

3.2 An Assessment of the Comprehensive Plan with respect to the South Florida Water Management District's Lower West Coast Water Supply Plan

A. Introduction and Background

Of the Collier County Water-Sewer District's existing water supply, approximately 20% is obtained from the Surficial Aquifer System (SAS) and approximately 80% is obtained from the Intermediate Aquifer System (IAS). All of the surficial water groundwater wells are exclusively within the Lower Tamiami Aquifer, not within a water table aquifer. The remainder of the existing supply, including the supplies to the pending expansion of the South County Regional Water Treatment Plant of 8.0 MGD reverse osmosis treatment process, are within the Hawthorn aquifer. The supply for the 20-year horizon are the approved supplies of the Intermediate Aquifer System, specifically the Zone 1, Mid- and Lower Hawthorn aquifers, and the Floridan Aquifer System, specifically the Avon Park aquifer. Within the 10-year horizon, any permitted supply deficit will be revised to be a surplus at the time that the wellfield for the pending 8.0 MGD reverse osmosis expansion is approved. The funding for the Collier County Water-Sewer District's Category A capital projects, i.e. those projects that address water supply and treatment, total approximately 52.3 million dollars in the five-year horizon. The Collier County Water-Sewer District's total capital projects and future alternatives for water supply are updated in the Water Master Plan.

In May 2002, the Florida Legislature amended Chapter 163, Florida Statutes (F.S.) requiring the preparation and adoption of a 10-year Water Supply Facilities Work Plan (WSFWP) by local governments with water supply facility responsibilities. During the 2004 Florida Legislative session, the Florida Legislature enacted House Bill 2004-209, which changed the due date for the 10-year Water Supply Work Plan. This legislation amended Section 163.3177(6)(c), F.S. and changed the due date for submittal to DCA. Collier County's due date was to be at the time of EAR submittal to DCA. Now the due date for the submittal of the County's Water Supply Work Plan is prior to December 1, 2006.

The WSFWP will be required to assess water needs and sources in conjunction with the local regional water supply plan to strengthen coordination of water supply planning and local land use planning for the Collier County Water-Sewer District (CCWSD), the Town of Immokalee, the Florida Governmental Utility Authority (Golden Gate City) and the Orange Tree Utility. During the Evaluation and Appraisal Report (EAR), the Collier County Growth Management Plan (GMP) must be evaluated for consistency with the South Florida Water Management District Lower West Coast Water Supply Plan (LWCWSP).

The incorporated municipalities within Collier County, the City of Naples, the City of Marco Island, and Everglades City, will each submit their own Water Supply Facilities Work Plans and as appropriate, enabling GMP amendments, pursuant to the amended Florida Legislature requirements.

Collier County's Water-Sewer District currently serves approximately 118,116¹ customers on a permanent population basis with potable water. Based on total future projected growth in the

¹ 2001 Data as reported by Collier County Planning and cited in Table 4-2, Water Supply Facilities Work Plan

potential, it is estimated that the County will be serving approximately 229,200² customers with potable water in the Year 2013. In 2001, Collier County updated the Water Master Plan, recognizing the need to provide water services to a rapidly growing population. At the time, the existing Water Master Plan had not been updated in approximately four years.

The Water Master Plan Update was updated in 2002 to continue to plan for future water supply and infrastructure needs to meet the requirements of growth, infrastructure renewal, replacement and enhancement. The updated Water Master Plan Update recommended over a course of five years the following objectives for Collier County's 2002 Water Master Plan:

Water supply:

- Identify sites
- Purchase property
- Permit and construct new wellfields
- Add new wells
- Prepare hydrogeological studies
- Continue the well replacement program

Water Treatment:

- Complete the South County Water Treatment Plant Expansion
- Identify future sites
- Purchase property
- Design, permit and construct water treatment plant expansions
- Prepare cost-benefit analysis studies of retrofitting water treatment plants from membrane to reverse osmosis

Water Transmission:

- Complete construction of Collier County/City of Naples interconnections
 - Improve water transmission main capacities
- Rehabilitate older sections of the water distribution system

Aquifer Storage and Recovery (ASR) Wells:

- Investigate the expanded use of ASR for raw and potable water
- Expand ASR wellfields
- Identify potential new ASR sites
- Construct new ASR sites

These goals are being implemented by the capital improvement projects (CIPs) cited in the CCWSD's portion of the WSFWP. The Town of Immokalee, the Florida Governmental Utility Authority (Golden Gate City) and the Orange Tree Utility are achieving their goals through implementing their CIPs.

² Projection of populations served in existing and extended service areas cited in Table 4-5, Water Supply Facilities Work Plan

The goal of the 2002 Water Master Plan Update is to provide a guide for water facility planning for the next 20 years. This latest Water Master Plan Update provides for comprehensive overview of the entire water system, including emergency systems, water demand projections and demands and proposed conservation and reclaimed water projects. The 2002 Water Master Plan Update has formed the foundation for the CCWSD's portion of the current Collier County Water Supplies Facilities Work Plan as required for adoption into Collier County's Growth Management Plan (GMP) by the Florida legislature in 2002.

2002 Water Master Plan Update

The Collier County 2002 Water Master Plan Update, Final Update, referred to hereafter as the "Water Master Plan," was prepared by Greeley and Hansen LLC and adopted on February 25, 2003 by the Board of County Commissioners. As mentioned above, this Water Master Plan updates the 2001 Water Master Plan Update and provides for an integrated approach for meeting the projected water system demands up to the year 2022. This plan utilizes population projections prepared by the Collier County Comprehensive Planning Department that have been approved by the Florida Department of Community Affairs (DCA) and accepted by the South Florida Water Management District (SFWMD). Water demands are provided at five-year increments to be consistent with the Lower West Coast Regional Water Supply Plan (LWCWSP).

Although there will be a considerable degree of difference in timing between the preparation of the EAR and the adoption of the Master Plan, the water demand projections modeled in this document use a methodology for the CCWSD similar to those previously used and approved by the SFWMD. The WSFWP contains analysis and explanation of those small differences.

Collier County Water Facilities Workplan

In accordance with House Bill 2004-209 which amended Section 163.3177(6)(c), F.S., Collier County will submit its WSFWP prior to December 1, 2006. The WSFWP will be prepared using the 2002 Water Master Plan Update or any subsequent updated Water Master Plan. The most recently adopted Water Master Plan Update will always be considered the County's official plan for water capital improvements and the basis for a 5-year Capital Improvement Schedule indicated in the updated Capital Improvement Element. Table 3.2-1 shows the projected capital improvement projects and their timing for a 5-year period, and Map 3.2-1 shows a map of the Collier County's Water-Sewer District.

B. Data Assessment

The Goals, Objectives and Policies of the Collier County's GMP were reviewed with respect to the additional water supply planning requirements of Chapter 163 as summarized below:

1. Coordinate appropriate aspects of the comprehensive plan with the appropriate water management's regional plan. (s.163.3177(4)(a), F.S.)
2. Revise the Potable Water Sub-Element to consider the regional water supply plan of the appropriate water management district. (s.163.3177(6)(c), F.S.)

3. Revise the Conservation and Coastal Management Element to assess projected water needs and sources for at least a 10-year planning period addressing water supply facilities necessary to service existing and new development and for which the local government is responsible. (s.163.3177(6)(d), F.S.)
4. Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the applicable regional water supply plan. (s.163.3177(6)(h)1, F.S.)

An analysis of objectives and policies in the Potable Water Sub-Element, Conservation and Intergovernmental Coordination Element of the GMP was conducted to evaluate the adequacy of the GMP with the new statutory requirements. The evaluation showed that some policy modifications and additions are necessary to bring the GMP into full compliance with these requirements. These modifications are summarized below:

A.) Recommended Modifications to Potable Water Sub-Element:

- A new Goal, that being Goal 2, To link the County with the SFWMD and other regulatory agencies in implementing effective linkages between growth management and water planning.
- A new objective, that being Objective 1.4: The County shall coordinate with the SFWMD in the development of the Water Master Plan Update, which is the primary planning document for the Collier County Water-Sewer District's present and future water supply planning efforts. Future Water Supply Facilities Work Plans that may be required will use the adopted Water Master Plan Update a basis for reporting the Collier County Water-Sewer District's water supply planning.
- A new objective, that being Objective 2.1: The County shall coordinate with the SFWMD to produce future plans for water supply as described within the Water Master Plan Updates that ensure the County's ability to maintain it's stated Level of Service Standard.
- A new policy, that being Policy 2.1.1: The County shall reference the water supply guidelines of the most current version of the SFWMD's LWCWSP in developing any future required Water Supply Facilities Work Plans.

B.) Recommended Modifications to Conservation & Coastal Management Element:

- A new objective, that being Objective 4.2: the County shall reference the water supply guidelines of the most current version of the SFWMD's LWCWSP when updating the Water Master Plan.
- A new policy, that being Policy 4.2.1, The Water Master Plan Update is the primary planning document for the Collier County Water-Sewer District's present and future water supply planning efforts. Future Water Supply Facilities Work Plans that may be required will use the adopted Water Master Plan Update as the basis for reporting the Collier County Water-Sewer District's water supply planning.

C. Conclusion

An evaluation of water supply planning activities in Collier County shows that the County has been linking water supply and land use for over three years. Although, this is a relatively short time frame, the County is fully committed to endorsing this new paradigm shift into its present and future water supply planning/land use planning strategies. Furthermore, the County, through its Water Master Plan Update, has identified sources of potable water and analyzed options to provide water to meet the growth demands for a twenty-year time frame. This plan is routinely updated to keep pace with population and regulatory changes.

The 2002 legislative changes to Chapter 163 F.S. designed to enhance coordination between water supply planning and land use planning have been practiced by Collier County but are in the initial phases of being codified into its GMP. Modifications of various Collier County's GMP's Goals, Objectives and Policies (GOP), as required by these legislative actions, have been addressed through the proposed GMP amendment to the Potable Water Sub-Element, Conservation and Coastal Management Element and the Intergovernmental Coordination Element. The proposed amendments will reference the 2002 Water Master Plan Update and any subsequent updates as the appropriate document for water supply planning. These elements will be modified upon adoption of the WSFWP by Collier County.

At this time, the 2002 Water Master Plan Update is the appropriate document for water supply planning, satisfying the legislative requirements, while periodically updating the 5-year Schedule of Capital Improvements.

An evaluation of additional legislative requirements indicated additions or modifications to the GOPs contained in the Conservation and Coastal Management Element and Intergovernmental Coordination Element of Collier County's GMP that were necessary for full compliance.

Proposed Revisions

All proposed revisions have been taken into consideration by Collier County Comprehensive Planning Department's staff through the proposed comprehensive plan amendments, entailing all of the changes to the County's GMP's Elements, as referenced above in the "Data Assessment" section.

**CATEGORY
WATER PROJECTS:**

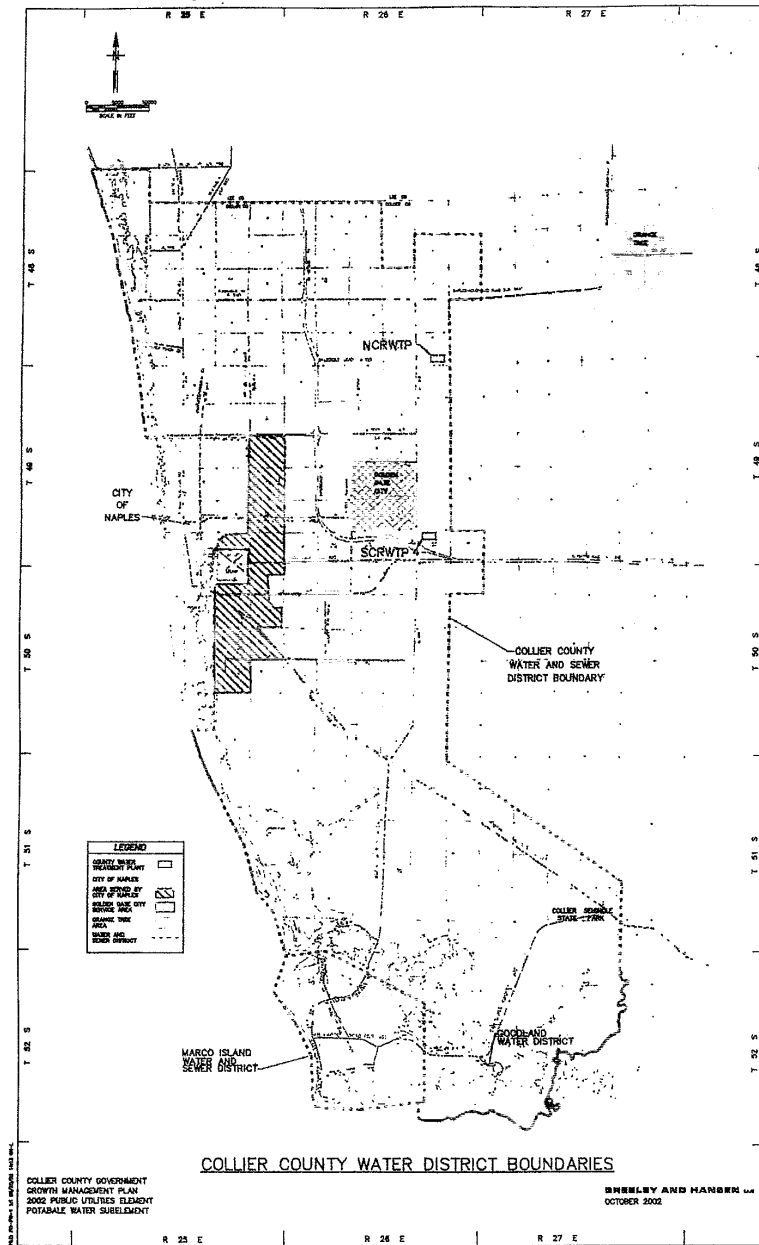
COLLIER COUNTY 5-YEAR CAPITAL IMPROVEMENTS ELEMENT

PROJECT	CONSTRUCTION COMMENCEMENT	COMPLETION	Fiscal Year \$(000)				TOTAL
			98-99	99-00	00-01	01-02	
820 Immokalee Road 20" 3500 L.F. of 16" Water Main (COMPLETED)*							
865 North County Treatment Plant Add 8 MGD RO plant	10/02	9/04		34,627			34,627
866 North County Treatment Plant Add 12 MGD RO Plant	10/05	9/07				51,940	51,940
TOTALS				34,627		51,940	86,567

Table 3.2-1

(III) = Plan Amendment on November 19, 2002 by Ordinance No. 2002-60

Map 3.2-1



(IV) = Plan Amendment by Ordinance No. 2003-44 on September 10, 2003