

and the Peace) depend in large measure on runoff and dewatering from high water table soils for their streamflows. Throughout the remainder of the southeast, where large rivers flow through the Atlantic Coastal Flatwoods subphysiographic province, the headwaters originate in the Piedmont or in the Southern Appalachian Highlands.

Third, Florida has a deep aquifer (a complex of several limestone formations—the Ocala, the Avon park, the Lake City, the Suwannee, and the Tampa—that make up the Florida aquifer) that is separated from the surface waters in many parts of the state by an aquiclude, the Hawthorne Formation (Stewart, 1980). However, other areas of recharge and some locations, particularly in the northern and western parts of the peninsula, have numerous springs that flow out of the limerock. The Floridan aquifer also extends into a large area of South Georgia.

Fourth, in the populous southeastern part of the state, the shallow Biscayne aquifer serves as the only source of storage for fresh water. This aquifer is a local, rainfed aquifer, and water conservation areas and the Everglades are supplied both by rainfall and by water from the drainage basin of Lake Okeechobee (primarily the Kissimmee River, Fisheating Creek, Harney Pond Canal, Indian Prairie Canal, and the Taylor Creek/Nubbin Slough watershed).

Year-to-year variations in rainfall not only have serious effects on agricultural production, but they cause wide fluctuations in the shallow groundwater resources. These water supply and availability problems present a challenge in meeting the expanding, competitive urban, industrial, and agricultural needs while maintaining some of the wetlands ecosystems.

Water resource management within the state of Florida is becoming an increasingly important function. In the early 1970s, water shortages became acute in some areas. The State Legislature established a coordinated system of water management districts covering the entire state through the Water Resources Act of 1972. This act created five Water Management Districts. The districts were required to develop a Water Use and Supply Development Plan and to immediately begin accomplishing the ongoing functions of planning, operations, and regulation of the water resources in their districts. Thus, districts faced the responsibility of allocating a declining water supply over an ever growing and conflicting water demand within the urban, industrial and agricultural communities.

Withdrawal of fresh water for irrigation represents the largest of the state's water pumping demands (Leach, 1978). However, agricultural areas contribute to the water harvest of surface and groundwater. Most other withdrawal users do not generate contributions to water resources, although they may return water to the system. In the past, the agricultural water pumping demand has not created any serious problem; however,