

**1.5 A BRIEF ASSESSMENT OF SUCCESSES AND SHORTCOMINGS RELATED TO EACH ELEMENT [163.3191(2)(H)]**

**CHAPTER SIX SANITARY SEWER SUB-ELEMENT AND CHAPTER SEVEN POTABLE WATER SUB-ELEMENT**

**INTRODUCTION**

The Sanitary Sewer and Potable Water Sub-Elements each have 1 Goal:

**Sanitary Sewer Sub-Element:**

**Goal 6.1** Provide adequate and environmentally acceptable sanitary sewer systems for unincorporated Volusia County.

**Potable Water Sub-Element:**

**Goal 7.1** Provide an adequate public supply, treatment, and distribution of potable water for unincorporated Volusia County.

This section combines an assessment of the successes and shortcomings for both the Sanitary and Potable Water Sub-Elements since the Goals and Objectives are similar. An assessment of the Objectives related to water supply in these two Elements is provided in the Water Supply Special Topic section of the County's EAR. The Objectives assessed in the Special Topic section include Sanitary Sewer Element Objective 6.1.3 (Reuse) and Potable Water Element Objectives 7.1.3 (System Expansion Consistent w/Aquifer Capacity), 7.1.4 (Expansion to Meet Growth Projections), and 7.1.5 (Water Conservation).

It is anticipated that the Goal statements for these two Elements will be revised as part of the EAR-based amendments. Both Goals will be revised to recognize that the County is not the only provider within the unincorporated area. The use of the word "provide" is somewhat misleading if it is assumed to mean that the County is the sole provider. The public systems that serve the unincorporated area include those owned and operated by both the Cities and County. The County's utility system also serves several municipalities in addition to unincorporated areas, and conversely, several city utilities provide service to unincorporated areas. The County's potable water and wastewater facilities are generally a mix of private systems acquired over time that range in age, condition, capacity, and level of treatment along with newer systems constructed by the County. Many other small and large private providers serve unincorporated areas ranging from package plants that serve small single commercial/institutional facilities or residential condominiums, to systems that serve relatively large residential-oriented developments. In total, the County owns and operates 15 wastewater and 13 potable water treatment plants and systems.

Secondly, the Goal will be revised to reflect that only certain areas, primarily urban areas, are appropriate for the delivery of these services. This is in concert with Objectives and Policies in this and other Elements restricting these services to urban areas to reduce the potential for sprawl.

Finally, the Goal for the Potable Water Element should be revised to address protection of the resource, while at the same time assuring that an adequate supply, treatment, and

distribution of potable water for appropriate areas is provided. This issue will be further explored in the Water Supply special topic section of this EAR.

## **OBJECTIVE ANALYSIS**

### **Objectives 6.1.1 and 7.1.1 Level of Service**

Volusia County shall require that the following policies which establish minimum level of service standards are met when planning capital improvements and for reviewing applications for development approval.

#### Objective Achievement Analysis

The Objective will remain as currently worded. This Objective is intended to insure that central systems are limited to urban areas or other areas where circumstances are warranted. The Policies also are intended to discourage use of package systems and identify circumstances where septic systems are appropriate. The County generally has been successful with implementation of the Policies to insure that central utilities systems are provided and connections made where it is appropriate. During the EAR period, only one package system has been allowed in the unincorporated area.

#### Policy Relevance

This Objective contains 19 Policies in the Sanitary Sewer Element and 16 Policies in the Potable Water Element. It is anticipated that several Policies in both Elements will be modified and a policy added to the Potable Water Element. The added policy is anticipated as part of the Water Supply Work Plan amendment.

The LOS in the County's Comprehensive Plan may be adjusted to reflect the individual LOS for each of the County's utility system service areas. The LOS in Policies 6.1.1.1 and 7.1.1.1 are a County-wide LOS standard.

The Level of Service (LOS) may also be adjusted to reflect historic water use demand information resulting from the update of the County's Draft Water Supply Facilities Work Plan. The County has experienced a reduction in per capita usage during the last five years that appears to be a result of the County's implementation of its water conservation program. This trend will continue to be monitored for consideration of adjusting the minimum LOS at time of the EAR-based amendments. This may also include adjusting the LOS for Sanitary Sewer since the flow rate for sanitary sewer is affected by the potable water flow rate.

The time frames for Policies 6.1.1.3 (advanced secondary treatment) and 6.1.1.8 (industrial pre-treatment) may be revised, or text revised, to reflect the status of County actions related to implementation. The County may either revise the time frame for implementing advanced secondary treatment, or the minimum plant flow rate for this upgrade in the level of treatment. It is anticipated that an industrial pre-treatment ordinance will be adopted during the summer of 2006.

The County may revise Policy 6.1.1.13 to reduce the maximum flow size for a septic tank that is allowed for a non-residential use because the size of the flow for such a

system is considered excessive. In addition, Policies 6.1.1.13 & 7.1.1.12 may be reviewed to analyze appropriateness of wells and septic tanks within urban land uses.

### **Objectives 6.1.2 and 7.1.6 Discourage Sprawl**

Throughout the planning period, Volusia County shall maximize the use of existing facilities within sewer service areas, so as to discourage urban sprawl. (Sanitary Sewer Element)

Throughout the planning period Volusia County shall maximize the use of existing facilities in the water service areas, so as to discourage urban sprawl. (Potable Water Element)

### Objective Achievement Analysis

These Objectives will remain as currently worded. A major policy directive for the County's Future Land Use Element is to concentrate future urban land uses in a contiguous pattern around existing urban areas, in part, to optimize the delivery of service. This approach is a key strategy to discourage urban sprawl and allows for the establishment of policies to maximize the use of existing systems within urban areas to encourage infill. The County has continued to expand its existing systems focusing extension of service to existing urban designated areas that are not served. This has also included utilizing City systems to serve unincorporated urban designated areas that are contiguous to the City in cases where the County does not have a system. In addition, the County maintains training programs for its plant operators, routine maintenance schedules, and implementation of strategies, balance demand, and safeguard its systems in case of breakdowns.

Over the years, the County has acquired smaller existing systems to consolidate these systems within larger regional systems, whether the County's or a City's system, to improve efficiency or level of treatment. Package systems replaced or consolidated with advanced secondary treatment during the EAR period include:

- In 2004, the County abandoned the 100,000 GPD wastewater package plant serving the Stone Island community. The flows are now redirected to the City of Deltona's regional Deltona Lakes Wastewater facility.
- In 2004 and 2005, two wastewater package plants in Southwest Volusia County serving mobile home communities (Highbanks Marina and Trader's Cove) were abandoned with flows redirected to the County's Southwest Regional Reclamation Facility.
- Two wastewater package plants in Southeast Volusia County serving mobile home communities (Hacienda del Rio and Lighthouse Cove) were abandoned with flows redirected to the County's Southeast Regional Reclamation Facility.
- An additional wastewater package plant (Terra Mar Mobile Home Park) was purchased by the City of Edgewater in 2004. The County entered into a wholesale agreement to accept the flows at the Regional Reclamation Facility located in the Southeast service area.
- Under a wholesale agreement, the City of Port Orange began receiving the wastewater flows from the County's Spruce Creek service area in June 1999. The Spruce Creek wastewater package plant was subsequently abandoned.

The smaller systems acquired during this period include the following:

- Under Chapter 183, F.S., the Court may appoint the County as the receiver for a system that an owner petitions the Court to abandon. The County has received the following water and wastewater systems through this method:
  - Stone Island March 2000
  - Meadowlea-on-the-River June 2000
- The County acquired the water and wastewater system for the New Hope Villas of Seville. October 2001

The County's Southwest service area consists of 7 smaller water treatment facilities that were interconnected (now called the West Volusia Interconnect) to eliminate voids within the service area and increase the customer base.

#### Policy Relevance

These 2 Objectives each contain 6 Policies in the respective Sanitary Sewer and Potable Water Elements. Revisions are anticipated for 3 of these Policies. The time frame in Policy 6.1.2.1 may be revised or eliminated based on the feasibility for the County to replace or consolidate all of the smaller package plants with "advanced secondary treatment." Policies 6.1.2.6 and 7.1.6.6 will be clarified to indicate that the retention of existing septic systems and potable wells is an exception to the connection requirement where central systems are available.

#### **Objective 6.1.4** Expansion of Wastewater Facilities

Volusia County shall develop plans to extend wastewater facilities and to expand wastewater treatment capacity necessary to accommodate projected 2020 wastewater service needs.

#### Objective Achievement Analysis

This Objective should be modified to reflect that it refers to the County's service areas where it provides wastewater treatment. The County utilizes both formal and informal agreements for other urban unincorporated areas that are served by city systems.

#### Policy Relevance

This Objective contains 4 Policies. Policy 6.1.4.4 will be modified to indicate that master plans will be developed for major wastewater systems on an as needed basis to reflect current practice. The County owns and operates 15 wastewater facilities that vary in capacity and complexity. During the EAR period, master plans were either completed or updated for wastewater treatment systems within the Northeast, Deltona North, and Southwest service areas.

#### **Objectives 6.1.5 and 7.1.8** Efficient Delivery of Service

Throughout the planning period, Volusia County shall coordinate the provision of sanitary sewer service to the unincorporated area based upon the Comprehensive Plan,

so as to ensure the efficient and economical delivery of this service. (Sanitary Sewer Element)

Throughout the planning period, Volusia County shall coordinate the provision of potable water service to the unincorporated area so as to ensure the efficient and economical delivery of this service. (Potable Water Element)

#### Objective Achievement Analysis

These Objectives will remain as currently worded. Potable water and sanitary sewer service are provided in the unincorporated area by an assortment of both public and private systems with varying service delivery roles. These service delivery roles are intended to ensure that service is provided in an efficient manner. These service delivery roles have evolved over time as the County has experienced urban growth. The interlocal service delivery arrangements vary in the level and type of the service provision. This can range from using wholesale agreements for wastewater treatment or potable water at an agreed upon connection point including the operation and ownership of the system. This also includes formal, as well as informal, agreements. The County has continued to attempt to negotiate agreements where there is a lack of a written agreement or to formalize informal service relationships.

The County has had issues relative to consistency with the Comprehensive Plan by the use of Chapter 180, F.S. by two Cities (Deltona and Oak Hill) and the granting of a private utility franchise (Miami Corp./Farmton) by the Public Service Commission. The issue of consistency arises when the creation or expansion of a city or private service area encompasses non-urban designated areas that are not appropriate for water and sewer services.

Finally, new smart growth recommendations suggest that the County be subdivided into municipal service areas. This recommendation initiates a different approach with regard to service areas within the County. Objective and supporting Policies may need to be changed and/or modified.

#### Policy Relevance

This Objective contains 8 Policies in the Sanitary Sewer Element and 9 Policies in the Potable Water Element that will remain as currently worded.

#### **Objectives 6.1.6 and 7.1.2** System Corrections – Upgrades/Extension of Service

Throughout the planning period, Volusia County shall provide for the correction of County wastewater systems having unacceptable capabilities/capacities and areas lacking sufficient treatment and/or disposal facilities. (Sanitary Sewer Element)

Throughout the planning period, Volusia County shall correct or provide for the correction of, through the County's land development regulations, specific locations where the County water systems have unacceptable supply, storage, treatment, and/or distribution facilities. (Potable Water Element)

### Objective Achievement Analysis

The Objective will remain as currently worded. Policies under this Objective provide for the budgeting of funds for system corrections along with creation of special assessment districts and alternative sources to fund these improvements. Approximately 30% of the County's CIP for its utility system is budgeted for system repair and enhancements. The remainder of the utility funding in the CIP is allocated for capacity expansion to meet the projected increase in the system's customer base.

Four special districts were created to provide water or wastewater service to specific areas of the County. These special districts include wastewater service for the South Waterfront Park in Southeast Volusia County and Stone Island in the Enterprise area and potable water for the Waterfront and Waterway Park in Southeast Volusia County. Matching grants that totaled \$1,500,000 were received for the South Waterfront Park and Stone Island special districts.

### Policy Relevance

The Objective contains 3 Policies that will remain as currently worded.

#### **Objective 7.1.7** Potable Water System Maintenance and Repair

Plan and budget on an annual basis the necessary funds to maintain, repair and replace water system components owned and operated by Volusia County.

### Objective Achievement Analysis

The Objective will remain as currently worded. The County is required to budget a minimum \$200,000 in the repair and maintenance fund to meet its bond covenants. In practice, the County has annually budgeted an average of \$800,000 in repair and replacement costs for its system.

### Policy Relevance

This Objective contains 4 Policies. Policy 7.1.7.3 will be revised to reflect that the rate structure is also water conserving.