

NATURAL RESOURCES

WATER: THE ULTIMATE INFRASTRUCTURE CRISIS



Florida
WATER ALLIANCE

Preparing for and Preserving Florida's Future Water Supply

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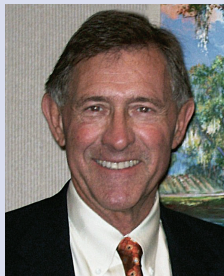
*The Alliance
wishes to thank
Associated
Industries of
Florida for
its help in
designing and
printing this
brochure.*

About the Florida Water Alliance

The Florida Water Alliance was formed over 10 years ago in an effort to reduce the possibility of costly “water wars” at the state legislative level. Over the years, it has evolved into a group that represents 45 companies, associations and governments at the statewide, regional and local levels. The uniqueness of the Alliance is its broad membership and focused agenda. The business community, environmental groups, agricultural associations, Department of Environmental Protection, water management districts, local governments, and water utilities working together in the legislative arena toward a common goal of alternative water supply funding is unprecedented.

As this brochure clearly outlines, Florida is facing a crisis in water supply. While a significant step to fund alternative water supply and water quality programs was initiated with Sen. Dockery’s Senate Bill 444 in 2005, the funding for those programs was drastically cut in 2008. A key advantage of the funding formula established by Senate Bill 444 is the “multiplier effect.” State dollars are matched by water management district dollars, and then matched again by local water utilities. The program is an economic stimulus and creates jobs.

Members of the Florida Water Alliance are determined to find a new and dedicated source to fund water quantity and water quality programs. We hope the readers of this brochure will better understand Florida’s water crisis and join us in the effort.



Doug Mann
Chair, Florida Water Alliance

Without Water there is no development, no growth, no environmental protection, no economic rebound for the State of Florida.

In the following pages, you will find up-to-date information regarding Florida's water supply and water quality. As members of the Florida legislature, as representatives of Florida's citizenry, you must be informed and prepared to support recurring funding for alternative water supply development and the implementation of the state's water quality (Total Maximum Daily Load – TMDL) program. Any economic stimulus package — federal or state — that results in funding for infrastructure construction must target water infrastructure, and those dollars must be funneled through the Water Protection and Sustainability Act Trust Fund to ensure that federal/state dollars are matched by water management districts and local governments.

Agriculture

“Agriculture is Florida's second largest and most stable industry; without question water is one of the most important factors in this success. By assisting the development of alternative water supplies, the implementation of practices to improve water quality, and efforts to increase conservation of existing water resources, the funding provided by the Water Protection and Sustainability Program has been a critical part of efforts by all users to more wisely manage water in ways that protect both our economy and our environment. The widely recognized importance of this program to Florida's quality of life is clearly demonstrated by the way in which it has brought together an unusual coalition of rural, urban and environmental interests in a common effort to ensure a sustainable water resource future for our state.”

– CHARLES H. BRONSON, COMMISSIONER OF AGRICULTURE

THE WATER CRISIS

Florida is at a water crossroads. The state's three largest urban-economic regions: Tampa Bay, southeast Florida and the greater Orlando area — have effectively run out of available groundwater. The three largest water management districts have determined that increased pumping in these regions will result in unacceptable environmental impacts, such as drawdowns of wetlands and lakes; reduced flows to springs and rivers; and increased risk of saltwater contamination into fresh groundwater resources.

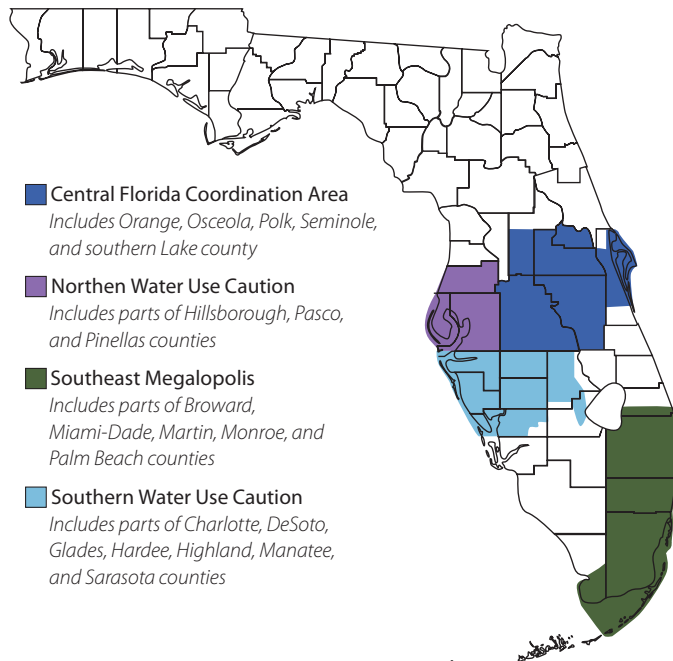
In Tampa, the water authority has already been required to reduce groundwater pumping by 70 million gallons a day. Utilities in southeast Florida have learned that groundwater connected to the regional canal system will be limited to 2006 pumpages. In central Florida, communities face the fact that no additional groundwater will be available beyond 2013 demands. And this groundwater crisis is not limited to major metropolitan areas. Even tiny Flagler County has been directed to pursue desalination of ocean water for its future water supply.

The growing scarcity of water supplies has already resulted in acrimonious and expensive litigation among local governments; water management district permit challenges; restrictions on new economic development; and in some areas, a continued decline in natural resources. Ultimately, an unstable water future will continue to wreak havoc on Florida's economy and environment.



Eastern Orange and Seminole Counties Regional Reuse Project reclaimed water storage tank.

Approximately 70 % of the state's population resides in areas where groundwater supplies are tapped-out.



Alternative Water Supply

According to the Department of Environmental Protection, by the year 2025, Florida will need an additional 2 billion gallons of water supply a day. Putting this in perspective, consider the fact that the Tampa Bay Water Apollo Beach desalination plant — the largest in North America — has the capacity to generate 25 million gallons a day. To address this crisis, communities throughout the state must develop costly alternative water supplies, “to make the water pie larger.” Alternative water sources include such things as:

- **Salt water**
- **Brackish, surface and groundwater**
- **Collection and storage of stormwater runoff before it drains to coastal waters**
- **Reservoirs and aquifer storage wells**
- **Reclaimed water (highly treated wastewater used for irrigation purposes)**

In addition, water conservation is an important key to addressing the state's future water demand. While water conservation among Florida's 17 million residents is admirable and achievable — to some extent — it will not create new water resources to meet the demands of the state's water

Utilities

“The funding support provided by the State and water management districts to local water utilities has been a significant step toward solving Florida's water needs. The AWWA strongly supports the Florida Water Alliance efforts to increase alternative water supply funding.”

— ANA MARIA GONZALEZ, CHAIR, FLORIDA SECTION, AMERICAN WATER WORKS ASSOCIATION

Department of Environmental Protection

“Effective use of alternative water supplies is critical to ensuring adequate water resources for a healthy environment and a vibrant economy in a time of climate change.”

future. Also, these alternative sources are costly and require substantial time to design, permit and build. Even conservation can prove expensive in terms of retrofits and public education.

Water Quality

In addition to future water supply, Florida faces an equally daunting challenge when it comes to water quality clean-up and protection. As directed by the federal Clean Water Act, the state has undertaken an ambitious Total Maximum Daily Load (TMDL) Program. A TMDL is the maximum amount of pollutants that a water body can accommodate. Under the TMDL program, the state must identify “impaired water bodies” — those that receive too much pollution. The state must then determine pollution limits for such water bodies and develop a management plan for the basin in which the water body is located. The management plan will direct the implementation of Best Management Practices and other land use controls to ensure that pollutants are reduced to acceptable levels.

To date, the DEP has identified almost 1000 impaired water bodies in Florida. Determining acceptable pollution levels, developing management plans, and implementing clean-up programs for those waters will be a massive undertaking.

PROGRESS TO DATE

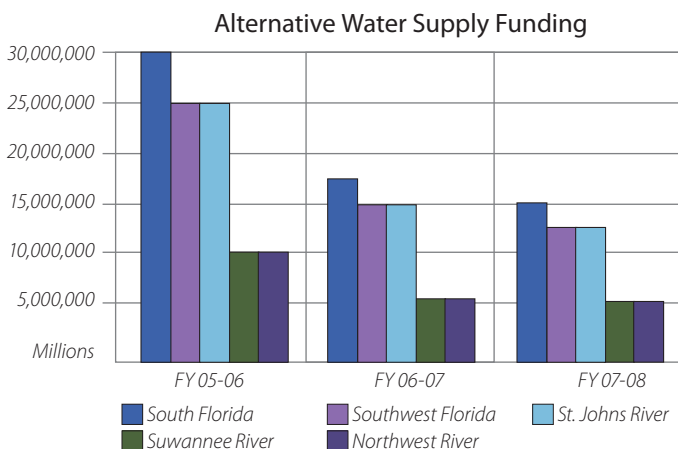
In 2005, the legislature established the Water Protection and Sustainability Program to address alternative water supply development, water quality and environmental programs, and wastewater grants to small, disadvantaged communities. Key elements of the program include:

- **State funding (\$200 million in 2005; \$100 million annually thereafter)**
- **Alternative water supply matching funds by water management districts and local governments (each state dollar invested generates a minimum of \$3.50)**
- **Transparent and criteria-based process for awarding alternative water supply funds to local governments**
- **Regulatory incentives for alternative water supply projects, such as 20-year permits and presumption of public interest**
- **Improved regional water supply planning by the water management districts**
- **Protection of water quality through funding provided to the DEP and the DACS for the TMDL program**

In terms of alternative water supply development, the Water Protection and Sustainability Program has been extremely successful. During the program’s first three years, the state and water management districts contributed \$423 million to the program. This funded 344 local projects whose construction alone will value \$3.8 billion. When completed, the projects will generate 842 million gallons of new water a day, or more than 40% of Florida’s additional water supply needed by 2025.

Beyond the development of water supply, the program benefits the state in other significant ways:

- **Protects surface and groundwater resources**
- **Protects and restores natural systems**
- **Avoids the potential for costly and acrimonious litigation**
- **Strengthens growth management by requiring water supply be available to support economic development**



THE FISCAL CRISIS

Like many state activities, however, the Water Protection and Sustainability Program has experienced dramatic funding cuts. In FY 2008-09, the program received only \$7.7 million — a 92% reduction in designated funding! Such a reduction means that many projects that were selected for funding and which are under construction will be delayed or cancelled.

Environment Community

“Investments in water supply and water quality are essential steps for protecting Florida’s environment while sustaining growth. Funds provided through the Water Protection and Sustainability Trust Fund allow us to get in front of and solve water resource problems. The program brings together and increases cooperation among diverse stakeholders.”

— ERIC DRAPER, AUDUBON OF FLORIDA

Just one example of this is the City of High Springs, which had been relying on \$2 million in state and water management district funding to support a reclaimed water system. The city has already spent thousands on engineering and has adopted ordinances requiring reclaimed water connection. High Spring's reclaimed water project — like many other alternative water supply and water quality projects — is now in jeopardy.

The state's Water Protection and Sustainability Trust Fund receives monies from documentary stamp tax collections. As this source of revenue has dramatically declined due to the current real estate recession, available funding for alternative water supply projects and the TMDL water quality program has likewise dwindled. The legislature should address this issue and identify other funding sources for these vital infrastructure development and environmental protection programs.

Alternative Water Supply — Economic Boon

In the simplest of terms, Florida thrives and survives because of growth, agriculture and tourism. All of these economic engines depend on a reliable supply of water. Water — like roads and schools — is an inevitable ingredient of the state's infrastructure equation. As explained above, quick, cheap water is no longer available in many of the key regions of the state. Alternative water supplies must be developed. The projects not only create a stable water supply, they also create jobs and stimulate the economy! In Addition, the state's investment in water supply development is matched one-for-one by water management districts and then matched again by local governments — that is, of course, if water supply development dollars are funneled through the Water Protection and Sustainability Trust Fund. Quite simply water supply development creates jobs, infrastructure for economic growth and environmental well-being, and match money is there for the taking.

Business

*“AIF’s members recognize that without affordable and reliable access to water, businesses cannot expand or relocate to Florida. Funding for alternative water supply programs has been a long-time priority for our organization, and it has never been more important than during our state’s current economic downturn. That is why support for investments in water infrastructure projects has been an integral part of AIF’s **Economic Stimulus Package (ESP)** for the last two years.”*

– BARNEY T. BISHOP III, PRESIDENT & CEO, ASSOCIATED INDUSTRIES OF FLORIDA

Examples Abound Throughout Florida

At Tampa Bay Water, a \$15.5 million investment of Water Protection and Sustainability Program funds is generating a \$250 million program to expand the Authority's surface water supply system. The expansion, involving the construction of treatment facilities, pumping and pipeline infrastructure, will generate **25 million gallons of new water daily, as well as 2800 construction jobs.**

In the South Florida Water Management District, at least six major alternative water supply projects dealing with reverse osmosis and reclaimed water facilities are underway in Palm Beach, St. Lucie, Hendry and Lee Counties, which will provide **62 million gallons of new water a day along with 1,860 construction jobs and 75 permanent operational employments.**

Three representative alternative water supply projects in northeast Florida — reverse osmosis facilities in Ormond Beach and St. Johns County and regional reclaimed water system improvements in Orange and Seminole Counties — will create **390 construction jobs and 32 million gallons of water a day at a cost of \$88 million.**

In the Suwannee River region, funding from the Water Protection and Sustainability Program is invaluable to utility providers, because it allows them to integrate **water protection and conservation programs** into operations. Funds provided to the City of Monticello enabled it to upgrade its water treatment plant and to redirect effluent to a local nursery rather than adjacent wetlands, **saving one million gallons of water a day.** Similarly, the City of Live Oak is upgrading its treatment plant. Eventually, it will **provide reclaimed water** to major commercial and industrial facilities, as well as schools and a new corrections facility.

At the Peace River/Manasota Regional Water Supply Authority, a **\$25.5 million investment** of Water Protection & Sustainability Program Funds is generating a \$174 million program to expand the authority's surface water supply system. The expansion, involving construction of a new 6 billion gallon reservoir, water treatment facility, and infrastructure expansion will generate 48 million gallons of new treated water daily, as well as **400 construction jobs.**



Florida Water Alliance Members

A. Duda & Sons
American Society of Landscape Architects – Florida Chapter
American Water Works Association
Association of Florida Community Developers
Associated Industries of Florida
Audubon of Florida
Black & Veatch
Broward County
CH2M Hill
City of Cape Coral
City of Lakeland
Conservancy of Southwest Florida
Flagler County
Florida Association of Counties
Florida Association of Special Districts
Florida Chamber of Commerce
Florida Crystals
Florida Department of Agriculture and Consumer Services
Florida Department of Environmental Protection
Florida Farm Bureau
Florida Fruit and Vegetable Association
Florida Home Builders Association
Florida League of Cities
Florida Nursery, Growers and Landscape Association
Florida Stormwater Association
Florida Sugar Cane League, Inc.
Florida Wildlife Federation
Hillsborough County
Lake Worth Drainage District
Lee County
Miami-Dade County
North Florida Growers Exchange
Palm Beach County
Peace River/Mansoota Regional Water Supply Authority
Polk County
Pinellas County
Northwest Florida Water Management District
Sarasota County
Sierra Club
South Florida Water Management District
Southwest Florida Water Management District
St. Johns River Water Management District
Suwannee River Water Management District
Water Management Institute
Withlacoochee Regional Water Supply Authority

It is estimated by experts that the State's freshwater demand will increase from 6.5 billion gallons per day to 8.5 billion by 2025^[1]. By then, nearly 2.0 billion more gallons of fresh water will be needed each day in Florida.

For 2009-10 the Governor and Senate recognize Florida's growing water supply problems and have recommended the continued full funding of the Water Protection and Sustainability Trust Fund (WPSTF) to develop alternative water supply projects. Some state leaders also understand that funding alternative water supply projects can trigger economic growth at a time when the state is facing a tightening of revenues. The Florida Water Alliance — a large coalition of environmental, government, water management, agricultural and business groups — is urging the legislature to support the Governor's full funding of alternative water supply programs.

The state's staggering water statistics are only heightened by continuing drought conditions in the state. Despite recent rainfall, the Southwest Florida Water Management District is currently experiencing a mix of "abnormally dry" to "extreme" drought conditions^[2].

To meet future water demand, Florida's leadership established the WPSTF in 2005, and provided \$100 million in documentary stamp revenues the first year. Program funding has been eroded ever since.

In addition, the Water Protection and Sustainability law includes a 5-to-1 multiplier, which greatly enhances the annual \$60 million state investment for alternative water supply projects. That's a valuable source of outside funding that the state cannot afford to lose.

Leading business groups — such as Associated Industries of Florida — are recommend that lawmakers reallocate the full annual appropriation toward the development of alternative water supply projects. AIF believes such projects will help jumpstart Florida's economy and create infrastructure-intensive capital investments that will produce jobs for construction workers, engineers, and others throughout the state.

The Florida Water Alliance urges state lawmakers to continue a meaningful investment in the WPSTF to spur economic growth and help meet the growing water demands of all Floridians.

[1] Florida Department of Environmental Protection, Annual Status Report on Regional Water Supply Planning, March 2007

[2] Florida Department of Environmental Protection, Statewide Bi-weekly Drought Summary, March 6-19, 2008