

SPECIAL TOPICS

3.2 THE EXTENT TO WHICH THE LOCAL GOVERNMENT HAS BEEN SUCCESSFUL IN IDENTIFYING ALTERNATIVE WATER SUPPLY PROJECTS AND TRADITIONAL WATER SUPPLY PROJECTS, INCLUDING CONSERVATION AND REUSE, NECESSARY TO MEET THE WATER NEEDS IDENTIFIED IN SECTION 373.0361(2)(A) WITHIN THE LOCAL GOVERNMENT'S JURISDICTION. THE REPORT MUST EVALUATE THE DEGREE TO WHICH THE LOCAL GOVERNMENT HAS IMPLEMENTED THE WORK PLAN FOR BUILDING PUBLIC, PRIVATE, AND REGIONAL WATER SUPPLY FACILITIES, INCLUDING DEVELOPMENT OF ALTERNATIVE WATER SUPPLIES, IDENTIFIED IN THE ELEMENT AS NECESSARY TO SERVE EXISTING AND NEW DEVELOPMENT.

BACKGROUND

The Department of Community Affairs, in its letter of August 16, 2005 responding to the County's Letter of Understanding, indicated that the County must address the EAR topics in the recently enacted legislation amending Chapter 163 F.S. The letter indicates the County's EAR should address the first sentence of the above special topic related to water supply.

The first sentence essentially requires an assessment by a local government of its success with coordinating local potable water facility planning with the Regional Water Supply Planning process identified in the referenced statute. The second sentence requires local governments to evaluate implementation of its adopted Water Supply Facilities Work Plan (Work Plan). These new topics are part of recent changes to both the Growth Management (Chapter 163, F.S.) and Water Management (Chapter 373, F.S.) statutes aimed at strengthening the linkage between land and water planning (Senate Bills 360/444).

It is somewhat premature to fully assess the success of efforts by the County to identify alternative and traditional water supply projects because the water supply planning to determine which sources are to be utilized by the County is still underway. The St. Johns River Water Management District (SJRWMD) and the Water Authority of Volusia (WAV) approved their respective water supply plans in February 2006. The approval of SJRWMD's District Water Supply Plan (DWSP) initiates an 18 month timeframe for the County's Comprehensive Plan to be amended to meet the water supply requirements of Senate Bills 360/444. This will involve incorporating the Work Plan into the Comprehensive Plan including the water supply source or sources identified in the DWSP that are chosen by the County to meet the projected need. The setting of Minimum Flows and Levels for a first magnitude spring located in the County also affects source availability for two of the County's larger service areas. The response to this topic of the EAR, therefore, is limited as an update of the County's efforts to coordinate with the water supply planning process that is underway at this time. This includes an overview of the linkage of Water Supply and Comprehensive Planning as it relates to the County.

The second topic is also premature for the County to address at this time because the referenced work plan has not been completed and adopted as an amendment to the

County's Comprehensive Plan. The County is assuming that this is the reason that DCA did not require that the topic to be addressed by this particular EAR. However, the County had previously initiated efforts to prepare its Work Plan prior to the extension of the adoption deadline by the State Legislature for this requirement. The information on the County's Potable Water System and interim water supply strategies in the analysis and recommendations section of this special topic section are a result of this preliminary work. The following sections provide some background on the water supply planning process and the linkage with comprehensive planning as it relates to the County.

Linkage of Regional Water Supply Planning and Comprehensive Planning

State water policy, as expressed in Chapter 373, F.S., makes a distinction between the roles of the water management districts and local governments and their utilities with respect to water supply. The role of the water management districts is focused on regional water supply planning and water resource development. Local governments, regional authorities such as the WAV, and public and private utilities are primarily responsible for water supply development.

Water resource development is generally defined as the formulation and implementation of regional water resource management strategies. These strategies include data collection for surface and ground water data, major regional scale public works facilities including flood control, surface and underground storage, and technical assistance. Water supply development refers to the planning, construction, and operation of public or private facilities. These facilities include withdrawal from either ground water or surface water sources, transmission from the source to the treatment facility, and distribution to customers.

The water management districts are obligated to include water resource development projects in a five-year work plan for inclusion in the respective water management district's annual budget. These projects tend to be larger, regional scale projects. The DWSP are used to identify specific water resource development projects for inclusion in the five-year work plans. Examples of these projects related to Volusia County include Aquifer Storage and Recovery (ASR) feasibility, seawater demineralization assessments, Regional Aquifer Management Project (RAMP), and surface water treatment feasibility.

Although the focus of the Water Management Districts is on water resource development, they are also obligated to provide assistance for water supply development to implement regional scale efforts. Also, a major focus of the assistance has been on the east central Florida region because the 2000 DWSP indicates that the bulk of the capital needs for alternative water supply development is in this region (\$1 billion of the \$1.5 billion projected funding need). However, the ultimate responsibility for development of alternative water supplies will be the responsibility of the water suppliers. Senate Bill 444 provides significant state funding that is to be made available to the Water Management Districts to assist with local water supply development.

Volusia County has benefited from this program in part because of its involvement in the ongoing county-wide water supply planning efforts through entities such as the Volusian Water Alliance. The water resource development projects related to Volusia County are a direct outcome of this county-wide approach to water supply planning effort in

cooperation with SJRWMD. The Volusian Water Alliance has been replaced by the WAV, which has been given the responsibility to develop new water supplies for its member local governments. If this effort is successful, it will allow the County to move forward to implement new, alternative supplies and conservation programs on a regional, county-wide basis. This would appear to position the County to take greater advantage of the assistance available from SJRWMD's regional water resource and supply development programs, especially considering legislation passed during the 2005 Legislative Session (Senate Bill 444). The additional state funding provided by this legislation for water supply development includes a focus on what are termed "regional entities." This legislation also strengthens language requiring greater coordination of the regional water supply planning and development programs implemented by the Water Management Districts with local governments and their respective utilities.

Local governments have been required to address water supply issues in their comprehensive plans, however, this has been limited to considering whether there is adequate infrastructure (i.e., treatment, storage, and transmission/distribution capacity) to serve new development). The water management districts have only had the capability to address the availability of ground water and other sources in recent years with development of sophisticated resource modeling and assessment techniques. These techniques were used to develop the Water Supply Assessment in 1998 and then permitted the SJRWMD to prepare the DWSP. These techniques have also been used in the CUP process to determine supply allocations that do not result in adverse impacts to the source. These analytical tools are not to the level of an exact science, so care must be taken because reliance on these tools to make decisions concerning water supply have enormous financial implications.

Changes to the Growth Management statutes (Senate Bills 360/444) now require that local governments take into account water supply in addition to facility capabilities in its Future Land Use Plan Element. Further, these changes also require that water supply be concurrent with new development. The County, along with other local governments, may need to update its concurrency management system to take into account this new requirement. This will require further direction from FDCA and SJRWMD on the expectations for how compliance of this requirement will be assessed. For example, a key question that will need to be answered is how concurrency is to be determined (e.g., CUP capacity).

Overview of the Regional Water Supply Planning Process

In 1997, the regional water supply planning process was initiated by Governor Chiles through Executive Order 96-297 and subsequently added to Chapter 373, F.S. (Water Resources) by the Florida Legislature in 1997. The regional water supply planning process is two-fold. First, the Water Management Districts must assess whether existing and anticipated sources of water are sufficient to serve projected future population needs over a 20-year planning period. Second, based on the assessment, the Water Management Districts are required to develop regional water supply plans for areas where water supplies are determined to be inadequate to supply the projected demand over this planning period.

The St. Johns River Water Management District (SJRWMD) completed its first Water Supply Assessment in 1998 and designated what are termed "Priority Water Resource

Caution Areas" (PWRCA). The focus of the 1998 assessment was on impacts associated with projected ground water withdrawals, the primary impact resulting from projected public supply demands. For the entire area of the SJRWMD, projected 2020 ground water withdrawals account for 92% of the increase in total water use, with public supply accounting for over 80% of the total increase in projected water use. Ground water withdrawals in Volusia County parallel the SJRWMD trend. Projected ground water withdrawals in the County account for 96% of the increase in total water use, with public supply accounting for 90% of projected water use. This trend is similar when compared to the projected 2025 withdrawals in SJRWMD's 2003 update of its Water Supply Assessment.

SJRWMD identified PWRCA's based on a comparison of water resource constraints to the results of hydrologic impacts due to projected 2020 demands. PWRCA's are areas where existing and reasonably anticipated sources of water and conservation efforts may not be adequate to: 1) supply water for all existing legal uses and reasonably anticipated future needs and 2) sustain the water resources and related natural systems. Criteria was developed to assess the impact of increased ground water usage, including ground water quality (e.g., salt water intrusion) and changes to ground water levels that could negatively affect natural vegetation (e.g., wetland systems), surface water levels (e.g., lakes and streams), and spring flow. The 1998 Water Supply Assessment includes most of Volusia County, with the exception of the northwest area, within a PWRCA. The 2003 update of the Water Supply Assessment also shows most of Volusia County within a PWRCA.

The assessment was used to develop the District Water Supply Plan (DWSP), which was approved by the SJRWMD Governing Board in April 2000. The DWSP identifies alternative water supply sources and strategies to develop those sources with associated costs that can be implemented to meet water supply needs projected for 2020 without resulting in unacceptable impacts to water resources. In general, alternative supply sources are sources of water other than withdrawals from the upper Floridan aquifer.

The SJRWMD focused the development of the DWSP within six water supply regions that include the PWRCA's and surrounding areas considered closely associated hydrologically and culturally. Work groups were formed for these planning regions to facilitate the planning efforts. The Work Group Area II encompassed all of Volusia County and portions of Flagler and Putnam County. The SJRWMD coordinated with the former Volusian Water Alliance to initially develop a Water Supply Plan for Work Group Area II. This plan was incorporated into the DWSP that included Work Group Area II, along with the five other Work Group Areas.

The Volusian Water Alliance subsequently prepared a Water Supply Plan in 2002 to present a strategy to meet the water supply needs of Volusia County. The primary focus of the Volusian Water Supply Plan is on the projected ground water demands chiefly as a result of public supply projections and potential impacts on the water resources of the County (Work Group Area II). The Volusian Water Alliance Plan was based on SJRWMD's water demand projections, ground water modeling results, optimization modeling results, and other related assessments. The Volusian 2020 Water Alliance Plan was considered the most relevant Regional Water Supply Plan with the County's initial work to prepare a Work Plan.

The Volusian Water Alliance Water Supply Plan recognizes that the options to deal with projected ground water deficits require a regional implementation strategy. However, the former Volusian Water Alliance was essentially a planning body created by an interlocal agreement in 1996 with membership consisting of local governments and agricultural interests. The Volusian Water Alliance replaced earlier planning entities going back to 1987. The Volusian Water Alliance was replaced in the fall of 2003 by a new organization called the Water Authority of Volusia (WAV). This entity has an expanded role that includes the sole and exclusive authority to develop new water supplies for the member local governments and their respective utilities. The WAV prepared a Water Supply Facilities Master Plan that was approved by the WAV in February 2006.

Senate Bill 444 substantially re-words Section 373.0361, F.S. that details the requirements that the Water Management Districts must address in preparing a Regional Water Supply Plan. The SJRWMD completed the 2005 update of its DWSP following workshops with local governments and utilities held during October 2005 to present the draft DWSP. The workshops were also used to update local governments on the changes to Chapter 373, F.S. resulting from this legislation.

Overview of the Water Supply Facility Work Plan Requirement

The changes to Chapter 163, beginning in 2002, requiring local governments to prepare a Work Plan are intended to strengthen the relationship of local government plans with the Regional Water Supply Planning process. The State Legislature recognized that there was a need to increase this linkage to assure the availability of water sources to meet the projected needs anticipated for future development.

The Work Plan requirement was initially added to Chapter 163, F.S. by the State Legislature in 2002. The legislation originally required the Work Plans to be adopted as amendments to each local government's Comprehensive Plan by January 1, 2005. The FDCA subsequently prepared guidelines (*Guidelines for Preparing the Water Supply Facilities Work Plan Comprehensive Plan Amendment*, July 2003) to assist local governments with the preparation of the Work Plan. FDCA partnered with the Water Management Districts to hold workshops with local governments to explain the Work Plan requirement and guidelines to prepare this plan. However, the State Legislature recognized that the initial deadline was not properly coordinated with the schedules for the updates of the respective Regional Water Supply Plans by the Water Management Districts. The Work Plan adoption deadline was initially extended to January 1, 2006 by the State Legislature during the 2004 legislative session.

The deadline was again shifted during the 2005 legislative session with the passage of Senate Bills 360/444 as part of efforts to further reinforce the linkage of water supply planning with local comprehensive planning. Senate Bill 444 incorporated a multi-step process to insure that local comprehensive plans incorporate the traditional and alternative sources identified for that particular local government by the Regional Water Supply Plans. Senate Bill 444 requires increased coordination with local governments by the Water Management Districts with the preparation of the update to its respective Regional Water Supply Plan. The next step requires that the Water Management District must notify each local government (or respective local water supply "Entity")

within six months of the approval of a Regional Water Supply Plan of the portion of the plan relevant to the “entity.” This notification by the SJRWMD occurred in May 2006. Within one year of this notification, the local government (or “entity”) must inform the respective Water Management District which water supply plan source option or options it has chosen. The final step occurs with the incorporation of the Work Plan by an amendment to the local government’s Comprehensive Plan. Senate Bills 360/444 simultaneously amended the Work Plan requirement to stress that it identify the alternative and traditional water supply sources to meet the projected needs addressed in the Regional Water Supply Plan.

The County initiated efforts to prepare a Work Plan late in 2003 so that it could be adopted as an amendment to the County’s Comprehensive Plan by the original January 1, 2005 deadline. The work at that time focused on the 2002 Volusian Water Alliance Water Supply Plan as the most recent relevant regional plan for preparing a Work Plan consistent with the Guidelines prepared by the Florida Department of Community Affairs (DCA). This guidance was used to prepare the County’s approach and scope of work that was used by the consultant, Quentin L. Hampton & Associates, Inc., to begin the work on this plan.

The completion of County’s Work Plan was put on hold in light of the extension of the adoption deadline with the legislative changes discussed above. The work effort identified several issues that limit the ability of the County to identify either traditional or alternative sources to meet the projected need for the County’s utility system and service areas. The issues are summarized as follows:

1. The Volusian Water Alliance’s 2020 Water Supply Plan identified source options, but recognized that implementation would require a regional, County-wide approach. The Volusian Water Alliance was primarily a planning entity and did not have the authority or means to implement the plan.
2. The WAV, as the successor to the Volusian Water Alliance, has the authority to implement a plan, but a number of issues have yet to be resolved before it can become a water supplier. The WAV has the sole and exclusive authority for development of new sources of water supply for the County and its member governments. Three of the four water supply sources identified in SRJWMD source notification, discussed above, would be the responsibility of the WAV. Further, the financing for the implementation of WAV’s Master Plan must be resolved before the WAV can construct any facilities to provide water, whether alternative or traditional sources, to its member local governments.
3. The update to SJRWMD’s 2000 DWSP was not available at the time the County was preparing its initial Draft Work Plan. The updated DWSP was approved by the Governing Board of the SJRWMD in February 2006 which initiates the 18 month timeframe for the County to meet the requirements of Senate Bills 360/444. These requirements will include amending the County’s Comprehensive Plan to identify future supply sources and to adopt the County’s Work Plan.
4. The County’s requested CUP modification to increase its allocation for the Southwest and Deltona North Service Areas cannot be finalized until the Minimum Flows and Level (MFL) criteria for Blue Springs has been adopted as a rule by the SJRWMD. The Governing Board of the SJRWMD published a proposed rule in May 2006 and a public hearing is scheduled in August 2006. The MFL will establish a limit on the maximum permitted ground water usage for these two service areas. Thus, it is not

possible to ascertain whether alternative sources will be needed, and if needed, from what source and quantity to meet the projected need in excess of an established limit on ground water.

Impact of SJRWMD's MFL's and CUP Programs

These two programs implemented by the Water Management Districts have a major bearing on the County. First, the CUP is a regulatory program in which the water management districts have the sole and exclusive authority under Chapter 373, F.S. to regulate the consumptive use of water. Utilities and other consumptive users of water that meet thresholds established by WMD regulatory criteria must obtain a CUP. The Water Management Districts use this regulatory program as one of its tools to insure that a proposed use does not adversely impact other legal users or water resources. DCA Guidelines require that the Work Plans compare projected need with CUP allocations.

On the one hand, it is critical that utilities and other users in each of the work group areas work collectively to develop a regional approach to avoid competing for water supplies within the CUP process. On the other hand, the SJRWMD must use its regulatory tool wisely to insure that utilities within these same work group areas do not bypass the Regional Water Supply Planning process in a manner that would result in an over-allocation of limited fresh ground water.

The Water Management Districts are required by Chapter 373, F.S. to set Minimum Flows and Levels (MFL's) to protect lakes, streams, and springs from significant harm resulting from water withdrawals. MFL's define how often, and for what duration, high or low water levels or flows should occur to prevent significant harm. The SJRWMD has been setting MFL's for priority water bodies and springs throughout the District. The SJRWMD uses these MFL's as a gauge for regulating ground water withdrawals for particular water bodies or springs where the flows and levels have been established through its rule-making authority.

The MFL of concern to the County's and other utilities in the southwest area of Volusia County is the attempt by the SJRWMD to set MFL's for Blue Spring. The setting of the MFL for Blue Spring will affect the ultimate CUP allocation for the County's Southwest and Deltona North Service Areas. The County's Work Plan initially used the current staff recommended CUP ground water allocations for these two Service Areas to compare projected need to permitted allocation. This comparison will most likely change when the MFL rule making process for Blue Spring is finalized.

Analysis - Overview of the County's Involvement in Water Supply Facility Development

There are over 56 systems providing potable water supply within Volusia County. Defining the extent of the County's involvement with Water Supply facility development is the first step to determining the level of responsibility for the requirement to prepare a Work Plan. DCA's guidelines set forth three levels of responsibility, of which two levels currently require preparation of a Work Plan.

According to the Guidelines, the highest level is that of total involvement, which is the case where the County owns and operates all the water supply facilities. Total involvement includes production, including well fields, transmission, treatment, storage, and distribution facilities. The next level is partial involvement where the County may have responsibility for some, but not all of the water supply facilities. This would include the situation where the County is not the water supplier, such as with a wholesale agreement with a City, but provides retail water via a County-owned distribution system. In both cases, the County is responsible for preparing and adopting a Work Plan.

The County has six service areas where it has full or partial involvement with water supply development which are detailed in the County's Work Plan (See the following Table). The County's system also serves several municipalities, in addition to unincorporated areas, through informal or formal service agreements. The County's potable water facilities are generally a mix of private systems, acquired over time, that range in age, condition, capacity, and level of treatment and newer systems constructed by the County's utility system.

Table 3.2A: Water Production Volusia County Utilities

SERVICE AREA	PLANT	WATER PRODUCTION - MGD (2003)
Northeast	Halifax Plantation	0.188
Spruce Creek	Spruce Creek	0.375
Northwest	Hope Villas of Seville	0.008
	Pine Island	0.017
Southeast	Edgewater Interconnect	0.126
Southwest	Breezewood	0.020
	Highland/Terra Alta	0.016
	Four Townes	0.023
	Glen Abbey	2.219
	Meadowlea	0.034
Deltona North	Deltona North	0.425
	Cassadaga	0.022
TOTAL		3.563

Source: Volusia County's Draft Water Supply Facilities Work Plan, April 2004

The lowest level of involvement is where the County does not own or operate systems, and service is provided by either municipal or private systems. In this case, the County is responsible for coordinating with the municipal providers to assure that the provider has coordinated its respective Work Plan with the Regional Water Supply Plan. This coordination process will occur as the cities prepare and adopt their respective Work Plans. The unincorporated area is also served by an assortment of private providers that are relatively small systems.

Initial Assessment of Projected Need/CUP Capacity

The County's Work Plan consultant researched historic water use and projected need within each service area to compare to the current permitted allocation and treatment plant capacity. The historic water use was analyzed to develop per capita water use to apply to the population projections in order to project use through 2020. The population projections are based on Volusia County Metropolitan Planning Organization's (VCMPO) projections developed for use in the 2000 update of its Long-range Transportation Plan. This provides an initial snapshot of the County's projected need and any initial apparent

deficits in ground water or plant capacity needs. It is expected that this data will be updated at the point in time that it is determined that the Work Plan will need to be prepared.

The water use projections in this initial effort amounted to an update of previous projections provided by the County to SJRWMD for the update of the Water Supply Assessment and previous CUP applications for the County's system. This is a result of more recent water usage data within the County's service areas being available for use with this plan. Water usage data are available for the County's system from 1995 to 2003, and show a system-wide reduction in per capita use during this period. The historic usage declined from an average of 153 GPD per capita usage during the period 1995 through 1999 to an average of 125 GPD per capita usage through 2003. The decline in per capita usage is a result of the County's implementation of its water conservation program and expansion of its reuse system.

The following table displays projected need, permitted allocation, and treatment plant capacity by service area (with the exception of the northwest service area due to its small size) and is followed by an overview of each service area.

Table 3.2B: Summary of Projected Use and CUP/Plant Capacity

	PLANT CAPACITY MGD	INITIAL PROJECTED NEED (2020)	CUP CAPACITY (2020)	CUP STATUS
Northeast	0.75	0.48	0.70	Issued
Spruce Creek	0.65	0.42	0.74	Issued
Southeast	0.41	0.39	0.41	Issued
Southwest	7.45	2.55	3.80	Pending
Deltona North	1.00	2.84	0.73	Pending
TOTAL	10.26	6.68	6.38	

Source: Volusia County Utility Staff

Northeast/Spruce Creek Service Areas: The projected use for both Service Areas falls within the CUP allocation through the 2020 planning period. Both Service Area treatment systems must address special CUP conditions for brine concentrate discharge consistent with DEP permitting. In the case of the Halifax Plantation system, the County is investigating the feasibility of providing reclaimed water blended with the concentrate as an irrigation source. The Halifax Plantation system includes treatment plant expansion reflected in the County's current CIP to meet the projected need.

Wastewater resulting from the Spruce Creek development is treated by the City of Port Orange that has a reclaimed water system. However, reuse is not anticipated to be available during the foreseeable future to this service area.

Southeast Service Area: Retail water service within the County's Southeast Service Area is supplied by a wholesale agreement with the City of Edgewater. The water treatment plants previously operated by the County within this service area have been taken off-line. The projected 2020 water use is within the CUP allocation and wholesale amount provided by the agreement with the City of Edgewater.

Northwest Service Area: The County previously acquired a couple of relatively small developer installed systems that serve two small outlying communities (Pine Island and New Hope Villas). Together, the average daily flow for these systems is currently 23,680 GPD. Projected use is well within the treatment plant capacity and CUP allocation for the 2020 period.

Southwest/Deltona North Service Areas: These systems comprise 75% of the current production of all the County's systems taken together. Projected demand from these two systems accounts for 80% of the total 2020 system-wide projected demand. These two Service Areas are also the two most affected service areas by the Blue Springs MFL situation, and have the greatest opportunity for the expansion of reuse. The CUP allocations used for these two Service Areas are based on the current SJRWMD staff recommendation from the revised Technical Staff Report (TSR) for the pending CUP modification. It is anticipated that the SJRWMD staff will revise its recommended allocations when the MFL rule is adopted. In any event, the Deltona North Service Area is the leading candidate within the County's system that could require an alternative source to ground water to meet its projected need.

Recommendation - County's Interim Water Supply Strategy

The County's anticipates that alternative water supply sources may be needed to augment groundwater sources in order to meet the projected need. The initial work on the County's Work Plan identified an interim strategy until the Regional Water Supply Planning process specified by Senate Bills 360/44 is finalized. This will culminate in the adoption of the Work Plan and identification of water supply sources to meet projected need for the County that will occur as an amendment to the County's Comprehensive Plan.

The County's interim strategy can be summarized as follows:

- Development and optimization of ground water supplies;
- Continued expansion of the beneficial reuse of reclaimed water;
- Continued implementation of the conservation program; and
- Coordination with the WAV/SJRWMD for development of new alternative supplies.

The following is a brief discussion of each strategy and relevant Comprehensive Plan Objective. It is anticipated that these Objectives and respective Policies will be amended to incorporate the alternative and traditional supply sources and implementation strategies identified in the County's Work Plan. Additional amendments are anticipated to incorporate other aspects of Senate Bills 360/444 such as water supply availability being consistent with the Future Land Use Element and to incorporate the water supply concurrency requirement in the Potable Water and Capital Improvements Elements.

Development and Optimization of Ground Water Supplies

Objective 7.1.3 Volusia County shall provide adequate (meeting the level of service standard) public potable water sources commensurate with growth to service the needs of Volusia County, as consistent with the carrying/producing capacity of the aquifer.

The County will continue to rely on ground water use to meet its projected need based on its current CUP allocation, and pursue efforts to increase this allocation as requested in an application to modify the CUP. The reliance will continue until a limit on ground water usage is established and alternative sources are identified and made available. The County anticipates that the Deltona North Service Area is the most likely candidate where alternative sources could be needed. However, any limit on projected ground water usage and identification of any alternative source is dependent on a timely resolution of the MFL for Blue Springs by the SJRWMD.

Continued Expansion of the Beneficial Reuse of Reclaimed Water

Objective 6.1.3 Volusia County shall continue to maintain, and expand where feasible, its program of effluent recharge, reuse and disposal.

The County has analyzed the feasibility of expanding its ability to expand its reclaimed water system in a Reclaimed Water Feasibility Report that was prepared as an element of its wastewater treatment plant permitting. The County has included several recommendations from this report in its Capital Improvements Plan.

The County has also required developers to install reuse lines even if reclaimed water meeting the State of Florida's public access standard was not readily available. This has provided the opportunity to expand its future customer base especially within the Southwest Service Area. As of 2003 the average residential reuse within the County's system was 1.70 MGD that amounts to 65% of the average daily peak flow.

Strategies for the County's service areas include:

- Continuing to assess the feasibility of upgrading the Halifax Plantation wastewater system to meet the State's public access standard to provide reclaimed water that can be blended with concentrate for irrigation usage;
- Investigating techniques to augment the County's reclaimed system in the Southwest Service Area to connect all available customers; and
- Providing reclaimed water for 100% of the irrigation needs with development of the Southwest Activity Center in the Deltona North Service Area, and investigating the feasibility of connecting other developments to utilize the systems reclaimed capacity.

Implementation of the County's reuse strategies is anticipated to reduce potable demand. The initial findings of the County's Work Plan effort indicated that continued implementation of beneficial reuse of reclaimed water within the Southwest Service Area has the opportunity to further reduce potable water usage. For example, estimates for declines of 8% to 10% in per capita usage could result in the Southwest Service Area by connecting the County's system to all available customers.

Continued Implementation of the Conservation Program

Objective 7.1.5 Volusia County shall maintain its program of water conservation.

Continued implementation of the County's conservation program is an important element of the County's interim Water Supply strategy. As indicated above, an assessment of recent historic per capita potable water usage as part of the initial Work Plan preparation indicated a downward trend in usage. This downward trend was attributed to ongoing conservation efforts together with implementation of the County's reuse strategies.

The County's conservation strategies include:

- Continuing to promote the use of low volume fixtures through enforcement of building code requirements and use of incentive programs to encourage retrofits for older buildings;
- Continuing to enforce the County's watering restrictions along with educating residents of the benefits of reduced watering;
- Enforcement of the County's recently adopted Water Wise Landscape and Irrigation Ordinance to reduce irrigation demand;
- Continuing to implement the Utility system's meter calibration, water audit, and leak detection programs to reduce the potential for any wasteful system losses; and
- Continuing to coordinate the County's conservation program with the WAV County-wide conservation program.

Coordination with the WAV/SJRWMD for Development of New Alternative Supplies

Objective 7.1.4 Provide water facility extensions and/or expand the treatment capacity of Volusia County water supply systems to meet the demands of future growth within the respective service areas.

As previously noted, it is premature for the County to identify new alternative or traditional sources at this time to meet its projected need until the planning process outlined in Senate Bills 360/444 is completed and MFL for Blue Springs is resolved. In addition, the WAV has been assigned the responsibility to identify and implement new supply sources for its member local governments which includes the County. The WAV completed a Facilities Master Plan in February 2006. However, the financing of the Facilities Master Plan is a critical issue that remains to be resolved by the WAV. Further, several member local governments have indicated an unwillingness to continue to be members of the WAV. These local governments are proceeding to terminate their respective memberships under the terms of the interlocal agreement creating the WAV. If these issues can be resolved in a timely fashion, potential projects identified in WAV's Facilities Master Plan that could be of benefit to the County's system, and its ability to meet future customer needs consistent with the regional water supply planning process, include:

- Interconnecting the utility systems within southwest area of Volusia County;
- Developing a surface water treatment facility;
- Developing new freshwater wellfields;
- Implementing feasible components of the Regional Aquifer Management Plan; and
- Coordinating the implementation of a county-wide conservation program.