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**EAST-CENTRAL FLORIDA
WATER SUPPLY PLANNING INITIATIVE**

FINAL REPORT



**East-Central Florida
Water Supply Planning Initiative
Final Report**

November 2005



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Introduction

This document is the third in a series of annual reports of activities and accomplishments for the East-Central Florida Water Supply Planning Initiative (Initiative). The Initiative was designed to educate local governments, water supply utilities and the public about water supply issues facing the east-central Florida area, to encourage cooperation and coordination in developing solutions to the regional problems, and to begin implementing projects to meet the area's future water supply needs.

The Initiative has been successful in achieving the following:

- Gaining the attention and action of elected officials and water supply utilities in addressing the water supply issues
- Identifying potential alternative water supply development projects adequate to meet projected demands through 2025
- Building partnerships among local governments to implement alternative water supply projects (at least 40 million gallons per day (mgd) may be developed)
- Securing interlocal agreements to develop county-level water supply plans (five counties)
- Heightening the awareness of the importance of reclaimed water projects as a means to sustain current water supplies and delay the time when other alternative sources will be needed (current project implementation should yield 26 mgd)
- Increasing communication between comprehensive planning efforts and water supply planning efforts
- Educating special interest groups, the business community and the public on the importance of water supply planning and the sustainable limits of our current sources
- Achieving conservation behavior change through education and regulation

In addition to these successes, the passage of Senate bills 360 and 444 and their subsequent signing into law by Gov. Jeb Bush has established new mechanisms for alternative water supply project identification and implementation. The legislation has helped to ensure cooperation in the development of alternative water supplies and improvement in the linkage between local government comprehensive plans and water management district regional water supply plans. The legislation also provides funding for construction of alternative water supply projects.

The Initiative's successes and the new statutory requirements have resulted in a new water supply framework in east-central Florida. The Initiative has achieved its goal of moving local governments forward in their water supply planning efforts. The new statutory requirements and funding program, the St. Johns River Water Management District's (District) water supply planning program and the District's local government assistance program should successfully support the development of environmentally acceptable water supplies in the east-central Florida area without the continuation of the Initiative. More information about this recommendation can be found in the Summary and Recommendations section of this document.

Background

The Floridan aquifer currently provides almost all of east-central Florida's public water supply and a large part of the agricultural and other self-supply. The 2000 District Water Supply Plan (DWSP), the 2004 Interim Update to DWSP, the draft 2003 District Water Supply Assessment, and the Draft 2005 DWSP conclude that, in the near future, water supply needs in east-central Florida will not be able to be met by available fresh groundwater alone without likely incurring unacceptable environmental impacts to lakes, wetlands, or springs, as well as unacceptable saltwater intrusion. Therefore, it is expected that meeting future water supply needs in east-central Florida will require a combination of fresh groundwater, other alternative sources (surface water, brackish groundwater, seawater, etc.), and water resource management techniques (water conservation, water reuse, artificial recharge, etc.).

Although they are critical elements, water reuse and conservation measures alone are not likely to meet the water demands for economic development and projected growth in the area. Therefore, alternative water supply sources and other management techniques must be developed and implemented. Because impacts of water withdrawals from the Floridan aquifer extend beyond local government boundaries, cooperation and coordination among local governments and water supply utilities are vital to a successful water supply planning process.

Several potential alternative water supply sources, as well as water supply development and water resource development projects, were identified in the 2000 DWSP. However, the public supply utilities in east-central Florida, which are the likely developers of the identified alternative sources and projects, were not quick to move forward with project development despite concerns that the sustainable limits of freshwater from the Floridan aquifer in the area could be reached in the near future. This lack of forward movement gained the attention of Orange County Chairman Richard T. Crotty, who, in response, hosted two areawide water summits in early 2002. The Initiative resulted from these two summits.

Local government officials, water supply utilities, and the St. Johns, South Florida, and Southwest Florida water management districts began working together through the Initiative to develop solutions to their collective water supply issues. The east-central Florida area, which is the focus of the Initiative, includes Brevard, Orange, Volusia, and Seminole counties and portions of Lake, Marion, Polk,¹ Sumter, Osceola, and Flagler counties.

Initiative Goal

The goal of the Initiative is to develop an East-Central Florida Water Agenda and associated action plans to

- Ensure that new sustainable water supplies are developed in ways that maximize benefits and minimize harm to natural resources
- Preserve the economic vitality of the region
- Draw linkages, as appropriate, to land use plans

¹As of July 1, 2003, the portion of the St. Johns River Water Management District that was in Polk County became part of the Southwest Florida Water Management District.

- Identify cooperative, affordable, and equitable solutions that minimize costs and avoid competition for remaining inexpensive water resources

Initiative Phase I — 2002

The Initiative process was designed to proceed in two phases. The Florida Conflict Resolution Consortium, a legislatively created statewide neutral resource, was retained to facilitate discussion among local governments and other stakeholders, and to oversee the process of developing objectives, recommendations, and strategies to help meet future water supply needs in the region. Jake Varn and Linda Shelley, of Fowler White Boggs Banker PA, assisted the consortium in this facilitation effort.

Phase I focused on a dialogue process to identify key water supply issues, provide information and education on the issues, and identify regional and subregional strategies to address the issues. The 10-county east-central Florida region participated in the Phase I process (Brevard, Orange, Volusia, and Seminole counties and portions of Lake, Marion, Polk, Sumter, Osceola, and Flagler counties).

The Phase I process included three regionwide meetings, 15 subregional meetings, and more than 50 one-on-one meetings with elected officials and water supply utility representatives. The Phase I process resulted in the East-Central Florida Water Agenda (Agenda), which identifies six key water supply issue areas. The six issue areas identified in the Agenda are

- Enhance intergovernmental coordination
- Develop new water supply
- Link land use planning and water supply planning
- Increase use of reclaimed water
- Enhance aquifer recharge using reclaimed water
- Increase water conservation

Initiative Phase II — 2003–2004

Phase II of the Initiative was designed to build upon the results of Phase I with the development of action plans and identification of specific projects to implement the Agenda recommendations and strategies. Developing and implementing all action plans was expected to be a multi-year effort. Phase II activities included continuing dialogue among local governments and water supply utilities in east-central Florida, identifying potential partnerships, prioritizing projects, identifying potential funding sources, developing legislative recommendations, clarifying roles and responsibilities for action plan implementation, and considering revisions to DWSP.

Because Phase II of the Initiative was designed to be more technically oriented than Phase I, the St. Johns District managed the Phase II effort in coordination with the South and Southwest Florida water management districts. Jake Varn and Linda Shelley, of Fowler White Boggs Banker, facilitated the process, assisted by Taurant Consulting, Inc. Phase II activities began in 2003 and continued throughout 2004. Results of Phase II activities in 2003 and 2004 are summarized in *East-Central Florida Water Supply Planning Initiative Phase II Annual Report of Activities and Accomplishments, 2003* (Special Publication SJ2004-SP4) and *East-Central*

Florida Water Supply Planning Initiative Phase II Annual Report of Activities and Accomplishments, 2004 (Special Publication SJ2004-SP42).

Initiative Phase II — 2005

The following portion of this document summarizes, by issue area, 2005 Initiative Phase II activities and provides conclusions and recommendations for the future.

Enhance Intergovernmental Coordination

Objective

To improve intergovernmental coordination on water supply planning in east-central Florida, which is critical to effectively managing regional water resources.

2005 Initiative Activities

Initiative activities in 2005 were focused in eight counties of the 10-county east-central Florida region — Volusia, Brevard, Orange, Seminole, Lake, Marion, Flagler, and Osceola. To better facilitate development of cooperative solutions, the focus shifted to facilitation at both the county level and at the project level. The following facilitation efforts were initiated in 2004 and are still in progress.

County-Level Activities

- Brevard County — District staff continued liaison with the Brevard Water Supply Board (BWSB). District staff routinely attended BWSB meetings and coordinated regionally significant activities with the BWSB. The focus of this effort in 2005 was the continuation of a cooperative study to determine if the Indian River can support concentrate discharge from potential water treatment plants collocated with power plants in Brevard County. The study is scheduled to conclude in early 2006.
- County-level water supply plans — The District focused much of its attention in 2005 on securing local government interlocal agreements to support development of county-level water supply plans. The counties involved in this process finalized their agreements and began the process to secure consultants to develop the county-level plans. Activities are summarized for each county as follows.
 - Flagler County — A Memorandum of Understanding (MOU) was executed by all local governments in Flagler County and the consultant selection process, which is being managed by the District, is nearing completion. Plan development is expected to begin in 2006 and be completed in 2007. The District's FY 2006 budget includes \$300,000 to support the plan development effort.
 - Lake County — An interlocal agreement creating an alliance (Alliance) of local governments was executed by local governments in Lake County. The city of Leesburg is coordinating Alliance activities and is managing consultant activities on behalf the participating governments. The District entered into an agreement with the city of Leesburg to provide for consultant services to support the water supply planning effort. The consultant selection process is under way. The District's FY 2006 budget includes

\$300,000 to support plan development, which is expected to begin in 2006 and be completed in 2007.

- Seminole County — An interlocal agreement was executed by governments in Seminole County and consultant services have been secured to develop the county-level water supply plan. The city of Casselberry is managing the consultant effort on behalf of the local governments. The District has entered into an agreement with the city of Casselberry to provide for the consultant services. The District's FY 2006 budget includes \$150,000 to support plan development. Plan development began in 2005 and is scheduled to be complete in 2007.
- Marion County — The District continued to assist with a water supply planning effort sponsored by Marion County for local governments in Marion County. The District's FY 2006 budget includes \$40,000 to support continuation of this effort. The Southwest Florida District contributed \$61,000 in 2005 to support this effort and is scheduled to contribute approximately \$90,000 in 2006.
- Volusia County — The Water Authority of Volusia (WAV) continued the process of developing a master facilities plan (MFP) to identify specific projects to meet projected water supply needs. The District entered into an agreement in FY 2004 to financially support this project in an amount not to exceed \$500,000 and amended that agreement in 2005 to increase support to \$1 million. WAV entered into a contract with Camp Dresser & McKee Inc. for development of MFP for a total cost of \$1.3 million. MFP is scheduled to be complete in FY 2006 and will include a timetable for facilities construction.

Project-Level Activities

- Integrated Water Supply Alternatives Study — The city of Cocoa, the Reedy Creek Improvement District, Orange County, and the Toho Water Authority (CROT) worked cooperatively during 2004 to identify possible joint alternative water supply projects, which, if implemented, could delay the need for more costly projects. The focus of CROT's attention was on reclaimed water and stormwater projects. The group advised the District that it would like to perform an integrated water supply alternatives study with coordination and support of the South Florida and St. Johns districts. Both districts reviewed the proposed scope of services, estimated costs, and timeline. The study began in FY 2005 and is expected to be complete in FY 2007, with possible District financial support in FY 2007.
- St. Johns River/Taylor Creek Reservoir Water Supply Project — This project was identified as a water supply development project (Taylor Creek Reservoir Expansion Project) in the 2004 DWSP Interim Update. It emerged as the highest priority project for development because it is likely the least costly of the identified alternative water supply development projects for the east-central Florida area. A series of facilitated discussions with potential local government and other partners was held during 2004 and 2005. These discussions resulted in a proposed Memorandum of Agreement among the following six SUPPLIERS plus the St. Johns District and the South Florida District (PARTIES).
 - City of Cocoa
 - East Central Florida Services, Inc.
 - Orlando Utilities Commission/Orlando
 - Orange County Utilities

- City of Titusville
- Toho Water Authority

All parties except East Central Florida Services, Inc., had signed the agreement at the time of preparation of this annual Initiative report (November 2005).

The District requested and received a congressional appropriation (with the strong support of Congressman Dave Weldon) for \$1.5 million to support this project. This funding was in addition to \$3.5 million from prior appropriations. The funds were made available through the State and Tribal Assistance Grant (STAG) Program, which is administered by the U.S. Environmental Protection Agency (EPA). The District made initial application for these funds in March 2005 and submitted a revised application in September 2005. EPA has verbally notified the District that the application has been approved, however the signed grant agreement had not been received at the time of preparation of this report.

- The Lower Ocklawaha River in Putnam County Water Supply Evaluation — In response to a request from the Putnam County Commission, the District began the process to further evaluate the development of the Lower Ocklawaha River in Putnam County as a source of potable water supply. The first step in the process included convening a meeting of potential water users to gauge their interest in moving forward with one or more projects to develop this source. Meeting participants included representatives from Flagler, Lake, Marion, Putnam, Seminole, St. Johns, and Volusia counties. Interest was expressed and future meetings will likely be held.

General Activities

- Initiative and water supply information continued to be provided to elected officials, water supply utilities, the public, and the media through public meetings, one-on-one meetings, direct mail, the District's quarterly magazine (*StreamLines*), the District's monthly local government newsletter (*WaterWatch*), media interviews, and the District's Web site (sjrwmd.com).
- Communication tools were updated to inform Initiative participants, the media, and the public of water supply issues and Initiative activities. Current tools include an updated project fact sheet, a project Web site, an Agenda summary, annual reports of activities and accomplishments, an upcoming meeting schedule, and a database of elected officials, water supply utilities, and other interested parties.

Results

The intergovernmental coordination effort has contributed directly to the commencement of county-level planning processes in five counties in east-central Florida. These planning processes are expected to result in the identification of water supply development projects that, if implemented, would meet projected future water demands without unacceptable environmental impacts. These processes are under way and the involved local governments are committed to the processes through interlocal agreements and through funding agreements with the District. These county-level water supply plans are scheduled to be completed by 2007.

The intergovernmental coordination effort also contributed significantly to a proposed Memorandum of Agreement among six major east-central Florida water suppliers, the District,

and SFWMD, to provide for the planning phase of the St. Johns River/Taylor Creek Reservoir Water Supply Project. (Five of these six major east-central Florida water suppliers had signed the Memorandum of Agreement at the time of preparation of this annual Initiative report.) This high priority project, when complete, is expected to provide at least 40 mgd of additional supply to the project partners. This quantity represents a significant portion of the estimated east-central Florida 2025 groundwater deficit (estimated to be on the order of 100–200 mgd).

Develop New Water Supply

Objective

To maximize the development of groundwater for reasonable-beneficial uses and develop alternative water sources to meet the needs of future reasonable-beneficial uses by the time the needs occur, in a manner that ensures that the uses will not result in unacceptable adverse impacts to water resources and related natural systems.

2005 Initiative Activities

The 2005 Initiative Phase II work continued with efforts undertaken during the 2003–2004 period. In addition, the work was influenced by new legislation passed during the 2005 Florida legislative session.

2005 Legislative Actions

The Florida Water Protection and Sustainability Program (WPSP) was created through passage of Senate bills 360 and 444 during the 2005 legislative session and their subsequent signing into law by Gov. Jeb Bush. The purpose of this program is to provide cost-share funding for construction of alternative water supply projects. The St. Johns District will implement the program within its jurisdiction.

The legislative actions also included the requirement for local governments in priority water resource caution areas, such as east-central Florida, to select water supply development projects adequate to meet their demands within 18 months of adoption of the DWSP.

Water Supply Projects

Identification of New Projects

- During 2005, the District prepared a draft 2005 DWSP. The document identified additional water supply development projects for the east-central Florida area. These projects include:
 - Beverly Beach Integrated Reclaimed Water and Stormwater Reuse Project
 - Dunes Community Development District Brackish Groundwater Project
 - Leesburg Reclaimed Water Reuse Project
 - Minneola Reclaimed Water Reuse Project
 - North Seminole Regional Reclaimed Water and Surface Water Augmentation System Expansion and Optimization Project
 - Ormond Beach North Peninsula Reclaimed Water Storage Project
 - New Smyrna Beach Utilities Commission Reclaimed Water Wet Weather Storage Pond Project
 - Port Orange Reclaimed Water Reservoir and Recharge Basin Project

The District also initiated efforts to identify additional water supply development project options in response to the requirements of Senate Bill 444. The District invited water supply entities to propose additional alternative water supply development projects for inclusion in the 2005 DWSP. Review of these proposals was incomplete at the time of preparation of this report. Projects included in the 2005 DWSP will be eligible for consideration for WPSP funding.

Project Implementation

- St. Johns River/Taylor Creek Reservoir Water Supply Project — Project implementation began in November 2005 when the city of Cocoa, on behalf of the project partners, advertised for consultant services to accomplish a preliminary design report and Environmental Information Document for the water supply project. This project is expected to yield at least 40 mgd to its project partners in the east-central Florida area.
- The Upper St. Johns River Basin Project — The District is investigating ways to optimize the Upper St. Johns River Basin Project to maintain flood control and environmental restoration goals while maximizing the amount of water available for public water supply. This effort is proposed for identification as a water resource development project in the 2005 DWSP.
- The status of implementation of reclaimed water projects is included in the section of this document titled Increase Use of Reclaimed Water.

Results

When implemented, the St. Johns River/Taylor Creek Reservoir Water Supply Project is expected to yield at least 40 mgd to its project partners in the east-central Florida area. Optimization of the Upper St. Johns River Basin Project is expected to contribute to increasing this amount. These projects will contribute to significantly reducing the estimated east-central Florida 2025 groundwater deficit, which is on the order of 100–200 mgd.

Link Land Use Planning and Water Supply Planning

Objective

To improve the linkages between water supply planning and land use planning in order to effectively address future water supply planning needs in east-central Florida.

2005 Initiative Activities

The 2005 Initiative activities focused on the review of local government comprehensive plan amendments and implementation of 2005 legislative changes regarding water supply requirements in local government comprehensive plans, including the development of water supply facilities work plans.

Water Supply Requirements in Comprehensive Plans

Legislative changes made in 2002 and 2004 required most of the local governments in the east-central Florida area to complete water supply facilities work plans and adopt related comprehensive plan amendments in 2006. The standard of review for the work plans was to consider the applicable regional water supply plans prepared by the water management districts. The 2005 Florida Legislature enacted Senate Bill (SB) 360 and SB 444 that significantly changed Chapters 163 and 373, *Florida Statutes*, to strengthen the coordination of water supply and land use planning. The bills created a direct statutory linkage between the regional water supply plans prepared by the water management districts and comprehensive plans prepared by the local governments. The District's efforts in 2005 focused on helping local governments understand their responsibilities relative to the cumulative legislative changes made in 2002, 2004, and 2005 regarding water supply requirements in comprehensive plans.

In 2005, District staff activities included the following:

- Assisted with the development of frequently asked questions regarding water supply issues in comprehensive plans to post on the Department of Community Affairs (DCA's) Web page
- Assisted with the development of the water supply portion of DCA-sponsored regional workshops regarding implementation of SB 360 and delivered the presentation at the East Central Florida Regional Planning Council workshop held in Maitland
- Updated the District's comprehensive planning Web page (<http://www.sjrwmd.com/compplan.html>) to provide useful information and links
- Worked with DCA, the Florida Department of Environmental Protection, and the other water management districts to draft changes to DCA's comprehensive plan amendment guidelines relative to water supply issues
- Provided assistance to local governments in the comprehensive plan evaluation and appraisal process

These activities are intended to result in the integration of local government comprehensive planning programs with the District's water supply planning and water use regulation programs in compliance with the cumulative legislative changes made in 2002, 2004, and 2005.

Expected results include the following:

- Improved coordination between local government planning staffs, utilities, and the District regarding water demand projections used in comprehensive plans, consumptive use permit applications, and in the development of DWSP
- Improved coordination of local government land use decisions with planning for development of water supply sources and facilities
- Local government capital improvements programs, revised as needed, to include alternative water supply projects identified in DWSP, and to address timely development of traditional and alternative water supply projects, including reuse, to meet water needs identified in DWSP
- Water conservation and reuse policies in local comprehensive plans, revised as needed, to address the applicable conditions in consumptive use permits and the targeted practices in DWSP

Comprehensive Plan Amendments

The District's review of local government comprehensive plan amendments focuses on water supply availability and related water resource issues in an effort to link land use planning and water supply planning. In the review of water supply availability, the District considers infrastructure, permitted allocation under consumptive use permits, and source. In 2003, the District developed a "Potable Water Availability" worksheet for local governments to include as supporting data and analysis for future land use changes in comprehensive plan amendment submittal packages.

In 2005, District staff activities included the following:

- Continued to encourage the use of the District's "Potable Water Availability" worksheet when submitting comprehensive plan amendments
- Continued to work interactively with local governments to obtain the information requested on the worksheets
- Reviewed and commented on three amendments related to water supply facilities work plans
- Continued to provide comments to DCA regarding potable water availability and related water resource issues
- Continued to assist local governments with their responses to DCA concerns relative to water availability and related water resource issues
- Provided assistance to local governments in the comprehensive plan evaluation and appraisal process

These activities were intended to improve the integration of local government comprehensive planning programs with the District's water supply planning and water use regulation programs, when appropriate, consistent with the context of the proposed comprehensive plan amendment.

Results

Results relative to individual local government comprehensive plan amendments include the following:

- Revisions were made to water demand projections used in comprehensive plans, consumptive use permit applications, and DWSP because of improved coordination among local government planning staffs, utilities, and the District.
- Planning by local governments for development of water supply sources and facilities was accelerated based on issues identified in the District's review of local government land use changes and water supply facilities work plans.
- Local government capital improvements programs were amended to include timely development of traditional and alternative water supply projects, including reuse, to meet projected demands.
- Water conservation and reuse policies were amended in local government comprehensive plans to address the applicable conditions in consumptive use permits and the targeted practices in DWSP.

Increase Use of Reclaimed Water

Objective

To optimize the use of reclaimed water for the purpose of increasing the amount of water available for reasonable-beneficial use to the extent economically, environmentally, and technically feasible.

2005 Initiative Activities

Identification of New Projects

- The West Melbourne Reclaimed Water Storage Project — This project was identified as an important project for the Brevard County area. The District applied for and received a congressional appropriation for this project (with strong support by Congressman Weldon) in the amount of \$1 million. The funds were made available through the STAG Program, which is administered by EPA. The District was in the process of preparing the EPA grant application at the time of preparation of this report.

Project Implementation

- City of Orlando Eastern Orange and Seminole Counties Regional Reuse Project — completion of the pipelines from Conserv I to Econ Trail and Curry Ford Road and from the Iron Bridge Water Reclamation Facility (IBWRF) to the University of Central Florida — Construction of on-site improvements to IBWRF have begun.
- The North Seminole Regional Reclaimed Water and Surface Water Augmentation System Expansion and Optimization Project — Construction of the Timacuan Golf Course Reclaimed Water/Stormwater Pond has begun.
- DeLand Reclaimed Water and Surface Water Augmentation Project — Construction is under way.
- Lake Apopka Reuse Augmentation Project — Evaluation of treatment options is under way by the city of Apopka. Consumptive use permit applied for.
- Leesburg Reclaimed Water Reuse Project — Construction is under way.
- Minneola Reclaimed Water Reuse Project — Construction is under way.
- New Smyrna Beach Utilities Commission Reclaimed Water Wet Weather Storage Pond Project — Project substantially complete at time of preparation of this report.
- Ormond Beach North Peninsula Reclaimed Water Storage Project — Project is designed. Construction begins in 2006.

- Port Orange Reclaimed Water Reservoir and Recharge Basin Project — First reservoir substantially complete. Second reservoir under construction.
- Lake Apopka Basin Water Resource Development Project — This project was conceptualized in late 2005 and preliminary hydrologic and engineering evaluations began. This project will investigate maximizing water storage in the Lake Apopka Basin for use by the city of Apopka, and other utilities in west Orange and south Lake counties, to supplement reclaimed water for irrigation (consistent with environmental restoration and flood protection goals). The anticipated result of this effort is the development of additional storage in the basin that should allow a portion of the water currently discharged from the lake (50 mgd) to be used as a source of alternative water supply.

Results

Implementation of these reclaimed projects, with the exception of the Lake Apopka Water Resource Development Project, is expected to result in the use of about 26 mgd of reclaimed water to achieve a water resource benefit. The Lake Apopka Water Resource Development Project is expected to support the development of additional quantities of water to augment reclaimed water systems. These projects should decrease the projected 2025 groundwater deficit in east-central Florida.

Enhance Aquifer Recharge Using Reclaimed Water

Objective

As part of an overall reuse strategy, recharging the aquifer through surface application of reclaimed water, especially in high recharge areas, during wet periods when the opportunities for more direct reuse are decreased, should be given priority consideration and should be undertaken to the extent that it is economically, environmentally, and technically feasible.

2005 Initiative Activities

- Staff prepared a final draft report titled *Estimates of Upper Floridan Aquifer Recharge Augmentation Based on Hydraulic and Water-Quality Data (1986–2002) from the Conserv II RIB Systems, Orange County, Florida* by Michael Merrit and David J. Toth. The draft report is under review by Orange County and the city of Orlando.
- Central Florida Aquifer Recharge Enhancement (CFARE) project implementation began.
- The North Seminole Regional Reclaimed Water and Surface Water Augmentation System Expansion and Optimization Study, which is described under Increase Use of Reclaimed Water, is a project that addresses enhanced aquifer recharge using reclaimed water and increased use of reclaimed water.

The District provided Florida Forever cooperative funding for construction of the CFARE projects listed below. This funding amounted to 27.7 percent of the estimated Florida Forever eligible costs of each project.

- Orange County Old Winter Garden Road RIB Project, \$305,000
- Orange County Drain Well Restoration, \$210,000
- Apopka Reclaimed Water Storage and Recharge Phase 1, \$705,000
- Orlando Drain Well Restoration, \$70,000
- Orange County Northwest Wastewater Reclamation Facility Rapid Infiltration Basins, \$265,000

The District provided cooperative funding for construction of the projects listed below. The Sanford and Seminole County projects were funded at 27.7 percent of their estimated Florida Forever eligible costs of each project. The Lake Mary project received District ad valorem funds.

- Sanford Mill Creek Reclaimed Water Storage, \$480,000
- Seminole County Greenwood Lakes Reclaimed Water Storage, \$420,000
- Lake Mary Timucuan Golf Course Reclaimed Water Storage, \$100,000

Results

Implementation of these reclaimed water projects is expected to increase the quantity of groundwater available for use in east-central Florida. This should contribute to a decrease in the estimated 2025 east-central Florida groundwater deficit.

Increase Water Conservation

Objective

To conserve potable and reclaimed water to the extent economically, environmentally, and technically feasible as a means of reducing water demands, thus maximizing the amount of water available for reasonable-beneficial uses.

2005 Initiative Activities

- Completed model landscape ordinance with the cooperation of a committee made up of state and local governments, and landscape and irrigation professionals
- Began participation in statewide irrigation standards group
- Continued with cooperative public information campaign. The goal of the 2005 Water Conservation Public Awareness Campaign was to educate the public on proper lawn and landscape irrigation techniques, to inform the public on the District's proposed rule amendments limiting landscape irrigation to no more than two days a week and to encourage public participation in the rule-making process.

Campaign results included:

- A statistically significant increase in the number of people who had heard that lawns and landscapes should be watered no more than two days a week (83 percent versus 62 percent the previous year)
- A statistically significant decline in the number of people who watered their lawns three or more days a week (16 percent versus 31 percent the previous year)
- More than 360 public comments regarding the proposed rule amendments

Results

The public awareness campaign has been effective in educating the public about the value of irrigating lawns and landscapes only two days per week and has resulted in some behavioral change. The planned transition from the current water shortage order in east-central Florida, which limits irrigation to two days per week, to permanent two-day per week irrigation limitations established by District rule is expected to result in continued water savings. These limitations, the continuation of the public awareness campaign, and the emphasis placed on water conservation in the District's consumptive use permitting process are expected to achieve reasonable levels of water conservation in east-central Florida.

Summary and Recommendations

Since commencement of the Initiative in 2002, many significant successes attributable to the Initiative have been observed. In addition, new provisions for funding of alternative water supply development projects and stronger linkages between land and water planning have been included in *Florida Statutes*. These Initiative successes and new statutory provisions are indications of significant changes in the water supply framework in east-central Florida.

One of the most significant of the Initiative successes is the commitment by six major east-central Florida water suppliers to cooperate in the St. Johns River/Taylor Creek Reservoir Water Supply Project. This project is expected to provide an additional 40 mgd to meet the future demands of these suppliers. Optimization of the Upper St. Johns River Basin Project is expected to increase this amount.

Other water supply development and water resource development projects identified for the east-central Florida area are also expected to contribute significant additional quantities of water to meet future demands and reduce the projected 2025, east-central Florida groundwater deficit, which is estimated to be on the order of 100–200 mgd.

The county-level planning efforts under way in five east-central Florida counties are subject to the provisions of interlocal agreements between the participating local governments and are funded based on the provisions of agreements with the District.

The planned adoption of two-day-per-week lawn and landscape irrigation limitations by District rule, continuation of the water conservation public awareness campaign, and continued emphasis on water conservation through the consumptive use permitting process, are expected to result in reasonable levels of water conservation.

The recent passage of Senate bills 444 and 360 and their subsequent signing into law by Gov. Jeb Bush have established new mechanisms for project identification and implementation. These new mechanisms reasonably assure that water suppliers in east-central Florida will proactively pursue alternative water supplies to meet future demands in a manner consistent with DWSP.

The new water supply framework in east-central Florida is supported largely by:

- New water supply planning and funding provisions, and local comprehensive planning provisions of *Florida Statutes*
- Proactive interest on the part of water suppliers to develop alternative water supplies
- Commitment to identification of environmentally acceptable water supply projects by local-government partners working together at the county level
- Rule-based approach to water conservation

This new framework should successfully support the development of environmentally acceptable water supplies in east-central Florida without the continuation of the Initiative.

Therefore, the Initiative, as a separate effort, should be discontinued. The status of the following efforts should be annually reported to the Governing Board:

- Water supply development project identification through county-level planning efforts
- Water supply development project implementation
- District activities related to the new provisions of *Florida Statutes* and local comprehensive plan review

Deviations from the planned schedules for these efforts should be reported quarterly to the Governing Board.