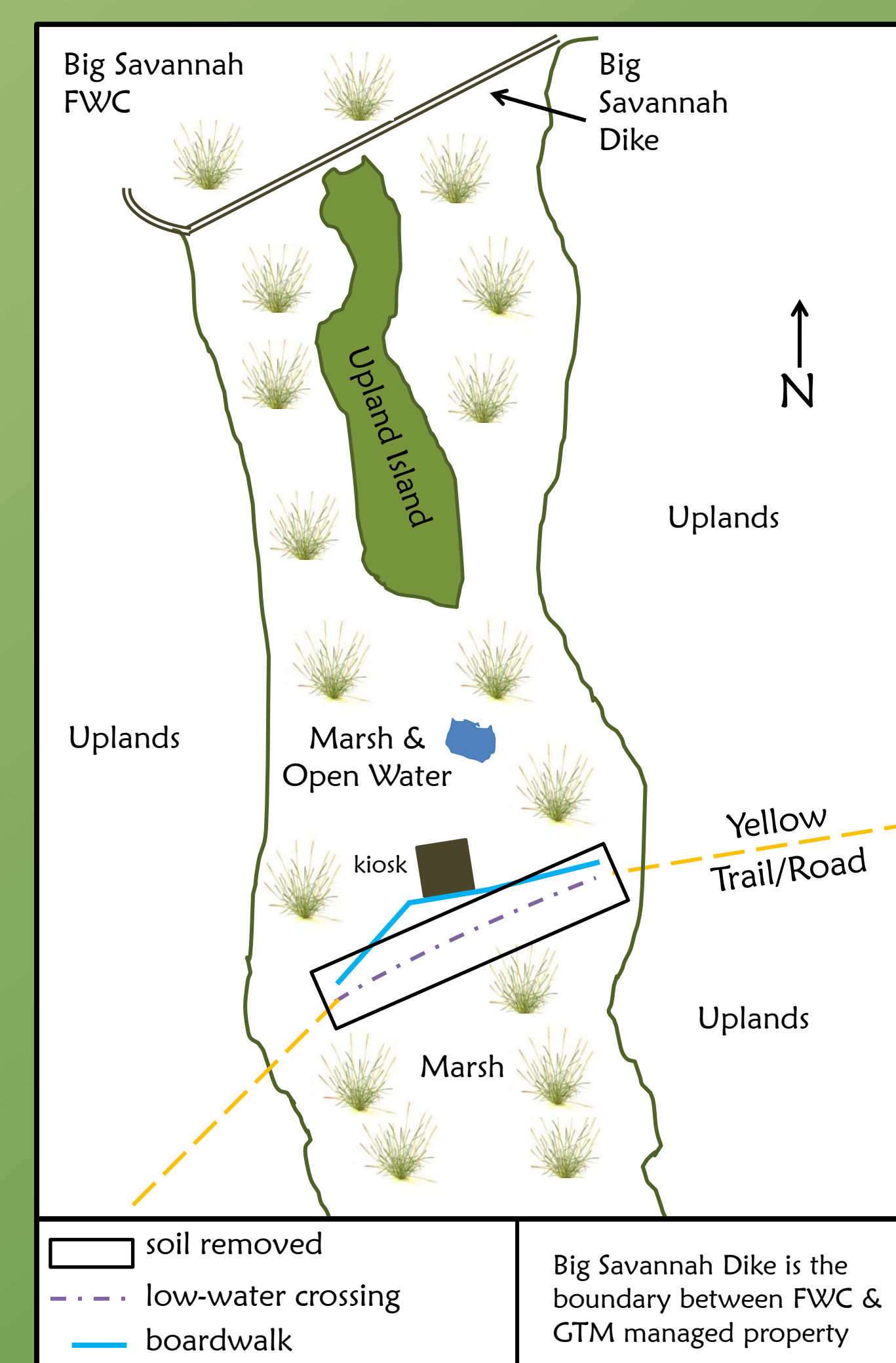
## Restoration Projects To Date

Phases I and II (March of 1994) consisted of filling the mosquito ditches and placing culverts under the road. Filling the ditches returned the hydrology to near original conditions. However, the culverts didn't allow for sufficient water flow under the road. Returning the swale to as near original conditions as possible would require additional restoration.



### Phase III (June 2010): Low-Water Crossing

- road (portion bisecting the swale)
  - ✓ removed vegetation along sides
  - ✓ removed soil to marsh elevation
- hiker/biker access across the marsh
  - ✓ constructed a 275-foot boardwalk
- provide vehicle access for GTM staff
  - ✓ installed 217-foot low-water crossing



Phase III project area

Rain is the swale's source of water and during periods of drought the marsh can completely dry out. The Phase III restoration low-water crossing will allow the north and south portion of the swale to be connected during times of high water as it would have been before the road was put in place in the early 1960s.