

Public Policy and Water in Florida¹

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Introduction

In other documents in this series, we discussed Florida water resources and their use (EDIS documents [FE757](#) and [FE797](#)). This publication describes the state policies and regulations that provide the framework for water resources use and the impact of human activities on water resources in the state of Florida. This document is intended to provide an overview of the history and the current status of Florida's state regulations and policies.

Water Allocation Policy

The early history of water policy in Florida dealt mostly with drainage and flood control, especially in central and southern Florida. Between 1907 and 1929, the Everglades Drainage District constructed 440 miles of canals in the Everglades area. In the 1930s, the Hoover Dike around Lake Okeechobee was built to protect the surrounding communities from floods associated with heavy precipitation during tropical storms.

In 1949, the U.S. Congress authorized the Central and Southern Florida Flood Control Project. Constructed by the United States Army Corps of Engineers over a period of about 15 years, this new

infrastructure altered the hydrology of the entire Kissimmee, Okeechobee, and Everglades Basins to provide flood control, drainage, and water supply for all of south Florida. The Florida legislature created the Central and Southern Florida Flood Control District (later to become the South Florida Water Management District) as the state partner for the United States Army Corps of Engineers. After floods in 1959 and 1960, the Southwest Florida Water Management District also was created. In the late 1960s, both Districts began requiring permits for water withdrawals

Prior to 1972, Florida's water law was based in common law doctrines that had evolved through custom and case law in the eastern United States beginning in colonial times. For example, the riparian doctrine gave riparian landowners a protected right to withdraw and use water from water bodies adjoining their lands. According to the *reasonable use rule*, riparian landowners were allowed to use surface water as long as such use did not unreasonably interfere with another riparian's use. Furthermore, according to the groundwater reasonable use doctrine, landowners were essentially allowed to extract all the groundwater they needed for reasonable use on their overlying land, disregarding the adverse impacts on neighboring lands. The common law approach to

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settling disputes over water rights was of limited effectiveness because it operated on a case-by-case basis, rather than in a comprehensive manner, and it could be invoked only after damage had occurred. This approach prevented landowners from managing water resources with a forward-looking view.

During the 1950s and 1960s, Frank E. Maloney, a professor and later a dean of the University of Florida College of Law, conducted extensive research on Florida case law pertaining to surface water, groundwater, diffused surface water, and water pollution. Professor Maloney published his findings, including his analysis of deficiencies in the common law dispute-settlement process as the mechanism for water management in Florida's environment of rapid population and industrial growth, in a series of law journal articles. The capstone of Professor Maloney's work (conducted in collaboration with several of his colleagues) was *A Model Water Code*, published in 1970. The code was offered as a model for legislation that would create a form of administrative water law—administered by agencies of the state pursuant to legislated authority and mandates. The code integrated codified concepts from the common law water rights doctrines, such as the rule that water uses be *reasonable and consistent with the public interest*.

When Florida's population began to grow rapidly in the 1950s, policymakers and water managers began to argue for a more cohesive solution to water quality and quantity problems, and for a more integrated regulatory structure at the state level. In 1972, the Florida legislature met during one of Florida's periodic, extended droughts to address growing concerns about deficiencies in the institutional mechanisms for water management. The 1972 legislature responded by enacting the Florida Water Resources Act of 1972.

The Florida Water Resources Act of 1972 (Chapter 373, Florida Statutes) is largely based on Frank Maloney's *A Model Water Code*. The Act established a form of administrative water law that brought all waters of the state under regulatory control. The Act included provisions for (1) the establishment of a state water regulatory agency and five water management districts (WMDs) that, taken together, encompass the entire state; (2) water

planning requirements; and (3) a permit system administered by the WMDs for water use, well construction, and the storage and management of surface water. The Act differed from Professor Maloney's code in that it omitted the sections on water pollution control.

Pursuant to the provisions of the Florida Water Resources Act, the Central and Southern Florida Flood Control District was transformed into the South Florida Water Management District, the largest of the five water management districts, encompassing 16 counties from Orlando to the Florida Keys. The regulatory programs of the pre-existing Southwest Florida Water Management District were expanded from flood control to a more broad-based water resource management. Three more WMDs were created: the St. John's River Water Management District, the Suwannee River Water Management District, and the Northwest Florida Water Management District (Figure 1). Under the Water Resources Act, all five WMDs were assigned the same mandates and responsibilities.



Figure 1. Florida water management districts (Source: SJRWMD 2007).

The policymaking body for each water management district is a governing board of nine members who reside within the district (except the Southwest WMD, which has 13 board members). The members are appointed by the governor and confirmed by the Florida senate to serve staggered four-year terms. The Southwest WMD is further divided into eight basins.

The WMDs are required by legislation to implement regulatory programs for well construction, consumptive water use, and alterations to the hydrologic regime (management and storage of surface water). Well construction permits may be required prior to installation of a well. The design standards that must be met under conditions of these permits ensure that wells meet standards for safety and durability. Consumptive water use permits (or water use permits) allow surface and ground water withdrawals for beneficial use such as public water supply, agricultural and landscape irrigation, industrial use, and power generation. Applicants for permits must establish that the intended use is a reasonable-beneficial use, that it is consistent with the public interest, and that it does not interfere with any existing permitted water uses.

In addition to their permitting authority, the WMDs have broad powers to maintain, regulate, alter, or construct waterways and appurtenant facilities. An important source of funding for the districts is the *ad valorem* tax. A constitutional amendment, passed by statewide referendum in 1976, granted *ad valorem* taxing power to the WMDs (Table 1).

According to the Florida Water Resources Act, statewide authority for water resource management was vested in the Florida Department of Environmental Regulation (which an act of the 1993 Florida legislature has since merged with the Florida Department of Natural Resources to create the Department of Environmental Protection [FDEP]). The FDEP has *general supervisory authority* over the WMDs and delegates water resources programs to the WMDs wherever possible. The legislative intent was to provide for the continuity of the water management policy, statewide, with regional implementation taking into account the variability of water resources in the state.

The FDEP and the five WMDs were directed to develop a state water use plan. The most recent Florida water plan was developed in 2001, and progress reports are available for 2001 through 2003 (FDEP 2008). The plan integrates the FDEP programs and activities related to water supply, water quality, and flood protection, as well as regional

water supply plans required by legislation and developed by the WMDs.

Public Policy for Protection of Water Quality

The Air and Water Pollution Control Act as amended (Chapter 403, Florida Statutes), along with several other pieces of legislation, provides the statutory basis for the regulation of most of the aspects of water quality in Florida. It provides the FDEP with broad powers and duties to accomplish the statutory goal of protecting and improving water quality throughout the state. These include the power to classify surface and ground water bodies according to their most beneficial uses; establish ambient water quality criteria within each classification for various parameters of water quality; develop standards of quality for wastewater discharges; and implement a permit system for the *operation, construction, or expansion of any installation that may be a source of water pollution*, and require posting bond to operate any such installation.

The Environmental Regulation Commission (ERC), established by the Florida Environmental Reorganization Act of 1975, is empowered to act as an adjudicatory body for final actions taken by the FDEP and is the exclusive standard-setting authority of the FDEP.

The Total Maximum Daily Load (TMDL) program is among the major programs implemented by the FDEP to address water quality issues in the state. The establishment of the TMDL program is grounded in the federal Clean Water Act, which requires states to submit a list of impaired surface waters that do not meet water quality standards, and to establish TMDL limits for these waters. A TMDL is the total amount of pollution that a water body can receive over a certain period of time and still meet water quality standards. In Florida, the TMDL process includes the identification, verification, and listing of impaired waters; development of the TMDL plan with the initial allocation of allowable loads among polluting sources; and completion of the TMDL implementation plan, referred to as the Basin Management Action Plan (BMAP), with detailed allocations of allowable loads and evaluation of

strategies to achieve these allocations. These steps are followed by BMAP implementation, progress monitoring and evaluation, and BMAP modifications if water quality targets are not achieved.

The FDEP conducts TMDL assessments of water bodies, and is also the lead agency in coordinating the implementation of the TMDL program and developing basin plans and suitable measures to reduce pollution from nonagricultural nonpoint (diffused) pollution sources. The FDEP also regulates point source discharges (i.e., discharges through a confined discharge point, such as a pipe) of industrial and domestic wastewater facilities by issuing and enforcing surface water discharge permits. The regulation of point sources of water pollution, as required by the federal Clean Water Act, is called the National Pollution Discharge Elimination System (NPDES).

The Florida Department of Agriculture and Consumer Services (FDACS) is responsible for developing and adopting best management practices (BMPs) manuals, and assisting agricultural producers in implementing BMPs to improve water quality. The Office of Agricultural Water Policy, Department of Agriculture and Consumer Services, works to establish best management practices (BMPs) with input from the University of Florida, Institute of Food and Agricultural Sciences (UF/IFAS).

Other State Programs

State policymakers have a menu of policy tools with which to implement water quality and quantity goals. These tools include regulations, taxes and monetary incentives, land acquisition programs, and research and education programs. Agencies, individuals, and organizations also retain recourse in the common law approach to dispute settlement through litigation.

In the main, however, Florida's approach to water management and pollution control is built on a framework of comprehensive regulation. Florida has made significant use of public acquisition and management of land for water management purposes. Research, education, and technical assistance have been used in supplemental ways, often incidental to regulatory approaches. Taxes and other monetary

incentives have not been widely used as a mechanism to influence behavior.

Since the 1970s, the Florida legislature has created programs for the restoration and protection of state water quality. These include the following:

- The Florida Safe Drinking Water Act of 1977 provided for the adoption and enforcement of state primary and secondary drinking water regulations and standards, and allowed the state of Florida to assume primacy for implementing, within the state, provisions of the federal Safe Drinking Water Act of 1976.
- The Water Quality Assurance Act of 1983 was divided into 12 separate parts, each of which addressed a distinct ground water or hazardous waste problem. The Act addressed the need to compile data relating to water resources; prevent contamination of potable water supplies; plug abandoned artesian wells; regulate the siting of septic tanks; clean up existing contamination sites; prevent pollution from leaking from underground fuel storage tanks; and require the proper treatment, storage, and/or disposal of all hazardous wastes.
- The State Underground Petroleum Environmental Response Act of 1986 further addressed the need to prevent pollution from leaking from underground storage tanks and to fund the cleanup of existing pollution sites.
- The Surface Water Improvement and Management Act of 1987 (SWIM) promised state funding to water management districts for remedial measures to restore water quality in surface water bodies that had been contaminated in the past.
- The Marjory Stoneman Douglas Everglades Protection Act of 1991 combines provisions for taxes, land acquisition, and regulations designed to resolve a complex and controversial lawsuit concerning water quality impacts of irrigation drainage on the Everglades marsh ecosystem in south Florida.

- The Florida Cooperative Extension Service and the University of Florida's Institute of Food and Agricultural Sciences conduct research, education, and demonstration projects specifically directed at minimizing water quality impacts of agricultural operations. These projects often involve cooperation with the FDEP, WMDs, and/or Natural Resource Conservation Service (NRC) of the United States Department of Agriculture (USDA).
- The FDEP, FDACS, WMDs, and USDA have provided both cost-share and technical assistance to farmers to help reduce point-source and nonpoint-source pollution from agriculture operations, especially dairies.
- The FDACS administers a pesticide review and registration program to assure that pesticides labeled for use in Florida have been tested under Florida's conditions and will not pose an unreasonable threat to water quality.
- The Florida Spring Initiative was established by Governor Jeb Bush in 2001. It provides funding for research, monitoring, education, and landowner assistance to improve spring water quality and flow.
- Development of a Comprehensive Everglades Restoration Plan (CERP) was required by the federal Water Resources Development Act of 2000. CERP was approved by the United States congress in a later amendment to the Water Resources Development Act. CERP is the framework for the restoration and protection of water resources in central and southern Florida. Plan components include surface water storage reservoirs, water preserve areas, underground water storage, water reuse and conservation, Lake Okeechobee management, and improved water delivery to estuaries (the United States Army Corps of Engineers and the South Florida Water Management District 2008).

Conclusions

This document provides a short overview of the water quality and allocation policies in Florida. A more detailed description of specific regulatory

documents is presented in the EDIS series http://edis.ifas.ufl.edu/topic_series_handbook_of_florida_water_regulation (Olexa et al. 2008). More information is available from excellent websites maintained by the resource and environmental management agencies in Florida. Active websites as of April 2009 include the following:

- South Florida Water Management District, West Palm Beach, <http://www.sfwmd.gov>
- Southwest Florida Water Management District, Brooksville, <http://www.swfwmd.state.fl.us>
- Saint Johns River Water Management District, Palatka, <http://sjr.state.fl.us>
- Suwannee River Water Management District, Live Oak, <http://www.srwmd.state.fl.us>
- Northwest Florida Water Management District, Havana, <http://www.nwfwmd.state.fl.us>
- Florida Department of Environmental Protection, Tallahassee, <http://www.dep.state.fl.us>
- Florida Department of Agriculture and Consumer Services, Tallahassee, <http://www.doacs.state.fl.us>

Each of these agencies maintains service centers at locations remote from the main office locations listed above.

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Table 1. Excerpts from proposed 2009 budget for Florida's water management districts.

Water Management Districts (WMDs)	Total Budget	Ad valorem Tax Rate, per \$1,000 of Property Value after Deductions	Ad valorem Tax Contribution to Budget	Major Expenditure Items
	(million \$)		(%)	
South Florida	2,974	0.48 or 0.62, depending on basin	18%	Comprehensive Everglades Restoration Plan District Everglades District operation and maintenance
Southwest Florida	377	0.54 – 0.75, depending on basin	58%	Acquisition, restoration, and public works District management and administrations Water resources planning and monitoring
St. Johns River	376	0.4158	36%	Acquisition, restoration, and public works District management and administration Water resources planning and monitoring
Suwannee River	70	0.4399	8%	Land acquisition and management Resource management (including permitting administration) Water resources (including agricultural cost-share programs and support for the Ichetucknee and Suwannee River Partnerships)
Northwest Florida	119	0.0450	4%	Acquisition, restoration, and public works (including water source development and surface water projects) District management and administration (including administrative and operations support, and reserves) Water resources planning and monitoring (including research, data collection, analysis, and monitoring)

Sources: South Florida WMD 2008, Southwest Florida WMD 2008, St. Johns River WMD 2008, and Northwest Florida WMD 2008.