12. SOUTH AMERICAN SWAMP CONSERVATION UNIT

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12.1 General Description of Conservation Unit

The 803-acre South American Swamp Conservation Unit is located east of Lake Powell and extends east-southeastward just north of Panama City Beach. Because this unit is located in the Phillips Inlet (Lake Powell) drainage basin, this unit buffers and filters surface waters flowing into Lake Powell (Figures 2-1 and 12-1). This unit also has been identified as a primary wildlife habitat area that supports both uplands and high-quality wetlands important to wildlife diversity in the Florida panhandle. Data sheets reporting the results of the GIS ERATools™ analyses for the South American Swamp Conservation Unit are included at the end of this section.

The current land cover (NWFWMD 1995) is divided primarily between mixed forested wetlands and upland coniferous forests, with some shrub swamps and coniferous plantation (silviculture). The National Wetlands Inventory (NWI, 1982-87) classifies approximately 89% of the land cover as wetlands dominated by forested wetlands (Figure 4-2).

Historically, the uplands component of this area was considered north Florida pine flatwoods, and the wetlands component of this area was dominated by mixed forested wetlands (cypress and hardwood Swamps) and shrub bogs (NRCS 1989) (Figure 4-1). Historical land cover indicates restoration and enhancement potential. As noted above, the current land cover remains predominantly natural, only about 13% (107 acres) is in silviculture. The silviculture is probably located within former pine flatwoods, an FNAI-identified priority/under-represented natural community. When placed under conservation status, these lands potentially can be restored to the historical land cover. The approximately 696 acres that have remained natural can be ecologically enhanced. Tables 2-1 and 2-2 present wildlife and listed species generally associated with these natural communities.

12.2 Regional Significance

Because of the South American Swamp unit's occurrence within the Lake Powell drainage basin, its contribution to and protection of Lake Powell inflow, and its existing high quality ecological conditions, limiting construction in this area and protecting, restoring, and enhancing components of both the upland and wetland systems will maintain ecological integrity within the region (Figure 2-1).

All of the 803-acre conservation unit is within the boundaries of the Phillips Inlet (Lake Powell) drainage basin which contributes surface waters directly to Lake Powell Special Outstanding Florida Water (OFW). Most (89%) of the South American Swamp Conservation Unit uplands and wetlands have been identified by FWC as priority habitat for 1-3 wetland-dependent species.

Several features of ecological significance overlap the 2- or 5-mile buffers around the conservation unit. Scenic roads and canoe/kayak recreational trails overlap the 2-mile and/or 5-mile buffers. One managed land, Camp Helen State Park, overlaps the 5-mile buffer (FDEP 2003). Additional regionally significant ecological features, such as listed species observations and seagrass beds, are discussed in the following subsections.

12.3 Biodiversity

Historically, the South American Swamp Conservation Unit was primarily mixed forested and shrub wetlands and pine flatwoods. Notably, most (about 84%) of this unit remains unaffected by silviculture or other non-natural land uses, and the Natural upland pine flatwoods and forested and shrub wetland areas are high quality. Pine Flatwoods have been identified by FNAI as a natural community priority/under-represented natural community. The part of the landscape currently in silviculture retains the physical characteristics for restoring it to its historical natural state of pine flatwoods. Other priority natural and endemic communities identified within the 2-mile buffer include Sandhills, Scrub, and Pine Flatwoods; priority natural communities within the 5-mile buffer include Seepage Slopes, Sandhills, Scrub, and Pine Flatwoods.

A large percentage (89%) of this conservation unit and about 55% of the landscape within the 1-mile buffer around the unit are identified as priority habitats (uplands and wetlands) for key focal wetland-dependent species (Kautz et al. 1994). Significant acreages of both uplands (36%) and wetlands (54%) within the unit have been identified as priority habitats for 1-3 species. This unit's protection and restoration will contribute to the state's conservation strategy for both upland and wetland focal species (Kautz et al. 1994; Cox et al. 2000), and will provide for wildlife habitat conservation in general and the preservation of wildlife corridors from the Lake Powell vicinity eastward into the unit.

Threatened and Endangered Species

One federally (and state-listed) endangered species[1], the red-cockaded woodpecker (*Picoides borealis*) has been observed within the South American Swamp Conservation Unit; several inactive cavity trees occur among other remnant longleaf pines (Moyers 2003; WilsonMiller 2003 field surveys). No U.S. Fish and Wildlife Service-designated critical habitat occurs within this conservation unit. Sea turtle nesting beaches overlap the 1-mile and 3-mile buffers around this unit.

Six plant species state-listed as threatened or endangered have been observed within a 1-mile buffer around this unit (FNAI 2003; WilsonMiller 2003 field surveys). Within the 3-mile buffer, one additional federally listed species, the threatened piping plover (*Charadrius melodus*), and three state-listed animal species and eight state-listed plant species have been observed. FWC has designated strategic habitat conservation areas (SHCAs) for the piping plover (*Charadrius melodus*) and Gulf salt marsh snake (*Nerodia clarkii clarkii*) adjacent to Lake Powell.

The proposed conservation plan for the South American Swamp unit should improve the quality of potentially suitable habitat for listed species within the unit as well as protecting and maintaining the

[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.

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 and its remaining acres enhanced.

12.4 Water Quality

All of the South American Swamp Conservation Unit falls within the Phillips Inlet (Lake Powell) drainage basin, and all of the South American Swamp unit filters surface water flow to Lake Powell. The environmental issues surrounding Lake Powell, designated an OFW and a Class III – Recreational Use water body, focus primarily on maintaining water quality and quantity. Currently, the water quality trends for Lake Powell are listed as good and fully meeting the water quality standards set forth by the state in the 2000 Water Quality Assessment: 305(b) Report (FDEP 2000). The 1998 305(b) report (FDEP 1998) lists the water quality trend to be stable and good. The 1996 305(b) report lists the water body, but does not give a status on the water quality standards or trends (FDEP 1996). Lake Powell is not listed on the 1998 303(d) Impaired Waters list.

The wetland systems within this conservation unit connect with wetland systems to the north, east, and west of the unit. Field observations indicate surface water flows into the South American Swamp Conservation Unit from adjacent wetland areas to the north. About 56% of the South American Swamp unit contributes to maintaining blackwater inflow to Lake Powell. Most of the contribution comes from Pamlico-Dorovan Complex soils, a primary hydric muck soil, and less comes from Rutlege Sand soils, a primary hydric depressional soil. The direct flow into the Lake Powell 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, high quality uplands and wetlands. The estimated percentage of land use within the South American Swamp Conservation Unit that is wetland ranges from 53% to 89 % (NWFWMD and NWI, respectively, in FDEP 2003) to 75% (601 acres) using the method for estimating Corps' jurisdiction. These wetlands currently filter surface water in the Phillips Inlet drainage basin. This unit currently provides necessary buffering of adverse runoff into Lake Powell from silviculture practices and potential future development along the unit's northern and southern extents. There may be runoff from developed areas into surface water bodies within this unit.

12.5 Essential Fish Habitat and Living Marine Resources

The South American Swamp Conservation Unit buffers and filters surface water flow into Lake Powell, an OFW. Lake Powell supports extensive saltwater and freshwater marshes and seagrass beds that provide Essential Fish Habitat (EFH). In addition, two FNAI-identified coastal priority areas occur within the 2-mile buffer, and seagrass beds occur within the 5-mile buffer (FMRI 2002; FNAI 2001). Conserving and restoring this conservation unit will protect and improve the abundance and health of the existing EFH and other living marine resources in Lake Powell.