

## TOWN OF FORT MYERS BEACH — 2008 PROPOSED COMPREHENSIVE PLAN AMENDMENTS

### Application #: 2008-11/12-TEXT

*Description:* Revise Policy 8-C-6 to delete references to the Public Service Commission and Florida Cities Water Company; update the text of the Utilities Element to reflect the town's acquisition of the potable water distribution system from Florida Cities; modify the Utilities Element to reflect the latest ten-year water supply plan; and make corresponding policy changes to the Conservation, Intergovernmental Coordination, and Capital Improvements Elements

*Pages to be changed:* Comprehensive Plan Pages 8-1—8-6 and Pages 8-15—16 (Utilities Element), Page 6-47 (Conservation Element), Page 11-24 (Capital Improvements Element), and Page 14-24 (Intergovernmental Coordination Element). Proposed changes are attached.

*Discussion in E/A Report* From Page 62: “A. Town’s Purchase of the Water Distribution System.  
(*adopted on Jan 16 '07*): “Until 1999, drinking water was provided to customers in the town by Florida Cities Water Company, a private company regulated by the Florida Public Service Commission, as discussed in detail in the Utilities Element.

“When Florida Cities decided to sell, Lee County and the town each acquired portions of this utility. The town formed the nonprofit corporation “Town of Fort Myers Beach Public Works Services,” commonly known as Beach Water, to operate the water distribution service within town limits. Lee County acquired the remainder of the utility and now operates the water distribution service in unincorporated Lee County and produces treated water for its own customers and for all Beach Water customers.

“Florida Cities was not available for purchase when the comprehensive plan was being prepared. Its availability was a one-time opportunity that the Town Council chose to pursue. The town's operation of this utility has uncovered many problems that the Town Council is now addressing, however, those problems do not require changes to the comprehensive plan in order to resolve them. The Utilities Element should be updated to reflect these recent events. Changes required would include:

- Updating of the text to explain the acquisition of the distribution system from Florida Cities.
- Revising Policy 8-C-6 to delete references to the Public Service Commission and Florida Cities.”

#### 2002 LEGISLATION [from pages 62–63]:

“In 2002 the Legislature expanded the state comprehensive planning requirements to require greater coordination with water supply planning. New requirements included:

- Each local government must consider the adopted water supply plan prepared by the South

Florida Water Management District.

- Each local government with responsibility for building water supply facilities must amend its Utilities Element to provide a ten-year work plan for building water supply facilities needed to serve existing and new development.

“Lee County prepared the required water supply facilities work plan in 2003,11 in compliance with the first requirement. This work plan was based on the April 2000 regional water supply plan known as the Lower West Coast Water Supply Plan.

“Beach Water does not build or operate water supply facilities as it has an agreement to purchase treated drinking water in bulk from Lee County Utilities; thus the second requirement does not apply to the town.

“However, state and regional officials still expect Fort Myers Beach to include in its Utilities Element a work plan identifying water supply facilities within the town that are needed to serve existing and new development and which reflect projected changes in water demand. This work plan must be detailed for the first five years; it can be more general for the second five years. Since no new facilities are needed within the town, the Utilities Element could simply be amended to recognize the county’s work plan and state this conclusion (if deemed necessary by state officials).”

#### 2005 LEGISLATION [from page 63]

“In 2005 the legislature made further amendments to the statutes governing water supply planning. Within eighteen months after the next updates are made to regional water supply plans, new ten-year work plans must be prepared by local governments and included in their comprehensive plans. Workshops are currently being held around the state to discuss the implications of these new requirements.

“Workshops are also in progress for the latest update to the Lower West Coast Water Supply Plan, which is expected to be completed in July 2006. Once that plan is adopted, Lee County will update its ten-year work plan. If any further amendments to the Fort Myers Beach Comprehensive Plan are required, they will be made at that time.”

*Additional Comments:* As summarized above, legislation in 2002, 2004, and 2005 provided new planning standards for drinking water supply. Certain amendments are needed to the town’s Comprehensive Plan, including water supply concurrency and inclusion of a 10-year plan to ensure an adequate supply of drinking water.

The town operates the water distribution system but does not have its own water supply; all water is purchased in bulk from Lee County Utilities. Despite the town’s lack of involvement in water supply matters, state law still requires the town to comply with these new planning standards. Lee County completed its latest “Water Supply Facilities Work Plan” on July 2008, in compliance with the most recent

regional water supply plan, the Lower West Coast adopted by SFWMD on July 12, 2006. Fort Myers Beach will rely on Lee County's plans for ensuring adequate water supply.

Potential amendments to the Utilities Element to meet these new requirements include four separate components:

**(1) Additional Water Supply That Will Be Needed To Accommodate Growth**

To meet this requirement, Table 8.3 and the paragraph that follows on Page 8–4 have been rewritten.

**(2) Incorporation of Lee County Utilities' Water Supply Plan**

New statutory language requires this element to:

**(a)** *Identify traditional water supply sources and “alternative water supply project or projects” selected by local governments from those identified by the regional water supply plan. [163.3177(6)(c)]*

To meet this requirement, new text has been written to replace “Performance of Existing Facilities” on Pages 8–5 and 8–6.

**(b)** *Include a work plan for building new water supply facilities that looks forward at least 10 years. [163.3177(6)(c)] Capital improvements should be included on the five-year schedule if they will be needed to achieve and maintain the adopted level of service.*

To meet this requirement, new text has been written to replace “Expansion Needs” on Page 8–6, including a table that describes water supply development projects proposed by Lee County Utilities to meet demand over the next ten years. [Policy 8-A-4 is also being added to the plan.](#)

**(c)** *Identify conservation and reuse measures to meet local water needs. [163.3177(6)(c)]*

To meet this requirement, new text has been written to update the water conservation text on Pages 8-5 and 8-6. [Policy 8-A-5 is being added and Policy 8-C-6 is being amended.](#)

**(3) Water Supply Concurrency**

Statutory language was added by the 2005 legislation to require that local governments must consult with their water supplier before approving building permits to determine whether adequate water supplies will be available. [163.3180(2)(a)]

Also, “adequate water supplies” are now included in the list of public services that must meet the concurrency test (“...facilities shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy...”).

The existing level-of-service standard for potable water found in the Fort Myers Beach Comprehensive Plan already meets this second new requirement:

“...for potable water service: **available supply**, treatment, and delivery capacity of 260 gallons per day per equivalent residential connection (ERC), and delivery of potable water at a minimum pressure of 20 pounds per square inch (psi)...” [Policy 8-B-1-i]

However, the implementing language for this standard, which is found in § 2-48(a)(1) of the Land Development Code, only requires the measurement of the capacity of the water treatment facility, not the sources of raw water. Therefore, two new policies should be added to the Utilities Element so that it will fully comply with current legislation, both as to advance consultation with water suppliers and as to available water supply capacity. These new policies are included below as 8-B-3 and 8-B-4.

#### **(4) Consistency with Other Elements of Comprehensive Plan**

To maintain consistency among elements of the Comprehensive Plan, the following additional changes should be transmitted to DCA along with the changes to the Utilities Element:

##### **(a) Proposed Changes to the Conservation Element:**

**Current and Projected Water Needs and Sources** [update of text on Page 6-35 of the Conservation Element]

*In 1996 there were 7,710 ~~about 7,892~~ dwelling units within the town. The Future Land Use Element forecasts total housing units to increase to 8,318 ~~by the year 2003 and 8,740~~ 8,738 at build-out at some time before the year 2020. ~~Additional water demand by 2003 will be approximately 110,760 gallons per day using a 260-gallons-per-day standard. At buildout, the remaining 422~~ From 2008 through build-out, an additional 175 dwelling units will require an additional 45,500 ~~109,720~~ gallons per day of potable water. These additional demands are a minute portion (0.1%) of the supply increases being planned by Lee County Utilities by 2030 (source: Lee County’s Water Supply Facilities Work Plan, as updated in July 2008). ~~available capacity of Florida Cities (12,000,000 gallons available minus 6,734,000 gallons used during the busiest period).~~ For full details, see the Utilities Element.*

POLICY 6-I-3 The town will continue to purchase bulk water from Lee County Utilities in lieu of providing an independent supply of potable water. Lee County Utilities considers the Town of Fort Myers Beach to be part of its potable water service area and has demonstrated its ability to expand raw water supply and treatment facilities to meet anticipated growth consistent with the 2005–2006 Lower West Coast Water Supply Plan Update (prepared by the South Florida Water Management District).

**(b) Proposed Addition to the Capital Improvements Element:**

POLICY 11-A-7 Table 11-7 of this element presents the five-year schedule of capital improvements to be undertaken by the Town of Fort Myers Beach. This schedule will be updated each year through an amendment to this plan to correspond with revisions to the capital improvements program made by the town during its annual budget process.

- i. To comply with § 163.3180(13)(d), *F.S.*, the required five-year schedule of capital improvements also includes the capacity-enhancing school improvements and summary of estimated revenues as presented by the Lee County School District through its Five-Year District Facilities Work Program, as updated each September. For FY 2008/09 through 2012/13, the specific capacity-enhancing school improvements are listed in Table 16-7 of the Public Schools Element and the formal demonstration that those improvements meet all requirements of state law is set forth in that element.
- ii. To comply with § 163.3177(3)(a)5, *F.S.*, any capital improvements that Lee County Utilities needs to construct to achieve or maintain the potable water level of service in this plan during the next five years will be included in the town's five-year schedule of capital improvements.

**(c) Proposed Changes to the Intergovernmental Coordination Element:**

POLICY 14-A-5 The town will coordinate with Lee County and the South Florida Water Management District to insure that this Comprehensive Plan remains consistent with Lee County's Water Supply Facilities Work Plan (last updated in July 2008) and SFWMD's 2005–2006 Lower West Coast Water Supply Plan Update (approved on July 12, 2006). **The town commits to updating this Comprehensive Plan in accordance with statutory timeframes, which in 2009 required this update within 18 months after SFWMD updates or amends its 2006 Lower West Coast Water Supply Plan Update.**

*Action by LPA:* During a public hearing on November 18, 2008, the LPA unanimously recommended that the Town Council approve the changes as outlined in this report, which combine the results of what was originally proposed as two separate amendments, 2008-11-TEXT and 2008-12-TEXT.

*Action by Town Council:* During a public hearing on December 15, 2008, the Town Council voted unanimously to transmit this combined amendment for state review.

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DCA Objection C-10-a: “Proposed Utilities Element Policy 8-B-3 states that prior to issuance of building permits, the Town must obtain assurances from Lee County Utilities that an adequate bulk water supply will be available to the Towns' water distribution system to serve new development at the rates specified in Policy 8-B-1.

“The proposed Utilities Element Policy 8-B-3 does not establish concurrency management system requirements for water supply consistent with the requirements of Section 163.3180(2)(a), F.S., that prior to the approval of a building permit or its functional equivalent, the local government shall consult with the applicable water supplier to determine whether adequate water supplies to serve new development will be available no later than the anticipated date of issuance by the local government of a certificate of occupancy or its functional equivalent.”

DCA Recommendation: “Revise Utilities Element Policy 8-B-3 to establish concurrency management system requirements for water supply consistent with the requirements of Section 163.3180(2)(a), F.S.”

Response to DCA: DCA alleges that Policy 8-B-3 does not meet statutory requirements but does not identify any specific deficiency or recommend any particular type of remedy.

One possibility is that DCA is recommending that Policy 8-B-3 be reworded slightly to become a word-for-word restatement of the generalized language in the Florida Statutes.

Here are the significant differences between Policy 8-B-3 and the statutory language::

- Policy 8-B-3 states “prior to issuance of building permits” instead of “prior to the approval of a building permit or its functional equivalent”
- Policy 8-B-3 substitutes “Lee County Utilities” for “applicable water supplier.”
- Policy 8-B-3 substitutes “adequate bulk water supply...at the rates specified in Policy 8-B-1” for “adequate water supplies.”

The current wording of Policy 8-B-3 is clear and concise; it allows only a single interpretation. DCA’s recommended rewording would make it longer and vaguer, and would leave a determination of its actual meaning to some unspecified later time. Therefore the town should decline to modify Policy 8-B-3 in this way.

Another possibility is that DCA disapproves of this new requirement being placed in a separate policy instead of with the other concurrency requirements for potable water, which are found in Policy 8-B-1(i). The legal effect would seem to be identical, but to avoid any dispute over this minor questions, Policy 8-B-1 should be amended as follows to

incorporate the wording previously proposed for Policy 8-B-3:

**POLICY 8-B-1:** The minimum acceptable level of service standards for utility services within the Town of Fort Myers Beach shall be:

i. for potable water service:

(a) Available supply, treatment, and delivery capacity of 260 gallons per day per equivalent residential connection (ERC), and delivery of potable water at a minimum pressure of 20 pounds per square inch (psi) at the meter anywhere in the system.

(b) Prior to issuance of building permits, the town must obtain assurances from Lee County Utilities that an adequate bulk water supply will be available to the town's water distribution system to serve new development at these same rates.

ii. for sanitary sewer service: available capacity to collect, treat, and dispose of wastewater of 175 gallons per day per equivalent residential connection (ERC).

iii. for solid waste disposal service: the ability to collect and manage 7 pounds of municipal solid waste per person per day.

An ERC is defined as the total number of meter equivalents using the methodology of the Florida Public Service Commission (and is synonymous with their use of the term "equivalent residential units"). ERCs are used to convert commercial and industrial water or sanitary sewer use into standard units that are based on typical rates of use in dwelling units.

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DCA Objection C-10-b: "The data and analysis does not quantify the projected water supplies in the Town's proposed Work Plan by providing details from the Bulk Water Agreement with Lee County' Utilities covering water demands, agreement timelines, and level of service."

DCA Recommendation: "Revise the data and analysis to quantify the projected water supplies in the Town's proposed Work Plan by providing details from the Bulk Water Agreement with Lee County Utilities covering water demands, agreement timelines, and level of service."

Response to DCA: The requested data and analysis is now summarized on Page 8-5 of the Utilities Element.

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*DCA Objection C-10-c: “The proposed plan amendment does not include plan policy language that adopts by reference the adopted Lee County Work Plan.”*

*DCA Recommendation: “Revise the amendment to adopt plan policies that address the following: (1) adopt the Lee County Work Plan by reference.”*

*Response to DCA: A new Policy 8-A-4 should be added to this element to comply with this recommendation:*

**POLICY 8-A-4:** The town’s potable water supply distribution system is supplied by Lee County Utilities under terms set forth in a bulk water agreement approved in August 2001. Lee County Utilities has a long-term expansion plan that details existing and proposed uses of traditional and alternative water supply sources, in accordance with SFWMD’s Lower West Coast Water Supply Plan Update (July 2006). Lee County Utilities’ expansion plan, the Water Supply Facilities Work Plan, was last updated in July 2008 and is incorporated herein by reference.

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DCA Objection C-10-d: “The proposed amendment does not include plan policies addressing on-going coordination with Lee County to ensure that water supplies will be sufficient to meet water demand, including coordinating peak seasonal demands and allocations based on consistent population projections and level of service standards, and to provide coordination with Lee County on water conservation that includes implementation plans for a conservation rate structure and a leak detection program for the Town.”

DCA Recommendation: “Revise the amendment to adopt plan policies that address the following: (2) address ongoing coordination with Lee County to ensure that water supplies will be sufficient to meet water demand, including coordinating peak seasonal demands and allocations based on consistent population projections and level of service standards, and to provide coordination with Lee County on water conservation that includes implementation plans for a conservation rate structure and a leak detection program for the Town.”

Response to DCA: A new Policy 8-A-5 should be added to this element to comply with this recommendation:

**POLICY 8-A-5:** The town shares a common interest with Lee County government in ensuring that potable water supplies will be sufficient to meet future demands. The town will coordinate with Lee County on an ongoing basis on the following matters:

1. Analyzing peak season demands and providing sufficient allocations of water.
2. Using consistent population projections and level-of-service standards.
3. Conserving water by adopting a conservation rate structure (see Policy 8-C-6).
4. Implementing a leak detection program and replacing obsolete portions of the water supply system.

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DCA Objection C-10-e: “Policy 14-A-5 does not ensure that the future Water Supply Facilities Work Plan amendments will be adopted within 18 months after updates or amendments to the Lower West Coast Water Supply Plan Update are adopted by the District.”

DCA Recommendation: “Revise Policy 14-A-5 to ensure that the future Water Supply Facilities Work Plan amendments will be adopted within 18 months after updates or amendments to the Lower West Coast Water Supply Plan Update are adopted by the District.”

Response to DCA: An additional sentence has been added to proposed Policy 14-A-5 to comply with this recommendation:

**POLICY 14-A-5:** The town will coordinate with Lee County and the South Florida Water Management District to insure that this Comprehensive Plan remains consistent with Lee County's Water Supply Facilities Work Plan (last updated in July 2008) and SFWMD's 2005–2006 Lower West Coast Water Supply Plan Update (approved on July 12, 2006). The town commits to updating this Comprehensive Plan in accordance with statutory timeframes, which in 2009 required this update within 18 months after SFWMD updates or amends its 2006 Lower West Coast Water Supply Plan Update.

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Proposed Final Action: The Town Council should adopt this revised amendment, as described above, as part of Ordinance 09-03.

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Final Action: The Town Council adopted this amendment on August 17, 2009, as part of Ordinance 09-03. (Text shown in red is new or has changed since the initial transmittal of this amendment in January 2009.)

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# UTILITIES ELEMENT

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## INTRODUCTION

The Town of Fort Myers Beach is a retail provider of drinking water but does not provide other direct utility services. The Three major utility services are provided by others:

- **Bulk water supply** by Florida Cities Water Company, an investor-owned company regulated by the Florida Public Service Commission; is provided by Lee County Utilities, a branch of Lee County government;
- **Sewer service** is provided directly to town residents and businesses by Lee County Utilities, a branch of Lee County government; and
- **Solid waste**, with pickup by Kimmins Recycling, an investor-owned company operating under a franchise from the Lee County government. Lee County also handles the ultimate disposal of trash from its various contracted trash haulers.

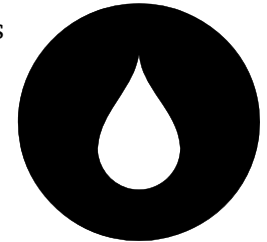
This comprehensive plan examines each of these services and assesses future expansion needs to accommodate growth. This plan also establishes “minimum levels of service” that must be met at all times in order for growth to continue.

Even though some of these services are actually provided by others, the town must ensure that proper provisions are being made for continued high-quality service into the future. The town may also wish to play a greater role in utilities in the future, for example by directly franchising its trash hauler rather than being included in one of Lee County’s larger contracts. Other alternatives for the town are discussed in this element.

## PURPOSE OF THIS ELEMENT

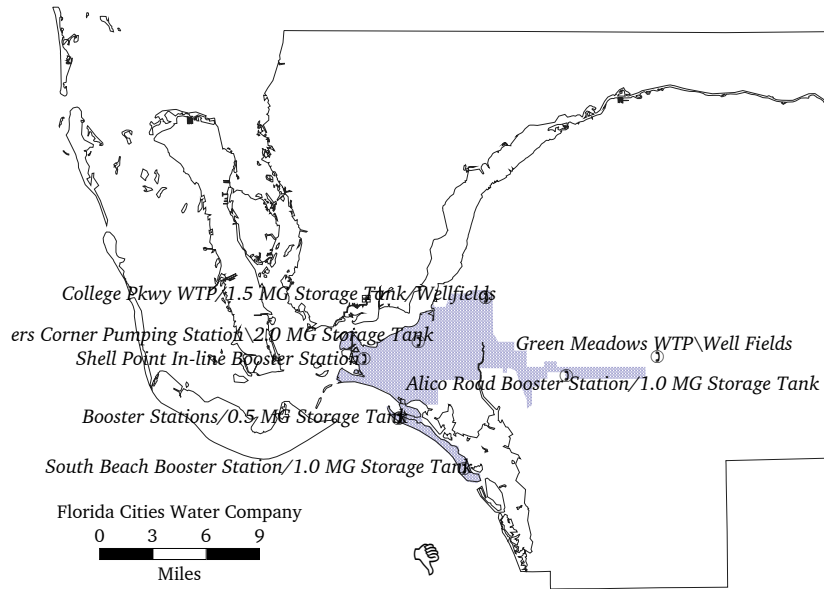
The Utilities Element analyzes the availability of public facilities to meet the existing and future needs of the town. This analysis of potable water, sanitary sewer, and solid waste disposal service is mandated by Florida’s growth management legislation. Rule 9J-5.001 of the *Florida Administrative Code* requires that water, sewer, and solid waste services be provided in accordance with future land use projections, and it identifies a basic framework for inventories of existing infrastructure and services. It also provides the basis for the goals, objectives, and policies to be adopted in this comprehensive plan.

If proper water, sewer, and solid waste facilities are not available, the timing and location of development can be affected, as occurred during sewer moratoriums at Fort Myers Beach in the 1980s. Planning for these services is an integral part of any comprehensive plan.



## WATER SUPPLY

Florida Cities Water Company, a private company, provided potable (drinking) water to the Town of Fort Myers Beach and surrounding areas until 2001, when the company was acquired by Lee County Utilities, a branch of Lee County government. Lee County then resold the water distribution system on Estero Island to the Town of Fort Myers Beach. Florida Cities is regulated by the Florida Public Service Commission (PSC), as are most investor-owned (for-profit) water and sewer utilities throughout the state. The PSC is responsible for ensuring adequate service and fair rates for customers.



**Figure 1, Former Florida Cities’ south franchise boundaries & location of facilities**

~~Florida Cities has been certified by the PSC to be the area’s sole water provider.~~ Figure 1 identifies the former Florida Cities’ South Fort Myers certificated potable water supply area, which includes d the Town of Fort Myers Beach and nearby portions of mainland Lee County.

Lee County Utilities in 2001 acquired Florida Cities’ operates two water treatment plants in the South Fort Myers area, and has which had supplied the following data about their operation. The Green Meadows Water Treatment Plant and College Parkway Treatment Plan, and their accompanying well fields, served d this area. These plants had have permitted and plant design capacities of 9,000,000 gallons per day (Green Meadows) and 1,500,000 gallons per day (College Parkway). These plants served d approximately 16,000 water customers and an estimated population of about 56,000 (at an average of 3½ persons per connection). Land uses served are primarily residential and some commercial. Florida Cities estimated s that 3,000 of these

customers and 10,500 of the population were are located within the town’s limits. (The number of customers is less than the total number of dwelling units because a majority of dwellings within the town are multi-family units, which share a water meter and are considered as “one customer.”)

Florida Cities had has a number of other facilities that served this area. These include:

- South Beach booster station and 1,000,000-gallon ground storage tank;
- North Beach booster station and 500,000-gallon ground storage tank;
- Marina in-line booster station;
- Miners Corner pumping station and 2,000,000-gallon ground storage tank; and
- Alico Road booster station and 1,000,000-gallon ground storage tank.

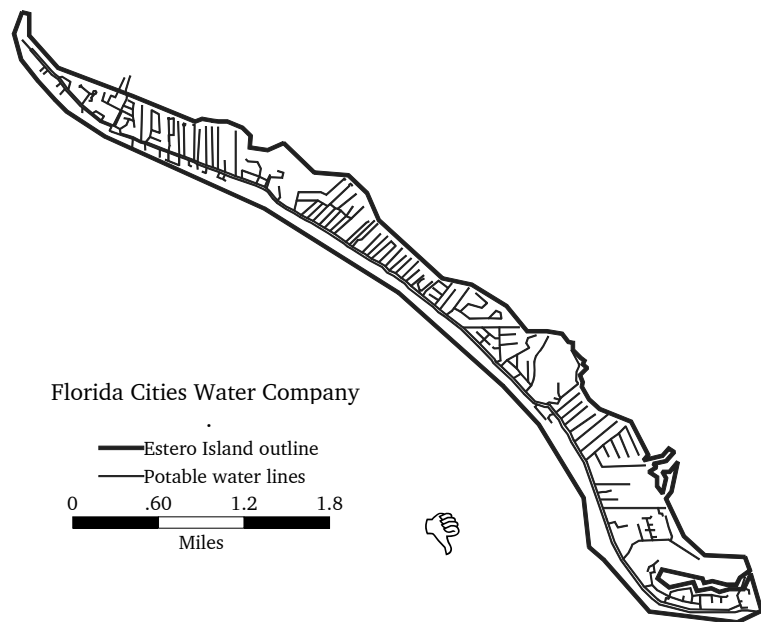
These facilities are also delineated on Figure 1. Figure 2 displays the potable water lines within the Town of Fort Myers Beach, indicating that potable water service is available throughout the town.

The average annual daily water demand within the South Fort Myers area averaged 5,757,000 gallons per day in 1997. The peak monthly demand was 7,306,000 gallons per day in 1997; the peak daily demand was 7,781,000 gallons on March 23, 1997.

Florida Cities did does not have a meter at Matanzas Pass that measured s total water consumption in the Town of Fort Myers Beach. In place of this data, a “proportional capacity” can be calculated to estimate the percentage of actual water consumption and of water treatment capacity used by the town, relative to the entire ~~Florida Cities’~~ service area on the mainland. This capacity is based on the peak number of customers within each location, compared to the peak month’s average daily water demand and the total design capacity of the treatment

plant. These figures are shown in Table 8-1. (Proportional capacity figures can be somewhat misleading since demand may be greater in one location one day and less on another day.)

The “level of service” *currently being provided* can be estimated using various methods. Residential levels of service are expressed here in “gallons per person per day.” This calculation uses the peak month’s average daily demand, which is then divided by the estimated peak population for the entire Florida Cities service area, yielding a figure of about 130 gallons per person per day, as shown in Table 8-2. (Note that this calculation does not apportion water consumption to commercial or industrial uses.) This computation is based on the entire service area rather than just the town because the actual peak population of the town greatly exceeds the population estimates used by Florida Cities.



**Figure 2,** Florida Cities’ Potable water lines on Estero Island

**Table 8-1 — Proportionate Capacity of Potable Water Treatment Facilities, 1995/96**

<u>Customers/ Water Consumption</u>	<u>Town of Fort Myers Beach</u>	<u>Remainder of Lee County certificated area</u>
Approximate number of customers	3,000	13,000
Estimated peak population served	10,500	45,500
Estimated share of consumption using peak month water demand (gpd)	1,369,875	5,936,125
Estimated share of total plant design capacity (gpd)	1,968,750	8,531,250

Source: Population and total gpd figures from Florida Cities Water Company

**Table 8-2  
Current Levels of Service for Potable Water**

<u>Peak Month Average Daily Water Demand (gpd):</u>	<u>Estimated Peak Population Served:</u>	<u>Gallons Per Person Per Day:</u>
7,306,000	56,000	130.46

**Existing and Projected Water Facility Needs**

Florida Cities uses fixed gallon-per-day rates when designing its facilities. Single-family dwelling units are assumed to use up to 300 gallons per day, which constitutes one equivalent residential connection (ERC), and 240 gallons per day for multifamily units. Those standards have also been established in the Lee County Comprehensive Plan which has jurisdiction until the town’s own plan is adopted. Lee County also established minimum standards for mobile homes and recreational vehicles at 187.5 and 150 gallons per day respectively. The state has established a minimum water pressure standard of 20 pounds per square inch. Florida Cities maintains An average pressure of 55 to 60 pound per square

inch is maintained throughout the its Fort Myers Beach distribution system.

For comprehensive planning purposes, the Town of Fort Myers Beach need not adopt these same standards. However, it would be best to use a standard based on dwelling units rather than people, since new housing is approved one dwelling unit at a time. By further defining this standard on an “ERC” basis, it can also be applied to new commercial development, which at Fort Myers Beach usually does not depend primarily on island residents for its customers. A simple and uniform standard would be 260 gallons per ERC (based on 130 gallons per person per day, times 2 people per typical unit). Since no further mobile home or recreational vehicle developments are expected, separate standards are not needed for them.

The 1990 U.S. Census reported 7,420 dwelling units within the town’s limits in April of that year. An additional 472 units were later have been constructed since that time, for a 1996 total of 7,710. As noted in the Future Land Use Element, housing units are forecasted to increase to 8,121 by the year 2003 and to 8,738 at buildout before the year 2020. Assuming this growth of 411 dwelling units by the end of the first five-year planning timeframe in 2003, additional forecasted water demand will be approximately 106,860 gallons per day using a 260-gallon-per-day standard. At buildout, An additional 175 422 dwelling units built after 2008 are forecasted to require an additional 45,500 160,420 gallons per day of potable water. Table 8-3 summarizes these forecasts. These additional demands are a minute portion (0.1%) of the supply increases being planned by Lee County Utilities by 2030 (source: Lee County’s Water Supply Facilities Work Plan, as updated in July 2008). available capacity of Florida Cities (10,500,000 gallons per day available, minus 7,781,000 gallons per day used during the busiest period):

**Table 8-3 — Forecasted Water Demand for the Town of Fort Myers Beach**

Year	<u>Permanent Population</u>	<u>Peak-Season Population</u>	Total Number of Dwelling Units	<u>Total Daily Water Demand (at 260g/DU)</u>	<u>Forecasted Number of New Dwelling Units after 2008</u>	<u>Additional Forecasted Water Demand after 2008</u>
1996	<u>6,039</u>	<u>15,680</u>	7,710 (based on actual building permits)	<u>2,004,600</u>	=	=
2003 (first planning timeframe)	<u>6,792</u>	<u>17,635</u>	<u>8,157</u>	<u>2,120,820</u>	=	=
<u>2008</u>	<u>7,100</u>	<u>18,435</u>	<u>8,527</u>	<u>2,217,020</u>	=	=
<u>2013</u>	<u>7,240</u>	<u>18,800</u>	<u>8,696</u>	<u>2,260,960</u>	<u>140</u>	<u>36,400</u>
<u>2018</u>	<u>7,275</u>	<u>18,890</u>	<u>8,738</u>	<u>2,271,880</u>	<u>175</u>	<u>45,500</u>
<u>2023</u>	<u>7,275</u>	<u>18,890</u>	<u>8,738</u>	<u>2,271,880</u>	<u>175</u>	<u>45,500</u>
2020 (second planning timeframe)			8,738		581	160,420 gpd

Source: See Future Land Use Element and Evaluation/Appraisal Report (2007) for details on forecasts

## **Bulk Water Agreement with Lee County**

In August 2001, the Town of Fort Myers Beach entered into a binding contract with Lee County concerning the source of potable water that would be supplied to customers within town boundaries.

The county agreed to be fully responsible for providing a bulk supply of water to the town, which the town would then resell to its retail customers. The county confirmed that its water production and treatment facilities met all state and federal standards (and would meet all future standards), and that the county has and would continue to have the ability to provide sufficient water to the town for the duration of the agreement (a period of 25 years).

The town agreed not to purchase water from any other source, not to resell this bulk water to any other wholesale customer, and not to construct its own water production and/or treatment facilities.

This contract did not quantify future water demand within the town, inasmuch as the town was nearing buildout and little additional demand was anticipated. Continued planning by Lee County Utilities merely assumes that water customers within the town will require water at the same rates and with the same seasonal patterns as other nearby county water customers. This same approach is reflected in Lee County's July 2008 "Water Supply Facilities Work Plan," which is being incorporated into this plan by Policy 8-A-4.

## **Performance of Existing Facilities**

Florida Cities' existing water facilities are well-maintained and in good condition. The treatment plants and storage systems are regularly inspected, and the utility has established maintenance programs for pipe and meter replacement, valve inspection and

operation, and flow testing. Its facilities are regulated by many agencies including the South Florida Water Management District and the Department of Environmental Protection.

The water supply for Fort Myers Beach arrives along the San Carlos Boulevard corridor. From the mainland to San Carlos Island, water crosses Hurricane Pass through one 16" subaqueous water main and one 16" bridge crossing. Two subaqueous mains also cross Matanzas Pass, a 16" crossing from the Coast Guard Station to Moss Marine and a 12" crossing from just north of the bridge to a point near the Matanzas Seafare restaurant.

Florida Cities is becoming more involved with the Lee County Regional Water Supply Authority, a non-regulatory entity that stresses a county-wide rather than utility-by-utility approach to managing the public water supply. Higher levels of cooperation among water providers would better serve the interests of the Town of Fort Myers Beach and Lee County, for instance by ensuring a backup source of water for emergency purposes. For example, despite the duplicate water mains entering Estero Island from the north, there is no connection across Big Carlos Pass to transfer water to or from the south. A back-up connection here is feasible due to the proximity of Bonita Springs Utilities' water lines serving the hotel on Black Island.

The town should continue to monitor the performance of Florida Cities' facilities and service but can allow the Public Service Commission to continue its regulation of the utility's service and rates. The town has the ability to intercede in rate-setting cases decided by the Commission, and may be eligible to assume regulation of the utility in the future. It may even be possible for the town to purchase the water distribution system and handle the retail sale of water within the town. However, there is no compelling need for any of these options under current conditions. Florida Cities has proven helpful on Fort Myers Beach projects, including the relocation of extensive water lines during the recent improvements at Times Square. In 1998, they

will establish a utility advisory committee for Fort Myers Beach residents and businesses, which will allow for input and dialogue about potential improvements to water service.

### **Traditional and Alternative Water Supply Sources**

The South Florida Water Management District updated its Lower West Coast Water Supply Plan in July 2006. The focus of this update was the development of “alternative” water sources, such as wells drilled into deeper aquifers, desalination, re-use of wastewater for irrigation, water conservation measures, and “aquifer storage and recovery” (ASR) where excess water during the rainy season is stored underground for later recovery during the dry season.

Lee County Utilities is committed to developing alternative water sources, including:

- Tapping the Lower Hawthorne aquifer at four wellfields.
- Expanding ASR wells from the two current wellfields to two additional wellfields, and expanding its use further in the future to include reclaimed water.

Essentially all future water supply development by Lee County Utilities will use alternative water supply sources, although traditional sources such as shallow wells will continue in use and will be spread out onto larger wellfields to reduce adverse impacts on wetlands.

### **Expansion Needs**

Florida Cities’ potable water system began serving the South Fort Myers area in 1955. The utility reports that no problems are currently foreseen with operations or with new facility siting, expansion, or replacement. The existing permitted and plant design capacities are more than adequate to meeting the current and expected customer demands.

The performance of existing potable water facilities are constantly monitored to maintain adequate treatment capacity and evaluate the ability of the distribution system to meet future demands. Utility providers generally plan ahead to ensure that sufficient capacity will remain available to accommodate anticipated growth. Any new or expanded facilities that are needed must comply with applicable federal, state, and local regulations. These regulations require that all potable water facilities be constructed, operated, and maintained in accordance with the guidelines established by the Florida Department of Environmental Protection. In addition to these requirements, potable water providers must obtain water use permits from the South Florida Water Management District before any new wells are drilled.

## **Work Plan for Constructing New Water Supply Facilities**

In July 2008, a *Water Supply Facilities Work Plan* was published jointly by Lee County Utilities and Lee County Planning. This plan was first mandated state law in 2002 to coordinate water supply planning between local, regional, and state agencies. The objectives were to:

- Identify population and water demands for a planning period from 2007 to 2030 with focus on the planning period from 2007 to 2017.
- Identify existing and planned potable and reclaimed water facilities that will be utilized to meet the projected demand to 2017.
- Identify sources of raw water required to meet the projected demand.
- Identify planned potable water supply and reclaimed water projects required to meet projected demands and specify when they must be developed and how they will be funded.
- Demonstrate that the proposed water supply development projects are feasible with respect to facility capacity and consumptive use permitting.
- Describe Lee County Utilities' efforts in developing alternative water supplies.

Table 6 of the *Water Supply Facilities Work Plan* (last updated in July 2008) presents a ten-year expansion program for Lee County Utilities (see [Policy 8-A-4](#)). Existing and proposed uses of traditional and alternative water supply sources are detailed there in conformance with SFWMD's *2005–2006 Lower West Coast Water Supply Plan Update* (approved on July 12, 2006).

Lee County has adopted Table 6 into its Comprehensive Plan potable water sub-element exactly as reprinted below. At present none of these improvements are needed to meet the potable water level of service at Fort Myers Beach; if any are needed during any upcoming five-year period, they will need to be included in the five-year schedule of capital improvements (Table 11-7) in the Capital Improvements Element.

TABLE 6  
CAPITAL IMPROVEMENT PROJECTS

10 YEAR WATER SUPPLY DEVELOPMENT PROJECTS

CIP PROJECT #	LCU PROJECT NAME/ LWCWSP Project Name	DESCRIPTION	PROJECT STATUS	TOTAL PROJECT COST	ESTIMATED COMPLETION DATE	FUNDING SOURCE
7097	Corkscrew WTP Wellfield-Alico Road / Corkscrew Lower Hawthorne Wells	Design and construct a 5.0 mgd wellfield capacity and raw water transmission system	The total wellfield expansion project is 30% complete and expected to be completed by November 2008. The alternative water supply portion of this project is 70% complete and expected to be complete in June 2008.	\$15,899,910.00	November 2008	Grant/Enterprise Fund
7187	Green Meadows WTP Plant Expansion / Green Meadows Lower Hawthorne Wells	Expand Green Meadows WTP capacity, construct additional wells and transmission lines to support plant expansion	Completed an Expansion Process and Regulatory Evaluation. Currently constructing two test/production wells in the Lower Hawthorne aquifer.	\$37,000,000.00	2014	Grant / Debt Finance / Enterprise Fund
7602	North Lee County R.O. Plant Wellfield Expansion / Not included in the LWCWSP	Well installation of 2 Lower Hawthorne wells to reduce upcoming and premature water quality decline	Surveying for well sites and wellfield design expected to be underway by May 2008. Expected completion date is December 2008.	\$1,650,000.00	December 08	Grant/Enterprise Fund
7028	North Lee County WTP Expansion to 10 MGD / North Lee County Lower Hawthorne Wellfield and Plant Expansion	Expand the treatment capacity of the existing R.O. plant from 5.0 MGD to 10.0 MGD. Includes construction of the well field expansion	Surveying for well sites and wellfield design expected to be underway by May 2008.	\$16,250,000.00	2010	Grant/Enterprise Fund
7155	Pinewoods WTP DIW & Wellfield Expansion / Pinewoods WTP Expansion Phase II	Construct a deep injection well for disposal of brine and construct at least 4 Lower Hawthorne wells to provide raw water for R.O. plant	Project substantially complete	\$15,924,903.00	January 2007	Grant/Enterprise Fund
7110	ASR Wells @ No. Reservoir & Olga WTP	Complete construction of 30 MGD Storage additional ASR wells	Project on hold due to Arsenic issues	\$2,435,552.00	Unknown	Grant/Enterprise Fund
7188	Green Meadows WTP Raw Water Line Improvements	Upsize/Replace raw watermain to increase wellfield efficiency	scheduled for construction in 2008	\$2,300,000.00	December 2008	Enterprise Fund

ALTERNATIVE WATER RESOURCE PROJECTS

CIP PROJECT #	LCU PROJECT NAME/ LWCWSP Project Name	DESCRIPTION	PROJECT STATUS	TOTAL PROJECT COST	ESTIMATED COMPLETION DATE	FUNDING SOURCE
7280	Three Oaks WWTP Expansion / Three Oaks Reclaimed Water Transmission System	Expand the Three Oaks WWTP to 6.0 MGD	Reuse pumpstation portion of this CIP project for AWS Project, Project substantially complete	\$27,452,866.00	January 2007	Grant/Enterprise Fund
7279	Three Oaks Parkway Widening Sewer / Three Oaks Pkwy. Reclaimed Water Transmission System	Relocate and Upgrade Existing water, sewer and reuse lines along Three Oaks Pkwy	Reuse Pipeline portion of this CIP for AWS Project, Project substantially complete	\$6,939,250.00	January 2007	Grant/Enterprise Fund
7297	FMB WWTP Elevated Reuse Storage Tank / FMB Reclaimed Elevated Storage Tank	Construct an elevated reuse storage tank in the Fort Myers Beach WWTP Reuse system	A low cost interim alternative has delayed the need for this project, now scheduled for 2011	\$4,000,000.00	2011	Grant/Enterprise Fund
7284	Reclaimed Water ASR / Health Park Reclaimed Water ASR Phase I and Phase II	Pilot and construction of a Reclaimed Water ASR for Wastewater Treatment Facilities	Issues related to Arsenic and ASR have delayed this project to 2011	\$600,000.00	2011	Grant/Enterprise Fund
Future	Fiesta Village WWTP Reuse ASR and reject Storage	Study, design, and construct reuse ASR Well and convert existing GST to reject tank	scheduled for 2011	\$1,500,000.00	2012	Grant/Enterprise Fund
7292	FGCU/Miromar Lakes Reuse Extension / FGCU/Miromar Lakes Reclaimed Water Main	Construct 900 L.F. of 12" reuse main from 3 Oaks WWTP to FGCU	design underway	\$126,000.00	2009	Grant/Enterprise Fund
7217	FMB/Iona Reuse System Improvements	Install reuse lines to serve to serve FMB reuse service area	Reuse lines will be constructed as need arises	\$1,307,503.00	2008-2011	Enterprise Fund
7240	Pine Island WWTP Reuse System	Expand effluent transmission system to provide irrigation for future customers	Reuse lines will be constructed as need arises	\$1,082,806.00	2008	Enterprise Fund
7305	Three Oaks Reuse Transmission Improvements	Upsize/expand 3 Oaks reuse transmission lines to handle increased flows to various sites	Reuse lines will be constructed as need arises	\$780,000.00	2008	Enterprise Fund
7111	Automated Flushing Devices	Install automated flushing devices on existing dead-end water mains	on-going	\$162,865.00	2008-2010	Enterprise Fund

## Water Conservation

With an ever-increasing population and a limited potable water supply, water conservation programs become increasingly important. Citizens of Fort Myer Beach must do their part to conserve this resource. The South Florida Water Management District developed a water conservation program in 1990 which identified six measures specifically for urban areas. These measures identified in the District Water Management Plan (April 1995) include:

- limiting lawn irrigation to the hours between 5:00 P.M. and 9:00 P.M.;
- requiring the adoption of xeriscape landscape ordinances;
- requiring the installation of ultra-low-volume plumbing fixtures in all new construction;
- requiring the adoption of conservation-oriented rate structure by utilities;
- requiring the implementation of leak detection programs by utilities with unaccounted water losses greater than 10%; and
- requiring implementation of water conservation public education programs.

Active water conservation activities as of 2008 are summarized here (also see Policy 8-A-5):

- Permanent Irrigation Ordinance: Lee County has imposed an ordinance restricting landscape irrigation to the hours of 5:00 PM to 9:00 AM two days per week (Ordinance No. 05-10). This ordinance is more restrictive than rules of the South Florida Water Management District.
- Rain Sensors Required: The Land Development Code requires rain sensors on new irrigation systems (§ 10-154(7)m).
- Xeriscape Requirements: The Land Development Code requires xeriscape principles for all required landscaping (§ 10-421(b)). Xeriscape principles conserve water through drought-tolerant landscaping, the use of

appropriate plant material, mulching, and the reduction of turf areas.

- Leak Detection Program: Lee County Utilities has an unaccounted-for water and leak detection program. The latest available data indicate that “unaccounted for” water losses are only 6.22% (calendar year 2006).
- Water Conservation Education: Lee County TV airs daily information on water conservation, addressing many ways that water customers can conserve. The Lee County Utilities web site contains several pages devoted to water conservation (start at [www.lee-county.com/utilities/](http://www.lee-county.com/utilities/)). The annual Consumer Confidence Report directs customers to the web site for conservation information. Water conservation posters and pamphlets are placed in schools, libraries, and county offices. About 20 water conservation presentations are made to third-grade students each year, and 4-5 water conservation presentations are made to civic organization throughout Lee County.

As the Town of Fort Myers Beach develops and maintains its public facilities, water conservation measures such as these should be followed, both to reduce consumption and to lessen costs for water supply. The town should take the lead by example (for instance by installing ultra-low-volume plumbing fixtures in new government facilities) and also by adopting ordinances requiring sound water conservation practices. The town should ~~also encourage the Public Service Commission to allow Florida Cities to~~ consider implementing a strong “conservation rate structure” where large water users pay a higher rate per gallon than is charged to frugal users. This approach could discourage excessive lawn irrigation while maintaining low rates for frugal users.

## **GOALS - OBJECTIVES - POLICIES**

Based on the analysis of utility services in this element, the following goals, objectives, and policies are adopted into the Fort Myers Beach Comprehensive Plan:

**GOAL 8: To improve the existing systems that provide safe drinking water, irrigation water, sewer service, and solid waste disposal in order to reduce environmental impacts on land and water while keeping costs as economical as possible.**

**OBJECTIVE 8-A RELATIONS WITH UTILITIES — Increase the town’s role in influencing utility providers about service alternatives, facility locations, and conservation of resources.**

- POLICY 8-A- 1 Mandatory customer connections to water and sewer utilities shall continue to be the policy of the Town of Fort Myers Beach.
- POLICY 8-A- 2 When considering improvements to utility systems, utility companies should expect involvement by the town in evaluating alternatives and seeking the best interests of utility customers and other people and resources affected by those decisions.
- POLICY 8-A- 3 The town shall seek a significant role in policy matters concerning Lee County Utilities’ sewer service, based on the town’s dual roles as a major user of this service and its location directly downstream of any effluent discharges into tidal waters.
- POLICY 8-A- 4 The town’s potable water supply distribution system is supplied by Lee County Utilities under terms set forth in a bulk water agreement approved in August 2001. Lee County Utilities has a long-term expansion plan that details

existing and proposed uses of traditional and alternative water supply sources, in accordance with SFWMD’s Lower West Coast Water Supply Plan Update (July 2006). Lee County Utilities’ expansion plan, the Water Supply Facilities Work Plan, was last updated in July 2008 and is incorporated herein by reference.

POLICY 8-A- 5 The town shares a common interest with Lee County government in ensuring that potable water supplies will be sufficient to meet future demands. The town will coordinate with Lee County on an ongoing basis on the following matters:

1. Analyzing peak season demands and providing sufficient allocations of water.
2. Using consistent population projections and level-of-service standards.
3. Conserving water by adopting a conservation rate structure (see Policy 8-C-6).
4. Implementing a leak detection program and replacing obsolete portions of the water supply system.

**OBJECTIVE 8-B LEVELS OF SERVICE — Maintain minimum acceptable levels of service for potable water, sanitary sewer, and solid waste disposal.**

POLICY 8-B-1 The minimum acceptable level of service standards for utility services within the Town of Fort Myers Beach shall be:

- i. **for potable water service:**
  - (a) Available supply, treatment, and delivery capacity of 260 gallons per day per equivalent residential connection (ERC), and delivery of potable water at a minimum pressure of 20 pounds per square inch (psi) at the meter anywhere in the system.
  - (b) Prior to issuance of building permits, the town must obtain assurances from Lee County Utilities that an adequate bulk water supply will be available to the town's water distribution system to serve new development at these same rates.
- ii. **for sanitary sewer service:** available capacity to collect, treat, and dispose of wastewater of 175 gallons per day per equivalent residential connection (ERC).
- iii. **for solid waste disposal service:** the ability to collect and manage 7 pounds of municipal solid waste per person per day.

An ERC is defined as the total number of meter equivalents using the methodology of the Florida Public Service Commission (and is synonymous with their use of the term “equivalent residential units”). ERCs are used to convert commercial and industrial water or sanitary sewer use into standard units that are based on typical rates of use in dwelling units.

POLICY 8-B-2 The town will enforce these levels of service under the concurrency requirements of Florida

law by requiring one of the following before issuance of development permits:

- i. development orders or building permits will be issued subject to the condition that, at the time of the issuance of a certificate of occupancy, the necessary facilities and services must be in place and available to serve the development being authorized; or
- ii. at the time development orders or building permits are issued, the necessary facilities and services are guaranteed to be in place and available to serve the development at the time of issuance of a certificate of occupancy through an enforceable development agreement pursuant to Section 163.3220, *Florida Statutes*, or through an agreement or development order pursuant to Chapter 380, *Florida Statutes*.

~~POLICY 8-B-3~~ Prior to issuance of building permits, the town must obtain assurances from Lee County Utilities that an adequate bulk water supply will be available to the town's water distribution system to serve new development at the rates specified in Policy 8-B-1.

~~POLICY 8-B-34~~ The concurrency management system in the town's Land Development Code shall be amended to requirement the assessment of water supply capacity, in addition to treatment plant capacity, when determining compliance with the potable water level of service specified in Policy 8-B-1.

**OBJECTIVE 8-C WATER CONSERVATION — Take all reasonable steps to conserve potable water supplies, aiming for a 10% per-capita reduction in water use by 2005.**

- POLICY 8-C-1 The town shall, by resolution, encourage Lee County Utilities to expand its facilities and agreements for recycling treated wastewater for reuse as irrigation water; deep-well injection of surplus wastewater should be limited to emergency use only.
- POLICY 8-C-2 The town shall consult with the South Florida Water Management District to obtain suggestions on regulations to conserve water before adopting such regulations.
- POLICY 8-C-3 The town will use drought-tolerant vegetation, xeriscape techniques, recycled water, or other available methods for landscaping publicly owned lands, and encourages private landowners to do the same to reduce usage of potable water for irrigation purposes.
- POLICY 8-C-4 The town will continue to require, through its building codes, the use of water-saving plumbing fixtures in all new development and redevelopment.
- POLICY 8-C-5 The town will support public educational programs that encourage water conservation practices.
- POLICY 8-C-6 ~~The Public Service Commission and Florida Cities Water Company is encouraged to~~ The town should consider implementing a strong conservation rate program where large water users pay a higher rate per gallon than is charged to frugal users.