

*TEI Qualifications and Experience*  
**Hickory Mound Impoundment**  
**Adaptive Water Management Assessment**

**Location:** Perry, Florida - Taylor County  
**Client:** Florida Fish and Wildlife Conservation Commission  
**Contact:** Mr. Matt Pollack, Biological Administrator  
386.758.0531  
**Value:** \$25,000

**Description:** In May 2001, the FWC awarded Turnbull Environmental a contract to conduct a feasibility study for upgrading approximately 2 miles of levee associated with the Hickory Mound Impoundment (HMI) in Taylor County, Florida. HMI was constructed in 1968, and comprises approximately 1,800 acres of coastal wetlands behind an earthen berm and associated water control structures. Since construction, the southern portion of the surrounding levee has been subjected to numerous severe storm surges resulting in several breaches, degradation of habitat, and loss of management opportunities.



Management objectives for the impoundment focuses on proving habitat for migrating and wintering water fowl, shorebirds, wading birds, and a variety of other wetland-dependant wildlife. The proposed upgrade includes designing the levee to absorb a storm surge, with criteria for attaining a minimal difference in water elevation on either side of the levee during a storm event, to insure levee integrity.



The assessment required a review and compilation of storm surges in the Gulf Coast/Big Bend region of Florida, including speed and direction of storms, storm surges heights, and wave height and amplitude. Based on surge information, a 50 year storm event was modeled and used to evaluate conceptual designs upgrading the levee. The conceptual **plan included recommendations and cost estimates for upgrading the impoundment** system, including the quantity, size and types of spillways needed, levee height, width, and slope recommendations, and details for reinforcing levee side slopes and protecting structures to limit damage from major storm events.