

OVERVIEW  
THE SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

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The Southwest Florida Water Management District (SWFWMD) is one of five regional districts in the state designated to preserve and protect the water resources. The Southwest Florida Water Management District was created by special act of the Florida Legislature in 1961 because of the massive flooding caused by Hurricane Donna. Flood control is still a vital part of District operations; however, other water management responsibilities were assigned by the Legislature with the Water Resource Act of 1972. They include: resource regulation, resource management and public education programs. In recent years, other programs have been delegated by the Legislature. They include the Surface Water Improvement and Management Program, the "Save Our Rivers" land acquisition program and Surface Water Permitting.

The District covers an area of 10,200 square miles in west central Florida. One fourth of the state population, which is approximately 3.3 million people, reside in the District. A nine-member governing board sets District policy and directs management. Members are appointed by the governor and serve four-year terms without compensation. So where do we get our water to supply the 3.3 million people in our District? Groundwater provides 79 percent of fresh water. The remaining 21 percent comes from surface water such as lakes, rivers and estuaries.

Let me briefly explain the natural hydrological cycle that replenishes our groundwater and surface water resources. The area receives 52 inches of rain per year. Water loss includes 39 inches by evapotranspiration and 6 inches runoff. This leaves 7 inches available for recharge. Here in west central Florida, the majority of potable water is located in the Floridan Aquifer. The aquifer is near the surface at the north end of the District, but dives deeper below the surface as you move toward the southern end of the District. The water supply in west central Florida is rain driven. The District averages between 50 to 55 inches of rain each year. Recharge of the aquifers and surface water is provided solely by rainfall.

In addition to the rainfall or the lack of rainfall affecting the District's water resources, there are other factors influencing the quantity of available water. Population for the District between now and the year 2020 is expected to increase by 60 percent to 5.1 million people. There are 2.5 million people in the Tampa Bay area. This rise in the population subsequently causes an increase in demand for water resources. In three of the past four years, temporary water shortages have developed due to decreased rainfall and an increased demand for water.

Because of the delicate nature of our water supply, the governing board has adopted an aggressive plan to maintain an adequate water supply for the District's future. Elements of the plan include: an intensive water conservation education program; the implementation of mandatory water conservation measures and the designation of water use caution areas. Public education is the cornerstone of the District's comprehensive water conservation program. The "Save-A-Drop" program features informational materials, public service announcements, and most importantly, an in-school education program. Required water conservation measures are becoming a part of everyday life in west central Florida. The measures limit lawn irrigation to specific days and hours to avoid seasonal peaks in water demand and encourage best turf management practices.

The governing board has designated three areas in the District as Water Use Caution Areas. These are areas where the water resources are threatened or the environmental impacts on groundwater pumpage are severe. Normal resource protection through the

Consumptive Use Permitting process will not achieve our goals of stabilizing or reversing these trends. The areas include the Highlands Ridge section of eastern Polk and western Highlands counties; the northern Tampa Bay area including northern Hillsborough, Pinellas, and southern Pasco counties; and the eastern Tampa Bay section, which includes southern Hillsborough, Manatee, and northwestern Sarasota counties. These areas have shown significant declines in ground and surface water levels over a period of time. Concerns in the Ridge area center on water withdrawals and possible impacts due to drainage. Some lakes in the Ridge have fallen over 15 feet and continue their downward trend. This is an area of intensive citrus production.

The Eastern Tampa Bay area has experienced tremendous growth in recent years. It is an area of water wars and an area of intense development of the water resources, for both municipal and agricultural use. In the Eastern Tampa Bay region, there is now a fierce competition for a marginal water supply. The following are factors in the water supply status: (1) Population increasing dramatically; (2) Percentage of irrigated agriculture rising sharply; shifting of citrus south after freezes and phosphate companies selling off large tracts of unmined lands primarily to the vegetable/row crop industry; and (3) Impacts: surface below sea level becoming lower and lower, saltwater intrusions, existing legal users. Long term effects of these conditions will promote seasonal low water levels and possible water quality problems. In addition, there is the economic consideration of significantly higher water costs as increased saltwater intrusion forces more processing of water or the importation of potable water over long distances.

Working groups representing various interests including municipalities, agriculture and environmental groups have been formed in each area to identify possible causes and formulate solutions. Long term recommendations will be formulated for Water Resource Assessment Project studies, conservation methods, reuse, reduced pumping limits on existing consumptive use permits and even a possible lowering of the withdrawal capacity. Allowable withdrawal in these areas is based on a detailed safe yield analysis. Water will continue to be a concern in Florida as demand increases and resources are subjected to threats both from decreased quantity and quality. In order to effectively manage the resource in the 1990s and beyond, new strategies must be developed to meet these challenges. SWFWMD is planning for its future.