# 14. WARD CREEK CONSERVATION UNIT

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## 14.1 General Description of Conservation Unit

The 1,239-acre Ward Creek Conservation Unit extends west to east, connecting the western conservation units with West Bay (Figures 2-1 and 14-1). Ward Creek buffers and filters surface waters flowing into Ward Creek and West Bay, and serves as an important wildlife and ecological corridor linking lands west of State Road (SR) 79 with lands east of SR 79 and West Bay. The Ward Creek Conservation Unit has been identified as having the potential to support both uplands and fresh and saltwater wetlands important to wildlife diversity in the Florida panhandle. Data sheets reporting the results of the GIS ERATools™ analyses for the Ward Creek Conservation Unit are included at the end of this section.

The current land cover (NWFWMD 1995) is divided among silviculture (75% of land in coniferous plantations and forest regeneration), and forested and scrub shrub wetlands, and saltwater marshes. The National Wetlands Inventory (NWI, 1982-87) classifies approximately 25% of the land cover as uplands and 75% as wetlands dominated by palustrine forested wetlands, with some estuarine systems (Figure 4-2). An electrical power transmission line and SR 79 run northeast-southwest through the narrow portion of this unit, and another electrical power transmission line runs north-south through the western portion of this unit.

Historically, the uplands component of this area was almost entirely in north Florida pine flatwoods (42%) with very little acreage in mixed hardwood/pine forests and longleaf pine-turkey oak hills. The wetlands component of this area was dominated by cypress and hardwood swamps and shrub bogs (50%), with some saltwater marsh (7%, NRCS 1989) (Figure 4-1). Historical land cover may indicate restoration potential. Pine plantations have replaced most of the north Florida pine flatwoods and longleaf pine-turkey oak hills communities. However, the current pine plantations not only support the state's forestry resource, but when placed under conservation status, these lands potentially can be restored to the FNAI-identified priority/under-represented natural communities of Pine Flatwoods or Sandhill, as appropriate. Tables 2-1 and 2-2 present wildlife and listed species generally associated with these natural communities.

## 14.2 Regional Significance

The Ward Creek Conservation Unit is important to maintaining ecological integrity within the region for several reasons: its eastern location within the conservation network, its direct connections with West Bay and between West Bay and the other western conservation units, and its tidal flats and estuarine communities, which support Essential Fish Habitat (EFH). Limiting construction in this area and protecting and restoring components of both the upland and wetland systems will help maintain the ecological integrity of the region (Figure 2-1).

Ward Creek, which flows generally eastward through the proposed Ward Creek Conservation Unit, flows through the proposed West Bay Conservation Area which is an outgrowth of the West Bay Area Sector Planning Process. Almost all (92%) of the Ward Creek Conservation Unit uplands and wetlands have been identified by FWC as priority habitat for 1-3 wetland-dependent species. An FNAI-identified coastal priority area occurs within this unit. Recreational Trails and seagrass beds occur within the 2-mile buffer around this unit (FDEP 2003). Additional features of regional ecological significance that occur within the 2- or 5-mile buffers around this unit are discussed in the following subsections.

## 14.3 Biodiversity

Historically, the Ward Creek Conservation Unit was dominated by north Florida pine flatwoods and cypress and hardwood swamps and shrub bogs. Smaller areas of saltwater marsh, mixed hardwood/pine forests, and longleaf pine-turkey oak hills also existed. The cypress and forested wetlands and saltwater marshes are currently primarily unaffected by silviculture or other land uses. Pine flatwoods and longleaf pine-turkey oak hills have been identified by FNAI as priority/under-represented natural communities (Pine Flatwoods and Sandhills, respectively). The part of the landscape currently in silviculture retains the physical characteristics for restoring it to its historical natural state. Scrub, also an FNAI-identified priority/under-represented natural community, was identified within a 3-mile buffer of the unit (FNAI 2000, 2001).

Almost all (92%) of this conservation unit and about 69% of the landscape within the 1-mile buffer around the unit are identified as priority habitats for key focal wetland-dependent species (Kautz et al. 1994). Of particular interest is that all of the uplands within the unit have been identified as important habitat for 1-3 wetland-dependent species.

This conservation unit provides for wildlife habitat conservation and the preservation of wildlife corridors. The Ward Creek unit is a necessary part of the chain linking the natural systems in the west with those in the east, notably West Bay, allowing for movement of species through the Project area. Because of the identification of a substantial portion of this unit's area as priority habitat for wetland-dependent species, the existing saltwater marshes, the unit's direct surface water connection with West Bay, and the unit's location relative to the other conservation units, the protection and restoration of this conservation unit will contribute to the state's conservation strategy for both upland and wetland focal species (Kautz et al. 1994; Cox et al. 2000).

### Threatened and Endangered Species

There have been no previously recorded occurrences within the Ward Creek Conservation Unit of federally or state-listed threatened or endangered species[1]. No U.S. Fish and Wildlife Service-designated critical habitat occurs within 3 miles of the unit. This unit encompasses about 145 acres of

[1] Surveys completed by FNAI and FWC are not comprehensive or exhaustive and are opportunistically based on priorities and funding as well as access to land.

an FWC-designated strategic habitat conservation area (SHCA) for the Gulf salt marsh snake (*Nerodia clarkii clarkii*).

One federally listed species, the endangered red-cockaded woodpecker (*Picoides borealis*), was observed within the 1-mile buffer (inactive cavity tree in the Cypress and Wet Pine Flats Conservation Unit; Moyers 2003) and within the 3-mile buffer by FNAI (2003). Two state-listed plant species, one threatened and one endangered, have been observed within the 1-mile buffer around the unit, and several state-listed animal and plant species have been observed within a 3-mile buffer around the unit (FNAI 2003; WilsonMiller 2003 field surveys; see data sheets at the end of this section). Sea turtle nesting beaches overlap the 3-mile buffer around this unit.

The proposed conservation plan for the Ward Creek unit should improve the quality of potentially suitable habitat for listed species within the unit as well as protecting and maintaining the suitability of the regional landscape for listed species (St. Joe Timberland Company 2003). Tables 2-1 and 2-2 present many of the common and federally and state-listed animal and plant species, respectively, that might benefit if this conservation unit's planted acreage were restored to its historical natural land cover of pine flatwoods and longleaf pine-turkey oak.

## 14.4 Water Quality

All of the Ward Creek Conservation Unit is within the Direct Runoff to Bay drainage basin, and all of the Ward Creek unit contributes surface waters directly to West Bay. The environmental issues surrounding West Bay focus primarily on maintaining water quality and quantity and protecting EFH and living marine resources in the bay. In the 305(b) report, water quality status for West Bay is listed as good (FDEP 2000). The 1998 305(b) report (FDEP 1998) lists the water quality trend to be good with high confidence. The 1996 305(b) report lists West Bay as fully meeting the water quality standards set forth by the state. West Bay is not listed on the 1998 303(d) Impaired Waters list. The water quality status for The Direct Runoff to the Bay Basin has been fair for the 1998 and 2002 305(b) reports (FDEP 1998, 2002). No status is given for this basin in the 1996 305(b) report (FDEP 1996).

The wetland systems within this conservation unit connect directly with wetland systems in the Cypress and Wet Pine Flats Conservation Unit on the west and with Ward Creek and West Bay on the east. Field observations indicate surface water flows from the Ward Creek Conservation Unit into Ward Creek and West Bay. About 50% of the Ward Creek unit contributes to maintaining blackwater inflow to West Bay; almost all of which comes from Rutledge Sand soils, a primary hydric depressional soil. The direct flow into the West Bay system and the blackwater inflow characteristics emphasize the importance of this conservation unit within the study area.

There are no known immediate point-source water quality threats to the system in the boundary or within 1 mile of the boundary. Silvicultural activities account for non-point source water quality threats. The remainder of the land cover is in natural communities, primarily wetlands, of various quality. The estimated percentage of land use within the Ward Creek Conservation Unit that is wetland ranges from 24% to 75 % (NWFWMD and NWI, respectively) to 81% (1,006 acres) using the method for estimating Corps' jurisdiction. These wetlands currently filter surface water in the Direct Runoff to Bay drainage basin. This unit currently buffers adverse runoff into West Bay from silviculture and potential future development west, north, or south of the unit. A small amount of stormwater flows from SR 79 into this unit.

Field observations of areas in silviculture recorded varying ecological qualities. As a conservation property, the unit will serve to buffer Ward Creek and West Bay from silvicultural or development activities outside the unit.

## 14.5 Essential Fish Habitat and Living Marine Resources

The Ward Creek Conservation Unit buffers and filters surface water flow into West Bay, which supports extensive saltwater and freshwater marshes and seagrass beds that provide EFH. In addition, about 83 acres of an FNAI-identified priority coastal area occurs within this unit. Conserving and restoring this conservation unit will protect and improve the abundance and health of the existing EFH and other living marine resources in West Bay.