

## **Womack Creek – 2007 Monitoring**

**CORPS Permit Nos. 200200233 (NW-JWS), 200205045 (NW-JWS), 200205047 (NW-JWS), and 200205672 (NW-JWS)**

**Project Location:** The Womack Creek/Tates Hell wetlands restoration site is located on the Ochlockonee River along the eastern side of State Road (SR) 67 in Tates Hell Swamp, Liberty County, Florida (Figure 1) at approximately 30°1.5'N and 84°35'W in Section 2, Township 6S, Range 4W. Tates Hell Swamp covers some 200,000 acres (>300 mi<sup>2</sup>) of low-lying, poorly drained land between the Apalachicola and Ochlockonee rivers in the Florida Panhandle. Although this area historically was dominated by a variety of wetland types including wet savanna, wet flatwoods, cypress strands and hardwood swamps, much of the swamp was converted to slash pine (*Pinus elliotii*) plantation during the 1960s and 1970s. Degradation of Tates Hell from silvicultural operations included the construction of over 800 miles of logging roads and drainage ditches, and the establishment of bedded pine stands. These actions disrupted natural flow patterns and caused a lowering of the water table across large sections of the swamp and ponding of some specific locations due to road construction. With the replacement of much of the natural vegetation with stands of bedded pine, the natural functions and biotic diversity (flora and fauna) of the swamp also were severely impacted.

The ecological health of the Apalachicola Bay is strongly influenced by freshwater flows from Tates Hell. In the early 1990s, the Northwest Florida Water Management District (NFWFMD) and the State of Florida began acquiring portions of Tates Hell Swamp for wetland habitat preservation and to forestall further water quality declines. Public acquisitions now total some 205,000 acres and are managed by the Florida Division of Forestry (DOF) as Tates Hell State Forest. Since 1993, the NFWFMD, working with DOF, has conducted restoration of portions of Tates Hell Swamp. A long-term vision is eventual restoration of the natural communities of the entire swamp. This mitigation project complements these ongoing efforts by focusing on an area not previously slated for restoration activities.

**Project Description:** The objective of this project is to mitigate for 1.0 acre of wetland impact related to two sets of bridge projects: 0.44 acre associated with repairs to the I10 bridge over the Little River in Gadsden County and 0.56 acre associated with the replacement of three bridges in Wakulla County (US319 @ Little Tide Creek, US319 @ Curtis Mill Creek, and Roberts Landing Road @ Silver Lake Creek). This mitigation project is being carried out in accordance with U.S. Army Corps of Engineers Nationwide Permits 200200233 (NW-JWS), 200205045 (NW-JWS), 200205047 (NW-JWS) and 200205672 (NW-JWS).

The mitigation site is located in the Womack Creek drainage of Tates Hell Swamp (Figure 2). The site is directly adjacent to the Ochlockonee River and consists of approximately 70 acres, of which about 50 acres was historically hydric pine with about 20 acres of wetlands (Figure 3). The hydric pine areas were clear cut in the early 1990's and not replanted. These areas were left fallow, allowed to regenerate and were dominated by 6 to 20-foot laurel oaks, live oaks, water oaks, sweet gum, maple and titi. Aerial photography flown in 1953 indicated the site was primarily hydric pine flatwoods with some mixed hardwoods. The mitigation plan included a mechanical reduction of the hardwood understory followed by a burn after several months. Approximately 20 acres of the site will be planted with wiregrass (*Aristida stricta*) on 3-foot

centers in January 2008. An 85% survival rate of wiregrass is mandated along with maintenance of any nuisance and exotic species to less than 5% of groundcover. Annual monitoring and reporting will document these success criteria.

**Project Implementation:** The project was divided into two phases with all site preparation activities (mechanical reduction and burning) included in phase one and vegetation planting in phase two. Mechanical reduction was initiated in May 2005 with a walk down of the woody shrubs on about 50 acres of the site; care was taken to avoid the low lying wetlands located through the central portion of the site. All vegetation less than about 6-8 inches in diameter was pushed over with a D-6 tractor; larger hardwoods and scattered pines were left standing (Figures 4 and 5). Walkdown was followed by roller chopping most of the site after 2-3 months. Due to the vagaries of the weather no burning was carried out in the area until winter 2007 when an unsuccessful partial burn was attempted. Additional mechanical reduction was completed with a gyrotrack in December 2007 in preparation for planting (Figures 6 and 7). A second burn will be attempted in January 2008 just prior to planting. Wiregrass planting is anticipated to be completed by the end of January 2008.

Figure 1: General Location Map for Womack Creek Restoration Site

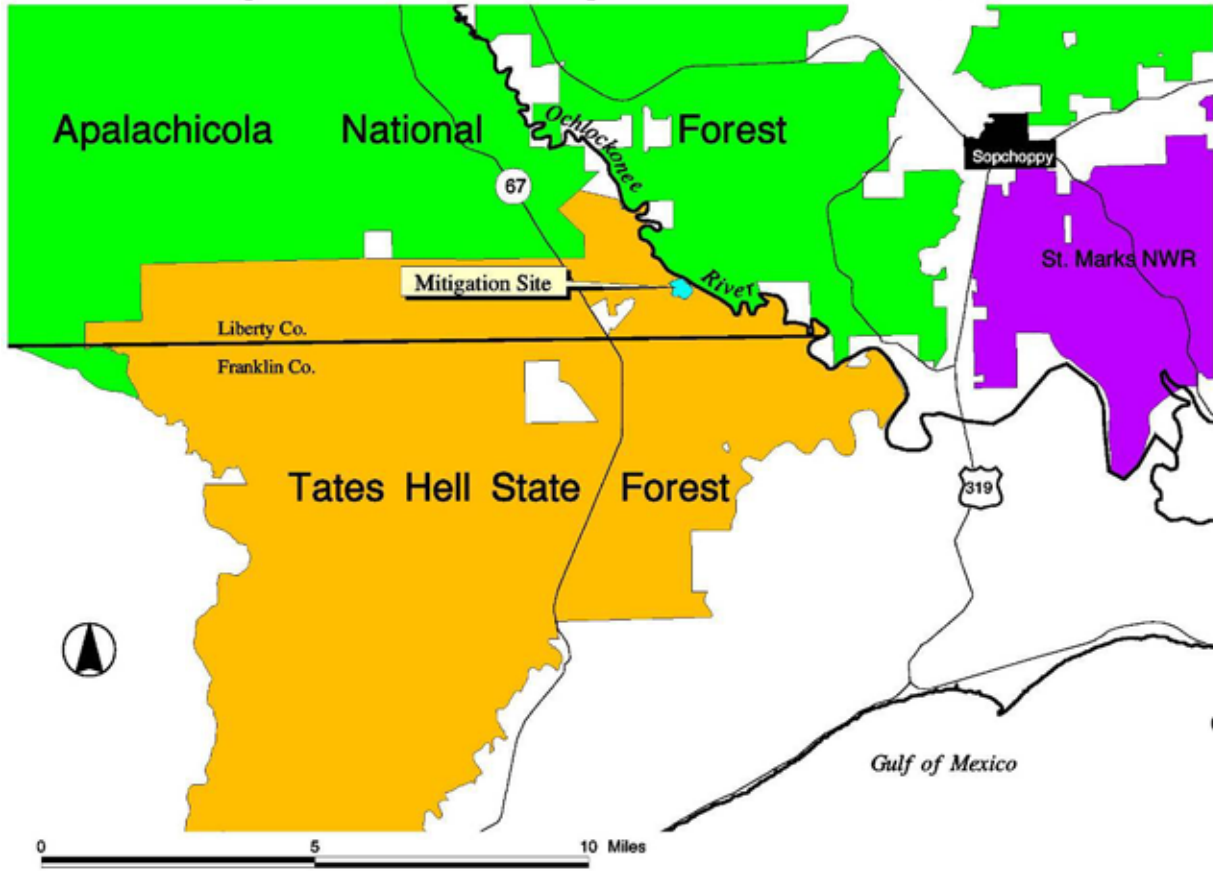


Figure 1. General location of the Womack Creek mitigation site.

Figure 2: Womack Creek Restoration Site (~70 Acres)

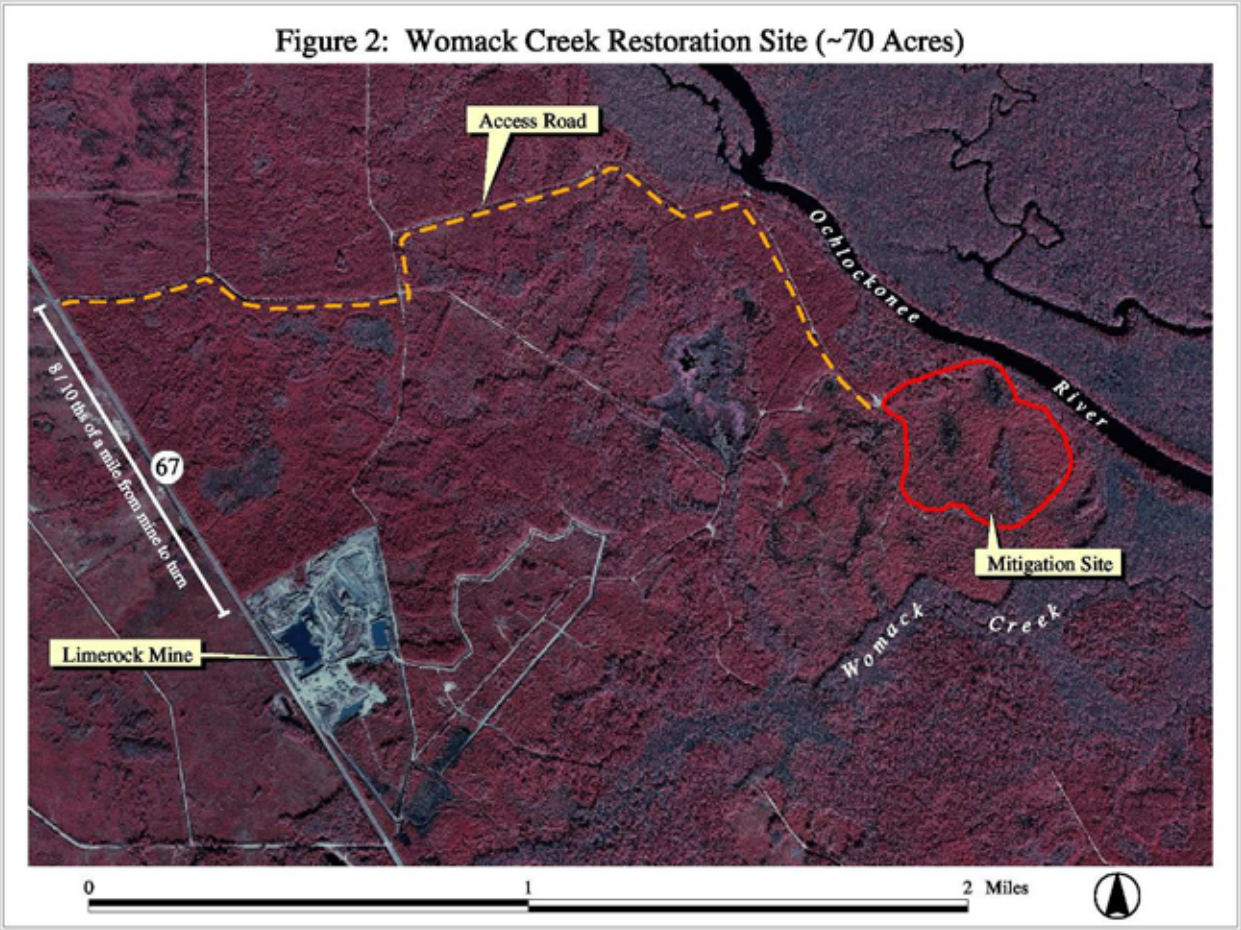


Figure 2. Site location indicating proximity to the Ochlockonee River and Womack Creek.

Womack Creek Mitigation Area



Figure 3. Closeup aerial photograph of the site indicating locations of wetlands (darker, elongated patches in central and northern portions of site).



Figure 4. Appearance of site after initial walkdown of vegetation. Most trees and shrubs less than 6-8 inches in diameter have been pushed over and are awaiting roller chopping and fire.



Figure 5. Additional view of site after initial walkdown (as in Figure 4)



Figure 6. Appearance of site (western side) after final gyrotrack clearing just prior to second burn and wiregrass planting.



Figure 7. Additional view of site (eastern side) after final gyrotrack clearing just prior to second burn and wiregrass planting.