

ST. JOHNS WATER MANAGEMENT DISTRICT

St. Johns River Water Management District is located in northeastern and east central Florida, extending south from the Georgia border to cover 12,400 square miles, almost 21 percent of the state's total area. Within its boundaries are the entire St. Johns and Nassau River basins, the Indian River Lagoon and Northern Coastal basins, and the Florida portion of the St. Marys basin. The district includes all or part of 19 counties and has a population of approximately 3.7 million, or 25 percent of the state's total.

It is a diverse region, with rural counties dominated by pine plantations in the Nassau and St. Marys river basins, major urban areas including Jacksonville and large portions of the Gainesville and Orlando metropolitan areas, and world-famous Atlantic coast beaches. It has the oldest continuously occupied European settlement in the U.S. and the first National Audubon Sanctuary; a major citrus-producing region and one of the largest cattle-producing areas in the nation; the largest stand of sand pine and the most biologically diverse estuary in North America (shared with the South Florida Water Management District).

This district contains the longest river in the state, over one-third of the state's lakes including the second largest, and 12 of the 20 exceeding 10 square miles, one of four National Estuary Programs, and numerous springs and spring runs, most notably Silver Springs with outflow among the largest in the world. Florida's most popular tourist attraction in the late 1800s was a steamship tour up the St. Johns and Ocklawaha rivers to Silver Springs.

In the 1960s, as part of construction of the Cross-Florida Barge Canal, the lower Ocklawaha was dammed and about 20 miles of the river were flooded, creating Rodman Reservoir. Upstream portions of the Ocklawaha had been channelized earlier in the century, and marshlands along the river and lakes in the Ocklawaha chain had been drained for farming. The district has purchased large tracts of these drained marshes, stopped the pumping of polluted water from farms and reflooded the fields. The marshes are returning and with them wintering waterfowl, wading birds, and other wildlife.

Major efforts are underway to restore Lake Apopka, one of the most polluted lakes in the state and the main headwater for the Ocklawaha river and chain of lakes. Removal of excess nutrients presently in the lake is being addressed through harvest of gizzard shad and construction of a marsh filtration system on former muck farmland. Direct discharges from sewage treatment plants and citrus processing plants have stopped.

For further reduction of nutrient inputs to Lake Apopka and restoration of its wetlands, funding has been provided by the Florida legislature and the federal Wetland Reserve Program for acquisition of the remaining muck farms. To encourage the return of game fish populations, native aquatic vegetation species that were originally in the lake are being planted in the shallow water near the shoreline. The plants provide food, protection from predators, and spawning sites for fish and other wildlife, and their root systems help stabilize the loose sediments on the lake bottom, improving water clarity.

As in the Ocklawaha basin, the upper St. Johns River floodplain was diked and drained. One of the largest wetland restoration projects in the world is repairing the resulting environmental damage. The Upper St. Johns River Basin (USJRB) Project is a cooperative effort with U.S. Army Corps of Engineers that encompasses 235 square miles and incorporates flood control, habitat, and water quality components, restoring 150,000 acres of floodplain wetlands.

The USJRB project also benefits the Indian River Lagoon (IRL) by reducing the amount of upper basin runoff diverted there. That runoff carries excess freshwater that changes the salinity of the lagoon, affecting animals such as oysters and clams, and delivers nutrients (nitrogen and phosphorus) that can cause the overgrowth of algae, resulting in the death of seagrasses. Protection and restoration of seagrass beds and reconnection of mangroves and marshes diked off from the lagoon for mosquito control are major IRL issues being addressed by the district.

Many restoration projects are made possible by the district's land acquisition program. Highest priority in the 1980s was given to purchase of the land needed for the upper basin project, where the most severe loss of floodplain had occurred. SJRWMD now owns property in all its major basins except Florida Ridge, most of which is in the Southwest Florida Water Management District. These lands are acquired for flood protection, water supply protection, water body preservation, restoration, and habitat protection. They provide the added benefit of public recreation, with 98 percent open to the public.

Joint purchases and management agreements with local governments and other agencies supplement funds available to the district. Less-than-fee acquisitions, or purchase of conservation easements, have been used to stretch those funds where the cost of the development rights is significantly less than the total purchase price of the land.

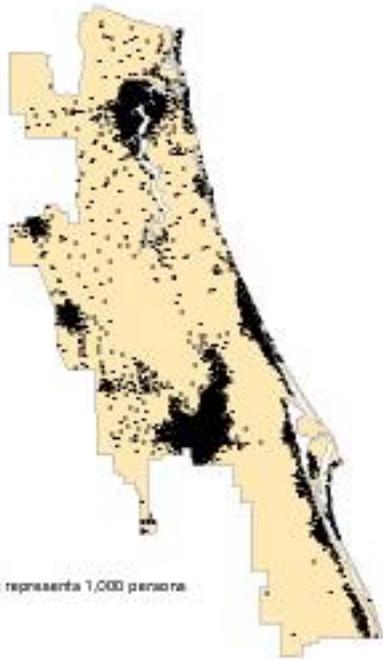
Passage of the Bluebelt Act by the 1996 Legislature recognized the importance of land owner agreements to refrain from developing significant recharge areas. The Floridan aquifer is SJRWMD's main source for public supply, and the district will delineate significant recharge areas for any of its counties willing to offer reduced tax assessments in exchange for their protection, as authorized by the act. Orange County was the first county in Florida to offer this opportunity to its residents.

In some parts of the district, use of the Floridan aquifer is limited because of poor quality. High chloride content generally occurs east of the St. Johns River where intensive agricultural, industrial, and urban uses as well as abandoned free-flowing wells have reduced groundwater supplies and contributed to saltwater contamination. In those areas the surficial aquifer is tapped as a potable water source, and in some cases blended with water from the Floridan. In addition, reverse osmosis is increasingly being used to provide drinking water.

Topography



1990 Population



One dot represents 1,000 persons