

THE GREEN SWAMP

Florida's Liquid Heart

by Marian Ryan

The liquid heart of Florida lies in the remaining backcountry between Tampa and Orlando. Encompassing 870 square miles, the Green Swamp is the state's second-largest wetlands system after the Everglades and covers portions of Polk, Lake, Sumter, Pasco, and Hernando counties. This unique and fragile ecosystem is a mosaic of pine flatwoods, hardwood forests, cypress swamps, prairies and sandhills.

The 560,000 acre swamp is geologically distinct. Just underneath the soil's surface, and sometimes at its surface, rests a large raised plateau of limestone which is the top of the Floridan Aquifer. The highest point of the aquifer, known as the Green Swamp High or Central Florida High, is located in the vicinity of Interstate 4 and U.S. 27. The Green Swamp High rises up to 132 feet above mean sea level and, like an underground water tower, provides pressure for a multitude of springs, the base flow of five major rivers, and hydrologic support for countless lakes, ponds, seeps, and wetlands. The Floridan Aquifer and pressure of the Green Swamp High supply fresh water to the majority of Florida's population, and curb salt-water intrusion to the aquifer along the heavily populated coastline.

The Withlacoochee, Oklawaha, Hillsborough, Peace and Kissimmee River systems all emerge from the Green Swamp. Flatter than a pool table, the incredibly gradual slope of its plateau retains annual rains, reduces the flood peaks in rivers, and allows underlying aquifer layers to recharge over an extended period of time. Water that flows from the swamp is generally of higher quality than other watersheds due to the lengthy surface water detention time in the sparsely populated rural center of Florida.

The Green Swamp is highly valued for its ecological diversity, supporting an estimated 330 species of wildlife. Designated as an "Important Bird Area" by the National Audubon Society, the swamp is home to more than 30 threatened or endangered species of animals, including the Florida scrub jay, wood stork, and black bear. Even Florida panthers have been sighted in this premier wildlife corridor of the state. Its five river systems provide habitat connections that cross Florida from Ft. Lauderdale to Yankeetown and from Jacksonville to Port Charlotte.



The Swamp in History

Decades ago, when the Green Swamp was first settled, much of its original majestic cypress and pine forests were clear-cut. Eventually trees began to reestablish themselves and other agricultural crops, cattle ranching, and small scale sand, peat and limerock mining joined the logging industry as the basis of local economies. Since much of the swamp was saturated with water, ditches were dug to drain wetlands and expand areas for cattle grazing and crops.

In 1960 following a season of heavy rains, Hurricane Donna struck causing widespread flooding across much of western Central Florida. The calamity prompted the state legislature to create the Southwest Florida Water Management District as a flood control agency. The District soon became the local sponsor of the Four River Basins Project, a plan developed by the U.S. Army Corps of Engineers to reduce flooding in the Tampa Bay region by purchasing land within the swamp and constructing a series of dams and retention areas. But controversy regarding the disruption of natural systems convinced the District to take a



non-structural approach to flood control and, as a fortuitous result, property purchased for the Four River Basins Project became the foundation for conservation efforts in the swamp.

In the early 1970s, major land sales, the proximity of the new Disney World complex, and flooding from severe storms fueled concerns over the Green Swamp's future. State law provides that if a resource of statewide importance is threatened by unregulated development it can be designated an Area of Critical State Concern. Since neither local governments nor the water management districts were

willing or able to solve the swamp's growth management problems on their own, the Florida legislature in 1974 designated 189,000 acres of Polk County and 106,000 acres of Lake County as an Area of Critical State Concern. Eventually the Florida Department of Community Affairs became the oversight agent for all new development in the swamp. In principle, an Area of Critical State Concern is intended to be a temporary designation, for the purpose of encouraging action on the local level that will sustain natural resources of the area. Unfortunately, adequate steps have not been fully implemented, so thirty years later the designation remains.

In 1992, the Green Swamp was added as a project to Florida's premier land

acquisition program, Preservation 2000 (later succeeded by Florida Forever.) Since then, the Southwest Florida Water Management District has increased its holdings within the Swamp to approximately 110,000 acres. This is in addition to 84,000 acres of other publicly owned lands, including state parks and wildlife management areas. Furthermore, the District has protected 6,000 acres of private property through the purchase of conservation easements. Land protection agreements and conservation easements are tools that secure protection of a property's natural resource values while retaining private ownership. Altogether the Green Swamp Land Authority (1995-1999) and the Florida Department of Environmental Protection have secured land protection agreements or conservation easements on 40,000 acres of privately owned lands.

The Difficult Task Ahead

As throughout much of the state, Florida's burgeoning population is creating ever-increasing pressure to develop within the Green Swamp. Once sleepy little towns, municipalities are now growing and seeking annexations in the Area of Critical State Concern. Proposals for large,



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multi-use developments on the fringe of the swamp persist and new home construction continues unabated despite updated growth management policies and regulations. Historic agricultural practices that drained wetlands and channelized surface waters remain unmitigated and declining groundwater levels in the Green Swamp threaten natural communities. The draining of wetlands, destruction of upland and wetland forests, poor soil conservation practices, and over-pumping all negatively impact the quality and quantity of the water that is available to the aquifer and that is needed to sustain ecosystems downstream.

Fragmentation caused by transportation and utilities projects can be a major threat to ecosystems, too. Construction of Interstate 4 in the 1960s essentially severed the hydrologic and ecologic connectivity of the southeastern portion of the Green Swamp. Perhaps it is possible to learn from past mistakes; the Department of Transportation now includes several wildlife underpasses in its 2025 work plan.

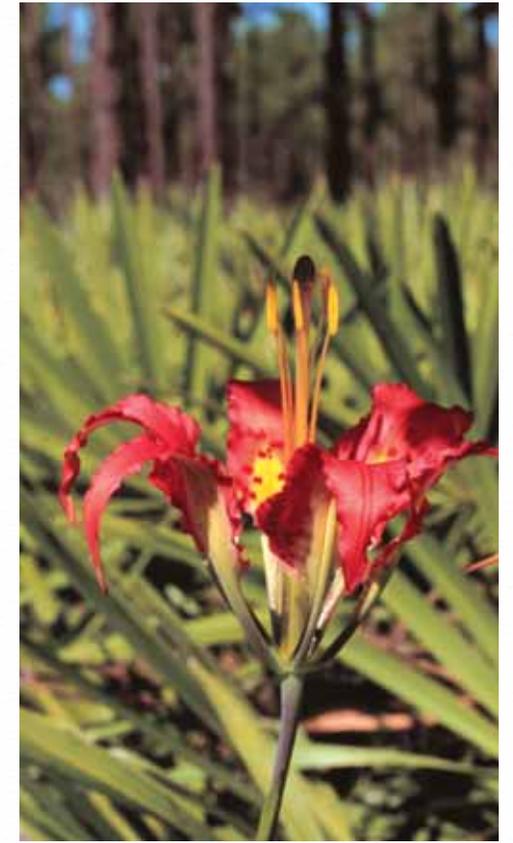
Public ownership of conservation land has been and will continue to be a major defense against the relentless pressures of mankind upon the Green



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Swamp. Citizen support for ongoing land acquisition efforts, habitat restoration, and management, including prescribed fire, is fundamental to protecting the value of the swamp for future generations. Furthermore, the growing water demands of Central Florida and Tampa on the underground aquifer elevate a need for unprecedented cooperation among the three water management districts that converge in the swamp. However, truly protecting the Green Swamp as a public investment requires something more—it requires meaningful growth management laws, regulations and enforcement. Without discipline on the part of public leaders to maintain growth boundaries established for the Area of Critical State Concern, the Green Swamp will not survive as an intact ecosystem.

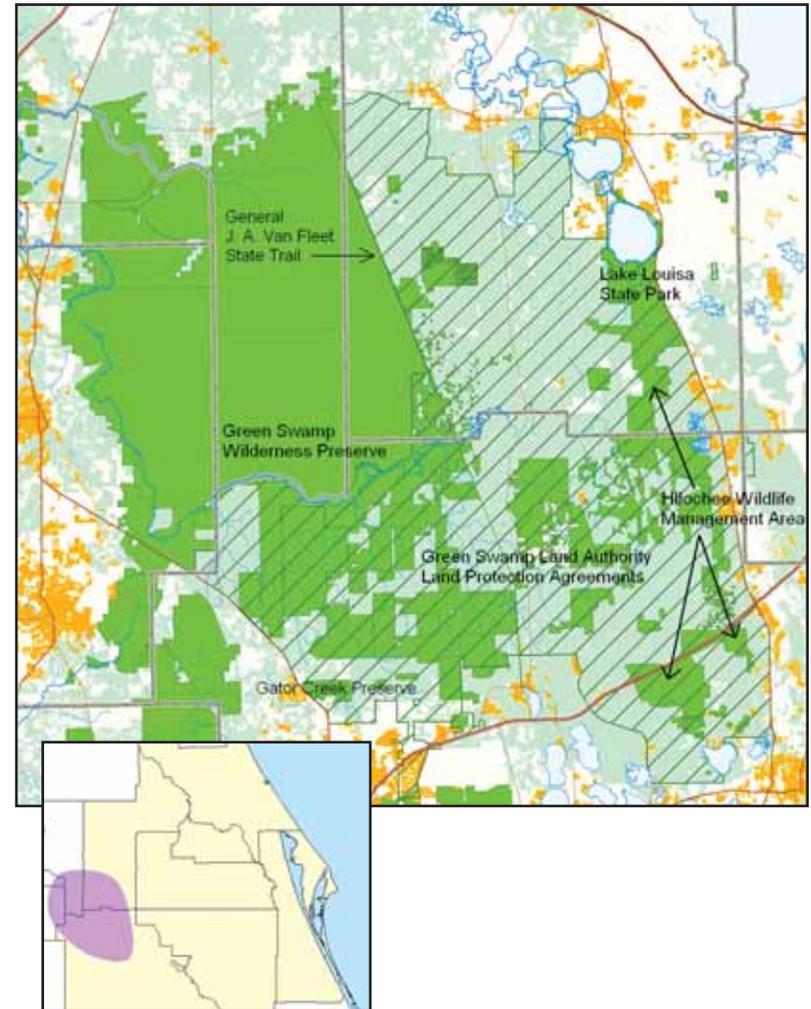
Just as a strong heart is vital to proper circulation and human health, so is Central Florida's Green Swamp — the liquid heart of Florida — essential to sustaining the ecological health and prosperity of our state. If we are wise, we will take good care of this most vital organ.



Pine Lily

EXPERIENCE THE GREEN SWAMP

- The **Green Swamp Wilderness Preserve** encompasses over 120,000 acres owned by the Southwest Florida Water Management District and includes portions of Lake, Polk, Sumter and Pasco counties. Discover the many recreational opportunities that the Preserve offers at www.swfwmd.state.fl.us/recreation. To learn more about the Green Swamp check out www.swfwmd.state.fl.us/greenswamp/greenswamp.html.
- **Lake Louisa State Park** lies in the northeast corner of the swamp in Lake County. Recreation activities include swimming, picnicking, fishing, hiking, wildlife viewing, canoeing and horseback riding. RV and primitive camp sites are available and new cabins will be available soon. For more information call 352-394-3969 or visit www.floridastateparks.org/lakelouisa.
- **Hilochee Wildlife Management Area**, which straddles Lake and Polk counties, provides ample opportunities for hunting, fishing, hiking, biking and wildlife viewing. Check out the **Florida Fish and Wildlife Conservation Commission's** website: www.floridaconservation.org/recreation/hilochee.
- The **General James Van Fleet State Trail** is a safe and pleasant place for bicyclists, hikers, joggers and horseback riders. The 29 mile former railroad track extends through the swamp from Polk City through Bay Lake to Mabel. For more information call 352-516-7384 or visit the Office of Greenways & Trails website: www.dep.state.fl.us/gwt/guide/regions/eastcentral/trails/general_james.htm.
- **Gator Creek Reserve** is located in the Green Swamp north of Lakeland on U.S. 98. This 1086 acre property managed by Polk County features a 0.6 mile paved loop nature trail with handicapped access, picnic tables, restrooms and more than four miles of marked trails. For more information visit: www.polk-county.net/county_offices/natural_resources/environmental_lands/gator_creek.aspx.



A native of Winter Haven, Marian Ryan has been active in Florida conservation issues for nearly two decades. She has served on Polk County's Green Swamp Task Force and was appointed to the Green Swamp Land Authority by Governor Lawton Chiles in 1995. She was re-appointed by Governor Jeb Bush and continued to serve until the Authority was dissolved in 1999. Ms. Ryan is currently a member of Polk County's Conservation Land Acquisition Advisory Committee and Water Policy Advisory Committee.