

MYAKKA STATE FOREST * (Sarasota County)

Initial State Acquisition: *October, 1995*

Area: *8,593 Acres*

Primary Watershed(s): *Myakka River*

Current Number of DEP *FERI* Database Listings: *7 Projects*

Previous Restoration Activities –

Approximately 512 acres of wetlands have been lost on the Myakka State Forest (MySF) between 1948, the earliest that aerial photographs were taken of the area, and 2004. The MySF is one of several state forests in which DOF co-manages the property with the Southwest Florida Water Management District (SWFWMD). At the time of acquisition by the state the property was turned over to the SWFWMD for the protection of hydrological resources. SWFWMD assumes the primary role in all hydrological activities on the property while DOF handles all timber and vegetation resource management activities.

In an effort to restore wetlands that had been lost since 1948, SWFWMD has used the forest for hydrological mitigation projects by private developers in the past. However,



MSF Figure 1: Earthen/Rock ditch plug installed during the second phase of the Talon Bay Mitigation Project to restore hydrology to the forested wetlands.

due to the combination of low relief, poorly drained soils, and the proximity of surrounding development, they have proceeded with caution in making changes to drainage patterns within the forest, and hydrological improvements have been necessarily slow.

In 2003, the **North Port Industrial Park – Talon Bay Mitigation Project** resulted in the construction of an 80-foot fixed-elevation concrete weir on an existing drainage ditch in the southeastern portion of the forest. The weir, installed at an elevation consistent with

historical wet season water levels, rehydrated approximately 8 acres of wetland and restored the herbaceous wetland plant communities that historically existed on the site. The ditch below the weir was backfilled to the historic natural grade, using existing spoil piles and material on site. Also, an earthen plug mixed with large limestone material was placed at the end of the back-fill in the ditch to prevent erosion (**see Figure 1**). Upland plant species and invasive exotics that had proliferated as a result of the drainage have begun to falter under the wetter conditions. The original project work was completed in 2004 but required additional work in 2006 to correct some problems involving the site. The site has now been certified complete/successful by SWFWMD and turned over to DOF for long-term maintenance under our resource management program.

Current/Planned/Proposed Restoration Activities –

The natural hydrology of the Myakka State Forest property has been substantially altered by drainage ditches and canals that have been in place for years prior to public ownership. As a result, many of the historic wet prairies of the area have been drained and wet flatwoods communities have converted to more mesic communities, encouraging the proliferation of invasive exotic plant species.

In fact, several projects that are listed for MySF on DEP's *FERI* website primarily address exotic species control and wetland plant community enhancement needs. Nevertheless, over 2 miles of drainage ditches still exist on the forest property and may provide opportunities for hydrological restoration.

Since 2007 SWFWMD has allowed only FDOT-funded mitigation projects on the forest, preferring to require on-site mitigation or mitigation banking for private development wetland impacts within the district. Currently SWFWMD is considering a project to rehydrate the upper headwaters area of Oyster Creek. The project would involve installing a ditch block towards the western end of the same ditch that was treated in the Talon Bay Project. The proposed ditch block would be constructed with a weir crest established at the seasonal high water elevation to convert present-day isolated wetlands to a wetland slough associated with the downstream conveyance flows to Oyster Creek. A berm of an estimated length of 2000 feet, also equipped with a weir of undetermined elevation, would be constructed to separate ditch flow from slough conveyance except during peak wet seasons.

SWFWMD is also considering the removal of part or all of an old water control structure in **Ainger (Rock) Creek** on the southwest side of the forest. The structure was installed at an undetermined time in the past and is believed to have been designed to prevent salt water intrusion within cattle watering areas. Scouring and erosion is occurring on the west side of the structure and impairing water quality downstream. Removing the structure will enhance canoe travel within the waterway as well. Approval has been given by SWFWMD and DOF to conduct a preliminary survey at this time, with a follow-up assessment to determine the most effective solution.

Wetland Restoration Needs Assessment –

Field reconnaissance for the Wetland Restoration Needs Assessment on MySF was conducted in November, 2007. The MySF actually consists of three discontinuous pieces of land. One parcel is located east of the Myakka River and is currently inaccessible by the general public; another parcel lies southwest of the main parcel, separated from it by Winchester Road. The main parcel is located between River Road (County Road 777) to the west and the Myakka River to the east. This parcel is roughly divided in half by Main Shell Drive, the forest's primary access road and the only significant above grade road on the forest. Due to time constraints only the main parcel was included in this assessment.

During the course of the field work over **77** site points were established. Approximately **80** % of the roads, trails, and firelines on the main parcel were included in the assessment. The assessment identified **17** sites that offer high potential opportunities for restoration (**see Figure 2**).

Additional information about the assessment Myakka State Forest is available upon request from the Division of Forestry. Among the findings of the assessment on the MySF are the following:

1. Deep drainage ditches can be plugged at strategic points to restore the hydroperiod and/or to store water on the forest, particularly in the central area near the **Pine Straw Camping Area**.
2. The southern ditch may be draining a small wetland in the southeast corner of the forest. **Oyster Creek**, associated with the southern canal, is scheduled for restoration work by SWFWMD in the near future.
3. Spoil from the berms of the ditches could be considered for use as road material on the forest, provided that no threatened/endangered plant or animal species are impacted. Opening the berms at strategic locations along the ditches would allow limited natural drainage into the ditch if desired.
4. Exotics are prevalent in much of the forest, particularly in the southern portion of the property. A partial or comprehensive exotic plant species control program could be part of a mitigation project in these areas.

