

FAST FACTS

More than 95 percent of the water used for public supply in the St. Johns River Water Management District comes from aquifers.

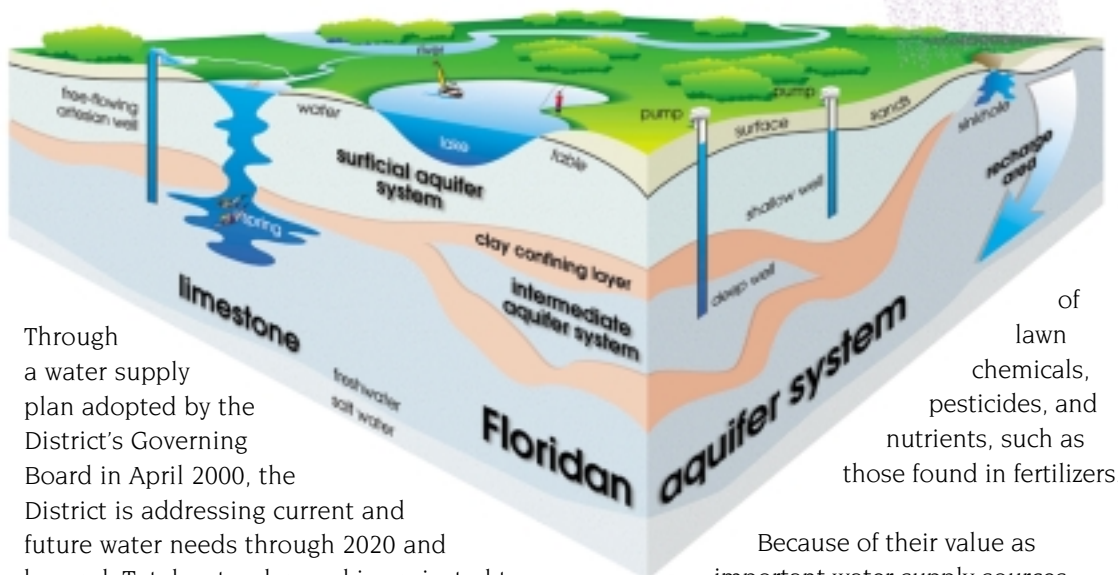
Aquifers will continue to be the primary sources of water to meet future water needs.

Protecting aquifers from significant contamination and loss of recharge is essential to protecting the existing and future water supplies.

What happens above ground can affect the quality and quantity of the water below ground.

Introduction

With the majority of northeast and east-central Florida's water supply coming from underground sources known as aquifers and the use of those sources expected to continue in coming years, the St. Johns River Water Management District is working on various ways to protect this water source.



Through a water supply plan adopted by the District's Governing Board in April 2000, the District is addressing current and future water needs through 2020 and beyond. Total water demand is projected to increase by 35 percent by 2020. Projected public supply demand accounts for approximately 85 percent of this increase.

Currently, more than 95 percent of northeast and east-central Florida's public water supply comes from aquifers. Three aquifer systems — the surficial, the intermediate and the Floridan — will continue to be the primary sources of water to meet future water needs.

Threats to the aquifer

Aquifers are refilled, or recharged, by rainfall. However, less and less area is available to allow rainfall to refill the aquifers because paved roads, parking lots, and housing

developments and other buildings cover up lands that have soils best suited to allow water to seep into aquifers.

In addition to reduced recharge areas, aquifer water quality is threatened by various pollutants that run off developed areas and seep into the ground. This is especially true

of lawn chemicals, pesticides, and nutrients, such as those found in fertilizers.

Because of their value as important water supply sources, these aquifers must be protected from contaminants and activities on the land's surface to ensure their continued availability.

Wellhead protection

Florida's wellhead protection program is one element of aquifer protection. In wellhead protection zones, local governments limit or restrict land uses to protect aquifers from contamination. When requested by a local government, the District provides scientific modeling of public supply wells to identify wellhead protection areas and assists local governments in developing programs to protect those areas.

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Aquifer protection plan

The District is developing an aquifer protection plan to identify areas where groundwater supplies are at risk of significant contamination or loss of recharge resulting from existing or proposed land uses and related recharge characteristics.

The plan will identify appropriate recharge protection goals, objectives and implementation strategies to assure that groundwater supplies are adequately protected.

Specific strategy categories to be addressed include:

- District regulations
- State statutes or regulations
- Federal regulations
- Local government ordinances
- Land acquisition
- Capital projects
- Data collection and investigation

Specific documents to be produced include:

- Bibliography of information concerning the relationship

between land use, aquifer recharge, and groundwater quality and quantity

- Summary of statutes, rules, regulations and ordinances
- Assessment of the likelihood of unacceptable impacts to groundwater quality and quantity as a result of potential changes in land use and related changes in recharge characteristics
- Aquifer protection plan

The plan will be developed through a coordinated effort with the Florida Department of Environmental Protection, local governments and other interested parties. Public input will be encouraged throughout this process.

Project management

This project is being coordinated for the District by Barnes, Ferland and Associates Inc. of Orlando. For more information about this project, contact Joel Kimrey or John Watson at (407) 896-8608, or e-mail at jwatson@bfaenvironmental.com.

