kwiktag ® 030 744 408

LEE COUNTY ORDINANCE NO. 09-13
(Water Supply Facilities Work Plan)
(CPA2006-20)

AN ORDINANCE AMENDING THE LEE COUNTY COMPREHENSIVE PLAN, COMMONLY KNOWN AS THE "LEE PLAN," ADOPTED BY ORDINANCE NO. 89-02, AS AMENDED, SO AS TO ADOPT AMENDMENT CPA2006-20 (PERTAINING TO THE WATER SUPPLY FACILITIES PLAN) APPROVED DURING THE COUNTY'S 2007/2008 REGULAR COMPREHENSIVE PLAN AMENDMENT CYCLE; PROVIDING FOR AMENDMENTS TO ADOPTED TEXT AND TABLES; PURPOSE AND SHORT TITLE; LEGAL EFFECT OF "THE LEE PLAN"; GEOGRAPHICAL APPLICABILITY; SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, AND AN EFFECTIVE DATE.

WHEREAS, the Lee County Comprehensive Plan ("Lee Plan") Policy 2.4.1. and Chapter XIII, provides for adoption of amendments to the Plan in compliance with State statutes and in accordance with administrative procedures adopted by the Board of County Commissioners ("Board"); and,

WHEREAS, the Board, in accordance with Section 163.3181, Florida Statutes, and Lee County Administrative Code AC-13-6 provide an opportunity for the public to participate in the plan amendment public hearing process; and,

WHEREAS, the Lee County Local Planning Agency ("LPA") held a public hearing on the proposed amendment in accordance with Florida Statutes and the Lee County Administrative Code on June 23, 2008 and September 22, 2008; and,

WHEREAS, the Board held a public hearing for the transmittal of the proposed amendment on October 22, 2008. At that hearing, the Board approved a motion to send, and did later send, proposed amendment CPA2006-20 pertaining to the Water Supply Facilities Work Plan to the Department of Community Affairs ("DCA") for review and comment; and,

WHEREAS, at the October 22, 2008 meeting, the Board announced its intention to hold a public hearing after the receipt of DCA's written comments commonly referred to as the "ORC Report." DCA issued their ORC report on January 16, 2009; and,

WHEREAS, on February 25, 2009, the Board held a public hearing and adopted the proposed amendment to the Lee Plan set forth herein.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, THAT:

SECTION ONE: PURPOSE, INTENT AND SHORT TITLE

The Board of County Commissioners of Lee County, Florida, in compliance with Chapter 163, Part II, Florida Statutes, and with Lee County Administrative Code AC-13-6, conducted public hearings to review proposed amendments to the Lee Plan. The purpose of this ordinance is to adopt the amendments to the Lee Plan discussed at those meetings and approved by a majority of the Board of County Commissioners. The short title and proper reference for the Lee County Comprehensive Land Use Plan, as hereby amended, will continue to be the "Lee Plan." **This amending ordinance may be referred to as the "2007/2008 Regular Comprehensive Plan Amendment Cycle CPA2006-20 Water Supply Facilities Work Plan Ordinance."**

SECTION TWO: ADOPTION OF LEE COUNTY'S 2007/2008 REGULAR COMPREHENSIVE PLAN AMENDMENT CYCLE

The Lee County Board of County Commissioners amends the existing Lee Plan, adopted by Ordinance Number 89-02, as amended, by adopting an amendment, as revised by the Board on February 25, 2009, known as CPA2006-20. CPA2006-20 amends the Community Facilities and Services, Potable Water sub-element, the Conservation and

Coastal Management Element, and the Intergovernmental Coordination Element to coordinate appropriate aspects of the Comprehensive Plan with the South Florida Water Management District Water Supply Plan and to include a ten-year Water Supply Facilities Work Plan.

The corresponding Staff Reports and Analysis, along with all attachments for this amendment are adopted as "Support Documentation" for the Lee Plan.

POLICY 53.1.5: ~~County development regulations will be amended to specify that n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 7, the 10 Year Water Supply Development Projects Table. Table 7 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no building permit under the Land Development Code will be issued in a franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy does not exempt development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~The Master Plan will consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural

assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 7, the 10 Year Water Supply Development Projects Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

In addition, the table attached as Exhibit A to this ordinance is incorporated into the Lee Plan as Table 7: 10 Year Water Supply Development Projects.

SECTION THREE: LEGAL EFFECT OF THE "LEE PLAN"

No public or private development will be permitted except in conformity with the Lee Plan. All land development regulations and land development orders must be consistent with the Lee Plan as amended.

SECTION FOUR: GEOGRAPHIC APPLICABILITY

The Lee Plan is applicable throughout the unincorporated area of Lee County, Florida, except in those unincorporated areas included in joint or interlocal agreements with other local governments that specifically provide otherwise.

SECTION FIVE: SEVERABILITY

The provisions of this ordinance are severable and it is the intention of the Board of County Commissioners of Lee County, Florida, to confer the whole or any part of the powers herein provided. If any of the provisions of this ordinance are held unconstitutional by a court of competent jurisdiction, the decision of that court will not affect or impair the remaining provisions of this ordinance. It is hereby declared to be the legislative intent of the Board that this ordinance would have been adopted had the unconstitutional provisions not been included therein.

SECTION SIX: INCLUSION IN CODE, CODIFICATION, SCRIVENERS' ERROR

It is the intention of the Board of County Commissioners that the provisions of this ordinance will become and be made a part of the Lee County Code. Sections of this ordinance may be renumbered or relettered and the word "ordinance" may be changed to "section," "article," or other appropriate word or phrase in order to accomplish this intention; and regardless of whether inclusion in the code is accomplished, sections of this ordinance may be renumbered or relettered. The correction of typographical errors that do not affect the intent, may be authorized by the County Manager, or his or her designee, without need of public hearing, by filing a corrected or recodified copy with the Clerk of the Circuit Court.

SECTION SEVEN: EFFECTIVE DATE

The plan amendments adopted herein are not effective until a final order is issued by the DCA or Administrative Commission finding the amendment in compliance with Section 163.3184(9), Florida Statutes, or until the Administrative Commission issues a final order determining the adopted amendment to be in compliance in accordance with 163.3184(10), Florida Statutes, whichever occurs earlier. No development orders, development permits, or land uses dependent on this amendment may be issued or commence before the amendment has become effective. If a final order of noncompliance is issued by the Administration Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status. A copy of such resolution will be sent to the DCA, Bureau of Local Planning, 2555 Shumard Oak Boulevard, Tallahassee, Florida 32399-2100.

THE FOREGOING ORDINANCE was offered by Commissioner Hall, who moved its adoption. The motion was seconded by Commissioner Mann. The vote was as follows:

Robert P. Janes	Aye
Brian Bigelow	Aye
Ray Judah	Aye
Tammara Hall	Aye
Frank Mann	Aye

DONE AND ADOPTED this 25th day of February 2009.

ATTEST:
CHARLIE GREEN, CLERK

BY: Marcia Wilson
Deputy Clerk

SEAL

LEE COUNTY
BOARD OF COUNTY COMMISSIONERS

BY: R. Judah
Ray Judah
Chair

DATE: 2/25/09

Approved as to form by:

Donna Marie Collins
County Attorney's Office

Exhibit A: Lee Plan Table 7: 10 Year Water Supply Development Projects

State of Florida
County of Lee

I Charlie Green, Clerk of the Circuit Court for Lee County, Florida, do hereby certify this document to be a true and correct copy of the original document filed in the Minutes Department.

Given under my hand and official seal at Fort Myers, Florida, this 6th day of March, A.D. 2009

CHARLIE GREEN, CLERK
By Marcia Wilson
Deputy Clerk

EXHIBIT A

TABLE 7

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
7602	North Lee County R.O. Plant Wellfield Expansion / North Lee County Lower Hawthorn Wellfiled and Plant Expansion	Expansion of the Lower Hawthorn wellfield at the NLC WTP from 5.0 MGD to 10.0 MGD finished water	Design and land acquision underway	$15,390,000.00	2010	Enterprise Fund
7028	North Lee County WTP Expansion to 10 MGD / North Lee County Lower Hawthorn Wellfiled and Plant Expansion	Expansion of the NLC WTP from 5.0 MGD to produce 10.0 MGD finish water	Preliminary Design Underway	$15,000,000.00	2011	Enterprise Fund
None	Corkscrew WTP Expansion to 20 MGD / Not in LWCWSP	Expand the treatment capcity of the Corkscrew WTP to 20.0 MGD	Planning	$13,501,000.00	2015-2020	Debt Finance
None	Corkscrew WTP Wellfield Improvements / Not in LWCWSP	Expand the capacity of the Corkscrew Wellfield to provide a total of 20.0 MGD	Planning	$9,750,000.00	2015-2020	Debt Finance
None	Desalination Plant Transmission Mains / Not in LWCWSP	Construct finish water transmission mains to accomidate a Desalination Plant	Planning	$18,195,500.00	2015-2020	Enterprise Fund
None	Feasibilty Analysis / Design / Desalination Plant / Not in LWCWSP	Perform a feasibility analysis, design, and construct a desalination water plant	Planning	$70,000,000.00	2015-2020	Enterprise Fund

ALTERNATIVE WATER RESOURCE PROJECTS

None	Gateway WWTP ASR System / Not in LWCWSP	Develop an ASR system to provide seasonal storage of reclaimed water to serve the Gateway WWTP	Planning	$3,200,000.00	2012	Enterprise Fund
7284	Reclaimed Water ASR / Health Park Reclaimed Water ASR	Pilot and Construction of reclaimed water ASR for Wasteater Treatment Facilities	Planning	$600,000.00	2012	Enterprise Fund
7300	Reuse Valves Control, SCADA project	Construct Automated controls for reclaimed water sites	Underway	$100,000.00	2009	Enterprise Fund
None	Ben Hill Griffin Parallel Forcemain / FGCU/Miromar Lakes Reclaimed Water Main	Construct 900 L.F. of 12" reclaimed water line from 3 Oaks WWTP to FGCU / Combined with Parallel Force Main Project	Design underway	$6,000,000.00 for total project $100,000.00 for reclaimed water line portion	2011	Grant/Enterprise Fund

CORRESPONDENCE

O 239-390-4834
F 239-390-4934
M 239-872-5424

-----Original Message-----
From: Brandy Gonzalez [mailto:BGonzalez@leegov.com]
Sent: Friday, November 07, 2003 2:50 PM
To: Mike Liggins
Subject: Water Supply Facilities Work Plan

Dear Mr. Liggins,

Per our conversation regarding the Water Supply Facilities Work Plan - Plan Amendment, required by Florida Statute (163.3177), attached are the Guidelines that we had discussed. Lee County is required to complete the amendment by February 2004. The information requested from Bonita Utilities specifically pertains to items 4) a., b., and c. on Page 7 of 21. This information states that "if your local government" being Lee County in this case "owns or has responsibility for some but not all of the water supply facilities, then you must:" - coordinate with water suppliers. This e-mail is a request for the information covered under item 4). By collecting this information, staff can attach the information to the plan amendment as required for transmittal to the Florida Department of Community Affairs. Staff will be presenting the proposed amendment to the Lee County Board of County Commissioners in December 2003. Your assistance in this request for information is greatly appreciated. If you have any further questions or would like to discuss this request further, please feel free to contact me.

Thank You,

Brandy Gonzalez
Planner - DCD
bgonzalez@leegov.com
Phone: 941-479-8316
FAX: 941-479-8319

10; Name1

LEE COUNTY
RECEIVED

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COMM. DEV/
PUB. WRKS. CNTR.
SECOND FLOOR

STATE OF FLORIDA
DEPARTMENT OF COMMUNITY AFFAIRS
"Dedicated to making Florida a better place to call home"

JEB BUSH
Governor

COLLEEN CASTILLE
Secretary

January 6, 2004

Mr. Paul O'Connor, AICP, Director
Lee County Planning Division
Post Office Box 398
Fort Myers, Florida 33902-0398

Dear Mr. O'Connor:

Thank you for submitting the Lee County's proposed comprehensive plan amendments for our review. Our reference number for this amendment package is **Lee County 04-1.**

We have conducted an inventory of the plan amendment package to verify the inclusion of all required materials. The submission package appears to be complete, and your proposed plan amendment will be reviewed pursuant to Chapter 163, Florida Statutes. Once the review is underway, you may be asked to provide additional supporting documentation by the review team to ensure a thorough review. The Department's ORC report will be mailed to you on or about **March 6, 2004.**

Please be advised that Section 163.3184(8)(c), Florida Statutes, requires the Department to provide a courtesy information statement regarding the Department's Notice of Intent to citizens who furnish their names and addresses at the local government's plan amendment transmittal (proposed) or adoption hearings. In order to provide this courtesy information statement, local governments are required by law to furnish the names and addresses of the citizens requesting this information to the Department. **Please provide these required names and addresses to the Department *when you transmit your adopted amendment package* for compliance review. In the event no names, addresses are provided, please provide this information as well.** For efficiency, we encourage that the information sheet be provided in electronic format.

If you have any questions please contact Mike McDaniel, the Regional Planning Administrator that will be overseeing the review of the amendments, at (850) 487-4545.

Sincerely,

D. Ray Eubanks

D. Ray Eubanks, Administrator
Plan Review and Processing

DRE/af

2555 SHUMARD OAK BOULEVARD • TALLAHASSEE, FLORIDA 32399-2100
Phone: 850.488.8466/Suncom 278.8466 FAX: 850.921.0781/Suncom 291.0781
Internet address: http://www.dca.state.fl.us

CRITICAL STATE CONCERN FIELD OFFICE
2796 Overseas Highway, Suite 212
Marathon, FL 33050-2227
(305) 289-2402

COMMUNITY PLANNING
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 488-2356

EMERGENCY MANAGEMENT
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 413-9969

HOUSING & COMMUNITY DEVELOPMENT
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
(850) 488-7956

2003 SPECIAL LEE PLAN AMENDMENTS
TRANSMITTAL PUBLIC HEARING

COMMISSION CHAMBERS, 2120 MAIN STREET
DECEMBER 16, 2003
10:30 A.M.

AGENDA

1. CALL TO ORDER; CERTIFICATION OF AFFIDAVIT OF PUBLICATION

2. CONSIDERATION OF PROPOSED AMENDMENTS TO THE LEE PLAN

   A. **CPA2003-02 – Amend several elements of the Lee Plan including: Vision Statement, Future Land Use Element, Transportation Element, Intergovernmental Coordination Element, and Glossary, to incorporate the Airport Master Plan Update. Amend the Lee Plan to replace all references to the "Airport Commerce" Future Land Use Category with the "Tradeport" Future Land Use Category.**

   Amend the Transportation Map Series (Map 3) to replace Map 3F with the updated "Southwest Florida International Airport Layout Plan"; Amend the Transportation Map Series to include a new map (3M), entitled "Airport Mitigation Lands Overlay," depicting lands owned by Lee County acquired for the purpose of mitigating environmental impacts attributable to development of the Southwest Florida International Airport.

   Amend Table 1(b), Planning Community Year 2020 Allocations, to replace references to "Airport Commerce" with "Tradeport"; Adopt proposed Table 5 entitled "Southwest Florida International Airport Proposed Development Schedule", which was adopted through the ongoing update to the Airport Master Plan.

   B. **CPA2003-07 – Amend several elements of the Lee Plan including: Community Facilities and Services, Potable Water Sub-element, Conservation and Coastal Management, and Inter-governmental Coordination to coordinate the Comprehensive Plan with the South Florida Water Management District Water Supply Plan, and to include a ten-year Water Supply Facilities' Work Plan as required by Florida Statutes, Section 163.3177(6)(c).**

   Adopt proposed Table 6, entitled "Water Supply Development Plan."

3. ADJOURN

These meetings are open to the public and all interested parties are encouraged to attend. Interested parties may appear and be heard with respect to all proposed actions. Pursuant to Florida Statutes Section 163.3184(7), persons participating in the Comprehensive Plan Amendment process, who provide their name and address on the record, will receive a courtesy informational statement from the Department of Community Affairs prior to the publication of the Notice of Intent to find a plan amendment in compliance.

If a person decides to appeal any decision made by the board, agency or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based. Further information may be obtained by contacting the Lee County Division of Planning at 479-8585.

In accordance with the Americans with Disabilities Act, reasonable accommodations will be made upon request. If you are in need of a reasonable accommodation, please contact Janet Miller at 479-8585 Extension 5910.

LEE COUNTY
SOUTHWEST FLORIDA

BOARD OF COUNTY COMMISSIONERS

Writer's Direct Dial Number: (941) 479-8585

Bob Janes
District One

Douglas R. St. Cerny
District Two

Ray Judah
District Three

Andrew W. Coy
District Four

John E. Albion
District Five

Donald D. Stilwell
County Manager

James G. Yaeger
County Attorney

Diana M. Parker
County Hearing Examiner

December 22, 2003

Ray Eubanks, Administrator, Plan Review and Processing
Florida Department of Community Affairs
Bureau of State Planning
Plan Processing Section
2555 Shumard Oak Boulevard
Tallahassee, FL. 32399-2100

Re: Amendments to the Lee Plan
Transmittal Submission Package for the 2003 Special Amendment Cycle

Dear Mr. Eubank:

In accordance with the provisions of F.S. Chapter 163.3184 and of 9J-11.006, this submission package constitutes the transmittal of the proposed 2003 Special Amendment Cycle to the Lee Plan. The Local Planning Agency held public hearings for these plan amendments on the following dates: October 27, 2003; and November 24, 2003. The Board of County Commissioners transmittal hearing for the plan amendments was held on December 16, 2003. Per 9J-11.006(1)(a)(3), Lee County is requesting that the Department review the proposed amendments and provide an Objections, Recommendations, and Comments (ORC) Report. The proposed amendments are not applicable to an area of critical state concern. The Board of County Commissioners has stated its intent to hold an adoption hearing upon receipt of the ORC Report.

A summary of the plan amendment content and effect is attached to this letter. The Special Amendment Cycle includes two amendments, the Southwest Florida International Airport Amendment (CPA2003-02) and the Water Supply Facilities Work Plan (CPA2003-07). The first amendment incorporates the results of the ongoing Airport Master Plan process and anticipates the abandonment of the Southwest Florida International Airport DRI. The second amendment incorporates a ten year Water Supply Facilities Work Plan as required by s. 163.3177 (6)(c), F.S. The name, title, address, telephone number, facsimile number, and email address of the person for the local government who is most familiar with the proposed amendments is as follows:

Mr. Paul O'Connor, AICP
Lee County Planning Division Director
P.O. Box 398
Fort Myers, Florida 33902-0398
(941)479-8585
Fax (941)479-8319
Email: oconnops@leegov.com

LEE COUNTY
SOUTHWEST FLORIDA

BOARD OF COUNTY COMMISSIONERS

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Tammy Hall
District Four

Frank Mann
District Five

Donald D. Stilwell
County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

July 6, 2007

Charles Sweat, System Manager
Florida Governmental Utility Authority
280 Wekiva Springs Road
Suite 2000
Longwood, FL 32779

RE: Water Supply Facilities Work Plan

Dear Mr. Sweat:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

- Information from the current consumptive use permit, including permit number, authorized average and maximum daily withdrawals, and permit expiration date.
- Projected demand by type of water user for at least a ten-year planning period.
- Ã map that shows existing and future areas to be served by the supplier.
- Identification of existing and planned future water sources; the supply plan identified by each supplier should reflect consideration of the Regional Water Supply Plan.
- Identification of water supply facilities needed to serve the projected need.

By collecting this information, staff can attach the information to the plan amendment as required for transmittal to the Florida Department of Community Affairs. Staff will be presenting the information to the Lee County Board of County Commissioners within the next two months and Lee County is required to adopt the plan amendment by December 2007. Your assistance in this request for information is greatly appreciated. If you can provide the information to staff by the first week of August the Division will be able to meet our scheduling deadlines. If you have further questions or would like to discuss this request further, please feel free to contact me.

Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File

LEE COUNTY
SOUTHWEST FLORIDA

BOARD OF COUNTY COMMISSIONERS

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Tammy Hall
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County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

July 6, 2007

Bonnie Pringle, Director
Gasparilla Island Water Association, Inc.
PO Box 310
Boca Grande, FL 33921

RE: Water Supply Facilities Work Plan

Dear Ms. Pringle:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

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Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File

LEE COUNTY
SOUTHWEST FLORIDA

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David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

July 6, 2007

William J. Thacher, General Manager
Greater Pine Island Water Associates, Inc.
5281 Pine Island Road
Bokeelia, FL 33922

RE: Water Supply Facilities Work Plan

Dear Mr. Thacher:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

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Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File

LEE COUNTY
SOUTHWEST FLORIDA

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County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

July 6, 2007

Rusty Isler, General Manager
Island Water Association, Inc.
3651 Sanibel Captiva Road
Sanibel, FL 33957

RE: Water Supply Facilities Work Plan

Dear Mr. Isler:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

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Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File

LEE COUNTY
SOUTHWEST FLORIDA

BOARD OF COUNTY COMMISSIONERS

Bob Janes
District One

A. Brian Bigelow
District Two

Ray Judah
District Three

Tammy Hall
District Four

Frank Mann
District Five

Donald D. Stilwell
County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

July 6, 2007

Michael Liggins, Director of Engineering
Bonita Springs Utilities
11860 East Terry Street
Bonita Springs, FL 34135

RE: Water Supply Facilities Work Plan

Dear Mr. Liggins:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

- Information from the current consumptive use permit, including permit number, authorized average and maximum daily withdrawals, and permit expiration date.
- Projected demand by type of water user for at least a ten-year planning period.
- A map that shows existing and future areas to be served by the supplier.
- Identification of existing and planned future water sources; the supply plan identified by each supplier should reflect consideration of the Regional Water Supply Plan.
- Identification of water supply facilities needed to serve the projected need.

By collecting this information, staff can attach the information to the plan amendment as required for transmittal to the Florida Department of Community Affairs. Staff will be presenting the information to the Lee County Board of County Commissioners within the next two months and Lee County is required to adopt the plan amendment by December 2007. Your assistance in this request for information is greatly appreciated. If you can provide the information to staff by the first week of August the Division will be able to meet our scheduling deadlines. If you have further questions or would like to discuss this request further, please feel free to contact me.

Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File

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County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

July 6, 2007

Jesse Yandle, Manager
Gateway Services District
13240 Griffin Drive
Fort Myers, FL 33913

RE: Water Supply Facilities Work Plan

Dear Mr. Yandle:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

- Information from the current consumptive use permit, including permit number, authorized average and maximum daily withdrawals, and permit expiration date.
- Projected demand by type of water user for at least a ten-year planning period.
- A map that shows existing and future areas to be served by the supplier.
- Identification of existing and planned future water sources; the supply plan identified by each supplier should reflect consideration of the Regional Water Supply Plan.
- Identification of water supply facilities needed to serve the projected need.

By collecting this information, staff can attach the information to the plan amendment as required for transmittal to the Florida Department of Community Affairs. Staff will be presenting the information to the Lee County Board of County Commissioners within the next two months and Lee County is required to adopt the plan amendment by December 2007. Your assistance in this request for information is greatly appreciated. If you can provide the information to staff by the first week of August the Division will be able to meet our scheduling deadlines. If you have further questions or would like to discuss this request further, please feel free to contact me.

Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File

Greater
Pine Island
Water Association, Inc.

RECEIVED
JUL 16 2007
COMMUNITY DEVELOPMENT

July 12, 2007

Matthew Noble, Principle Planner
Department of Community Development
Lee County Division of Planning
PO Box 398
Fort Myers, FL. 33902-0398

Re: Your Letter Dated 7/6/07 – Water Supply Facilities Work Plan

Dear Mr. Noble,

The following information is intended to answer your request for data for the above referenced subject:

GPIWA's Consumptive Use Permit

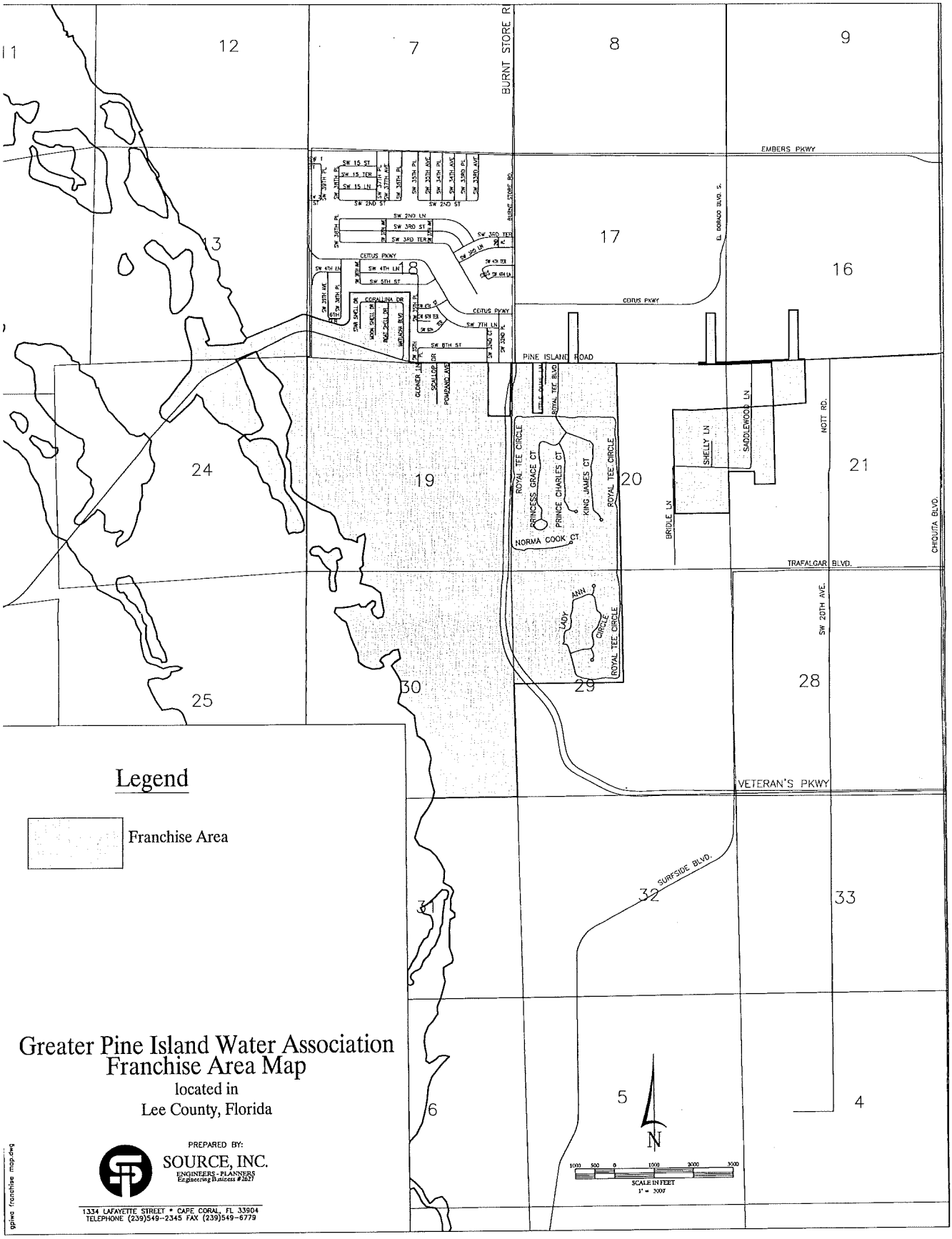
- Permit No. 36-00045-W
- Maximum Daily Allotment – 97.0542 MG
- Annual Allocation Not to Exceed – 890 MG
- Permit Expiration Date - October 12, 2015

Projected Water Demand by User

Year	Water Demand ADF - MGD*	Residential 95.6%	Commercial 4.4%
2006	1.659	1.586	0.073
2007	1.742	1.665	0.077
2008	1.829	1.749	0.080
2009	1.920	1.836	0.085
2010	2.017	1.928	0.089
2011	2.117	2.024	0.093
2012	2.223	2.125	0.098
2013	2.334	2.232	0.103
2014	2.451	2.343	0.108
2015	2.574	2.460	0.113
2016	2.702	2.583	0.119
2017	2.837	2.713	0.125

* Based on 5.0% Growth

5281 Pine Island Rd. Bokeelia, Florida 33922 Phone (239) 283-1071 Fax (239) 283-7792
www.pineislandwater.com



Legend

Franchise Area

Greater Pine Island Water Association
Franchise Area Map

located in

Lee County, Florida

PREPARED BY:

SOURCE, INC.

ENGINEERS - PLANNERS

Engineering Business #2627

1334 LAFAYETTE STREET * CAPE CORAL, FL 33904

TELEPHONE (239)549-2345 FAX (239)549-6779

gpiwa franchise map.dwg

Service Area Map

- Attached

Planned Future Water Sources

- Included in Above Listed WUP
  - Source Lower Hawthorn Aquifer
  - 12" Well Cased to 600'
  - Projected Depth 770-Feet
  - Projected Capacity 700 Gpm
  - Projected On-Line 2009

Water Facilities Needed to Serve Projected Need

- RO Water Plant – 9550 Stringfellow Road, Saint James City
  - Includes 2.0 MG Water Storage Tank
- Center Office – 5281 Pine Island Road, Bokeelia
  - Re-Pump Station with 3.0 MG Water Storage Tank
- Scallop Pump Station – 11841 Scallop Drive, Cape Coral
  - Re-Pump Station and 0.75 MG Water Storage Tank

Please direct questions to:

William J. Thacher
General Manager
wthacher@pineislandwater.com

FLORIDA GOVERNMENTAL UTILITY AUTHORITY

July 31, 2007

Matthew Nobel, Project Planner
Department of Community Development
Lee County Division of Planning
PO Box 398
Ft. Myers, Florida 33902-0398

Re: Water Supply Facilities Work Plan

Dear Mr. Nobel:

The Florida Governmental Utility Authority (FGUA) is in receipt of your letter dated July 6, 2007 regarding the Water Supply Facilities Work Plan – Comprehensive Plan Amendment as required by Florida Statute 163.3177 (6)(c). We would like to provide the following responses to the information requested. For ease of review the bullet points from your letter are repeated below and our responses follow.

- **Information from the current consumptive use permit, including permit number, authorized average and maximum daily withdrawals and permit expiration date.**
    - Permit number: 36-0016-W

      The permit gives a maximum yearly and maximum monthly withdrawal. The maximum yearly withdrawal is 1.206 billion gallons per year which equates to 3.304 million gallons per day. The maximum monthly withdrawal is 112.499 million gallons per month, which equates to approximately 3.75 million gallons per day.

      The most current permit, which expired December 11, 2006, is under renewal. The consulting engineer, Malcolm Pirnie, Inc. has taken the steps necessary to obtain a renewal extension until October 7, 2007.

- **Projected demand by type of water user for at least a ten-year planning period.**
    - Please see attached Table 5-5, Lehigh Future water Supply vs. Demand Projections

LEA ANN THOMAS, CHAIR
Polk County

BRIAN WHEELER
Osceola County

JIM LAVENDER
Lee County

ROBERT KNIGHT
Citrus County

CHARLES C. SADDLER
Town of Dundee

FGUA OPERATIONS OFFICE

Government Services Group, Inc.
Protegrity Plaza, Suite 203
280 Wekiva Springs Road
Longwood FL 32779

877/552-3482 Toll Free
407/629-6900 Tel
407/629-6963 Fax

- **A map that shows existing and future areas to be served by the supplier.**
    - Please see the attached map for the existing and future areas served by the FGUA.
- **Identification of existing and planned future water sources; the supply plan identified by each supplier should reflect consideration of the Regional Water Supply Plan.**
    - The existing water source for the Lehigh Acres service area is the Sandstone aquifer. The future source is one of the following: Upper Floridan, Mid Hawthorne or Upper Hawthorne. The future source is to be determined by test wells at the Water Treatment Plant No. 2 site. The first 3.3 MGD will be supplied by the Sandstone aquifer and any water requirements over that amount will be supplied by the alternate (future) source.
- **Identification of water supply facilities needed to serve the projected need.**
    - Two water supply facilities will be needed to supply the projected need. Water Treatment Plant No. 1 (an existing facility) will have a 3.1 MGD maximum production from the Sandstone aquifer. Water Treatment Plant No. 2, also known as the Mirror Lakes Water Treatment Plant, (under construction) will initially use 1.1 MGD from Sandstone aquifer. Future expansions of both water treatment plants to 5.0 MGD,7.5 MGD and 10.0 MGD will also aid in supplying the projected need from the alternate (future) water source.

We hope that the above information will aid in the preparation of the Water Facilities Work Plan – Comprehensive Plan Amendment. If you should have any questions regarding the above please feel free to contact me at (407) 629-6900.

Sincerely,

FLORIDA GOVERMENTAL UTILITY AUTHORITY

Charles L. Sweat
Director of Operations

CLS/jdo

Enclosures

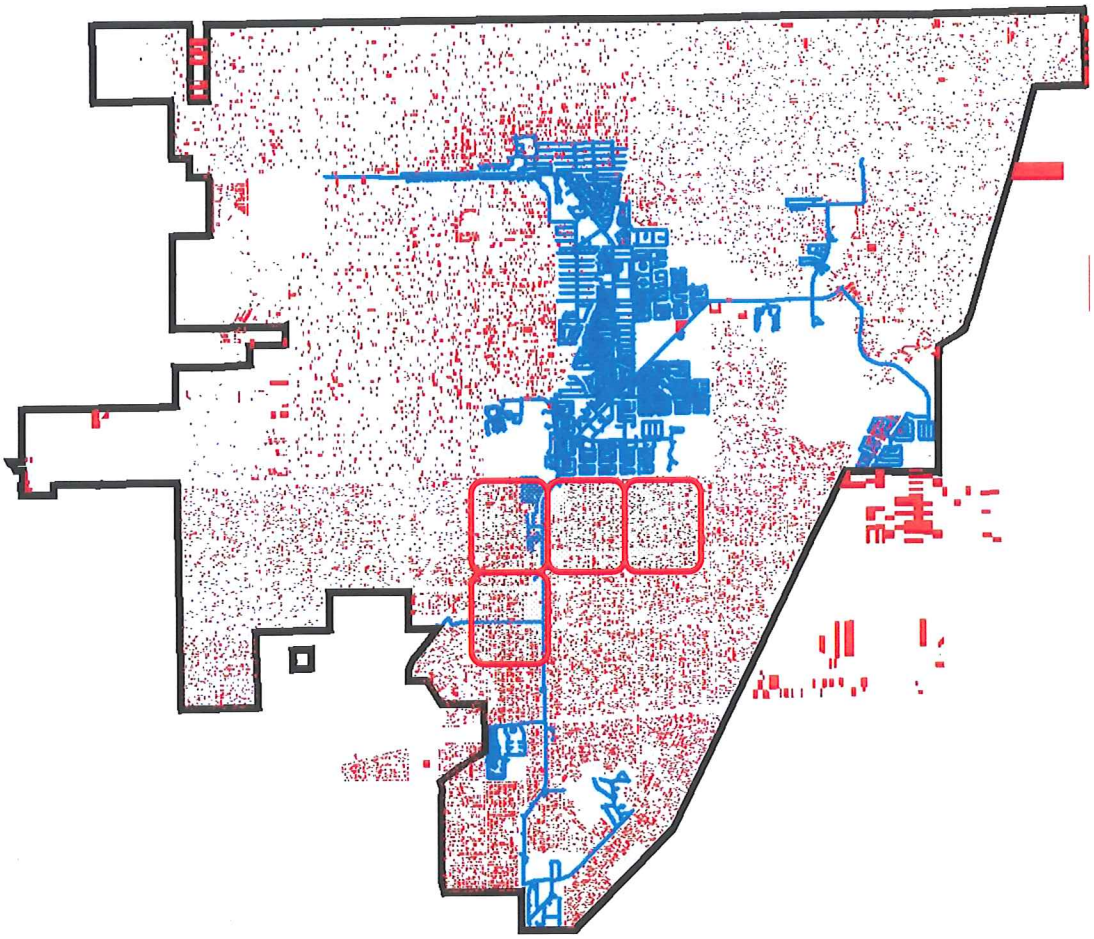
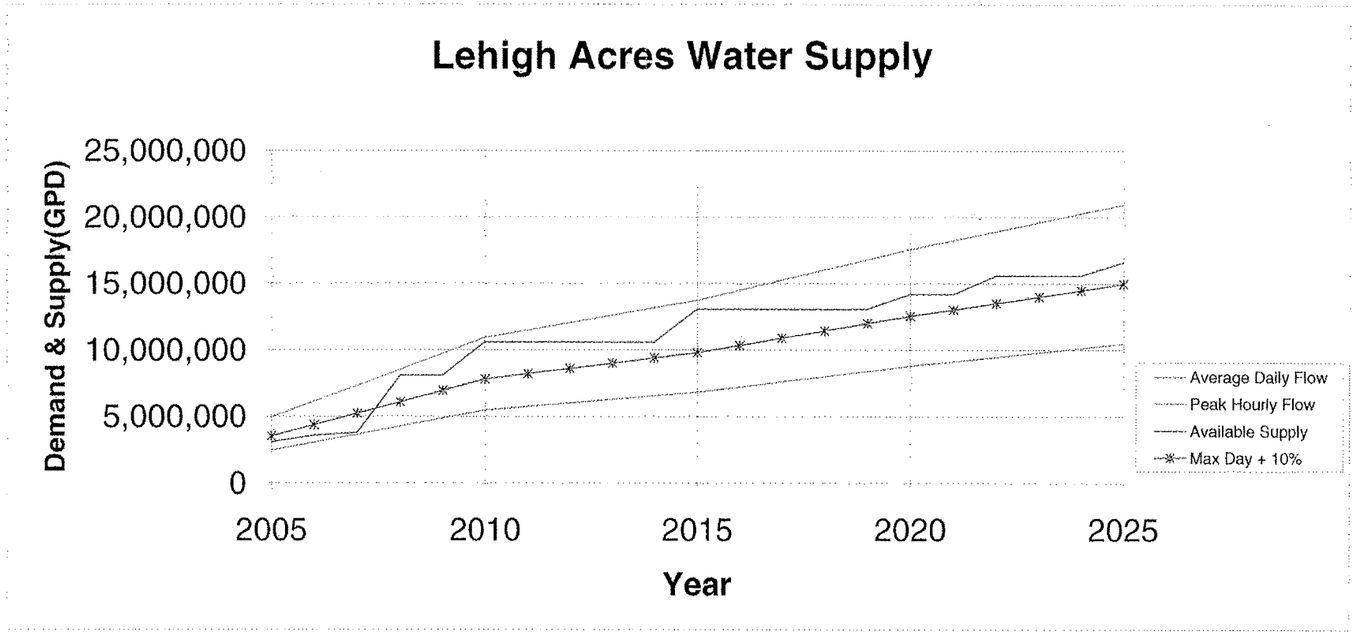


Table 5 - 5 Lehigh Future Water Supply versus Demand Projections

Description	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Avg Day	2,471,810	3,069,945	3,668,080	4,266,214	4,864,349	5,462,484	5,739,385	6,016,287	6,293,189	6,570,090	6,846,992	7,234,929	7,622,866	8,010,803	8,398,740	8786676.8	9,121,895	9,457,113	9,792,331	10,127,549	10462767
Max Day	3,213,353	3,990,928	4,768,503	5,546,079	6,323,654	7,101,229	7,461,201	7,821,173	8,181,145	8,541,117	8901089.4	9,405,407	9,909,726	10,414,044	10,918,362	11422680	11,858,463	12,294,247	12,730,030	13,165,813	13601597
Max Day+10%	3,534,688	4,390,021	5,245,354	6,100,686	6,956,019	7,811,352	8,207,321	8,603,290	8,999,260	9,395,229	9,791,198	10,345,948	10,900,698	11,455,448	12,010,198	12,564,948	13,044,310	13,523,671	14,003,033	14,482,395	14,961,756
Peak Hour	4,948,563	6,146,029	7,343,495	8,540,961	9,738,427	10,935,893	11,490,250	12,044,607	12,598,964	13,153,321	13707678	14,484,328	15,260,977	16,037,627	16,814,277	17590927	18,262,033	18,933,140	19,604,246	20,275,353	20946459
WTP No.1 output	3,100,000	3,100,000	2,200,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000	3,100,000
WTP No. 2 output	0	0	1,100,000	5,000,000	5,000,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
WTP No. 3 output	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,100,000	1,100,000	2,500,000	2,500,000	2,500,000	3,500,000
Interconnect	0	500,000	500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Production	3,100,000	3,600,000	3,800,000	8,100,000	8,100,000	10,600,000	10,600,000	10,600,000	10,600,000	10,600,000	13,100,000	13,100,000	13,100,000	13,100,000	13,100,000	14,200,000	14,200,000	15,600,000	15,600,000	15,600,000	16,600,000
Reserve over Max Day+10%	-434,688	-790,021	-1,445,354	1,999,314	1,143,981	2,788,648	2,392,679	1,996,710	1,600,740	1,204,771	3,308,802	2,754,052	2,199,302	1,644,552	1,089,802	1,635,052	1,155,690	2,076,329	1,596,967	1,117,605	1,638,244

WTP No. 1 Maximum output	3100000
WTP No. 1 Output during WTP No. 2 Sandstone phase	2200000
WTP No. 2 Output during Sandstone (phase 1).	1100000
WTP No. 2 Output during R.O. (phase 2).	5000000
WTP No. 2 Output during R.O. (phase 3).	7500000
WTP No. 2 Output during R.O. (phase 4).	10000000
Interconnect design flow	500000



THE ISLAND WATER ASSOCIATION, INC.

August 21, 2007

RECEIVED
AUG 2 2 2007
COMMUNITY DEVELOPMENT

Matthew Noble
Lee County Dept of Community Development
Division of Planning
PO Box 398
Ft Myers, FL 33902-0398

RE: Water Supply Facilities Work Plan

Here is the information you requested in your letter date July 6, 2007:

- Consumptive Use Permit #36-00034-w
  Annual Allocation shall not exceed 1809 MG
  Max Daily shall not exceed 8.08 MG
  Permit expires November 13, 2017

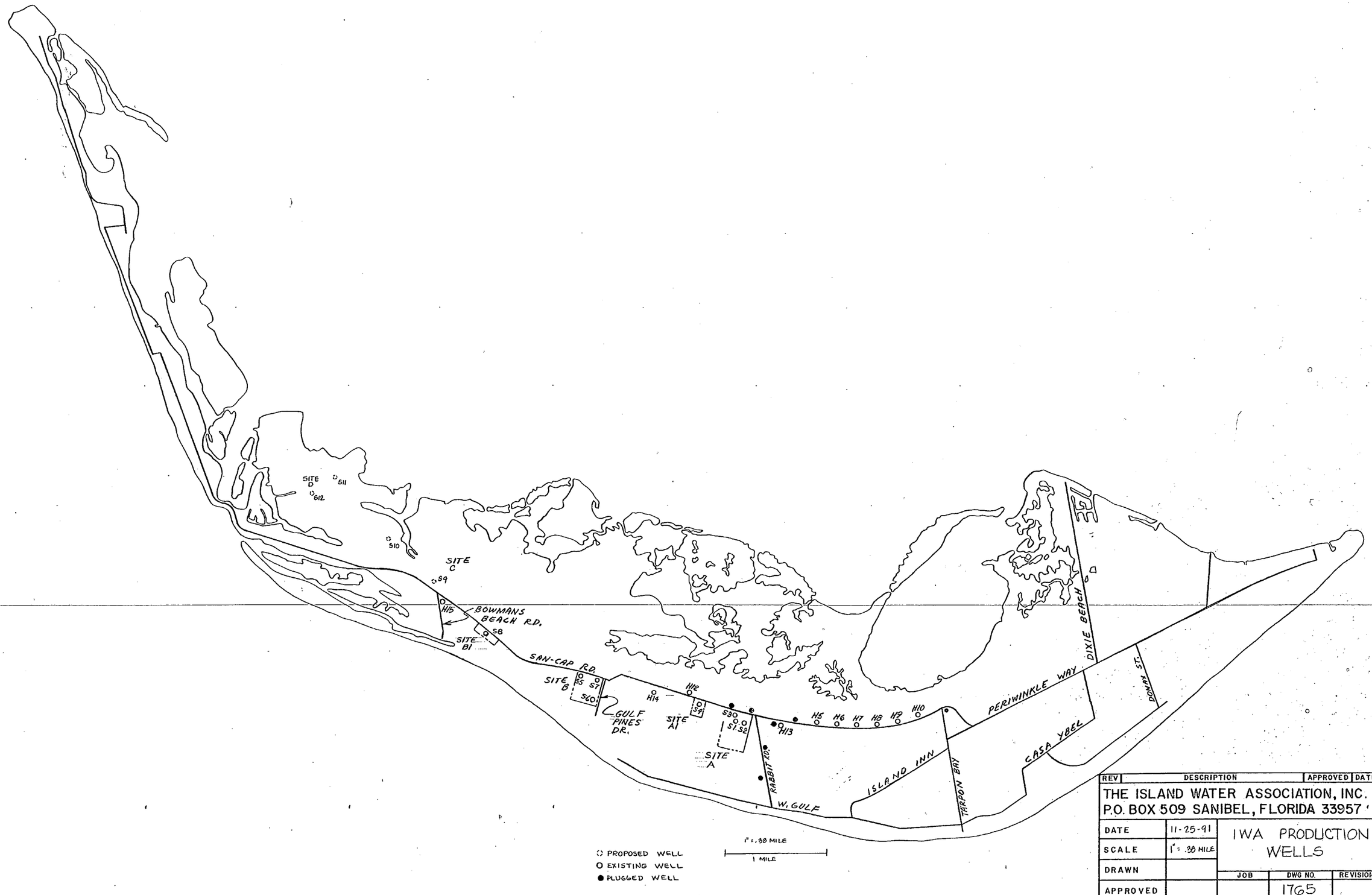
- Project demand by type of water use for year 2017 from our consumptive use permit Table H.(this permit was issued in November, 1997):
  Single family- 293 gallons per day per unit
  Multi-family- 240 gallons per day per unit
  Mobile home- 175 gallons per day per unit
  Commercial- 967 gallons per day per unit

- Attached is a drawing showing our existing and future areas to be served and a location map of our wells.

If you need any other info, please call me (239) 472-2113 x129 or email me at shelly@islandwater.com

Sincerely,

Shelly A. Storves, P.E.
Engineering Manager
Island Water Association, Inc.
3651 San-Cap Rd
Sanibel, FL 33957



REV	DESCRIPTION	APPROVED	DATE

THE ISLAND WATER ASSOCIATION, INC.
P.O. BOX 509 SANIBEL, FLORIDA 33957

DATE	11-25-91	IWA PRODUCTION WELLS		
SCALE	1" = .38 MILE			
DRAWN		JOB	DWG NO.	REVISION
APPROVED			1765	

81-2 IWA wells

SOUTH SEAS PUMP STATION
1, 1 MG STORAGE TANK

8" AC

12" DI

WULFERT PUMP STATION
1, 2 MG STORAGE TANK

12" PVC

GALT ISLAND

PINE ISLAND

YORK ISLAND

PINE ISLAND INTERCONNECT (EMERGENCY USE ONLY)

10" SUBAQUEOUS MAIN FROM PINE ISLAND (9500 FEET)

PUNTA RASSA

MAIN STATION
5.99MGD REVERSE OSMOSIS PLANT
2,5 MG STORAGE TANKS

R.O. PLANT

PERIWINKLE PUMP STATION, 1,2MG STORAGE TANK

12" PVC
6" PVC
8" AC
16" DI
16" PVC
6" AC
12" AC
14" AC
20" AC
3" PVC
10" PVC
8" PVC
12" PVC
16" PVC

BRINE DISCHARGE

1" = .38 MILES
1 MILE

REV	DESCRIPTION	APPROVED	DATE

THE ISLAND WATER ASSOCIATION, INC.
P.O. BOX 509 SANIBEL, FLORIDA 33957

DATE	7-24-07	I.W.A. FACILITIES AND SERVICE AREA		
SCALE	1" = .38 MILES			
DRAWN		JOB	DWG NO.	REVISION
APPROVED			176-A	B

GASPARILLA ISLAND WATER ASSOCIATION, Inc.

P.O. Box 310
BOCA GRANDE, FLORIDA 33921-0310
Telephone (941) 964-2423 Fax (941) 964-0625

RECEIVED
AUG 2 4 2007
COMMUNITY DEVELOPMENT

August 22, 2007

Mr. Mathew Noble
Principal Planner
Lee County
P.O. Box 398
Fort Myers, FL 33902-0398

Re: Water Supply Facilities Work Plan

Dear Mr. Noble,

As requested in your letter dated July 6, 2007, the following is Gasparilla Island Water Association, Inc.'s (GIWA) response to your requested information:

- GIWA's Consumptive Use Permit issued by Southwest Florida Water Management District (SWFWMD) expires June 26, 2011. GIWA is permitted to withdraw an annual average of 1,537,600 gallons per day (gpd) with peak daily withdrawals of 1,952,800 gpd.

- Copies of Attachments included in our SWFWMD permit application which included population and usage projections through 2011. I was projected that the island would be at build-out in 2011. Gasparilla Island is nearing build-out with few remaining vacant lots and no land for future development.

- Attached is a copy of a map showing our service area. GIWA has no future areas to be serviced. As shown on the map, due to growth in the Placida area, we are currently transferring those customers to Charlotte County Utilities who supplies sanitary sewer to the area plus already provides water service to the area as well. Some have already been transferred and more will be completed hopefully next year in conjunction with a road realignment project.

- GIWA currently utilizes reverse osmosis treatment for brackish well water and color removal for a 400,000 gallon per day shallow well system. Treated water from both plants is blended before entering the distribution system. We have one last expansion which is now in the planning stages that will increase the reverse osmosis plant production by approximately 170,000 gallons.

Our Board has requested our consulting engineers provide an estimate to conduct an analysis of our options for future water especially in the event our shallow well system was taken out of service due to contamination or saltwater intrusion.

GIWA currently has an interconnect with Charlotte County utilities.

If you have any questions concerning this matter or need any additional information, please feel free to contact me at 941-964-2423.

Sincerely,

Bonnie Pringle

Bonnie Pringle
Utility Director

Enclosures

ATTACHMENT 7

Gasparilla Island Water Use Permit No. 200718.04 (2000 Renewal)

WATER DEMAND PROJECTION AND USAGE CLASSIFICATION

WATER DEMAND PROJECTION AND USAGE CLASSIFICATION

Water Demands

Projected raw water and peak month average daily water demands for GIWA were estimated in part by using actual raw water production records from 1995, 1996, 1997, 1998, 1999 and through March 2000. Table 7.1 presents a summary of the monthly water withdrawal figures reported by GIWA to the SWFWMD from January 1995 to March 2000. The bottom of Table 7.1 shows that the annual average daily flow (AADF) increased from 920,321 gpd in 1995 to 1,142,860 gpd in 1999, an increase of 222,539 gpd. Table 7.1 also summarizes the Peak Month Average Daily Flow (PMADF), and the Minimum Month Average Daily Flow (MMADF). These quantities include the water imported via the Charlotte County emergency interconnect. The Supplemental Information section at the end of this section presents all of the water withdrawal data used to generate Table 7.1.

Table 7.2 presents the projected water use for GIWA through the years of 2007 and 2011. The Projected Gross Water Use was determined by multiplying the Gross Per Capita Water Use from Attachment 8.G, to the projected Functional Population of the service area from Attachment 8.F. The Projected Gross Water Use was then multiplied by the anticipated treatment loss percentage to determine the Projected Raw Water AADF. This Table shows that in 2007 (six years from WUP renewal), the Projected AADF is estimated to be approximately 1.52 mgd, and in the year 2011 (ten years from WUP renewal), the Projected AADF is calculated to be approximately 1.54 mgd.

Table 7.2 also presents the PMADF. The PMADF was determined by establishing a peaking factor using the peak month flow for 1999 and then dividing by the annual average daily flow for the same year. For 1999 the peak month water demand occurred in April, and was approximately 1.27 times the annual average daily flow of approximately 1.14 mgd. To estimate future PMADFs, the peaking factor was multiplied to the projected AADF totals.

Usage Classification

The data and calculations from the 1999 calendar year that were used to determine the average annual demand quantities by the type of user listed in Section A of the Public Supply Supplemental form are shown in Table 7.3.

Usage type is divided into four main categories as in the Public Supply Form. The four categories are identified in bold and are as follows: Residential Single-family (column 10), Residential Multi-family (column 11), Other Metered Uses (column 15), and Other Uses (column 16). The Residential Single-family category includes fixed residential and mobile home usage. Multi-family Residential usage consists of those dwellings with more than one residing family. The Total of Other Metered Uses category includes commercial uses,

Table 7.1
Summary of Monthly and Annual Withdrawal Quantities for GIWA from January 1995 to March 2000

Note: Highlights indicate the months with peak flow during the year.

MONTH	Total Flow/Month (gallons)	Monthly Average Daily Use (gpd)
Jan-95	26,150,000	843,548
Feb-95	24,512,000	875,429
Mar-95	34,429,000	1,110,613
Apr-95	32,745,000	1,091,500
May-95	34,386,000	1,109,226
Jun-95	25,255,000	841,833
Jul-95	28,216,000	910,194
Aug-95	24,636,000	794,710
Sep-95	22,589,000	752,967
Oct-95	18,023,000	581,387
Nov-95	32,016,000	1,065,533
Dec-95	32,960,000	1,063,226
Average-95	27,993,083	920,321
Jan-96	28,161,000	908,419
Feb-96	32,219,000	1,111,000
Mar-96	36,276,000	1,170,194
Apr-96	35,699,000	1,189,967
May-96	29,684,000	957,548
Jun-96	24,511,000	817,033
Jul-96	28,906,000	932,452
Aug-96	33,549,000	1,082,226
Sep-96	35,045,000	1,168,167
Oct-96	25,119,000	810,290
Nov-96	34,252,000	1,141,733
Dec-96	33,980,000	1,096,129
Average-96	31,450,083	1,033,975
Jan-97	34,803,000	1,122,677
Feb-97	33,575,000	1,199,107
Mar-97	39,371,000	1,270,032
Apr-97	34,714,000	1,157,133
May-97	31,437,000	1,014,097
Jun-97	34,086,000	1,136,200
Jul-97	32,930,000	1,062,258
Aug-97	27,088,000	873,806
Sep-97	24,249,000	808,300
Oct-97	29,641,000	956,161
Nov-97	29,290,000	976,333
Dec-97	23,678,000	763,806
Average-97	31,238,500	1,027,019

MONTH	Total Flow/Month (gallons)	Monthly Average Daily Use (gpd)
Jan-98	25,020,000	807,097
Feb-98	22,068,000	788,143
Mar-98	32,906,000	1,061,484
Apr-98	41,110,000	1,370,333
May-98	40,184,000	1,296,258
Jun-98	34,793,000	1,159,767
Jul-98	29,925,000	965,323
Aug-98	34,308,000	1,106,710
Sep-98	26,094,000	869,800
Oct-98	37,104,000	1,196,903
Nov-98	36,547,000	1,218,233
Dec-98	36,779,000	1,186,419
Average-98	33,069,833	1,087,227
Jan-99	34,501,000	1,112,935
Feb-99	34,643,000	1,237,250
Mar-99	40,281,000	1,299,387
Apr-99	43,549,000	1,451,633
May-99	42,072,000	1,357,161
Jun-99	34,052,000	1,135,067
Jul-99	29,132,000	939,742
Aug-99	29,146,000	940,194
Sep-99	25,354,000	845,133
Oct-99	28,092,000	906,194
Nov-99	39,317,000	1,310,567
Dec-99	37,005,000	1,193,710
Average-99	34,762,000	1,142,860
Jan-00	38,109,000	1,229,323
Feb-00	35,705,000	1,231,207
Mar-00	43,492,000	1,402,968

Summary of Annual Average Daily Flow, Peak Month Average Daily Flow, and Minimum Month Average Daily Flow, 1995-2000 *

* Note: All values include both pumped and purchased water

Year	Average Annual Daily Flow (AADF) (gpd)	Peak Month Annual Daily Flow (PMADF) (gpd)	Minimum Month Annual Daily Flow (MMADF) (gpd)
1995	920,321	1,110,613	581,387
1996	1,033,975	1,189,967	810,290
1997	1,027,019	1,270,032	763,806
1998	1,087,227	1,370,333	788,143
1999	1,142,860	1,451,633	845,133

Table 7.2

Projected Water Use for the Gasparilla Island Water Association

Based on Historical Production Data and Annual Increase of Water Demand

Year	Functional Service Population [1] (people)	Gross Per Capita Water Use [2] (gpcd)	Projected Gross Water AADF [3] (gpd)	Projected Treatment Loss [4] (%)	Projected Raw Water AADF [5] (gpd)	Peaking Factor [6]	Projected Peak Month ADF (gpd)	
1999	3,538	262						
2000	3,721	262	974,902	23%	1,266,106	1.27	1,607,955	
2001	3,912	262	1,024,944	23%	1,331,096	1.27	1,690,492	
2002	4,114	262	1,077,868	23%	1,399,829	1.27	1,777,782	
2003	4,325	262	1,133,150	23%	1,471,623	1.27	1,868,962	
2004	4,437	262	1,162,494	23%	1,509,732	1.27	1,917,360	
2005	4,449	262	1,165,638	23%	1,513,816	1.27	1,922,546	
2006	4,461	262	1,168,782	23%	1,517,899	1.27	1,927,731	
2007	4,472	262	1,171,664	23%	1,521,642	1.27	**1,932,485**	**(6 years)**
2008	4,483	262	1,174,546	23%	1,525,384	1.27	1,937,238	
2009	4,496	262	1,177,952	23%	1,529,808	1.27	1,942,856	
2010	4,507	262	1,180,834	23%	1,533,551	1.27	1,947,609	
2011	4,519	262	1,183,978	23%	1,537,634	1.27	**1,952,795**	**(10 years)**

1) Functional Service Population values from Attachment 8.F

2) Gross Water Use from Attachment 8.G

3) Projected Gross Water Use = Functional Service Population * Gross Per Capita Water Use

4) R.O. Plant has a treament loss of 24% - 30%, Color Removal Plant has a treatment efficiency of approx. 9%.
A future combined treatment loss of 23% is considered reasonable since GIWA plans to expand its use of brackish water.

5) Projected Raw Water Use = Projected Gross Water Use * (1+ Projected Treatment Loss)

6) Peaking Factor = Peak Month ADF/ Raw Water AADF

Developing the Peaking Factor for Future Projections:

Year	Total Withdrawal (gallons)	Historic Raw Water AADF (gpd)	Peak Month AADF (gpd)	Peaking Factor
1995	335,917,000	920,321	1,110,613	1.21
1996	377,401,000	1,033,975	1,189,967	1.15
1997	374,862,000	1,027,019	1,270,032	1.24
1998	396,838,000	1,087,227	1,370,333	1.26
1999	417,144,000	1,142,860	1,451,633	1.27
		Average Peaking Factor =		1.23

The average peaking factor from 1995 to 1999 was 1.23. However, there appears to be an overall trend of increasing peaking factor values with time. To account for this general trend it was determined that the 1.27 peaking factor from 1999 is the most appropriate peak month coefficient to use from the years reviewed, and for projection into the future.

Peaking Factor = 1999 Max Month AADF Divided by 1999 AADF
= 1,451,633/1,142,860

Peaking Factor = 1.27

Table 7.3
Quantification of Water Production and Water Demand for GIWA during 1999

	R.O. Plant			Color Removal Plant			Total Water Available			Total Water Use							
Date	Raw Water Withdrawn (gallons) (1) = (2)+(3)	Treatment Loss (gallons) (2)	R.O. Water Produced (gallons) (3)	Shallow Raw Water Withdrawn (gallons) (4) = (7)-(1)	Treatment Loss (gallons) (5)	Shallow Water Produced (gallons) (6) = (4)-(5)	Total Raw Water Withdrawn (gallons) (7)	Purchased Water (gallons) (8)	Raw Water Use (gallons) (9) =(7)+(8)	Res. Single Family Use[3] (10)	Res. Multi Family Use[3] (11)	Commercial Use[3] (12)	GIWA Use, fire fighting, line flushing (gallons)[3] (13)	Total Treatment Losses (gallons) (14)=(2)+(5)	Other Metered Uses[4] (15)=(12)+(13)+(14)	Other Uses (Unaccounted uses) (16)=(9)-(10+11+15)	Gross Water Use[5] (17)
Jan-99	24,910,000	5,909,000	19,001,000	9,545,000	921,000	8,624,000	34,455,000	46,000	34,501,000				967,000	6,830,000			
Feb-99	25,013,000	5,936,000	19,077,000	9,592,000	1,024,000	8,568,000	34,605,000	38,000	34,643,000				54,000	6,960,000			
Mar-99	29,039,000	6,998,000	22,041,000	11,179,000	590,000	10,589,000	40,218,000	63,000	40,281,000				313,000	7,588,000			
Apr-99	28,868,000	6,857,000	22,011,000	11,078,000	724,000	10,354,000	39,946,000	3,603,000	43,549,000				45,000	7,581,000			
May-99	28,186,000	6,587,000	21,599,000	11,456,000	814,000	10,642,000	39,642,000	2,430,000	42,072,000				40,000	7,401,000			
Jun-99	20,913,000	4,932,000	15,981,000	9,543,000	786,000	8,757,000	30,456,000	3,596,000	34,052,000				97,000	5,718,000			
Jul-99	21,017,000	4,940,000	16,077,000	8,115,000	787,000	7,328,000	29,132,000	0	29,132,000				45,000	5,727,000			
Aug-99	21,072,000	4,834,000	16,238,000	8,074,000	847,000	7,227,000	29,146,000	0	29,146,000				293,000	5,681,000			
Sep-99	17,746,000	4,190,000	13,556,000	7,608,000	752,000	6,856,000	25,354,000	0	25,354,000				61,000	4,942,000			
Oct-99	18,373,000	4,482,000	13,891,000	9,719,000	797,000	8,922,000	28,092,000	0	28,092,000				33,000	5,279,000			
Nov-99	25,171,000	6,181,000	18,990,000	12,829,000	1,054,000	11,775,000	38,000,000	1,317,000	39,317,000				31,000	7,235,000			
Dec-99	24,992,000	6,112,000	18,880,000	12,013,000	1,254,000	10,759,000	37,005,000	0	37,005,000				35,000	7,366,000			
Total (gal.s)	285,300,000	67,958,000	217,342,000	120,751,000	10,350,000	110,401,000	406,051,000	11,093,000	417,144,000				2,014,000	78,308,000			
AADF[2] (gpd)	781,644	186,186	595,458	330,825	28,356	302,468	1,112,468	30,392	1,142,860	**559,000**	**63,000**	155,000	5,518	214,542	**375,060**	**145,800**	928,318

1) Data is for January 1, 1999 - December 31, 1999 and was provided by the Gasparilla Island Water Association (GIWA)
2) AADF = the Annual Average Daily Flow in gpd, obtained by dividing the total annual quantity by 365.
3) Final total provided by GIWA
4) Other Metered Uses = Commercial Use + GIWA Use + Fire fighting + Treatment losses.
5) **Gross Water Use = Residential Single Family Use(10) + Residential Multi-Family Use(11) + Commercial Use(12) + GIWA Use(13) + Unaccounted Uses (16). It does not include treatment losses.**

Table 7.4
Projection of Future Usage by Type of Use

Present and Projected Water Usage:

Present (gpd)	(From Table 7.2)	1,142,860
Projected 6-year (2007) (gpd)	(From Table 7.2)	1,521,642
Projected 10-year (2011) (gpd)	(From Table 7.2)	1,537,634

Present and Projected Water Usage by Type:

Usage Category		Present (1,142,860 gpd, AADF)	Projected 6-year AADF	Projected 10-year (1,456,293 gpd, AADF)
Residential Single-Family =	AADF X 48.9% =	559,000	744,271	752,093
Residential Multi-Family =	AADF X 5.5% =	63,000	83,880	84,762
Othered Metered Uses = (Includes Treatment Losses)	AADF X 32.8% =	375,060	499,367	504,616
Other Uses =	AADF X 12.8% =	145,800	194,123	196,163
Total		**1,142,860**	**1,521,642**	**1,537,634**

GIWA use, fire fighting and treatment system losses. The Other Use category is the difference between the Raw Water Use (column 9) and the sum of Residential Single-family Use, Residential Multi-family Use, and the Total of Other Metered Uses. It represents the amount of water that has been unaccounted for in the system.

The Gross Water Use (column 17) indicates the amount of water that has been produced and is available to GIWA customers. It is calculated by subtracting the total treatment losses from the raw water quantities that have been withdrawn at the wells (columns 2 and 5), and then adding the amounts of purchased water from Charlotte County (column 8).

Figure 7.1 shows that the percent divisions for these usage categories are as follows:

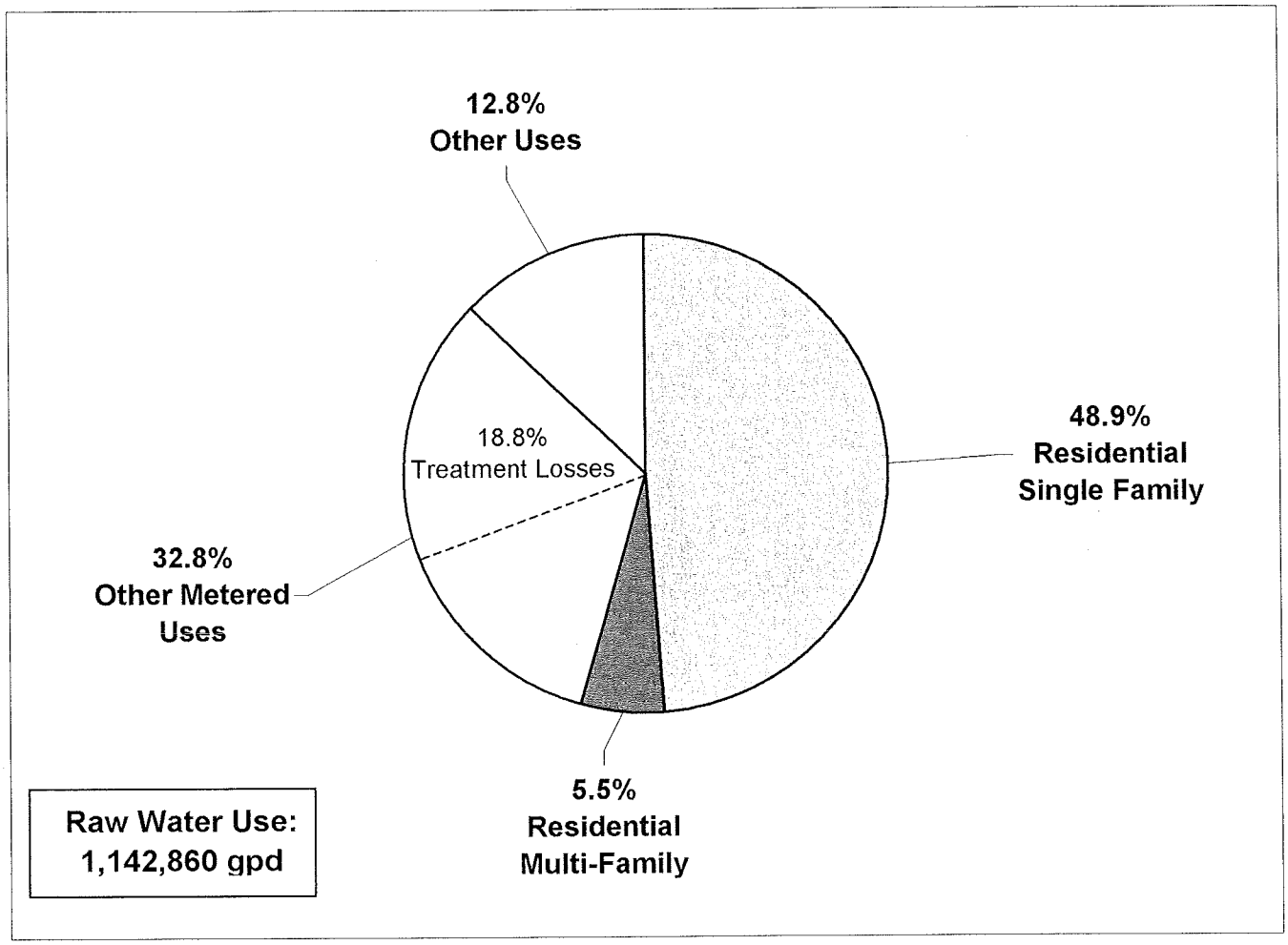
- Residential Single-Family = 48.9%
- Residential Multi-Family = 5.5%
- Other Metered Uses = 32.8 %
  (Includes GIWA use, commercial use, treatment system losses, fire fighting)
- Other Uses = 12.8 %
  (Includes distribution losses and other unidentified losses)

As presented in Figure 7.1, the combined treatment losses accounted for 18.8 % of GIWA's total water use for 1999. These treatment losses are included among the Other Metered Uses category per SWFWMD instructions.

The projected 6-year and 10-year water consumption quantities by type of water use are shown in Table 7.4. These quantities were determined by multiplying the above percentages by the projected raw water flows for 2007 and 2011 (1,521,642 and 1,537,634 gpd respectively).

It is important to note that since the Other Uses category is below 15%, further itemization of this category was not required. Therefore, Section B of the Public Supply Supplemental Form has not been completed.

Figure 7.1
Potable Water Usage by Type for 1999



Supplemental Information
Historical Water Withdrawal Quantities for Gasparilla Island Water Association from 1995 to 2000

Water Withdrawal by GIWA (as reported to the SWFWMD)

Jan-00	Quant. (gal.s)
wf#1	1,412,000
wf#2	1,430,000
wf#3	1,736,000
wf#4	782,000
Purchased Water	1,007,000
DW #1	11,267,000
DW#3	0
DW#4	0
wf#5	4,218,000
DW#3R	8,181,000
DW#4R	8,076,000
SUM (gallons)	38,109,000
Monthly avg. (gpd)	1,229,323

Feb-00	Quant. (gal.s)
wf#1	2,455,000
wf#2	3,337,000
wf#3	672,000
wf#4	2,512,000
Purchased Water	570,000
DW #1	11,645,000
DW#3	0
DW#4	0
wf#5	982,000
DW#3R	7,646,000
DW#4R	5,886,000
SUM (gallons)	35,705,000
Monthly avg. (gpd)	1,231,207

Mar-00	Quant. (gal.s)
wf#1	2,493,000
wf#2	2,884,000
wf#3	1,808,000
wf#4	1,783,000
Purchased Water	4,226,000
DW #1	8,458,000
DW#3	0
wf#5	2,264,000
DW#3R	8,061,000
DW#4R	2,631,000
DW#2R	8,884,000
SUM (gallons)	43,492,000
Monthly avg. (gpd)	1,402,968

Dec-99	Quant. (gal.s)
wf#1	1,894,000
wf#2	4,071,000
wf#3	747,000
wf#4	1,963,000
Purchased Water	0
DW #1	9,564,000
DW#3	0
DW#4	0
wf#5	1,557,000
DW#3R	7,449,000
DW#4R	9,760,000
SUM (gallons)	37,005,000
Monthly avg. (gpd)	1,193,710

Nov-99	Quant. (gal.s)
wf#1	1,108,000
wf#2	1,782,000
wf#3	1,346,000
wf#4	1,004,000
Purchased Water	1,317,000
DW #1	11,430,000
DW#3	0
DW#4	0
wf#5	4,052,000
DW#3R	7,750,000
DW#4R	9,528,000
SUM (gallons)	39,317,000
Monthly avg. (gpd)	1,310,567

Oct-99	Quant. (gal.s)
wf#1	5,000
wf#2	2,760,000
wf#3	8,000
wf#4	1,556,000
Purchased Water	0
DW #1	8,322,000
DW#3	0
DW#4	0
wf#5	3,190,000
DW#3R	5,213,000
DW#4R	7,038,000
SUM (gallons)	28,092,000
Monthly avg. (gpd)	906,194

Sep-99	Quant. (gal.s)
wf#1	1,751,000
wf#2	1,639,000
wf#3	1,081,000
wf#4	908,000
Purchased Water	0
DW #1	6,879,000
DW #2	0
DW#3	0
DW#4	0
wf#5	1,615,000
DW#3R	5,092,000
DW#4R	6,389,000
SUM (gallons)	25,354,000
Monthly avg. (gpd)	845,133

Aug-99	Quant. (gal.s)
wf#1	2,114,000
wf#2	1,299,000
wf#3	900,000
wf#4	1,353,000
Purchased Water	0
DW #1	7,870,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,408,000
DW#3R	5,862,000
DW#4R	7,340,000
SUM (gallons)	29,146,000
Monthly avg. (gpd)	940,194

Jul-99	Quant. (gal.s)
wf#1	2,101,000
wf#2	1,636,000
wf#3	1,155,000
wf#4	1,186,000
Purchased Water	0
DW #1	7,685,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,037,000
DW#3R	5,937,000
DW#4R	7,395,000
SUM (gallons)	29,132,000
Monthly avg. (gpd)	939,742

Jun-99	Quant. (gal.s)
wf#1	2,586,000
wf#2	1,836,000
wf#3	1,299,000
wf#4	1,573,000
Purchased Water	3,596,000
DW #1	9,492,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,249,000
DW#3R	7,029,000
DW#4R	4,392,000
SUM (gallons)	34,052,000
Monthly avg. (gpd)	1,135,067

May-99	Quant. (gal.s)
wf#1	3,487,000
wf#2	11,000
wf#3	8,000
wf#4	3,066,000
Purchased Water	2,430,000
DW #1	11,815,000
DW #2	0
DW#3	0
DW#4	0
wf#5	4,884,000
DW#3R	8,679,000
DW#4R	7,692,000
SUM (gallons)	42,072,000
Monthly avg. (gpd)	1,357,161

Apr-99	Quant. (gal.s)
wf#1	2,724,000
wf#2	4,260,000
wf#3	3,039,000
wf#4	390,000
Purchased Water	3,603,000
DW #1	11,235,000
DW #2	0
DW#3	0
DW#4	0
wf#5	665,000
DW#3R	8,473,000
DW#4R	9,160,000
SUM (gallons)	43,549,000
Monthly avg. (gpd)	1,451,633

Mar-99	Quant. (gal.s)
wf#1	2,923,000
wf#2	1,985,000
wf#3	1,495,000
wf#4	2,101,000
Purchased Water	63,000
DW #1	11,173,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,675,000
DW#3R	8,522,000
DW#4R	9,344,000
SUM (gallons)	40,281,000
Monthly avg. (gpd)	1,299,387

Feb-99	Quant. (gal.s)
wf#1	2,477,000
wf#2	1,020,000
wf#3	734,000
wf#4	2,338,000
Purchased Water	38,000
DW #1	9,594,000
DW #2	0
DW#3	0
DW#4	0
wf#5	3,014,000
DW#3R	7,380,000
DW#4R	8,048,000
SUM (gallons)	34,643,000
Monthly avg. (gpd)	1,237,250

Jan-99	Quant. (gal.s)
wf#1	2,015,000
wf#2	3,318,000
wf#3	1,923,000
wf#4	1,315,000
Purchased Water	46,000
DW #1	9,596,000
DW #2	0
DW#3	
DW#4	0
wf#5	974,000
DW#3R	7,514,000
DW#4R	7,800,000
SUM (gallons)	34,501,000
Monthly avg. (gpd)	1,112,935

Dec-98	Quant. (gal.s)
wf#1	1,821,000
wf#2	876,000
wf#3	578,000
wf#4	2,839,000
Purchased Water	0
DW #1	10,571,000
DW #2	0
DW#3	100,000
DW#4	0
wf#5	4,089,000
DW#3R	8,079,000
DW#4R	7,826,000
SUM (gallons)	36,779,000
Monthly avg. (gpd)	1,186,419

Nov-98	Quant. (gal.s)
wf#1	1,063,000
wf#2	2,474,000
wf#3	2,068,000
wf#4	920,000
Purchased Water	0
DW #1	9,711,000
DW #2	0
DW#3	0
DW#4	0
wf#5	3,999,000
DW#3R	8,080,000
DW#4R	8,232,000
SUM (gallons)	36,547,000
Monthly avg. (gpd)	1,218,233

Oct-98	Quant. (gal.s)
wf#1	2,911,000
wf#2	2,097,000
wf#3	572,000
wf#4	2,803,000
Purchased Water	0
DW #1	11,624,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,273,000
DW#3R	7,732,000
DW#4R	7,092,000
SUM (gallons)	37,104,000
Monthly avg. (gpd)	1,196,903

Sep-98	Quant. (gal.s)
wf#1	860,000
wf#2	3,392,000
wf#3	1,785,000
wf#4	688,000
Purchased Water	144,000
DW #1	9,363,000
DW #2	0
DW#3	665,000
DW#4	0
wf#5	2,345,000
DW#3R	4,497,000
DW#4R	2,355,000
SUM (gallons)	26,094,000
Monthly avg. (gpd)	869,800

Aug-98	Quant. (gal.s)
wf#1	1,166,000
wf#2	2,821,000
wf#3	1,276,000
wf#4	1,890,000
Purchased Water	3,942,000
DW #1	0
DW #2	0
DW#3	4,992,000
DW#4	0
wf#5	4,382,000
DW#3R	3,066,000
DW#4R	10,773,000
SUM (gallons)	34,308,000
Monthly avg. (gpd)	1,106,710

Jul-98	Quant. (gal.s)
wf#1	2,981,000
wf#2	1,409,000
wf#3	2,550,000
wf#4	1,052,000
Purchased Water	1,102,000
DW #1	0
DW #2	0
DW#3	0
DW#4	0
wf#5	2,839,000
DW#3R	9,459,000
DW#4R	8,533,000
SUM (gallons)	29,925,000
Monthly avg. (gpd)	965,323

Jun-98	Quant. (gal.s)
wf#1	2,466,000
wf#2	4,292,000
wf#3	187,000
wf#4	2,977,000
Purchased Water	0
DW #1	6,432,000
DW #2	0
DW#3	0
DW#4	0
wf#5	474,000
DW#3R	9,128,000
DW#4R	8,837,000
SUM (gallons)	34,793,000
Monthly avg. (gpd)	1,159,767

May-98	Quant. (gal.s)
wf#1	1,080,000
wf#2	2,671,000
wf#3	2,912,000
wf#4	337,000
Purchased Water	8,000
DW #1	10,067,000
DW #2	0
DW#3	0
DW#4	0
wf#5	4,039,000
DW#3R	9,594,000
DW#4R	9,476,000
SUM (gallons)	40,184,000
Monthly avg. (gpd)	1,296,258

Apr-98	Quant. (gal.s)
wf#1	3,125,000
wf#2	1,186,000
wf#3	2,589,000
wf#4	702,000
Purchased Water	851,000
DW #1	10,406,000
DW #2	0
DW#3	0
DW#4	0
wf#5	3,405,000
DW#3R	9,521,000
DW#4R	9,325,000
SUM (gallons)	41,110,000
Monthly avg. (gpd)	1,370,333

Mar-98	Quant. (gal.s)
wf#1	1,381,000
wf#2	4,470,000
wf#3	1,224,000
wf#4	1,342,000
Purchased Water	0
DW #1	4,996,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,199,000
DW#3R	9,012,000
DW#4R	8,282,000
SUM (gallons)	32,906,000
Monthly avg. (gpd)	1,061,484

Feb-98	Quant. (gal.s)
wf#1	872,000
wf#2	1,968,000
wf#3	1,152,000
wf#4	997,000
Purchased Water	0
DW #1	2,954,000
DW #2	0
DW#3	0
DW#4	0
wf#5	3,031,000
DW#3R	4,170,000
DW#4R	6,924,000
SUM (gallons)	22,068,000
Monthly avg. (gpd)	788,143

Jan-98	Quant. (gal.s)
wf#1	2,529,000
wf#2	1,675,000
wf#3	1,513,000
wf#4	1,464,000
Purchased Water	0
DW #1	8,122,000
DW #2	0
DW#3	0
DW#4	0
wf#5	1,714,000
DW#3R	5,582,000
DW#4R	2,421,000
SUM (gallons)	25,020,000
Monthly avg. (gpd)	807,097

Dec-97	Quant. (gal.s)
wf#1	2,534,000
wf#2	3,058,000
wf#3	1,357,000
wf#4	1,475,000
Purchased Water	0
DW #1	3,636,000
DW #2	0
DW#3	0
DW#4	0
wf#5	215,000
DW#3R	7,860,000
DW#4R	3,543,000
SUM (gallons)	23,678,000
Monthly avg. (gpd)	763,806

*Nov-97	Quant. (gal.s)
wf#1	421,000
wf#2	3,159,000
wf#3	1,412,000
wf#4	1,570,000
Purchased Water	0
DW #1	3,448,000
DW #2	0
DW#3	0
DW#4	0
wf#5	3,551,000
DW#3R	7,693,000
DW#4R	8,036,000
SUM (gallons)	29,290,000
Monthly avg. (gpd)	976,333

*Estimated values

Oct-97	Quant. (gal.s)
wf#1	3,102,000
wf#2	978,000
wf#3	823,000
wf#4	2,188,000
Purchased Water	0
DW #1	9,821,000
DW #2	0
DW#3	0
DW#4	0
wf#5	2,810,000
DW#3R	4,244,000
DW#4R	5,675,000
SUM (gallons)	29,641,000
Monthly avg. (gpd)	956,161

Sep-97	Quant. (gal.s)
wf#1	2,483,000
wf#2	2,950,000
wf#3	977,000
wf#4	7,000
Purchased Water	96,000
DW #1	4,502,000
DW #2	219,000
DW#3	683,000
DW#4	0
wf#5	1,935,000
DW#3R	6,256,000
DW#4R	4,141,000
SUM (gallons)	24,249,000
Monthly avg. (gpd)	808,300

Aug-97	Quant. (gal.s)
wf#1	2,515,000
wf#2	2,932,000
wf#3	6,000
wf#4	5,000
Purchased Water	2,000
DW #1	11,322,000
DW #2	1,783,000
wf#5	3,205,000
DW#3	5,318,000
DW#4	0
SUM (gallons)	27,088,000
Monthly avg. (gpd)	873,806

Jul-97	Quant. (gal.s)
wf#1	3,226,000
wf#2	3,623,000
wf#3	5,000
wf#4	6,000
Purchased Water	0
DW #1	13,427,000
DW #2	2,445,000
wf#5	3,589,000
DW#3	6,609,000
DW#4	0
SUM (gallons)	32,930,000
Monthly avg. (gpd)	1,062,258

Jun-97	Quant. (gal.s)
wf#1	3,112,000
wf#2	3,620,000
wf#3	6,000
wf#4	8,000
Purchased Water	0
DW #1	13,487,000
DW #2	2,787,000
wf#5	4,004,000
DW#3	7,062,000
DW#4	0
SUM (gallons)	34,086,000
Monthly avg. (gpd)	1,136,200

May-97	Quant. (gal.s)
wf#1	2,781,000
wf#2	3,193,000
wf#3	9,000
wf#4	5,000
Purchased Water	0
DW #1	11,959,000
DW #2	2,632,000
wf#5	4,119,000
DW#3	6,739,000
DW#4	0
SUM (gallons)	31,437,000
Monthly avg. (gpd)	1,014,097

Apr-97	Quant. (gal.s)
wf#1	3,033,000
wf#2	1,908,000
wf#3	1,585,000
wf#4	1,139,000
Purchased Water	1,375,000
DW #1	12,587,000
DW #2	2,873,000
wf#5	2,993,000
DW#3	7,221,000
DW#4	0
SUM (gallons)	34,714,000
Monthly avg. (gpd)	1,157,133

Mar-97	Quant. (gal.s)
wf#1	1,630,000
wf#2	3,737,000
wf#3	1,192,000
wf#4	1,732,000
Purchased Water	2,696,000
DW #1	14,032,000
DW #2	3,497,000
wf#5	2,570,000
DW#3	8,285,000
DW#4	0
SUM (gallons)	39,371,000
Monthly avg. (gpd)	1,270,032

Feb-97	Quant. (gal.s)
wf#1	265,000
wf#2	300,000
wf#3	1,582,000
wf#4	1,773,000
Purchased Water	2,068,000
DW #1	12,280,000
DW #2	3,825,000
wf#5	4,159,000
DW#3	7,323,000
DW#4	0
SUM (gallons)	33,575,000
Monthly avg. (gpd)	1,199,107

Jan-97	Quant. (gal.s)
wf#1	2,976,000
wf#2	2,517,000
wf#3	1,276,000
wf#4	6,000
Purchased Water	1,334,000
DW #1	13,025,000
DW #2	4,193,000
wf#5	1,646,000
DW#3	7,830,000
DW#4	0
SUM (gallons)	34,803,000
Monthly avg. (gpd)	1,122,677

Dec-96	Quant. (gal.s)
wf#1	4,790,000
wf#2	3,936,000
wf#3	5,000
wf#4	7,000
Purchased Water	7,000
DW #1	13,630,000
DW #2	4,322,000
wf#5	
DW#3	7,283,000
DW#4	0
SUM (gallons)	33,980,000
Monthly avg. (gpd)	1,096,129

Nov-96	Quant. (gal.s)
wf#1	4,701,000
wf#2	3,872,000
wf#3	5,000
wf#4	5,000
Purchased Water	3,534,000
DW #1	12,336,000
DW #2	2,640,000
wf#5	
DW#3	7,159,000
DW#4	0
SUM (gallons)	34,252,000
Monthly avg. (gpd)	1,141,733

Oct-96	Quant. (gal.s)
wf#1	4,062,000
wf#2	2,598,000
wf#3	762,000
wf#4	6,000
Purchased Water	728,000
DW #1	9,881,000
DW #2	941,000
wf#5	
DW#3	6,141,000
DW#4	0
SUM (gallons)	25,119,000
Monthly avg. (gpd)	810,290

Sep-96	Quant. (gal.s)
wf#1	1,523,000
wf#2	2,665,000
wf#3	1,602,000
wf#4	2,589,000
Purchased Water	1,751,000
DW #1	12,241,000
DW #2	5,146,000
wf#5	
DW#3	7,528,000
DW#4	
SUM (gallons)	35,045,000
Monthly avg. (gpd)	1,168,167

Aug-96	Quant. (gal.s)
wf#1	1,934,000
wf#2	2,173,000
wf#3	2,199,000
wf#4	2,038,000
Purchased Water	0
DW #1	12,294,000
DW #2	5,258,000
wf#5	
DW#3	7,653,000
DW#4	0
SUM (gallons)	33,549,000
Monthly avg. (gpd)	1,082,226

Jul-96	Quant. (gal.s)
wf#1	3,510,000
wf#2	1,001,000
wf#3	2,802,000
wf#4	8,000
Purchased Water	25,000
DW #1	11,094,000
DW #2	4,236,000
wf#5	
DW#3	6,230,000
DW#4	0
SUM (gallons)	28,906,000
Monthly avg. (gpd)	932,452

Jun-96	Quant. (gal.s)
wf#1	1,592,000
wf#2	2,783,000
wf#3	655,000
wf#4	1,363,000
Purchased Water	0
DW #1	9,743,000
DW #2	3,188,000
wf#5	
DW#3	5,187,000
DW#4	0
SUM (gallons)	24,511,000
Monthly avg. (gpd)	817,033

May-96	Quant. (gal.s)
wf#1	1,792,000
wf#2	1,841,000
wf#3	2,012,000
wf#4	1,802,000
Purchased Water	0
DW #1	11,865,000
DW #2	5,502,000
wf#5	
DW#3	4,870,000
DW#4	0
SUM (gallons)	29,684,000
Monthly avg. (gpd)	957,548

Apr-96	Quant. (gal.s)
wf#1	8,000
wf#2	4,346,000
wf#3	11,000
wf#4	4,118,000
Purchased Water	540,000
DW #1	13,156,000
DW #2	6,128,000
wf#5	
DW#3	7,392,000
DW#4	0
SUM (gallons)	35,699,000
Monthly avg. (gpd)	1,189,967

Mar-96	Quant. (gal.s)
wf#1	1,785,000
wf#2	2,554,000
wf#3	2,027,000
wf#4	2,387,000
Purchased Water	412,000
DW #1	13,649,000
DW #2	6,710,000
wf#5	
DW#3	6,752,000
DW#4	0
SUM (gallons)	36,276,000
Monthly avg. (gpd)	1,170,194

Feb-96	Quant. (gal.s)
wf#1	2,716,000
wf#2	971,000
wf#3	3,001,000
wf#4	901,000
Purchased Water	0
DW #1	12,329,000
DW #2	6,324,000
wf#5	
DW#3	5,977,000
DW#4	0
SUM (gallons)	32,219,000
Monthly avg. (gpd)	1,111,000

Jan-96	Quant. (gal.s)
wf#1	1,008,000
wf#2	2,781,000
wf#3	340,000
wf#4	2,771,000
Purchased Water	3,000
DW #1	11,454,000
DW #2	6,213,000
wf#5	
DW#3	3,591,000
DW#4	0
SUM (gallons)	28,161,000
Monthly avg. (gpd)	908,419

Dec-95	Quant. (gal.s)
wf#1	0
wf#2	4,187,000
wf#3	3,000
wf#4	3,881,000
Purchased Water	1,000
DW #1	13,060,000
DW #2	6,967,000
wf#5	
DW#3	4,861,000
DW#4	0
SUM (gallons)	32,960,000
Monthly avg. (gpd)	1,063,226

Nov-95	Quant. (gal.s)
wf#1	0
wf#2	4,591,000
wf#3	1,649,000
wf#4	1,855,000
Purchased Water	1,430,000
DW #1	10,093,000
DW #2	6,817,000
wf#5	
DW#3	5,531,000
DW#4	0
SUM (gallons)	31,966,000
Monthly avg. (gpd)	1,065,533

Oct-95	Quant. (gal.s)
wf#1	0
wf#2	3,225,000
wf#3	2,481,000
wf#4	0
Purchased Water	1,447,000
DW #1	5,331,000
DW #2	5,489,000
wf#5	
DW#3	50,000
DW#4	0
SUM (gallons)	18,023,000
Monthly avg. (gpd)	581,387

Sep-95	Quant. (gal.s)
wf#1	0
wf#2	3,407,000
wf#3	2,725,000
wf#4	0
Purchased Water	1,000
DW #1	9,649,000
DW #2	6,160,000
wf#5	
DW#3	647,000
DW#4	
SUM (gallons)	22,589,000
Monthly avg. (gpd)	752,967

Aug-95	Quant. (gal.s)
wf#1	0
wf#2	3,355,000
wf#3	2,883,000
wf#4	0
Purchased Water	0
DW #1	9,552,000
DW #2	6,522,000
wf#5	
DW#3	2,324,000
DW#4	0
SUM (gallons)	24,636,000
Monthly avg. (gpd)	794,710

Jul-95	Quant. (gal.s)
wf#1	9,000
wf#2	1,825,000
wf#3	479,000
wf#4	922,000
Purchased Water	2,258,000
DW #1	10,572,000
DW #2	7,806,000
wf#5	
DW#3	4,345,000
DW#4	0
SUM (gallons)	28,216,000
Monthly avg. (gpd)	910,194

Jun-95	Quant. (gal.s)
wf#1	1,627,000
wf#2	1,056,000
wf#3	1,253,000
wf#4	788,000
Purchased Water	1,774,000
DW #1	10,029,000
DW #2	7,515,000
wf#5	
DW#3	1,213,000
DW#4	0
SUM (gallons)	25,255,000
Monthly avg. (gpd)	841,833

May-95	Quant. (gal.s)
wf#1	3,014,000
wf#2	1,648,000
wf#3	2,289,000
wf#4	1,253,000
Purchased Water	0
DW #1	11,134,000
DW #2	8,156,000
wf#5	
DW#3	6,892,000
DW#4	0
SUM (gallons)	34,386,000
Monthly avg. (gpd)	1,109,226

Apr-95	Quant. (gal.s)
wf#1	1,387,000
wf#2	3,089,000
wf#3	1,204,000
wf#4	2,269,000
Purchased Water	0
DW #1	10,029,000
DW #2	7,715,000
wf#5	
DW#3	7,052,000
DW#4	0
SUM (gallons)	32,745,000
Monthly avg. (gpd)	1,091,500

Mar-95	Quant. (gal.s)
wf#1	
wf#2	
wf#3	
wf#4	
Purchased Water	
DW #1	
DW #2	
wf#5	
DW#3	
DW#4	
SUM (gallons)	34,429,000
Monthly avg. (gpd)	1,110,613

Feb-95	Quant. (gal.s)
wf#1	7,000
wf#2	3,887,000
wf#3	4,000
wf#4	3,156,000
Purchased Water	0
DW #1	9,479,000
DW #2	7,676,000
wf#5	
DW#3	303,000
DW#4	0
SUM (gallons)	24,512,000
Monthly avg. (gpd)	875,429

Jan-95	Quant. (gal.s)
wf#1	1,087,000
wf#2	4,088,000
wf#3	6,000
wf#4	2,199,000
Purchased Water	15,000
DW #1	9,758,000
DW #2	8,174,000
wf#5	
DW#3	823,000
DW#4	0
SUM (gallons)	26,150,000
Monthly avg. (gpd)	843,548

ATTACHMENT 8

Gasparilla Island Water Use Permit No. 200718.04 (2000 Renewal)

POPULATION, TOURISM, AND PER CAPITA WATER USAGE

POPULATION, TOURISM, AND PER CAPITA WATER USAGE

Population and Tourism

The population data included in this application was provided by GIWA and has been previously submitted to the SWFWMD as part of the 1999 Public Supply Per Capita Water Use Survey. These figures were determined by collecting data from the Gasparilla Island Bridge Authority, local realtors, county planning offices, the US Census Bureau and GIWA's own billing records.

The GIWA service area is greatly affected by a seasonal tourist population. The tourist season occurs during the colder months of the year and typically runs from December through May. During these months, the number of people living within the service area can increase to three times the off-season population. Attachments 8.A, 8.B, and 8.C show the available data for calculating population in the GIWA service area, and includes seasonal and permanent population estimates for the town of Placida and for Gasparilla Island. Placida is estimated to have a permanent population of only 140 people and a seasonal population of 496. Gasparilla Island is estimated to have a permanent population of 1,713 people and a peak seasonal population of 5,222 people. Attachment 8.D presents the average population for the GIWA service area by month for 1999. The average annual residential population is estimated to have been 3,178 people.

However, that number does not include tourists who visit for the day and who do not spend the night on the island. Attachment 8.E ascertains a daily average value of 360 day tourist by examining attendance data from the Gasparilla Island State Recreational Area. This tourist population lead to a total functional service population in 1999 of 3,538 people.

In Attachment 8.F the population growth rate for the last five years is developed. Because of the consistency of the data, the population estimates from GIWA's Monthly Operating Reports (MORs) to the FDEP were used. These data showed that the GIWA service area experienced a population growth rate of almost 5.2% /year from 1995 to 2000. GIWA serves an island population, and because of this it is necessary to consider the issue of infrastructure build-out. GIWA anticipates that it will reach its build-out capacity around 2011. It was assumed that the 5.2% growth rate will slow dramatically as build-out is approached.

Per Capita Water Usage

Attachment 8.G shows the calculations used to determine both the Gross and Adjusted Per Capita Water Use values. The Gross Per Capita Water Use is determined by dividing the Gross Water Use (calculated in Table 7.3) by the functional population of the service area

(3,538 people). This calculation leads to a value of 262 gallons per capita per day (gpcd). It was assumed that this value would remain constant through the 6 and 10 year projection periods. By multiplying the Per Capita Water Use by the projected populations, the projected Gross Water Use quantities were developed in Attachment 7.

It has become the practice of the SWFWMD to promote technologies that conserve fresh water resources by offering a credit to utilities using desalination for water treatment and/or wastewater reuse. GIWA utilizes both of these fresh water-conserving processes. Attachment 8.G also shows the calculation of the Adjusted Per Capita Water Use for the service area. The Adjusted Per Capita Water Use is determined by adding the amount of reuse water used to one-half the amount of water treated through desalination. This number is then subtracted from the Gross Water Use to determine the Adjusted Gross Water Use. The Adjusted Gross Water Use value is then divided by the functional population. Following this method, the Adjusted Per Capita Water Use for 1999 is determined to be 118 gpcd.

This value represents an average for the entire year. It is not possible to accurately describe how the seasonal population influences the per-capita water use on a month to month basis due to limitations in the water consumption data available. It is appears however, that increases in per capita water consumption coincide with the influx of seasonal residents to the area.

ATTACHMENT 8.A
Placida Portion of Service Area - Population Estimation to 12/31/99

Placida	Living Units	Year-Round Population	Seasonal Population
1. Gasparilla Mobile Estates (2 residents per unit)	40	80	
(Season, Dec. – May) (Info. Obtained from manager, D. Nagle)	138	0	356
2. Homes owned by Fishery (County)	23		
Fishery Houses		13	
Gasparilla Road		3	
3. Remaining Homes	17	44	
Placida Total	218	140	356

Month	Estimated Population
January	496
February	496
March	496
April	496
May	496
June	140
July	140
August	140
September	140
October	140
November	140
December	496

ATTACHMENT 8.B
Gasparilla Island Portion of Service Area – Population Estimate to 12/31/99

Average persons per household (APPH)
Lee County 2.34
Charlotte County 2.23
) Two county avg. = 2.29 APPH

1990 Census -- Boca Grande Population =- 873 people
(From US Census Bureau)
873 people ÷ 2.29 APPH = 381 living units occupied year-round

1990 Total single-family units = 599 units
(From GIWA billing records)
) 67% Increase
1999 Total single-family units = 1000 units
(From GIWA billing records)

	1990 Single Family Units	67% Increase	1999 Single Family Units
Year-Round Residences	381	255	636
Seasonal Residences	218	146	364
Total	599	401	1000

- 1999 year-round residents – Using adjusted 1990 census.
  636 units @ 2.29 APPH = **1,456 year-round residents in single family units.**

- 1999 seasonal residents – Using single family homes occupied from November-April.
  364 units @ 2.29 APPH = **834 seasonal residents in single family units.**

For the number of 1999 seasonal residents in condominiums (See next page)

ATTACHMENT 8.C
Gasparilla Island Portion of Service Area – Annual Tourist Estimate for 1999

Commercial Units Occupied - Living Units Estimated Population:

	% Occupancy	Gasp. Inn	Uncle Henry's	Inlet	Total Units Occupied
December	37.5	56	7	11	74
January	50	75	9	14	98
February	100	150	18	28	196
March	100	150	18	28	196
April	50	75	9	14	98
May	75	113	14	21	148
June	37.5	56	7	11	74

	Total Units Occupied	Estimated Population	Gasp. Inn Dormitories Population	Total Commercial Unit Estimated Population*
December	74	169	150	319
January	98	224	150	374
February	196	449	150	599
March	196	449	150	599
April	98	224	150	374
May	148	339	150	489
June	74	169	150	319

Except for Gasparilla Inn Dormitories, estimated population calculated using 2.29 AAPH. The population for the Gasparilla Inn Dormitories was obtained from the Gasparilla Inn.

* Note: The annual average number of seasonal tourists in commercial units = 8 people/day

3,073 people (total of Dec.-June) /365 days = 8 people/day

Commuter Population (Employees Commuting to Boca Grande):

Gasparilla Island Bridge Authority, owner of the Boca Grande Causeway toll bridge, has informed GIWA than an annual average of 500 vehicles owned by individuals who are employed on Gasparilla Island cross the bridge daily going to work. The following commuter population calculation was used.

500 x 33% x 71% = **117 Daily Commuters**

(Formula from the proposed rules for the District's Southern Water Use Area)

CONDOMINIUMS – RENTAL & OWNER'S SEASONAL USE DURING 1999:

Percent of Units Occupied						
	Boca Gr. Club	Boca Gr. North	Sea Oats	Dunes	S. End Condos	Avg. Percent of Occupancy
December	35		25	25	25	27.5
January	45	50	85	85	85	70
February	100	100	100	100	100	100
March	100	100	100	100	100	100
April	40	50	75	75	75	63
May	25	50	40	40	40	39
June	20	50	25	25	25	29

	Total Condos	Avg. Percent Of Occupancy	Units Occupied	Est. Population
December	751	27.5	207	474
January	751	70	526	1205
February	751	100	751	1720
March	751	100	751	1720
April	751	63	473	1083
May	751	39	293	671
June	751	29	218	499

	Year - Round Residents In Single Family Units	Seasonal Residents In Single Family Units	Seasonal Residents In Condominiums	Total
January	1456	834	1205	3,495
February	1456	834	1720	4,010
March	1456	834	1720	4,010
April	1456	834	1083	3,373
May	1456	--	671	2,127
June	1456	--	499	1,955
July	1456	--	--	1,456
August	1456	--	--	1,456
September	1456	834	--	1,456
October	1456	834	--	1,456
November	1456	834	--	2,290
December	1456	834	474	2,764

ATTACHMENT 8.D
Summary of Current Population Estimate

Total Estimated Population in the GIWA Service Area to 12/31/99

	Estimated Placida Population	Estimated Island Population	Estimated Total Residential Population	Estimated Tourist Population in Commercial Units	Commuter Population	Total Estimated Population Residing in GIWA Service Area
January	496	3,495	3,991	374	117	4,482
February	496	4,010	4,506	599	117	5,222
March	496	4,010	4,506	599	117	5,222
April	496	3,373	3,869	374	117	4,360
May	496	2,127	2,623	489	117	3,229
June	140	1,955	2,095	319	117	2,531
July	140	1,456	1,596	0	117	1,713
August	140	1,456	1,596	0	117	1,713
Sept	140	1,456	1,596	0	117	1,713
October	140	1,456	1,596	0	117	1,713
November	140	2,290	2,430	0	117	2,547
December	496	2,764	3,260	319	117	3,696
Functional Population Total			35,332	3073		38,141
Average Annual Population			2,944	256	117	**3,178**

Note: The population value of 3,178 people includes tourists that have rented accommodations on the island. It does not include day tourist numbers. The day tourist population estimate is generated in Attachment 8.E.

ATTACHMENT 8.E
Estimate of Day Tourist Population

Attendance at Gasparilla Island State Recreational Area, 1988 - 2000*

Month	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
JANUARY		31,951	13,519	21,420	20,820	31,030	21,975	22,335	22,693	43,725	37,834	32,385	32,550
FEBRUARY		16,683	14,130	38,140	48,060	41,715	55,045	41,370	41,985	66,240	50,680	49,755	56,910
MARCH		28,322	24,904	41,160	64,590	58,425	69,645	70,155	21,083	96,150	71,634	77,145	66,735
APRIL		22,465	22,069	45,900	47,445	51,930	53,535	65,043	51,060	48,025	68,662	65,334	
MAY		18,738	26,505	9,936	44,280	40,440	53,535	35,910	42,090	47,681	45,855	48,040	
JUNE		13,899	21,523	20,936	26,235	29,550	37,275	21,346	35,706	37,515	35,325	35,280	
JULY	22,187	23,030	27,620	19,732	33,810	47,030	17,430	28,706	44,535	39,195	37,425	42,370	
AUGUST	12,766	18,690	18,560	10,885	22,506	23,595	15,375	19,085	30,990	30,040	29,640	26,235	
SEPTEMBER	10,331	12,727	12,790	12,951	13,485	19,574	14,415	15,665	22,785	18,700	14,964	15,507	
OCTOBER	9,320	7,270	5,864	17,880	14,925	15,630	16,485	15,879	19,305	19,020	21,960	16,170	
NOVEMBER	11,795	7,575	14,261	17,055	15,648	19,786	22,560	20,885	26,040	17,820	26,935	26,399	
DECEMBER	19,346	18,514	21,818	27,210	29,730	23,055	20,045	15,640	34,960	19,969	24,570	19,930	
YEARLY TOTAL		219,864	223,563	283,205	381,534	401,760	397,320	372,019	393,232	484,080	465,484	454,550	
DAILY AVERAGE		602	613	776	1,045	1,101	1,089	1,019	1,077	1,326	1,275	**1,245**	

* All data provided by staff of the Gasparilla State Recreation Area

For 1999: Daily Average Attendance = 1,245 people

Daily Average Attendance for September (lowest month) = 517 people

Assuming that the September total represents the year-round residents that visit the recreation area daily,

1,245 people/day – 517 people/day = the annual average number of tourists visiting the recreation area per day = 728 people/day

Subtracting the annual average number of tourists in commercial units (Attachment 8.C)

728 people/day – 8 people/day = the annual average number of day tourists visiting island = <u>720 people/day</u>

Per SWFWMD instructions, use ½ of the estimated tourist population for calculating projected water demand:

Therefore, <u>**Day tourist population = 360 people/day for calculation purposes**</u>
(This number will be used in population projection calculations for both 2007 and 2011 in Attachment 8.F, where it will be increased by the same rate of growth used for the residential population).

ATTACHMENT 8.F
GIWA Population Projection

For determining population projections for the GIWA service area, the population estimates reported in its MORs to the FDEP were used as a basis. These population values were determined from GIWA billing records, and representative examples of these values are presented below.

GIWA Population Values, March 1995-2000

Month	Average Residential Population
Mar-00	3,128
Mar-99	3,041
Mar-98	3,041
Mar-97	2,561
Mar-96	2,484
Mar-95	2,433

While the population value derived in Attachment 8.D for the end of 1999 (3,178 people) is very close to the estimate used by GIWA for March 2000 in its MOR (3,128), it does not exactly match. It is assumed that the detailed procedure for calculating population in Attachment 8.D produced the more accurate population estimate, therefore 3,178 people will be used as the base for projections of population into the future. The above Table of MOR population values is used only to determine the rate of population growth.

Determining the historical rate of population growth from March 1995 to March 2000

March 1995 population * $(1+X)^5$ = March 2000 population

Where, X = annual population growth rate

Solving for X:

$X = (\text{March 2000 population} / \text{March 1995 population})^{1/5} - 1$

$X = (3128/2433)^{1/5} - 1$

$X = 0.0515$

A growth rate of 5.15 % /year will be used for population projections

Build-out Capacity on Gasparilla Island

The build-out capacity of Gasparilla Island is estimated to be approximately 1777 housing units and it is anticipated that build-out will be reached around 2011. Therefore at 2.29 pphh (see Attachment 8.B), the ultimate residential population capacity = 4,069 people.

Since 3,178 people presently reside on the island, there is expansion capacity for 891 people or 389 residential units.

Population projections for 2007 and 2011 (6 and 10 years)

It is assumed that the approach towards build-out capacity will occur asymptotically, and the annual rate of growth in population will begin to decline when the population is within 10% of the build-out population of 4,069 people (i.e., 3,980 people). After that point, the growth rate is determined from a straight-line extrapolation to the build-out population value.

POPULATION PROJECTIONS FOR GIWA SERVICE AREA

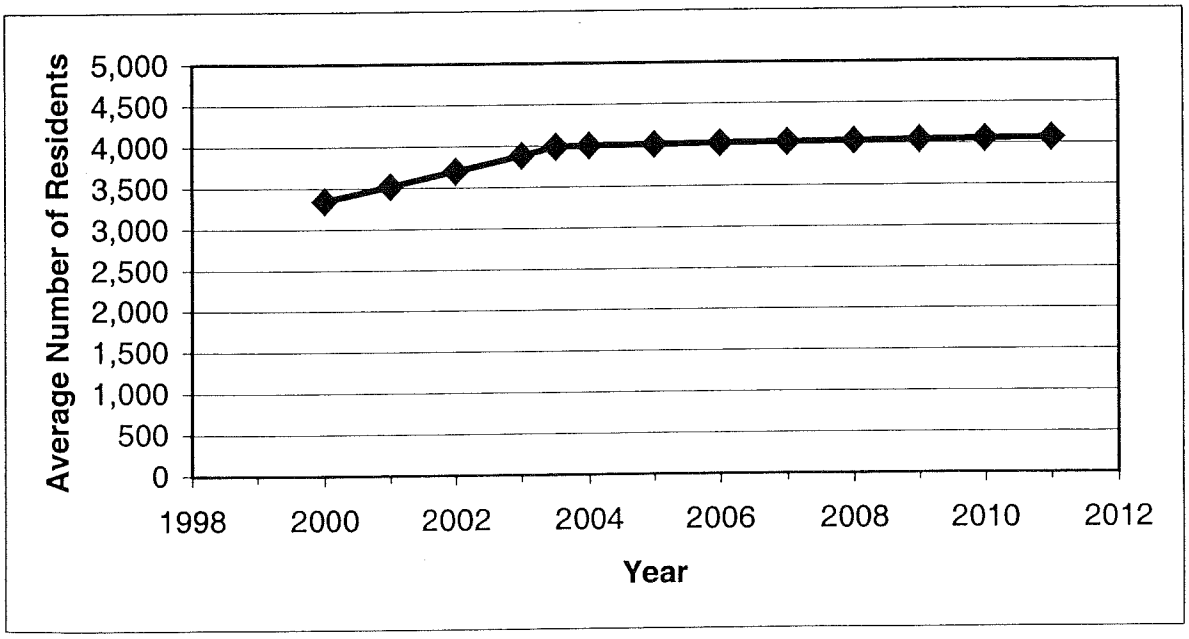
Year	Historic Residential Population (people)	Average Annual Growth Rate (percent)	Projected Residential Population (people)	Expected Day Tourists[1] (people)	Functional Service Population[2] (people)
1999	3,178	1.052		360	3538
2000		1.052	3,342	379	3721
2001		1.052	3,514	398	3912
2002		1.052	3,695	419	4114
2003		1.052	3,885	440	4325
2004		1.003	3,996	441	4437
2005		1.003	4,006	443	4449
2006		1.003	4,017	444	4461
2007		1.003	**4,027**	445	**4472**
2008		1.003	4,037	446	4483
2009		1.003	4,048	448	4496
2010		1.003	4,058	449	4507
2011		1.003	**4,069**	450	**4519**

90% of build-out capacity expected to be reached at middle of 2003

1) Expected Day Tourists growth rate is the same as Average Annual Growth Rate used for residential population projection

2) Functional Service Population = Projected Residential Population + Expected Day Tourists

GRAPH OF PROJECTED RESIDENTIAL POPULATION THROUGH 2011 (DOES NOT INCLUDE DAY TOURISTS)



ATTACHMENT 8.G
Calculating the Gross Per Capita Water Use and the Adjusted Per Capita Water Use

Calculating Gross Per Capita Water Use:

Gross Per Capita Water Use = Gross Water Use/Functional Population serviced.

Gross Water Use = Raw Water Use – Treatment Losses

For 1999: Gross Water Use = 928,318 gpd (from Table 7.3)

Functional Population Serviced = 3,538 people (from Attachment 8.F)

Gross Per Capita Water Use = 928,318 gpd/(3,538 people)

1999 Gross Per Capita Water Use = 262 gallons per capita day (gpcd)

For 2007: Projected Gross Water Use = 1,171,664 gpd

Functional Population Serviced = 4,472 people (Attachment 8.F)

Projected Gross Per Capita Water Use = (1,171,664 gpd)/(4,472 people)

2007 Projected Gross Per Capita Water Use = 262 gallons per capita day (gpcd)

For 2011: Projected Gross Water Use = 1,183,978 gpd (from Table 7.2)

Functional Population Serviced = 4,519 people (Attachment 8.F)

Projected Gross Per Capita Water Use = (1,183,978 gpd)/(4,519 people)

2011 Projected Gross Per Capita Water Use = 262 gallons per capita day (gpcd)

Calculating 1999 Adjusted Per Capita Water Use:

Adjusted Per Capita Water Use = Adjusted Gross Water Use/Functional Population serviced.

Reuse/Desalination Credit = Reuse Amount + ½ * (Reverse Osmosis Amount)[1]

= 214,019 gpd + ½ * (595,458 gpd)[3] = 511,748 gpd

Adjusted Gross Water Use = Gross Water Use – Reuse/Desalination Credit

= 928,318 gpd – 511,748 gpd = 416,570 gpd

Adjusted Per Capita Water Use = 416,570 gpd/3,538 people

Adjusted Per Capita Water Use (for 1999) = 118 gpcd

1) Formula from SWFWMD
2) Figure for reuse water amount from GIWA WWTP.
3) Reverse osmosis quantity from Table 7.3.

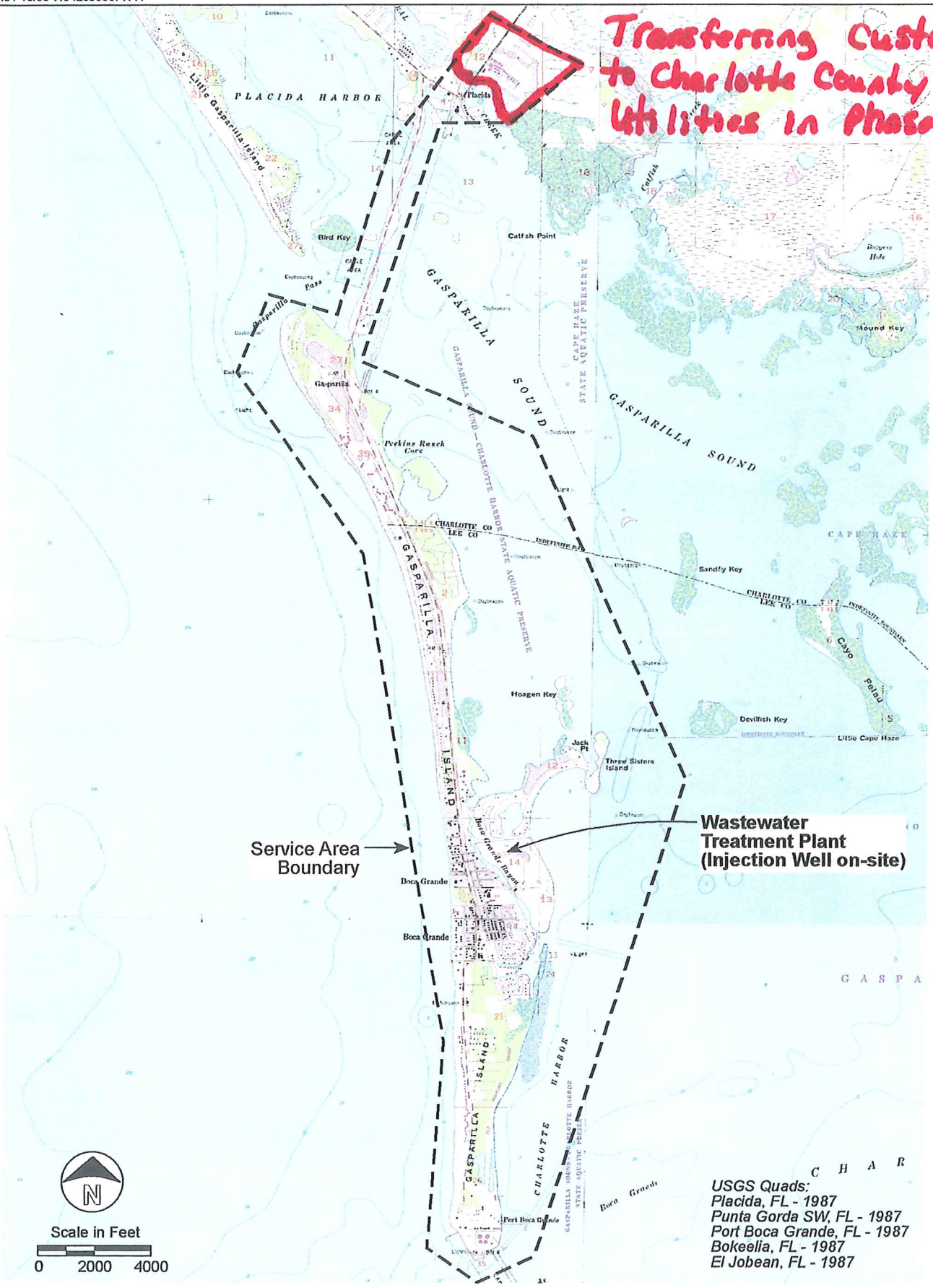


FIGURE 2.2
GIWA Service Area Boundary

CH2MHILL

LEE COUNTY
SOUTHWEST FLORIDA

BOARD OF COUNTY COMMISSIONERS

Bob Janes
District One

A. Brian Bigelow
District Two

Ray Judah
District Three

Tammy Hall
District Four

Frank Mann
District Five

Donald D. Stilwell
County Manager

David M. Owen
County Attorney

Diana M. Parker
County Hearing Examiner

(239) 479-8585

October 10, 2007

Michael Liggins, Director of Engineering
Bonita Springs Utilities
11860 East Terry Street
Bonita Springs, FL 34135

RE: Water Supply Facilities Work Plan

Dear Mr. Liggins:

Lee County Division of Planning is in the process of preparing a Water Supply Facilities Work Plan - Comprehensive Plan Amendment as required by Florida Statute 163.3177(6)(c). Planning staff previously sent a letter requesting information from your utility dated July 6, 2007. Lee County is required to prepare a 10 year water supply facilities work plan and update our comprehensive plan by December 2007. As part of the preparation and backup materials for the work plan amendment, staff is required to obtain the information provided below from all water utilities that supply water to the community. Staff is requesting the following information from your utility as it relates to unincorporated Lee County in your service area, north of the city limits of Bonita Springs.

In accordance with the guidelines for preparing the Work Plan Amendment prepared by the Department of Community Affairs, Lee County is required to address all of the water supply, treatment, and distribution facilities that are planned by all entities providing service within its jurisdiction. Per the guidelines for preparing the Work Plan Amendment, Planning staff is requesting the following information from your utility in order to meet the guideline requirements for this plan amendment:

- Information from the current consumptive use permit, including permit number, authorized average and maximum daily withdrawals, and permit expiration date.
- Projected demand by type of water user for at least a ten-year planning period.
- A map that shows existing and future areas to be served by the supplier.

- Identification of existing and planned future water sources; the supply plan identified by each supplier should reflect consideration of the Regional Water Supply Plan.

- Identification of water supply facilities needed to serve the projected need.

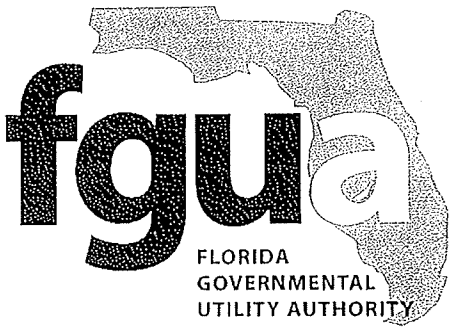
By collecting this information, staff can attach the information to the plan amendment as required for transmittal to the Florida Department of Community Affairs. Staff will be presenting the information to the Lee County Board of County Commissioners within the next two months and Lee County is required to adopt the plan amendment by December 2007. Your assistance in this request for information is greatly appreciated. If there is someone else in your organization that we should contact for this information or if you have further questions and would like to discuss this request further, please feel free to contact me.

Sincerely,

Dept. Of Community Development
Division of Planning

Matthew Noble
Principal Planner

cc: Planning File (CPA2006-20)



December 21, 2007

Jim Jackson
Senior Supervising Planner
South Florida Water Management District
P.O. Box 24680 MS 4350
West Palm Beach, FL 33416

LEA ANN THOMAS, CHAIR
Polk County

BRIAN WHEELER
Osceola County

JIM LAVENDER
Lee County

ROBERT KNIGHT
Citrus County

CHARLES C. SADDLER
Town of Dundee

Subject: Florida Governmental Utility Authority (FGUA) Lehigh Acres Utility System 10 Year CIP as required by SFWMD and due no later than January 12, 2008.

Dear Mr. Jackson:

Please find attached for the FGUA's Lehigh Acres Utility System the approved 5 year CIP with budget and funding information for FY 2008-2012 and the tentative 10 Year CIP with estimated project costs for FY 2013-2018. This information is in regards to the requirement of SFWMD for local governments to prepare a 10 year water supply facilities work plan and update their comprehensive plan by January 12, 2008.

If more information is required or this does not satisfy the requirements of the SFWMD please feel free to contact me.

Sincerely,

Tarek M. Fahmy, PE, CGC
Director of Operations
Government Services Group, Inc.
280 Wekiva Springs Rd Suite 2000
Longwood FL, 32779

FGUA OPERATIONS OFFICE

Government Services Group, Inc.
Protegrity Plaza, Suite 2000
280 Wekiva Springs Road
Longwood FL 32779

877/552-3482 Toll Free
407/629-6900 Tel
407/629-6963 Fax

Section 1

Approved 5 year CIP with budget information FY 2008 - 2012

fgua
FLORIDA
GOVERNMENTAL
UTILITY AUTHORITY

Capital Program

The FY 2008 Capital Budget for Lehigh Acres totals $50,341,000 and the FY 2008-2012 Capital Plan includes $91,925,000 in new capital projects necessary to keep up with the projected growth of the Lehigh System. As a follow on to a step that was taken in the Golden Gate System in FY 2006 and FY 2007, staff is proposing to transfer $4.0 million from the Operating Account to the Repair and Replacement Account, beyond the amounts required in the Bond Indenture Documents. These extra funds accumulate primarily as a result of the non-cash depreciation and amortization expenses that are accrued each year in each enterprise fund. We are proposing to transfer a judicious amount at the beginning of FY 2008 to the capital accounts for expenditure to assist in the ongoing repair and renewal of the utility system. A total of thirty projects are recommended for funding in FY 2008.

The major projects included in the FY 2008 budget are:

- WWTP Expansion Phase 2 - $9.608 million for construction of expansion in FY2008. Design was budgeted in FY 2007.
- Deep Disposal Well for Brine Concentrate at Mirror Lakes WTP No. 2- $9.752 million.
- Reuse Pipeline Expansion- $5.048 million for construction to golf courses in Lehigh Acres.
- WWTF Backup Disposal- $1.5 million for injection pumps and connection pipelines from the WWTP to the well.
- Force main expansion on Beth Stacey Blvd- $1.5 million.
- WWTP Reject Water Storage- $2.974 million.
- Raw water supply wells, pumps and water main to the new reverse osmosis trains at Mirror Lake WTP No. 2, Phase 2- $2.678 million.
- Lehigh WTP No. 2 Exploratory Well Evaluation- $2.190 million.

In the later years of the Capital Plan, there are a number of major projects. These include:

- A total of approximately $9.890 million from FY's 2009-2011 for the expansion of reuse in the system.
- A total of approximately $17.08 million from FY's 2009-2012 for the expansion of the Mirror Lakes Water Treatment Plant No. 2 from 2.1 MGD to 6.1 MGD using reverse osmosis technology.
- Wastewater lift station renovation will total $3.58 million over the five year capital plan.
- The wastewater miscellaneous renewal and renovation program is programmed at $2.905 million during the five year capital plan.

A total of thirty-eight projects are included in the Lehigh System Five Year Capital Plan for Board of Directors consideration.

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
Lehigh System
Five Year Operating Forecast

		Actual FY 2006	Estimate FY 2007	Budget FY 2008	Forecast FY 2009	Forecast FY 2010	Forecast FY 2011	Forecast FY 2012
	OPERATING REVENUE							
331501	FEMA Disaster Recovarery Grants	44,453	$ -	$ -	$ -	$ -	$ -	-
343501	Water Recurring Revenue	4,419,016	4,741,623	5,053,622	5,488,233	6,089,986	6,713,405	7,425,025
343502	Wastewater Recurring Revenue	4,785,603	5,377,920	5,721,031	6,098,619	6,623,100	7,192,687	7,811,258
343503	Fire Line Revenue	955	950	1,013	1,100	1,194	1,297	1,408
343504	Irrigation Revenue	293,770	81,350	83,302	85,468	87,690	89,970	92,310
343510	Wholesale Water/Wastewater Sales	-	-	-	-	-	-	-
343512/13	Connection Fees Water & Sewer	88,103	46,510	48,428	51,334	55,440	59,876	64,666
343507	Turn on Fees	67,501	70,164	72,900	77,274	83,456	90,133	97,344
343509	Line Maintenance Fees	-	-	-	-	-	-	-
343506	Late Fees	171,030	185,452	192,685	198,465	210,373	227,203	245,379
343508	Miscellaneous	4,449	13,000	2,000	2,100	2,205	2,315	2,431
343515	Inspection Fees	138,986	64,532	66,468	68,462	70,516	72,631	74,810
343516	Plan Review Fees	7,950	10,276	10,584	10,902	11,229	11,566	11,913
361100	Investment Earnings on Operating Balances	246,283	316,266	325,754	335,527	345,592	355,960	366,639
362001	Rents	-	-	-	-	-	-	-
369001	Insurance Proceeds	-	1,993	-	-	-	-	-
363100	Special Assessment Revenue	-	-	-	-	-	-	-
	Revenue From Rate Increase	-	-	-	-	-	-	-
	Total Revenues	$ 10,264,098	$ 10,810,136	$ 11,677,787	$ 12,417,484	$ 13,680,783	$ 14,817,043	$ 16,193,183
	OPERATING EXPENSES							
	Board Expenses							
549002	Board Meetings	4,243	2,000	2,060	2,122	2,185	2,251	2,319
547002	Copy/Delivery Charges	5,034	17,366	28,000	28,840	29,705	30,596	31,514
541004	Postage	2,789	2,316	4,000	4,120	4,244	4,371	4,502
545001	Insurance	130,008	160,783	171,130	179,687	188,671	198,105	208,010
549003	Bad Debts	126,436	57,680	59,410	61,193	63,028	64,919	66,867
546001	Customer Information Program	22,254	26,788	44,852	45,991	47,371	48,792	50,256
549005	Regulatory/Permit Fees	17,278	3,122	3,216	3,312	3,411	3,514	3,619
548002	Newspaper Legal Ads	8,603	6,490	6,685	6,885	7,092	7,305	7,524
549001	Miscellaneous	11,429	12,328	12,698	13,079	13,471	13,875	14,292
551001	Office Supplies	621	474	488	503	518	533	549
554001	Dues & Subscriptions	2,138	3,319	3,419	3,522	3,627	3,736	3,848
540001	Travel	2,020	288	297	306	315	325	334
534009	Bank Fees	19,714	28,332	29,192	30,057	30,959	31,887	32,845
549006	Cash Overage/Shortage	802	990	500	515	530	546	562
549009	Property Taxes	13,675	14,072	14,494	14,929	15,377	15,838	16,313
549008	Reserve for Contingencies	1,639	21,901	28,944	29,813	30,707	31,628	32,577
544001	Rents & Leases	33,919	60,504	62,319	64,189	66,114	68,098	70,141
	Operating and Management Services							
534001	Operations & Maintenance Contract	1,990,203	2,285,007	2,598,618	2,669,226	3,181,468	3,553,501	3,894,637
534002	Additional O&M	425,440	262,702	279,226	303,239	335,383	370,933	410,252
534003	Billing & Customer Service Contract	318,613	480,733	548,291	603,642	669,336	747,602	819,372
534004	Additional Billing & Customer Service	54	6,622	5,880	6,056	6,238	6,425	6,618
534005	Management Contract	584,166	629,168	689,036	720,851	790,053	865,898	949,024
534011	Plan Review & Inspection Services	148,439	34,460	35,494	36,559	37,655	38,785	39,949
546002	Vehicle Maintenance	-	-	1,798	1,852	1,908	1,965	2,024
552001	Fuel	-	-	6,751	6,953	7,162	7,377	7,598
543005	Electric Power	453,770	493,730	566,103	710,408	906,929	953,275	1,051,939
570004	Interest Paid (on customer deposit refunds)	57,519	34,600	35,638	36,707	37,808	38,943	40,111
	Purchased Water/Wastewater	-	-	562,100	590,205	619,715	650,701	683,236
	Professional Services							
534008	Legal - General Counsel	67,769	72,496	74,671	76,911	79,218	81,595	84,043
534008	Legal - Utility Counsel	48,000	11,642	11,888	12,245	12,612	12,991	13,380
534000	Utility Rate Consultant	-	7,500	20,000	20,000	-	20,000	
534007	Engineering Services	68,165	81,400	103,842	106,957	110,166	113,471	116,875
534000	Other Contractual Services	2,321	-	-	-	-	-	-
513003	Financial Advisor	-	-	5,520	5,520	5,520	5,520	5,520
532001	Accounting (Fixed Asset Inventory)	9,167	9,550	9,837	10,132	10,436	10,749	11,071
532002	Audit Fees	19,189	17,299	18,124	18,668	19,228	19,805	20,399
534010	Lab Services	-	-	-	-	-	-	-
665000	Construction Services	780	-	2,000	2,060	2,122	2,185	2,251
552005	Software Support	17,325	13,700	5,000	5,000	5,000	5,000	5,000

Florida Governmental Utility Authority
FY 2008 Budget
Debt Service Schedules
System: Lehigh
Prepared: September 13, 2007

Payment Schedule

Fund	Bond Issue	Payment Date	Principal	Interest	Total
A404	FGUA Utility Revenue Bonds, Series 2003	4/1/2008	$ -	$ 946,037	$ 946,037
		10/1/2008	840,000	946,036	1,786,036
Totals			**$ 840,000**	**$ 1,892,073**	**$ 2,732,073**
A404	FGUA Utility Revenue Bonds, Series 2005	4/1/2008	$ -	$ 539,215	$ 539,215
	($25,795,000 amount)	10/1/2008	495,000	539,215	1,034,215
Totals			**$ 495,000**	**$ 1,078,430**	**$ 1,573,430**
A404	FGUA Line of Credit, Series 2007	Monthly	**$ -**	**$ 100,000**	**$ 100,000**
Total All Debt Service			**$ 1,335,000**	**$ 3,070,503**	**$ 4,406,503**

Revenue and Expense

Fund	Bond Issue	Beginning Balance	Plus: Transfers In	Plus: Interest Earned*	Amount Available	Less: Payments	Ending Balance
A404	Utility Revenue Bonds, Series 2003	$ 1,293,170	$ 2,680,373	$ 51,700	$ 4,025,243	$ 2,732,073	$ 1,293,170
A404	Utility Revenue Bonds, Series 2005	254,554	1,563,230	10,200	1,827,984	1,573,430	254,554
A404	FGUA Line of Credit, Series 2007	-	100,000	-	100,000	100,000	-
Totals		$ 1,547,724	$ 4,343,603	$ 61,900	$ 5,953,227	$ 4,405,503	$ 1,547,724

* Interest earned is based on rate of 4.0% on invested balances.

Status of Prior Year Capital Projects
FY 2004-2007 Budgets
System: Lehigh Acres

Project Number	Project Description	From Inception-Total Amended Budget	March 31, 2007 Expenses	March 31, 2007 Outstanding Encumbrances	Anticipated Encumbrances Through Sept. 30, 2007	Estimated Total Charges on Project Expiration	Estimated Appropriations to Expire
LE020	WWTF Backup Disposal	613,000	286,686	320,562	-	607,248	Expired
LE022	WW Lift Station Rehabilitation	224,183	28,464	71,112	-	99,576	Expired
LE023	Perc Pond Imprvmnts & Mod	152,532	148,707	-	-	148,707	Expired
LE024	EQ Tank for WWTP	503,789	357,007	-	-	357,007	Expired
LE025	Miscellaneous R&R Wastewater	505,000	127,145	-	-	127,145	Expired
LE026	WWTP Improvements	6,000,104	4,918,346	842,467	-	5,760,813	Expired
LE027	CMOMs	22,110	22,110	-	-	22,110	Expired
LE028	Homestead Road Force Main Installation	3,707,275	1,803,905	1,287,861	-	3,091,766	Expired
LE029	Install Blow-Offs Dead End Mains	61,375	12,785	-	-	12,785	Expired
LE031	Well Rehabilitation	135,000	10,895	123,975	-	134,870	Expired
LE032	Replace/Upgrade final Flow Meter	100,000	2,820	-	-	2,820	Expired
LE033	Water & Wastewater System Mapping	200,000	120,000	71,000	-	191,000	Expired
LE034	Install New Fire Hydrants	10,000	282	-	-	282	Expired
LE035	Relocate Wtr Meter to Property Line	100,000	2,820	-	-	2,820	Expired
LE036	Design & Install Wtr Distrib ISO Valve	50,000	1,410	-	-	1,410	Expired
LE037	Replace WTP HSP & Controls	310,000	181,308	127,444	-	308,752	Expired
LE038	Fort Myers Water Interconnect	2,978,031	1,478,528	1,321,067	-	2,799,595	Expired
LE040	Replace Roof on CL2 Lab & Blower Bldg	22,000	620	-	-	620	Expired
LE041	WWTP Rehabilitation	85,000	2,397	-	-	2,397	Expired
LE044	WWTP Fence Replavement	120,000	3,384	-	-	3,384	Expired
LE045	Equipment Replacement	65,000	33,020	-	-	33,020	Expired
LE047	Joel Blvd Force Main Replacement	140,000	101,176	35,297	-	136,473	Expired
LE048	Sidewalks & Storm Drain Install	100,000	44,753	1,879	-	46,632	Expired
LE050	Woodridge E/W Spec Assmt Dist WW	2,841,000	-	-	-	-	Expired
LE051	Woodridge E/W Spec Assmt Dist	1,045,000	-	-	-	-	Expired
LE052	WWTP Expansion	92,000	92,000	-	-	92,000	Expired
LE097	Comprehensive Capital Exp. Financial Plan	11,093	825	9,650	(9,650)	825	Expired
LE098	Developmental Capital	11,178	9,059	-	-	9,059	Expired
LE912	Lee Boulevard Widening to Leeland	62,500	-	62,500	-	62,500	Expired
LE916	Zenon Phase II	18,500	-	18,500	-	18,500	Expired
	FY 2007 Projects						
LE001	Storage Tanks Cleaned, Inspected & Painted	205,683	-	189,976	-	189,976	15,707
LE002	Water Treatment Plant Electrical Improvements	50,000	5,100	1,550	43,350	50,000	-
LE004	Mirror Lakes Water Treatment Plant	451,366	21,064	402,425	27,877	451,366	-
LE005	W & WW Syst Hydraulic Analysis	100,000	-	-	100,000	100,000	-
LE009	Miscellaneous Projects - R&R	242,000	37,036	25,423	100,000	162,459	79,541
LE010	Fire Hydrant Replacement Program	20,000	-	-	20,000	20,000	-
LE011	Meter Replacement Program	42,000	15,860	-		15,860	26,140
LE015	Wastewater Collection System Improvements (I&I)	533,000	-	532,987		532,987	13
LE017	Reuse Piping	2,038,000	44,295	-		44,295	1,993,705
LE018	WW LS Telemetry	151,455	56,447	14,250	80,758	151,455	-
LE020	WWTF Backup Disposal	6,525,000	3,010	6,366,083	155,907	6,525,000	-
LE022	WW Lift Station Rehabilitation	905,000	-	-	905,000	905,000	-
LE025	Miscellaneous R&R Wastewater	528,000	-	54,333	457,703	512,036	15,964
LE031	Well Rehabilitation	80,000	-	-	80,000	80,000	-
LE034	Install New Fire Hydrants	21,000	-	-	21,000	21,000	-
LE035	Relocate Wtr Meter to Property Line	100,000	-	-	100,000	100,000	-
LE036	Design & Install Wtr Distrib ISO Valve	10,000	-	-	10,000	10,000	-
LE045	Equipment Replacement	503,000	-	-	303,020	303,020	199,980
LE052	WWTP Expansion	4,439,833	11,692	913,141		924,833	3,515,000
LE053	D.O.T. Miscellaneous Relocations	663,000	-	-	621,010	621,010	41,990
LE055	Lehigh Acres WWTP Biological Monitoring	35,000	1,650	31,350		33,000	2,000
LE056	Lehigh Acres WWTP Master Plan	73,000	2,981	56,639	13,380	73,000	-
LE058	Lehigh Acres WWTP Reject Water Storage System	321,000	-	185,708		185,708	135,292
LE059	Lift Station No. 26 Pumps and Parallel Force Main	544,000	-	-	544,000	544,000	-
LE060	Manhole Rehabilitation	130,000	-	-	130,000	130,000	-
LE062	Painting of Tanks and Building - WWTP	110,000	-	59,416		59,416	51,584
LE064	Pump Equipment Upgrade	114,000	-	3,600	110,400	114,000	-
LE065	Potable Water Mains	806,000	2,620	80,980	722,400	806,000	-
LE066	Reahb or Replace Slime Laker	285,000	733	3,267		4,000	281,000
LE067	Remove Lime Build-up in WTP	57,000	300	-	56,700	57,000	-
LE068	Section 10 Finished Water Booster Station	1,252,000	-	-		-	1,252,000
LE073	Build-Out Customer Service Office	70,000	-	-	70,000	70,000	-
LE074	WWTP Consent Agreement In-Kind Services	60,000	-	-	80,000	80,000	(20,000)
LE075	Upsizing Water Main from 8 to 12 Inces, Fire District	50,000	-	-	50,000	50,000	-
LE078	Town Lakes Phase 3 Infrastructure	360,000	361,864			361,864	(1,864)
LE098	Inspector Vehicle Purchase	36,000	33,723	-		33,723	2,277
LE099	Document Imaging System	20,000	-	-		-	20,000
		$ 72,905,810.03	$ 22,684,188.00	$ 18,859,110.00	$ 4,792,655.00	$ 46,352,262.00	$ 7,010,329.00

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
LEHIGH UTILITY SYSTEM
CAPITAL IMPROVEMENT BUDGET
For Fiscal Year FY 2008
($000)

PROJ. NO.	PROJECT	Fund	GL Source	FY 2008
LE001	Storage Tanks Cleaned, Inspected & Painted	LE05	101125	-
LE002	Water Treatment Plant Electrical Improvements	LE05	101125	394
LE004	Mirror Lakes Water Treatment Plant No. 2 Phase I	LE27	101145	600
LE008	Lime Sludge Disposal	LE28	101163	-
LE009	Miscellaneous Projects - R&R Water	LE05	101126	254
LE010	Fire Hydrant Replacement Program	LE05	101125	20
LE011	Meter Replacement Program	LE05	101125	42
LE015	Wastewater Collection System Improvements (I&I)	LE28	101163	-
LE015	Wastewater Collection System Improvements (I&I)	LE05	101125	262
LE017	Reuse Pipeline Expansion	LE28	101063	2,033
LE017	Reuse Pipeline Expansion	LE27	101145	3,015
LE018	WW Lift Station Telemetry	LE25	101121	205
LE018	WW Lift Station Telemetry	LE28	101163	-
LE020	WWTF Backup Disposal	LE28	101163	1,500
LE020	WWTF Backup Disposal	LE45	101127	-
LE022	Wastewater Lift Station Rehabilitation	LE05	101125	827
LE025	Miscellaneous R&R Wastewater	LE05	101125	528
LE031	Well Rehabilitation	LE28	101163	-
LE031	Well Rehabilitation	LE05	101125	84
LE034	Install New Fire Hydrants	LE25	101121	21
LE034	Install New Fire Hydrants	LE28	101163	-
LE035	Relocate Water Meters to Property Line	LE27	101045	105
LE035	Relocate Water Meters to Property Line	LE28	101163	-
LE036	Design & Install Water Distribution Isolation Valves	LE25	101121	11
LE036	Design & Install Water Distribution Isolation Valves	LE28	101163	-
LE045	Equipment Replacement	LE25	101121	100
LE045	Equipment Replacement	LE28	101163	-
LE052	WWTP Expansion Phase II	LE28	101163	9,808
LE053	D.O.T. Miscellaneous Relocations	LE05	101125	100
LE053	D.O.T. Miscellaneous Relocations	LE27	101145	566
LE054	Force Main Expansion Along Beth Stacey Blvd	LE45	101127	1,500
LE055	Lehigh Acres WWTP Biological Monitoring	LE28	101163	46
LE056	Lehigh Acres WWTP Master Plan	LE28	101163	-
LE057	Lehigh Acres Existing WWTP Rehabilitation	LE28	101163	-
LE058	Lehigh Acres WWTP Reject Water Storage System	LE27	101145	1,500
LE058	Lehigh Acres WWTP Reject Water Storage System	LE45	101127	1,474
LE060	Manhole Rehabilitation	LE05	101125	130
LE061	Mirror Lakes Water Treatment Plant No. 2 Phase II	LE40	101126	1,449
LE061	Mirror Lakes Water Treatment Plant No. 2 Phase II	LE28	101163	7,781
LE062	Painting of Tanks and Buildings- WWTP	LE05	101125	-
LE063	Parallel FM Serving Buckingham Development	LE45	101127	539
LE065	Potable Water Mains	LE28	101163	626
LE066	Rehab or Replace Lime Slaker, Lehigh Acres	LE05	101125	-
LE067	Remove Lime Build-up in WTP	LE05	101125	-
LE069	South Area Storage and Pump Facility	LE40	101126	-
LE070	Water Master Plan	LE40	101126	100
LE071	Lehigh Acres Reuse Expansion Project Phase 2	LE25	101121	291
LE071	Lehigh Acres Reuse Expansion Project Phase 2	LE28	101163	-
LE076	Deep Disposal Well- Mirror Lakes WTP No. 2	LE28	101163	9,762
LE077	Raw Water Supply Wells, Main & Pumps Deep Aquifer Wells	LE28	101163	2,678
LE078	Lehigh WTP No. 2 Exploratory Well Evaluation	LE28	101163	2,190
	Total			$ 50,341
	Sources of Funds			
	Renewal and Replacement	LE05	101125	$ 2,641
	Series 2003 Bonds	LE25	101121	628
	Series 2005 Bonds	LE27	101145	5,786
	Series 2007 Line of Credit	LE28	101163	38,224
	Water Capacity Fees	LE40	101126	1,549
	Wastewater Capacity Fees	LE45	101127	3,513
	Total			$ 50,341

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Painting of Tanks and Buildings - WTP Project No.: LE001

Design Build Candidate: No Construction at Risk Candidate: No
System: Lehigh Acres County: Lee
Priority Rating: 2 Water or Wastewater: W Proposer: (STES)
Category: GP Required By Date: Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
WTP painting. Blast, clean and paint both steel treatment units, 12 filter tanks and the lime silo structure. Clean and paint 4 storage tanks including 1 elevated storage tank. Also clean and paint 4 buildings. Price includes internal inspection of the elevated storage tank.

2. JUSTIFICATION OF PROJECT:
Each of these buildings and structures need to be painted periodically to maintaining corrosion protection, appearance and extend useful life.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design		10					10	20
Permits		-					-	-
Construction		196					170	366
Contingency		-					10	10
Mgmt. & Other		-					10	10
TOTALS	-	206	-	-	-	-	200	406

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement	-	206					200	406
2003 Revenue Bonds								-
2005 Revenue Bonds								-
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	206	-	-	-	-	200	406

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name:	Mirror Lakes WTP No. 2 Phase 1			Project No.:	LE004
Design Build Candidate:	No			Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee
Priority Rating:	3,2,1	Water or Wastewater	W	Proposer:	MPI
Category:	WP	Required By Date:		Phone No.:	407-660-1133

1. PROJECT LOCATION/DESCRIPTION:
This small sum is required to complete phase 1 of the Mirror Lakes Water Treatment Plant using normal lime softening treatment system for 1.1 mgd capacity. The plant will be substantially complete in FY 2007. Phase 2 expansion of the Lehigh WTP No. 2 from 1.1 mgd to 5.0 mgd is funded in project LE061 beginning in FY 2008, and Phase 3 expansion from 5.0 mgd to 7.5 mgd is outside the current five year planning horizon. Treatment process in phase 2 and phase 3 will be converted to reverse osmosis due to the requirement of the SFWMD water use permit to use alternate water source (deep aquifer) to obtain raw water supply. The ultimate capacity of the plant is 10.0 mgd.

2. JUSTIFICATION OF PROJECT:
This small amount is designed to cover any minor changes as the phase 1 lime softening plant is completed at the end of FY 2007 (September 2007). Increased growth and associated potable water demand requires the phased implementation of the increase in plant capacity from 1.1 to 5.0 mgd in Phase 2 beginning in FY 2008. Future capacity increases also include Phase 3 expansion (from 5.0 to 7.5 mgd) in FY 2017 and Phase 4 expansion (from 7.5 to 10.0 mgd) to be determined.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design		379	60					439
Permits		10						10
Construction		5,679	480					6,159
Contingency			42					42
Mgmt. & Other		198	18					216
TOTALS	-	6,266	600	-			-	6,866

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds		2,926	600					3,526
New Bonds/LOC								-
Water Capacity		3,340						3,340
Wastewater Capacity								
TOTALS	-	6,266	600	-		-	-	6,866

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands)

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								
Electric Power:								
Chemicals:								
Other:								
Total Operating Costs:		-	-	-	-	-		-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Miscellaneous Projects Water R & R — Project No.: LE009

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 3 — Water or Wastewater: W — Proposer: STES
Category: WP — Required By Date: Continuing — Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
These are miscellaneous renewal and replacement projects carried out within the Lehigh Acres system. The purpose of this project is to have funds available for repair, maintenance, breakdown of old systems, service lines, pumps and other capital expenditures that reoccur in an on-going plant. The recommended projects include: 1) repair/replace rusted roof structure over the lime silo building, laboratory building, high service pump building. 2) repair/replace rusted aerator structure beams, 3) rehabilitation of clarifier drives, 4) clean the scales from treatment units, 5) correct raw water piping restriction, 6) resurface blacktop driveway, and other emergency projects affecting the water distribution system as they occur.

2. JUSTIFICATION OF PROJECT:
Pursuant to the terms and conditions of the bond trust indentures, the FGUA must establish and maintain a renewal and replacement (R&R) fund. This requirement is established to allow the FGUA to annually deposit funds to the R&R fund in order to accrue monies for facility repair, renewal and replacement.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design		6						6
Permits								-
Construction	538	225	243	255	268	281	295	2,105
Contingency								-
Mgmt. & Other	23	11	11	11	11	11	11	89
TOTALS	561	242	254	266	279	292	306	2,200

4. FUNDING SOURCE ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement	323	242	254	266	279	292	306	1,962
2003 Revenue Bonds								-
2005 Revenue Bonds	238							238
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	561	242	254	266	279	292	306	2,200

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Water Meter Replacement Program — Project No.: LE011

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 4 — Water or Wastewater: W — Proposer: STES
Category: WD — Required By Date: Continuing — Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
The FGUA has conducted an on-going program by which the 10 year old (average life expectancy) residential meters are replaced. The program changes out the oldest meters (approximately 765) in the system every year. Commercial meters are also replaced as required.

2. JUSTIFICATION OF PROJECT:
As the water meters keep running they are subjected to normal wear and tear. This tends to reduce their accuracy and the meters record less than what is actually flowing through the meter. Replacement ensures accurate meter readings improving accountability, reducing lost water percentages and improving the accuracy of billing.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design								-
Permits								-
Construction	77	40	40	42	44	46	49	338
Contingency								-
Mgmt. & Other	3	2	2	2	2	2	2	15
TOTALS	80	42	42	44	46	48	51	353

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement	80	42	42	44	46	48	51	353
2003 Revenue Bonds								-
2005 Revenue Bonds								-
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	80	42	42	44	46	48	51	353

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Reuse Expansion Project — Project No.: LE017

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee County
Priority Rating: 3 — Water or Wastewater: WW — Proposer: GSG
Category: WWT — Required By Date: — Phone No.: (407) 629-6900

1. PROJECT LOCATION/DESCRIPTION:

This project will include engineering design and surveying services for a new reuse pipeline network that will serve the Copperhead and Westminster Golf Courses in Lehigh Acres. Preliminary pipeline size estimates for the network will range from 12 to 24 inches in diameter, which will provide sufficient capacity to both golf courses while establishing sufficient reserve capacity for future expansions and extensions of the reuse piping network within Lehigh Acres. Approximately 7 miles (37,000 linear feet) of pipeline will be installed for this project along with a new reclaimed water pump station located at the WWTP. Permitting services, bidding services, and construction management are also included for the project. The FY 2008 budget contains $3,515,000 of the FY 2006 and 2007 budget that was rolled forward.

2. JUSTIFICATION OF PROJECT:

Based on preliminary estimates presented in the Wastewater Master Plan prepared by Malcolm Pirnie in 2005, approximately 4.5 mgd of disposal capacity will be needed in the next 5 years. This project will expand the existing reuse system thereby increasing the available disposal capacity for the WWTP from 2.5 to 3.1 mgd. This initial phase (Phase 1) will include extending reuse service to the Copperhead Golf Course (by FY 2008) and then to the Westminster Golf Course (by FY 2009), thereby adding 0.6 mgd in disposal capacity. These sites were previously identified by the engineering firm PBS&J as suitable and significant potential reuse customers due to their location relative to the existing WWTP. A second phase can be found in project LE071 that will introduce reuse service to residential customers in the Lehigh Acres System.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design	191	194	129					514
Permits		-	50					50
Construction		31	4,739					4,770
Contingency		-	474					474
Mgmt. & Other	92	-	156					248
TOTALS	283	225	5,548	-	-	-	-	6,056

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds	283	225	3,015					3,523
New Bonds/LOC			2,033					2,033
Water Capacity								-
Wastewater Capacity								-
TOTALS	283	225	5,048	-	-	-	-	5,556

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: WWTF Backup Disposal | Project No.: LE020

Design Build Candidate: No | Construction at Risk Candidate: No
System: Lehigh Acres | County: Lee County
Priority Rating: 3,2,1 | Water or Wastewater: WW | Proposer: GSG
Category: WWT | Required By Date: Sept 2008 | Phone No.: (407) 629-6900

1. PROJECT LOCATION/DESCRIPTION:
Design, permit, and construct one aquifer storage and recovery well (ASR) for wastewater effluent storage. Includes surface water disposal permitting in FY 2006 and permitting, design and construction of deep well injection system in later years. The FY 2008 portion of this project provides for injection pumps, effluent storage and connecting transmission mains.

2. JUSTIFICATION OF PROJECT:
This project is required to dispose of effluent during the wet season. This process will ensure our WWTF effluent disposal needs are met during the wet season or during times of plant malfunctions. During the wet season effluent can be pumped to the well, reducing the perc-pond levels. This project was identified during due diligence for the system acquisition.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design	56	586	100					742
Permits		85	20					105
Construction		6,218	1,300					7,518
Contingency		-	40					40
Mgmt. & Other	187	3	40					230
TOTALS	243	6,892	1,500	-	-	-	-	8,635

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds	243	5,403						5,646
New Bonds/LOC			1,500					1,500
Water Capacity								-
Wastewater Capacity	-	1,489						1,489
TOTALS	243	6,892	1,500	-	-	-	-	8,635

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:			50	50	50	50	50	250
Chemicals:								-
Other:			50	50	50	50	50	250
Total Operating Costs:	-	-	100	100	100	100	100	500

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Miscellaneous Wastewater R & R — Project No.: LE025

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 1 — Water or Wastewater: WW — Proposer: STES
Category: WWC/WWD — Required By Date: Continuous — Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
This project is for miscellaneous repair, renewal, and replacement of Lehigh Acres wastewater facilities. The purpose of this project is to have funds available for the renewal and/or replacement of items that typically include the replacement of old service lines, small pumps, and equipment that reoccur on an ongoing basis. The projects recommended include BTU # 3 air header and upgrading aeration blowers, along with emergency repairs to the wastewater collection system.

2. JUSTIFICATION OF PROJECT:
The FGUA must budget for the continual maintenance of its wastewater facilities in order to deliver high quality services on a regular basis as required in in its bond trust agreements. Some renewals and replacements exceed the base maintenance cost threshold established in the operation and maintenance contract. This project allows the FGUA to use funds for wastewater facility renewal and replacement that exceed the $7,500 operating threshold established in the operating contract but do not rise to the level that a separate project needs to be established.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design								-
Permits								-
Construction	950	504	529	556	583	613	643	4,378
Contingency								-
Mgmt. & Other	40	24	24	24	24	24	24	184
TOTALS	990	528	528	553	580	607	637	4,423

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement	624	528	528	553	580	607	637	4,057
2003 Revenue Bonds	246							246
2005 Revenue Bonds	120	-						120
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	990	528	528	553	580	607	637	4,423

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Install New Fire Hydrants — Project No.: LE034

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee County
Priority Rating: 5 — Water or Wastewater: W — Proposer: STES
Category: wd — Required By Date: Continuing — Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
Install new fire hydrants as requested by the fire department in areas without hydrants where feasible, based on the master plan and while ensuring adequate water flows are available in those areas. This is in addition to the fire hydrant replacement program in project LE010.

2. JUSTIFICATION OF PROJECT:
The fire department would like additional fire hydrants in areas currently without them to improve fire protection in the Lehigh Acres area. This project is designed to allow 5 additional fire hydrants each year to existing lines to improve fire protection to the Lehigh Acres Community.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design								-
Permits								-
Construction		20	20	20	20	20	20	120
Contingency								-
Mgmt. & Other		1	1	1	1	1	1	6
TOTALS	-	21	21	21	21	21	21	126

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds			21					21
2005 Bonds		21						21
New Bonds/LOC				21	21	21	21	84
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	21	21	21	21	21	21	126

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Design & Install Water Distribution Isolation Valves Project No.: LE036

Design Build Candidate: No Construction at Risk Candidate: No
System: Lehigh Acres County: Lee County
Priority Rating: 5 Water or Wastewater: W Proposer: STES
Category: WD Required By Date: Jun-08 Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
This project will locate and add shutoff valves to the Lehigh Acres Utility System water distribution mains.

2. JUSTIFICATION OF PROJECT:
Currently there are too few shutoff valves in many areas of the Lehigh Acres water distribution system. This results in shutting off of water service and issuing boil water notices to excessively large areas of customers when water needs to be shut off to repair leaks, maintain the system or add new services, and interconnects. By adding additional valves, the FGUA will be able to improve service to its customers by reducing the frequency of water outages and also ensure that less water is wasted during every water outage.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design								-
Permits								-
Construction		10	11	11	12	13	13	70
Contingency								-
Mgmt. & Other	1							1
TOTALS	1	10	11	11	12	13	13	71

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds		10	11					21
2005 Bonds	1							1
New Bonds/LOC				11	12	13	13	49
Water Capacity								-
Wastewater Capacity								-
TOTALS	1	10	11	11	12	13	13	71

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name:	Lehigh Acres WWTP Phase 2 Expansion Project			Project No.:	LE052
Design Build Candidate:	Yes			Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee
Priority Rating:	3	Water or Wastewater:	WW	Proposer:	AGM
Category:	WWT	Required By Date:	Sep-08	Phone No.:	407-236-5700

1. PROJECT LOCATION/DESCRIPTION:

Engineering, design, and permitting in FY 2007 to increase the plant capacity by 3.0 mgd. The Phase 2 project will include a new influent pump station and headworks, a 3.0 mgd secondary biological treatment system, a dedicated building to house the air supply blowers, and an aerobic digester. Bidding and construction management services will also be provided. Also in FY 2008, the construction of the solids and residuals management facility will take place. In FY 2008, the construction of the first 3.0 mgd process trains will be contracted, with completion scheduled in FY 2009. This facility will include the footprint for one or two additional plants of 3.0 mgd each, for future addition in a modular fashion, as the treatment demand grows.

2. JUSTIFICATION OF PROJECT:

The completion of the Phase 1 project around mid 2007 calendar year will allow the plant to continue to operate and treat all wastewater generated in Lehigh Acres. However, additional capacity will be required to ensure adequate treatment is provided in future years. In addition, the existing plant configuration and type of unit processes cannot be further expanded to efficiently treat larger volumes of wastewater in the future. Consequently, the Phase 2 project will take the first step to install and layout a more suitable and modern wastewater treatment plant that will continue to serve Lehigh Acres for the next 20 to 30 years. A new sludge facility for the Phase 2 project is in the design phase in FY 2007 and will be constructed in FY 2008.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design	97	924	180					1,201
Permits		-	40					40
Construction		-	8,100					8,100
Contingency		-	870					870
Mgmt. & Other	11	-	418					429
TOTALS	108	924	9,608	-	-	-	-	10,640

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds	108	924						1,032
New Bonds/LOC			9,608					9,608
Water Capacity								-
Wastewater Capacity								-
TOTALS	108	924	9,608	-	-	-	-	10,640

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Force Main Replacement along Beth Stacey Blvd — Project No.: LE054

Design Build Candidate: Yes — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee County
Priority Rating: 3 — Water or Wastewater: WW — Proposer: MPI
Category: WWC — Required By Date: Sep-08 — Phone No.: (407) 660-1133

1. PROJECT LOCATION/DESCRIPTION:
The existing 6-In. force main pipeline from Lift Station No. 19 (near Sunset Lake Apartments/Condos) running north along Beth Stacy Blvd., then merging into Homestead Road and connecting to a 12-In force main at Lee Blvd. will be replaced with a 5,875 foot, 10-in. diameter force main pipeline.

2. JUSTIFICATION OF PROJECT:
This project is necessary to elliminate a bottleneck in the existing Wastewater Force Main system. The 8-in. diameter force main originating in the Copperhead development reduces to 6-in. diameter along Beth Stacy Blvd. near Lift Station No. 19. Scouring velocities are not being reached in the 8-in. force main due to the friction head and velocity restrictions of the 6-in. diameter pipeline. Additional development will occur along Beth Stacey Blvd. will require this bottleneck in flow be removed.

3. ESTIMATED PROJECT COST ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design			58					58
Permits			3					3
Construction			1,325					1,325
Contingency			60					60
Mgmt. & Other			54					54
TOTALS	-	-	1,500	-	-	-	-	1,500

4. FUNDING SOURCE ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds								-
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity			1,500					1,500
TOTALS	-	-	1,500	-	-	-	-	1,500

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name:	Lehigh Acres WWTP Master Plan			Project No.:	LE056
Design Build Candidate:	No			Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee County
Priority Rating:	3	Water or Wastewater:	WW	Proposer:	URS
Category:	WWT	Required By Date:		Phone No.:	(813) 286-1711

1. PROJECT LOCATION/DESCRIPTION:

A Master Plan (MP) for the WWTP should be prepared in order to better ensure that the plant is properly expanded at the appropriate times (i.e., multiple expansion events) to address larger wastewater volumes that will be generated within the Lehigh Acres service area over the next 20 plus years. The master plan will consider the following: (1) treatment technologies and design configurations, (2) timing for installation of additional capacity, (3) impacts & upgrades to existing facilities, (4) rehabilitation or decommissioning of aging plant infrastructure at appropriate times, (5) additional plant infrastructure to support new injection well for the plant, (6) efficient space utilization at the WWTP site and the need to acquire additional property, and (7) capital cost impacts through a 20 year planning horizon. An update to the MP is included in FY 2011.

2. JUSTIFICATION OF PROJECT:

A detailed study is needed to properly plan how the plant should be configured and expanded to have sufficient treatment capacity through time, while meeting mandatory regulatory requirements pertaining to the planning, engineering design, and construction of new plant infrastructure. An important aspect of the master plan will be to provide a more accurate estimate of the anticipated capital outlay that will be needed for the plant through time so that future CIP budgets can be funded with minimal impact on the customer rates and to assure capacity is adequate and available when needed.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design		70				25		95
Permits								-
Construction								-
Contingency								-
Mgmt. & Other		3				1		4
TOTALS	-	73	-	-	-	26	-	99

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds		73						73
2005 Bonds								-
New Bonds/LOC						26		26
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	73	-	-	-	26	-	99

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name:	Lehigh Acres WWTP Reject Water Storage System			Project No.:	LE058
Design Build Candidate:	Yes			Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee
Priority Rating:	4	Water or Wastewater:	WW	Proposer:	AGM
Category:	WWT	Required By Date:		Phone No.:	407-236-5700

1. PROJECT LOCATION/DESCRIPTION:

Engineering design services for a new, dedicated reject water storage and return system to manage substandard effluent that may be generated by the plant. The design will include dedicated storage tanks (total of 2) and a return pumping system to route substandard effluent back to the plant for re-treatment. Geotechnical services included. Permitting, bidding, and construction management services are also included for this project. One of the tanks and the return pumping system will be constructed in FY 2008 followed by the second tank in later years. Each tank will have a storage capacity of 4.5 mgd which together will have sufficient storage capacity for the build-out capacity of the plant.

2. JUSTIFICATION OF PROJECT:

As a consequence of newly promulgated CFR requirements pertaining to injection wells at WWTPs in Florida, effluent that does not meet reclaimed water quality standards must be diverted to a reject storage system. The existing plant does not have this system in place and other expansion projects previously identified do not include plans for a reject storage system. Consequently, the goal of this project will be to implement a satisfactory reject system to compliment the injection well for purposes of full regulatory compliance and management to address reject water that may be periodically generated by the plant from time to time.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design		286						286
Permits		10						10
Construction			2,600					2,600
Contingency			260					260
Mgmt. & Other		25	114					139
TOTALS	-	321	2,974	-	-	-	-	3,295

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds			1,500					1,500
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity		321	1,474					1,795
TOTALS	-	321	2,974	-	-	-	-	3,295

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Mirror Lakes Water Treatment Plant No. 2 Phase II — Project No.: LE061

Design Build Candidate: Yes — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 3 — Water or Wastewater: W — Proposer: MPI
Category: WD — Required By Date: 2008-2012 — Phone No.: (407) 660-1133

1. PROJECT LOCATION/DESCRIPTION:
Design, permitting and construction of Phase 2 of Lehigh Water Treatment Plant No. 2 to meet the near and long term water demand for potable water. The plant capacity would be increased by 5.0 mgd from the 1.1 mgd capacity included in Phase 1. This increase in capacity shall be made in 5 increments over 5 years. First increase in capacity shall be designed and constructed in FY2008 and then subsequently each year until FY2012. The design will include reverse osmosis (RO) treatment. In the event demand does not meet current projections, the subsequent RO train construction can be delayed. The well pumping units, wellhead arrangement and raw water transmission main for the three raw water wells (deep aquifer) are also included in this project.

2. JUSTIFICATION OF PROJECT:
Based on the projected population growth and the associated potable water demand, we recommend increasing the capacity of the Lehigh WTP No. 2 to meet water needs of planned residential/commercial developments. The current plans are based of the present forecast. The first phase (1.1 mgd) is already in its construction phase (begun May 2006). If future actual growth exceeds projected growth, then adjustments to plans shall be made. The first year (FY2008) includes constructing a building for five 1.0 mgd reverse osmosis trains and pipe flanges and other structures that shall facilitate quicker installation of the subsequent RO treatment trains. Also includes raw water transmission main, well pumps and the wellhead arrangement for the alternative water supply (deep aquifer).

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design			750	300	300	300	300	1,950
Permits			200	100	100	100	100	600
Construction			7,250	3,410	3,410	3,410	3,410	20,890
Contingency			700	330	330	330	330	2,020
Mgmt. & Other			330	130	130	130	130	850
TOTALS	-	-	9,230	4,270	4,270	4,270	4,270	26,310

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Revenue Bonds								-
2005 Revenue Bonds								-
New Bonds/LOC			7,781	2,270	2,270	2,270	2,270	16,861
Water Capacity			1,449	2,000	2,000	2,000	2,000	9,449
Wastewater Capacity								-
TOTALS	-	-	9,230	4,270	4,270	4,270	4,270	26,310

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)				1 FT	1 FT	1FT	1FT	
Personnel costs:				60	60	65	65	250
Electric Power:				100	210	315	385	1,010
Chemicals:				60	120	180	220	580
Other:								-
Total Operating Costs:	-	-	-	220	390	560	670	1,840

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Parallel FM Serving Buckingham Development — Project No.: LE063

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 3 — Water or Wastewater: WW — Proposer: MPI
Category: WWC — Required By Date: — Phone No.: (407) 660-1133

1. PROJECT LOCATION/DESCRIPTION:
Buckingham Villages development is being planned to the west of Harnes Marsh School. A 6,500 foot, 8-in. diameter force main will be constructed to serve this development, with installation parallel to the dedicated 4-in. force main between Harnes Marsh School and Lee Blvd. along Sunniland Blvd.

2. JUSTIFICATION OF PROJECT:
This project is necessary to provide wastewater service to the Buckingham Villages development.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design			62					62
Permits			2					2
Construction			416					416
Contingency			42					42
Mgmt. & Other			17					17
TOTALS	-	-	539	-	-	-	-	539

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds								-
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity			539					539
TOTALS	-	-	539	-	-	-	-	539

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: Rehab or Replace Lime Slaker Assembly — Project No.: LE066

Design Build Candidate: Yes — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 4 — Water or Wastewater: W — Proposer: GSG
Category: GP — Required By Date: Sep-09 — Phone No.: (941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
Rehabilitate or replace the existing lime slaker and feed system at the WTP.

2. JUSTIFICATION OF PROJECT:
The existing lime slaker system is 20 years old. Parts that fail must be fabricated. The systems in use today provide for a more efficient mix which provides for a better quality treatment. Should this system fail, and parts be unobtainable, treatment quality could be adversely effected for an unacceptable length of time. This project has been deferred from FY 2007 to FY 2009, as short term replacement was not necessary. Removal of caked up lime deposits from the existing equipment were accomplished through our R&R project.

3. ESTIMATED PROJECT COST ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design		4		4				8
Permits								-
Construction				250				250
Contingency				15				15
Mgmt. & Other				16				16
TOTALS	-	4	-	285	-	-	-	289

4. FUNDING SOURCE ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement		4		285				289
2003 Revenue Bonds								-
2005 Revenue Bonds								-
New Bonds/LOC								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	4	-	285	-	-	-	289

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ In thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name: South Area Storage and Pump Facility Project No.: LE069

Design Build Candidate:	No			Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee
Priority Rating:	3	Water or Wastewater:	W	Proposer:	STES
Category:	WT	Required By Date:	Sep-09	Phone No.:	(941) 925-3088

1. PROJECT LOCATION/DESCRIPTION:
Design and build a 0.5 mg water storage and pumping facility. Lehigh Acres development is expanding rapidly to the North and South. To the South, along Homestead, residential growth is projected to expand rapidly over the next several years.

2. JUSTIFICATION OF PROJECT:
A single 12" water line is in place to serve an expanding area. This area will be comprised of several thousand new residential units and a new school. A new treatment plant is proposed for this area and should meet production goals however finished storage is needed closer to SR 82. A pumping station is located near SR 82 but is without storage. Should a break occur in this 12" main, hundreds of homes will be without water. A storage tank could eliminate such a widespread outage from occurring. This is an ideal time to put up the tank, as it will be available as the upgrades for the Mirror Lakes Water Plant 2 Phase 2 come on line.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design				40				40
Permits				10				10
Construction				400				400
Contingency				50				50
Mgmt. & Other				50				50
TOTALS	-	-	-	550	-	-	-	550

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Revenue Bonds								-
2005 Revenue Bonds								-
New Bonds/LOC								-
Water Capacity				550				550
Wastewater Capacity								-
TOTALS	-	-	-	550	-	-	-	550

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:					20	20	20	60
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	20	20	20	60

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name:	Lehigh Acres Reuse Expansion Project Phase 2			Project No.:	LE071
Design Build Candidate:	Yes			Construction at Risk Candidate:	Yes
System:	Lehigh Acres			County:	Lee
Priority Rating:	3	Water or Wastewater:	WW	Proposer:	AGM
Category:	WWT	Required By Date:		Phone No.:	407-236-5700

1. PROJECT LOCATION/DESCRIPTION:

This project will include engineering design and surveying services for an expanded reuse piepline network that will serve new and existing developments within the Lehigh Acres service area. Preliminary pipeline size estimates for the network will range from 6 to 24 inches in diameter, which will provide sufficient capacity to all users that will be connected during this expansion phase (specific users to be determined). A pipe allocation of 15 miles (79,000 LF) is used to establish an adequate budget for this phase. Geotechnical and utility locates included. Permitting, bidding, and construction mangement services are also included for the project. Results from the pending Reuse Master Plan will be used to refine initial estimates.

2. JUSTIFICATION OF PROJECT:

Based on preliminary estimates presented in the Wastewater Master Plan as prepared by Malcolm Pirnie in 2005, approximately 4.5 mgd of deposal capacity will be needed in the next 5 years. However, upon the completion of the Phase 1 reuse expansion project, only 3.1 mgd of disposal capacity will be available for the plant. Consequently, the goal of this project will be to secure additional disposal capacity of at least 1.4 mgd and more if available, which must be available in order to ensure that the disposal system has sufficient capacity to meet growth in the area while maintaining permit compliance. The Phase 2 expansion project will be executed in three distinct projects that will be further defined by the Reuse Master Plan.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design			270	260	260			790
Permits			10	10	10			30
Construction				2,700	2,600	2,600		7,900
Contingency				270	260	260		790
Mgmt. & Other			11	130	125	114	-	380
TOTALS	-	-	291	3,370	3,255	2,974	-	9,890

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds			291					291
2005 Bonds								-
New Bonds/LOC				3,370	3,255	2,974		9,599
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	-	291	3,370	3,255	2,974	-	9,890

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2008-2012)
PROJECT REQUEST FORM

Project Name:	Raw Water Supply Wells, Mirror Lakes Phase 2			Project No.:	LE077
Design Build Candidate:	No			Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee
Priority Rating:	3	Water or Wastewater:	W	Proposer:	GSG
Category:	WP	Required By Date:	Dec-08	Phone No.:	407-629-6900

1. PROJECT LOCATION/DESCRIPTION:
Design, permitting and construction of three new raw water supply wells to obtain water from the Upper Floridian aquifer for use with the reverse osmosis (RO) water treatment plant (Mirror Lakes WTP #2). The raw water wells will be the dedicated water source for the RO WTP. The shallow Sandstone aquifer raw water wells will have to be abandoned. The new wells will be located on WTP No, 2 property. The third well will be constructed for redundancy and permitting and will be considered out of service.

2. JUSTIFICATION OF PROJECT:
The SFWMD will not allow any additional raw water supply to be obtained from the current shallow (Sandstone) aquifer source. Therefore, in order to increase the water use permit capacity to meet future population growth and water demands, future raw water supplies need to be obtained from a new, deeper aquifer (Upper Floridian aquifer) source. The poorer quality water from that source will require the use of reverse osmosis treatment technology to produce potable water. This project will be submitted to SFWMD to determine eligibility for State grant money that may reimburse up to 40 percent of certain project costs.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Engineering & Design			90					90
Permits			8					8
Construction			2,500					2,500
Contingency			60					60
Mgmt. & Other			20					20
TOTALS	-	-	2,678	-	-	-	-	2,678

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
Repair & Replacement								-
2003 Bonds								-
2005 Bonds								-
New Bonds/LOC			2,678					2,678
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	-	2,678	-	-	-	-	2,678

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:				20	20	20	20	80
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	20	20	20	20	80

Lehigh

SCHEDULE OF WATER RATES AND CHARGES

Prepared: September 13, 2007

	Actual				Effective October 1, Proposed	Projected			
	2003	2004	2005	2006	2007	2008	2009	2010	2011
RESIDENTIAL SERVICE									
Base Facility									
5/8" x 3/4"	9.96	10.18	10.43	10.73	11.01	11.30	11.59	11.89	12.20
3/4"	14.95	15.28	15.65	16.10	16.52	16.95	17.39	17.84	18.30
1"	24.89	25.45	26.06	26.81	27.50	28.22	28.95	29.70	30.47
1 1/2"	49.81	50.92	52.14	53.65	55.03	56.46	57.93	59.44	60.99
2"	79.69	81.47	83.42	85.83	88.04	90.33	92.68	95.09	97.56
3"	159.37	162.92	166.83	171.65	176.08	180.68	185.38	190.18	195.12
4"	249.02	254.57	260.68	268.21	275.13	282.28	289.62	297.15	304.88
6"	498.05	509.16	521.38	536.45	550.29	564.60	579.28	594.34	609.79
8"	796.87	814.64	834.19	858.30	880.44	903.33	926.82	950.92	975.64
10"	1,145.51	1,171.05	1,199.16	1,233.82	1,265.65	1,298.56	1,332.32	1,366.96	1,402.50
Consumption Charge									
Per 1,000 Gallons	3.77	3.85	3.95	4.06	4.16	4.27	4.38	4.49	4.61
PRIVATE FIRE PROTECTION SERVICE									
Base Facility									
2"	6.65	6.80	6.96	7.16	7.34	7.53	7.73	7.93	8.14
3"	13.28	13.58	13.90	14.30	14.67	15.05	15.44	15.84	16.25
4"	20.75	21.21	21.72	22.35	22.93	23.53	24.14	24.77	25.41
6"	41.49	42.42	43.43	44.69	45.84	47.03	48.25	49.50	50.79
8"	66.40	67.86	69.51	71.52	73.37	75.28	77.24	79.25	81.31
10"	95.46	97.59	99.93	102.82	105.47	108.21	111.02	113.91	116.87
Consumption Charge									
Per 1,000 Gallons	None	None	None	None	None	None	None	None	None

SCHEDULE OF WASTEWATER RATES AND CHARGES

	Actual				Effective October 1, Proposed	Projected			
	2003	2004	2005	2006	2007	2008	2009	2010	2011
RESIDENTIAL									
Base Facility									
5/8" x 3/4"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
3/4"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
1"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
1 1/2"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
2"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
3"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
4"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
6"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
8"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
10"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
Gallonage Charge per 1,000 gal.	5.89	5.82	5.96	6.13	6.29	6.45	6.62	6.79	6.97
Maximum Gallonage Charge	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Wastewater Service Only									
Base Facility	32.26	32.93	33.77	34.75	35.65	36.58	37.53	38.51	39.51
GENERAL & MULTI-FAMILY									
Base Facility									
5/8" x 3/4"	16.90	17.28	17.69	18.20	18.67	19.16	19.66	20.17	20.69
3/4"	25.35	25.92	26.54	27.31	28.01	28.74	29.49	30.26	31.05
1"	42.26	43.20	44.24	45.52	46.69	47.90	49.15	50.43	51.74
1 1/2"	84.49	86.37	88.45	91.01	93.38	95.79	98.28	100.84	103.48
2"	135.18	138.19	141.51	145.60	149.38	153.24	157.22	161.31	165.50
3"	270.39	276.42	283.05	291.23	298.74	306.51	314.48	322.66	331.05
4"	422.45	431.87	442.24	455.02	466.76	478.90	491.35	504.13	517.24
6"	844.94	863.78	884.51	910.07	933.55	957.82	982.72	1,008.27	1,034.49
8"	1,351.89	1,382.04	1,415.21	1,456.11	1,493.68	1,532.52	1,572.37	1,613.25	1,655.19
10"	1,943.33	1,986.67	2,034.35	2,093.14	2,147.14	2,202.97	2,260.25	2,319.02	2,379.31
Gallonage Charge per 1,000 gal.	6.82	6.97	7.14	7.35	7.54	7.74	7.94	8.15	8.36
Maximum Gallonage Charge	None	None	None	None	None	None	None	None	None
EFFLUENT (RECLAIMED) SERVICE*									
Wholesale:									
Monthly Service Availability	None	None	None	None	None	None	None	None	None
Gallonage Charge per 1,000 gal.	0.18	0.18	0.19	0.43	0.44	0.45	0.46	0.48	0.49
Retail:									
Monthly Service Availability	N.A.	N.A.	N.A.	2.50	2.56	2.63	2.70	2.77	2.84
Gallonage Charge per 1,000 gal.	N.A.	N.A.	N.A.	0.46	0.47	0.48	0.50	0.51	0.52

* Reclaimed rates adjusted effective January 1, 2007.

Section 2

Tentative 10 year CIP with estimated project costs FY 2013 -2018

FLORIDA
GOVERNMENTAL
UTILITY AUTHORITY

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name:	Expansion Lehigh WTP No.2 from 5.0 to 7.5 mgd RO			Project No.:	LE004
Design Build Candidate:	N			Construction at Risk Candidate:	N
System:	Lehigh Acres			County:	Lee
Priority Rating:	3,2,1	Water or Wastewater	W	Proposer:	
Category:	WP	Required By Date:		Phone No.:	

1. PROJECT LOCATION/DESCRIPTION:
Phase III expansion of the Lehigh WTP No. 2 from 5.0 to 7.5 mgd (reverse osmosis). Treatment process will be converted to reverse osmosis due to the requirement of the SFWMD water use permit to use alternate water source (deep aquifer) to obtain raw water supply. The ultimate capacity of the plant is 10.0 mgd.

2. JUSTIFICATION OF PROJECT:
Future capacity increases also include Phase 3 expansion (from 5.0 to 7.5 mgd) in FY 2017 and Phase 4 expansion (from 7.5 to 10.0 mgd) to be determined.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								
Permits								
Construction								
Contingency								
Mgmt. & Other								
TOTALS	-	-	-					

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								-
2001 Bonds								-
2004 Bonds								-
2005 LOC								-
New Bonds								-
Water Capacity								-
Wastewater Capacity								
TOTALS	-	-	-	-		-	-	-

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								
Electric Power:								
Chemicals:								
Other:								
Total Operating Costs:		-	-	-	-	-		-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Miscellaneous Projects Water R & R — Project No.: LE009

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 3 — Water or Wastewater: W — Proposer:
Category: WP — Required By Date: Continuing — Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
These are miscellaneous renewal and replacement projects carried out within the Lehigh Acres system. The purpose of this project is to have funds available for repair, maintenance, breakdown of old systems, service lines, pumps and other capital expenditures that reoccur in an on-going plant. Projects will be identified by the system operator.

2. JUSTIFICATION OF PROJECT:
Pursuant to the terms and conditions of the bond trust indentures, the FGUA must establish and maintain a renewal and replacement (R&R) fund. This requirement is established to allow the FGUA to annually deposit funds to the R&R fund in order to accrue monies for facility repair, renewal and replacement.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits								-
Construction		295	300	315	331	347	365	1,954
Contingency								-
Mgmt. & Other		11	11	11	11	11	11	66
TOTALS		306	311	326	342	358	376	2,020

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Revenue Bonds								
2005 Revenue Bonds								
2007 S. A. Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS								

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Water Meter Replacement Program — Project No.: LE011

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee
Priority Rating: 4 — Water or Wastewater: W — Proposer:
Category: WD — Required By Date: Continuing — Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
The FGUA has conducted an on-going program by which the 10 year old (average life expectancy) residential meters are replaced. The program changes out the oldest meters (approximately 765) in the system every year. Commercial meters are also replaced as required.

2. JUSTIFICATION OF PROJECT:
As the water meters keep running they are subjected to normal wear and tear. This tends to reduce their accuracy and the meters record less than what is actually flowing through the meter. Replacement ensures accurate meter readings improving accountability, reducing lost water percentages and improving the accuracy of billing.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits								-
Construction		49	49	50	53	55	58	314
Contingency								-
Mgmt. & Other		2	2	2	2	2	2	12
TOTALS		51	51	52	55	57	60	326

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Revenue Bonds								
2005 Revenue Bonds								
2007 S. A. Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS								

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

PROJECT REQUEST FORM
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name:	WW Lift Station Telemetry			Project No.:	LE018
Design Build Candidate No				Construction at Risk Candidate:	No
System:	Lehigh Acres			County:	Lee
Priority Rating:	1	Water or Wastewater:	WW	Proposer:	
Category:	WWC	Required By Date:	Continuous	Phone No.:	

1. PROJECT LOCATION/DESCRIPTION:

The systems are located in Lehigh Acres Wastewater collection systems. The wastewater collection system has many Lift Stations that are not connected to the Supervisory Control And Data Acquisition System (SCADA system) This project is to install remote monitoring and control capability to those Lift Stations that do not have it. Depending on the age and condition of the existing electrical panel, some Lift Stations will receive a remote telemetry unit only and others will receive a new control panel with telemetry.

2. JUSTIFICATION OF PROJECT:

The capability to remotely monitor and control the lift stations remotely provides greater operation, flexibility, and control. System operators receive alarms in a more timely manner, allowing a quicker response. As a result, the chance of wastewater overflows is greatly reduced. Current alarms are local and rely on nearby residents to call the operators, which may not always be the best method. System operators will also have the capability to remotely modify the Lift Station controls for wastewater variation once the new telemetry is installed.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design		21	22	23	24	25	25	140
Permits								-
Construction		160	168	176	185	194	194	1,077
Contingency		16	17	18	19	19	19	108
Mgmt. & Other		8	8	9	9	10	10	53
TOTALS		205	215	226	237	248	248	1,378

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								-
2001 Bonds								-
2004 Bonds								-
2005 LOC								-
New Bonds								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	-	-	-	-	-	-	-

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Miscellaneous Wastewater R & R Project No.: LE025

Design Build Candidate: No Construction at Risk Candidate: No
System: Lehigh Acres County: Lee
Priority Rating: 1 Water or Wastewater: WW Proposer:
Category: WWC/WWD Required By Date: Continuous Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
This project is for miscellaneous repair, renewal, and replacement of Lehigh Acres wastewater facilities. The purpose of this project is to have funds available for the renewal and/or replacement of items that typically include the replacement of old service lines, small pumps, and equipment that reoccur on an ongoing basis.

2. JUSTIFICATION OF PROJECT:
The FGUA must budget for the continual maintenance of its wastewater facilities in order to deliver high quality services on a regular basis as required in in its bond trust agreements. Some renewals and replacements exceed the base maintenance cost threshold established in the operation and maintenance contract. This project allows the FGUA to use funds for wastewater facility renewal and replacement that exceed the $7,500 operating threshold established in the operating contract but do not rise to the level that a separate project needs to be established.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits								-
Construction		643	650	655	660	665	670	3,943
Contingency								-
Mgmt. & Other		25	25	25	25	25	25	150
TOTALS		505	528	553	580	607	637	3,410

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Revenue Bonds								
2005 Revenue Bonds								
2007 S. A. Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS								

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Install New Fire Hydrants — Project No.: LE 034

Design Build Candidate: No — Construction at Risk Candidate: No
System: Lehigh Acres — County: Lee County
Priority Rating: 5 — Water or Wastewater: W — Proposer:
Category: wd — Required By Date: Continuing — Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
Install new fire hydrants as requested by the fire department in areas without hydrants where feasible, based on the master plan and while ensuring adequate water flows are available in those areas. This is in addition to the fire hydrant replacement program in project LE010.

2. JUSTIFICATION OF PROJECT:
The fire department would like additional fire hydrants in areas currently without them to improve fire protection in the Lehigh Acres area. This project is designed to allow 5 additional fire hydrants each year to existing lines to improve fire protection to the Lehigh Acres Community.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits								-
Construction		20	20	20	20	20	20	120
Contingency								-
Mgmt. & Other		1	1	1	1	1	1	6
TOTALS		21	21	21	21	21	21	126

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Bonds								
2005 Bonds								
2007 S.A. Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS								

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Design & Install Water Distribution Isolation Valves Project No.: LE036

Design Build Candidate: No Construction at Risk Candidate: No
System: Lehigh Acres County: Lee County
Priority Rating: 5 Water or Wastewater: W Proposer:
Category: WD Required By Date: Continuing Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
This project will locate and add shutoff valves to the Lehigh Acres Utility System water distribution mains.

2. JUSTIFICATION OF PROJECT:
Currently there are too few shutoff valves in many areas of the Lehigh Acres water distribution system. This results in shutting off of water service and issuing boil water notices to excessively large areas of customers when water needs to be shut off to repair leaks, maintain the system or add new services, and interconnects. By adding additional valves, the FGUA will be able to improve service to its customers by reducing the frequency of water outages and also ensure that less water is wasted during every water outage.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits								-
Construction		13	13	14	15	15	16	86
Contingency								-
Mgmt. & Other								-
TOTALS		13	13	14	15	15	16	86

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Bonds								
2005 Bonds								
2007 S.A Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS								

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

PROJECT REQUEST FORM
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name:	Lehigh Acres WWTP Phase 2c Expansion Project			Project No.:	LE052
Design Build Candidate:	Y			Construction at Risk Candidate:	N
System:	Lehigh Acres			County:	Lee
Priority Rating:	3	Water or Wastewater:	WW	Proposer:	
Category:	WWT	Required By Date:		Phone No.:	

1. PROJECT LOCATION/DESCRIPTION:

Engineering, design and permitting of the phase 2c WWTP expansion. This project will follow the phase 1 expansion that was constructed in 2007 and the phase 2 expansion that is being designed in 2007 and estimated for construction in 2008. The phase 2 expansion will bring the treatment capacity to 4.0 mgd. The phase 2c expansion will be implemented in 2 parts, the first part is the addition of a 2.0 mgd contact stabilization tank that will bring the treatment capacity to 6.0 mgd. the second part is the addition of another 2.0 mgd contact stabilization tank that will bring the treatment capacity to a build out of 8.0 mgd.

2. JUSTIFICATION OF PROJECT:

The completion of the Phase 1 project around mid 2007 calendar year will allow the plant to continue to operate and treat all wastewater generated in Lehigh Acres. However, additional capacity will be required to ensure adequate treatment is provided in future years. In addition, the existing plant configuration and type of unit processes cannot be futher expanded to efficiently treat larger volumes of wastewater in the future. Consequently, the Phase 2 project will take the first step to install and layout a more suitable and modern wastewater treatment plant that will continue to serve Lehigh Acres for the next 20 to 30 years. A new sludge facility for the Phase 2 project is in the design phase in FY 2007 and will be constructed in FY 2008. The phase 2c project will allow for the expansion of the WWTP to meet future needs.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								
Permits								
Construction								
Contingency								
Mgmt. & Other								
TOTALS								

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								-
2001 Bonds								-
2004 Bonds								-
2005 LOC								-
New Bonds								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	-	-	-	-	-	-	-

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Lehigh Acres WWTP Master Plan **Project No.:** LE056

Design Build Candidate: No **Construction at Risk Candidate:** No
System: Lehigh Acres **County:** Lee County
Priority Rating: 3 **Water or Wastewater:** WW **Proposer:**
Category: WWT **Required By Date:** **Phone No.:**

1. PROJECT LOCATION/DESCRIPTION:

A Master Plan (MP) for the WWTP should be prepared in order to better ensure that the plant is properly expanded at the appropriate times (i.e., multiple expansion events) to address larger wastewater volumes that will be generated within the Lehigh Acres service area over the next 20 plus years. The master plan will consider the following: (1) treatment technologies and design configurations, (2) timing for installation of additional capacity, (3) impacts & upgrades to existing facilities, (4) rehabilitation or decommissioning of aging plant infrastructure at appropriate times, (5) additional plant infrastructure to support new injection well for the plant, (6) efficient space utilization at the WWTP site and the need to acquire additional property, and (7) capital cost impacts through a 20 year planning horizon.

2. JUSTIFICATION OF PROJECT:

A detailed study is needed to properly plan how the plant should be configured and expanded to have sufficient treatment capacity through time, while meeting mandatory regulatory requirements pertaining to the planning, engineering design, and construction of new plant infrastructure. An important aspect of the master plan will be to provide a more accurate estimate of the anticipated capital outlay that will be needed for the plant through time so that future CIP budgets can be funded with minimal impact on the customer rates and to assure capacity is adequate and available when needed.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design					80			80
Permits								-
Construction								-
Contingency								-
Mgmt. & Other					3			3
TOTALS	-				83		-	83

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Bonds								
2005 Bonds								
2007 S.A. Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS	-							

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Painting of Tanks and Buildings - WWTP Project No.: LE062

Design Build Candidate: No Construction at Risk Candidate: No
System: Lehigh Acres County: Lee
Priority Rating: 2 Water or Wastewater: WW Proposer:
Category: WWT Required By Date: Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
WWTP painting. Blast to metal, clean surface and paint or coat both 1 mg ring steel BTU's. Clean and paint Zenon tank and bldg, filter structures, contact tanks, head works, blower building and office building.

2. JUSTIFICATION OF PROJECT:
Each of these building's and structures need to be painted or coated to maintain corrosion protection, appearance and extend their useful life.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits		2						2
Construction		100						88
Contingency		10						10
Mgmt. & Other		10						10
TOTALS	-	122	-	-	-	-	-	110

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								
2003 Revenue Bonds								
2005 Revenue Bonds								
2007 S. A. Bonds								
New Bonds								
Water Capacity								
Wastewater Capacity								
TOTALS								

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Remove Lime Build-up in WTP Project No.: LE067

Design Build Candidate: No Construction at Risk Candidate: No
System: Lehigh Acres County: Lee
Priority Rating: 2 Water or Wastewater: W Proposer:
Category: GP Required By Date: Phone No.:

1. PROJECT LOCATION/DESCRIPTION:
Removal/disposal of hardened lime/calcium deposits from the interior of the 2 water treatment units in Water Treatment Plant No. 1. This provides for the routine removal of lime deposits.

2. JUSTIFICATION OF PROJECT:
As lime is used to soften and coagulate during the treatment process, particles settle and harden, forming a crust. This crust builds up to a point that it inhibits proper treatment. Periodically the treatment units need to be removed from service and de-scaled. Repairs can be identified and performed and protective coatings can be applied.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								-
Permits								-
Construction		50				55		105
Contingency		5				6		11
Mgmt. & Other		2				3		5
TOTALS	-	57	-	-	-	64	-	121

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								-
2003 Revenue Bonds								-
2005 Revenue Bonds								-
2007 S. A. Bonds								-
New Bonds								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	-						-	-

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

PROJECT REQUEST FORM
CAPITAL IMPROVEMENTS PROGRAM (FY 2013-2018)
PROJECT REQUEST FORM

Project Name: Lehigh Acres Reuse Expansion Project
Project No.: LE071
Design Build Candidate: Y
Construction at Risk Candidate: Y
System: Lehigh Acres
County: Lee
Priority Rating: 3
Water or Wastewater: WW
Proposer:
Category: WWT
Required By Date:
Phone No.:

1. PROJECT LOCATION/DESCRIPTION:

This project will include engineering design and surveying services for an expanded reuse piepline network that will serve new and existing developments within the Lehigh Acres service area. Preliminary pipeline size estimates for the network will range from 6 to 24 inches in diameter, which will provide sufficient capacity to all users that will be connected during this expansion phase (specific users to be determined).

2. JUSTIFICATION OF PROJECT:

This project will follow the phase I and phase II reuse expansion projects and help ensure that the disposal system has sufficient capacity to meet growth in the area while maintaining permit compliance.

3. ESTIMATED PROJECT COST ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Engineering & Design								
Permits								
Construction								
Contingency								
Mgmt. & Other								
TOTALS	-	-						

4. FUNDING SOURCE ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
Repair & Replacement								-
2001 Bonds								-
2004 Bonds								-
2005 LOC								-
New Bonds								-
Water Capacity								-
Wastewater Capacity								-
TOTALS	-	-	-	-	-	-	-	-

5. ANNUAL OPERATING IMPACT CREATED BY PROJECT ($ in thousands):

	PRIOR	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	TOTALS
New Positions (FT/PT)								-
Personnel costs:								-
Electric Power:								-
Chemicals:								-
Other:								-
Total Operating Costs:	-	-	-	-	-	-	-	-

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

January 12, 2008

Ray Eubanks, Administrator
Plan Review and DRI Processing
Department of Community Affairs
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

Dear Mr. Eubanks:

Subject: Lee County, DCA # 09-1
SFWMD Comments on Proposed Comprehensive Plan Amendment Package

The South Florida Water Management District (District) has completed its review of the proposed amendment package submitted by Lee County (County). The amendment package includes nineteen amendments to the Lee County Comprehensive Plan including the Water Supply Facilities Work Plan (Work Plan), Capital Improvement Program, six updates to community plans, and eleven future land use text and map amendments. The County's potable water suppliers include Lee County Utilities and five franchised utilities. Lee County Utilities is currently in the process of renewing one of its consumptive use permits.

We offer the following recommendations to assist the County in fully meeting the statutory requirements for water supply and related capital improvements planning through the proposed amendments:

Water Supply Facilities Work Plan

- Clarify which population projections are the official projections used in the Work Plan and confirm that the official projections are used throughout the Lee County Comprehensive Plan. The County should provide the documentation and analysis that led to the conclusion of a rate of growth greater than the latest medium projections from the University of Florida Bureau of Economic and Business Research (BEBR) and request approval of the alternate methodology from the Department of Community Affairs (DCA). Population and demand projections supported by the County's comprehensive plan should be used for the CUP application.

- Clarify and include the Level of Service in the Work Plan. Clarify the number of people per Equivalent Residential Connection (ERC) and how this was determined.

- Revise new Policy 151.5, to provide for coordination between the County, the water suppliers, and local governments in Lee County that provide water to areas with unincorporated Lee County. The policy should identify specific programs for the regular sharing of information regarding changes in land-use, population projections, level of service, etc.

Comprehensive Plan Amendments

- Provide data and analysis to demonstrate that water supply sources and water facilities are available to provide water service to the sites of the proposed land use amendments. The amendments also need to show that water will be available to serve the full development potential of the proposed land use changes as well as the County's existing land uses.

These and other recommendations are captured in the attached report, which we request you include in your review comments to the County.

We look forward to collaborating with the County, their water suppliers and the Department of Community Affairs in developing sound, sustainable solutions to meet the County's future water needs. For assistance or additional information, please contact John Mulliken at (561) 682-6649 or jmulls@sfwmd.gov.

Sincerely,

Chip Merriam, Deputy Executive Director
Water Resources
South Florida Water Management District

Attachment

c: Marjorie G. Craig, P.E., SFWMD
Bob Dennis, DCA
Brandy L. Gonzalez, Lee County Planning Department
Ken Heatherington, AICP, Southwest Florida Regional Planning Council
Doug Muerer, Lee County Utilities Department Director
John Mulliken, SFWMD
Jim Quinn, DEP

Name of Agency:	South Florida Water Management District
Review Coordinator:	Deborah Oblaczynski (561) 682-2544
Local Government:	Proposed Lee County, DCA #09-1
SFWMD Response Date:	January 8, 2009

Background

Lee County is located in the Lower West Coast Regional Planning area of the South Florida Water Management District. The County's potable water suppliers include Lee County Utilities, Bonita Springs Utilities, Florida Governmental Utility Authority, Gasparilla Island Water Association, Greater Pine Island Water Association, and Island Water Association. The County supplies potable water service from Lee County Utilities to portions of unincorporated Lee County. Lee County has a large potential service area that includes all unincorporated areas of Lee County, with the exception of the franchised service areas. Lee County Utilities is currently in the process of renewing one of their consumptive use permits.

Water Supply Facilities Work Plan Comments:

1. **Comment:** The Work Plan does not provide an official projection for population and water demand. The Comprehensive Plan and Work Plan population and demand projections should be consistent.

The County should provide the documentation and analysis that led to the conclusion of a rate of growth greater than the latest medium projections from the University of Florida Bureau of Economic and Business Research (BEBR) and request approval of the alternate methodology from DCA.

Recommendations:

- Clarify which population projections are the official projections used in the work plan and confirm that the official projections are used throughout the Lee County Comprehensive Plan. Obtain approval from DCA for any population projection methodology that deviates significantly from the medium BEBR projections. Population and demand projections supported by the County's comprehensive plan should be used for the CUP application.

- Clarify that the County, City of Fort Myers, and the franchised utilities have consistent population and demand projections for those unincorporated areas not served by the County, or for those portions of municipalities that are served by the County. Include this information in the Work Plan.

2. **Comment:** The level of service is defined in the Lee County Comprehensive Plan but not mentioned in the supporting document titled "*Water Supply Facilities Work Plan Lee County, Florida*" (Work Plan). Information on the

number of people per connection in the Equivalent Residential Connection (ERC) and how that was determined was not included.

Recommendation:

- Clarify and include the Level of Service in the Work Plan. Clarify the number of people per ERC and how this was determined.

3. **Comment:** Given the number of suppliers serving the County, the intergovernmental coordination sections of the comprehensive plan need to be expanded. The Work Plan does not reflect the requirement that the County's Work Plan be adopted and/or updated within 18 months after updates or amendments to the *Lower West Coast Water Supply Plan Update* are approved by the District. The Work Plan needs to provide greater information on bulk sales and interlocal agreements.

Recommendations:

- Revise new Policy 151.5, to provide for coordination between the County, the water suppliers, and municipalities in Lee County. The policy should identify specific programs for the regular sharing of information regarding changes in land-use, population and demand projections, level of service, etc.

- Revise policies to include the requirement that the County's Work Plan be adopted and/or updated within 18 months after updates or amendments to the *Lower West Coast Water Supply Plan Update* are approved by the District.

- Provide additional information on bulk sales and interlocal agreements in the Work Plan, including current and future demands, location of areas served, and terms of service. Copies of the agreements may be attached as supporting documents.

4. **Comment:** Areas of self supply by individual wells are not identified in the Work Plan.

Recommendation:

- Identify predominant areas of current and future self-supply by single-family individual wells and the projected total withdrawal amounts.

5. **Comment:** The Work Plan and some of the amendments do not address the water supply needs for irrigation.

Recommendation:

- Include the use of non-potable water for irrigation in the Work Plan. Discuss the County's efforts to expand the reclaimed water systems to provide opportunities to meet the needs of irrigation in the County.

6. **Comment:** The Capital Improvement Program identifies more proposed capital improvement projects than are listed in the Work Plan.

Recommendations:

- Update "TABLE 11 Capital Improvement Projects" in the Work Plan to include the capital improvement projects listed in Capital Improvement Program Amendment.

Comprehensive Plan Amendments:

Comment: The Comprehensive Plan Amendments do not address the impact of the proposed land use changes on water supply sources and water facilities. The amendments need to demonstrate water supply availability and facilities for the subject sites at the full development potential of the sites. The County needs to provide data and analysis that shows the proposed land use changes will meet the required level of service.

Recommendations:

- Provide data and analysis to demonstrate water supply sources and water facilities are or will be available to provide water service to the sites of the proposed land use amendments. The analysis should identify existing and committed demands for water supply and water facilities capacity reserved, and for approved development that has not yet been built, in determining available water supplies and facility capacities.

- Include data and analysis to support and demonstrate that an adequate water supply is available for the Cauthen Amendment, and that the water treatment facilities have available capacities to serve the maximum development potential of the site. The water supplier indicates it will provide 110,083 gallons per day of potable water to this site while the proposed amendment indicates the estimated water demand for this site is 120,000 gallons per day.

- Include additional data and analysis to support and demonstrate that an adequate water supply source is available for the Burnt Store Marina Village Amendment and that the water treatment facilities have available capacities to serve the maximum development potential of the site. As noted in the Amendment package, this redevelopment will require a modification to the surface water permit.

- Update the Capital Improvement Program to include the Meadows Water Treatment Plant Expansion for the San Carlos Island Amendment as described in the Staff Report. The Staff Report describes an expansion of the Green Meadows water treatment plant to a capacity of 16 million gallons per day. The Staff Report states: "This project is included in Lee County Utilities' CIP and is planned to be completed by 2010." However, it appears the referenced project is not included in the Capital Improvement Program amendment.

PLANNING DIVISION
M E M O R A N D U M

LEE COUNTY
SOUTHWEST FLORIDA

To: Board of County Commissioners

From: Paul O'Connor, AICP, Director, Division of Planning

Subject: Lee Plan Adoption/Transmittal Hearing POC

Date: February 29, 2008

Attached is the Agenda for the upcoming Lee Plan Small Scale Adoption and School District Amendment Transmittal Hearing. The Adoption/Transmittal hearing involves four comprehensive plan amendments. Two of the amendments are small scale amendments and two encompass a proposed Special Amendment Cycle. The hearing will be held on March 11, 2008 in the chambers starting at 5:05 p.m.

The first two plan amendments on the agenda are small scale amendments, CPA2006-02, Cape Royal, and CPA2007-02, Conover. CPA2006-02,Cape Royal, is a privately initiated request to amend the Future Land Use Map for 7.7 acres near the intersection of Pine Island Road and Veterans Parkway from Rural to Suburban and Commercial. CPA2007-02,Conover, is a privately initiated request to amend Map 12, the Water Dependent Overlay Zones, to add a 21,600 square foot site to the Water Dependent Overlay for a site located on the east side of Stringfellow Road south of York Road. Staff is recommending adoption of the two amendments.

The remainder of the agenda involves a proposed Special Amendment Cycle to address revised Florida Statutes. The first amendment in this cycle is CPA 2006-16, the School Facilities Element. In 2005, the Florida Legislature amended section 163.3180 F.S., and mandated the implementation of public school concurrency. That legislation requires that each local government adopt a Public School Facilities Element as part of its Comprehensive Plan and amend its Capital Improvement Element. CPA 2006-16 amends the Community Facilities Element and the Capital Improvements Element of the Lee Plan to add a new Public Schools Facility Element. The amendment also incorporates schools as required public facilities for concurrency purposes and provides for proportionate fair share mitigation options in accordance with the statute. Two new maps, Map 22 School Concurrency Service Areas, and Map 23, Educational and School District Facilities in Lee County, have also been included to address the new school concurrency requirements. Staff is recommending transmittal of the amendment.

The second amendment is CPA 2006-18, the School District Capital Improvement Program. Section 163.3177 [12] [c] F.S. requires that the Lee Plan Capital Improvement Element include the Lee County School District CIP. This amendment proposes to incorporate the School CIP as Table 3A of the Lee Plan. Staff is recommending transmittal of the amendment.

If you have any questions regarding any of these amendments, please feel free to call me directly at 533-8309.

cc: Mary Gibbs, AICP, Director of Community Development
Donna Marie Collins, Assistant County Attorney

BOARD OF COUNTY COMMISSIONERS
PLAN AMENDMENT HEARING
MARCH 11, 2008
COMMISSION CHAMBERS
5:05 P.M.

AGENDA

1. Call to order

2. Certification of Affidavit of Publication for Small Scale Amendment by County Attorney

3. A. CPA 2006-02 - Amend the Future Land Use Map Series for an approximate 7.7 +/- acre site located in Section 20, Township 44 South, Range 23 East, to change the classification shown on Map 1, the Future Land Use Map, from Rural to Suburban and Commercial. Amend Map 7, the Lee County Utilities' Future Sewer Service Areas Map, to add the subject site to the future service area. The site is generally located south of Pine Island Road and east of Veterans Parkway.

   B. Public Comment

   C. Consider adopting the following ordinance which adopts CPA 2006-02:

   AN ORDINANCE AMENDING THE LEE COUNTY COMPREHENSIVE PLAN, COMMONLY KNOWN AS THE "LEE PLAN" AS ADOPTED BY ORDINANCE NO. 89-02, AS AMENDED, SO AS TO ADOPT SMALL SCALE AMENDMENT CPA2006-02 (PERTAINING TO THE DESIGNATION OF A 7.7-ACRE CAPE ROYAL PARCEL FROM RURAL TO SUBURBAN AND COMMERCIAL FUTURE LAND USE CATEGORY) APPROVED DURING A SMALL SCALE COMPREHENSIVE PLAN AMENDMENT EFFORT; PROVIDING FOR AMENDMENT TO THE FUTURE LAND USE MAP SERIES, MAP 1 AND MAP 7; PURPOSE AND SHORT TITLE; LEGAL EFFECT OF "THE LEE PLAN"; GEOGRAPHICAL APPLICABILITY; SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, AND AN EFFECTIVE DATE.

4. A. CPA 2007-02 - Amend the Future Land Use Map Series for an approximate .495-acre site located in Section 35, Township 45 South, Range 22 East, to add the site to Map 12, the Water-Dependent Overlay Zones. The site is generally located on the east side of Stringfellow Road just south of York Road.

   B. Public Comment

   C. Consider adopting the following ordinance which adopts CPA 2007-02:

   AN ORDINANCE AMENDING THE LEE COUNTY COMPREHENSIVE PLAN, COMMONLY KNOWN AS THE "LEE PLAN" AS ADOPTED BY ORDINANCE NO. 89-02, AS AMENDED, SO AS TO ADOPT SMALL SCALE AMENDMENT CPA2007-02 (PERTAINING TO THE DESIGNATION OF A .495-ACRE PINE ISLAND PARCEL AS PART OF THE WATER DEPENDENT OVERLAY ZONE) APPROVED

DURING A SMALL SCALE COMPREHENSIVE PLAN AMENDMENT EFFORT; PROVIDING FOR AMENDMENT TO THE FUTURE LAND USE MAP SERIES, MAP 12; PURPOSE AND SHORT TITLE; LEGAL EFFECT OF "THE LEE PLAN"; GEOGRAPHICAL APPLICABILITY; SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, AND AN EFFECTIVE DATE.

5. Certification of Affidavit of Publication for Special Amendment Cycle by County Attorney

6. A. Staff discussion concerning the Special Amendment Cycle

   B. Consider a motion to initiate the Special Amendment Cycle

7. A. CPA 2006-16 - Amend the Community Facilities Element and the Capital Improvements Element to add a new Public Schools Facility Element. Incorporate schools as required public facilities for concurrency purposes and to provide for proportionate fair share mitigation options in accordance with Senate Bill 360. Incorporate two new maps, Map 22 School Concurrency Service Areas and Map 23 Educational and School District Facilities in Lee County to address the new school concurrency requirements.

   B. Public Comment

   C. Motion to transmit or not transmit CPA 2006-16

8. A. CPA2006-18 - Amend the Lee Plan by incorporating the Lee County School District School CIP into the Capital Improvements Element as Table 3A.

   B. Public Comment

   C. Motion to transmit or not transmit CPA 2006-16

9. Adjourn

Gonzalez, Brandy L.

From: Bonnie Pringle [bonniegiwa@comcast.net]
Sent: Monday, March 24, 2008 3:36 PM
To: Gonzalez, Brandy L.
Subject: Gasparilla Island Water Service area

Brandy,

The following is the data requested.

- GIWA services a total of 2,111 residential (including multi-family) units
- 848 of those units are in Charlotte County - 40.2%
- GIWA sold 365 million gallons during the fiscal year ending 9/30/07 - 23.6% was used in Charlotte County.

Of the Charlotte County users - we are turning over a mobile home park to CCU this week that has 178 units using an average of 15,000 gallons per day. For future planning, those numbers need to be taken out of the above.

If you have any questions, please feel free to contact me.

Bonnie Pringle
Gasparilla Island Water Asso., Inc.
941-964-2423

P Paul O.

LaRue Planning & Management Services, Inc.

1375 Jackson Street, Suite 206
Fort Myers, Florida 33901-2845
239-334-3366 • FAX: 239-334-6384

RECEIVED
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April 30, 2008

Mr. D. Ray Eubanks, Planning Manager
Plan Review and Processing Team
Department of Community Affairs
255 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

Reference: Transmittal of Proposed City of Bonita Springs Water Supply Facilities Work Plan and related Comprehensive Plan Element revisions

Dear Mr. Eubanks:

Pursuant to Rule 9J-11.004(2)(c), enclosed are three (3) copies (one printed copy and two compact discs) of a proposed Comprehensive Plan Amendment for the City of Bonita Springs.

The City of Bonita Springs is located within an area studied within the Lower West Coast Water Supply Plan prepared by the South Florida Water Management District. The City is required to prepare its own Water Supply Facilities Work Plan, and the attached Amendment package was prepared in effort to ensure the requirements of Section 163.3177(3)(c), as interpreted by the Department and South Florida Water Management District.

The package consists of the new proposed Water Supply Facilities Work Plan, and changes to the Potable Water Sub-Element of the Infrastructure Element, Conservation/Coastal Management, Intergovernmental Coordination and Capital Improvements Elements for the City of Bonita Springs.

In furtherance of Rule 9J-11.004, the following information concerning the proposed amendment package is offered: The Local Planning Agency held its duly advertised public hearing on the proposed Comprehensive Plan Amendments on April 15, 2008 and forwarded its recommendation to the City Council for transmittal of the Amendments to DCA for its review. The City Council of the City of Bonita Springs held a duly advertised public hearing on April 16, 2008 at which time the Council authorized transmittal of the Comprehensive Plan Amendment package, as set forth herein, along with other such required documentation to the Florida Department of Community Affairs. [Rules 9J-11.006(1)(a)1 and 9J-11.006(1)(a)2, FAC]

One copy each of the proposed Comprehensive Plan Amendment package and this transmittal letter has been submitted to the following agencies on the above mentioned date. [Rules 9J-11.006(1)(a)1and 9J-11.006(1)(a)2, FAC]:

Southwest Florida Regional Planning Council
South Florida Water Management District
Department of Transportation, District 1
Department of Environmental Protection
Department of Education
Lee County Planning Department
Florida Department of State

The City desires that the Department of Community Affairs review the proposed Amendment as provided in 163.3184(3)(a), F.S., and Rule 9J-11.006(1)(a)3, FAC. [Rule 9J-11.006(1)(a)3,FAC]

The proposed Amendment is exempt from the limit of two amendments per year, since the proposed Amendment incorporates the South Florida Water Management District's Lower West Coast Regional Water Supply Plan as required pursuant to Section 163.3177(3)(c),F.S.

It is anticipated that the proposed Amendment will be adopted in May 2008. [Rule 9J-11.006(1)(a)4, FAC]

The contact person for the City of Bonita Springs is [Rule 9J-11.006(1)(a)10, FAC]:

Barbara Barnes-Buchanan, Assistant City Manager
City of Bonita Springs
9101 Bonita Beach Road
Bonita Springs, FL 34135
239-949-6262 * FAX: 239-929-6239
E-Mail: barbara.barnes-buchanan@cityofbonitasprings.org

And/or:

James G. LaRue, AICP, Planning Consultant
LaRue Planning & Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, FL 33901
239-334-3366 * FAX: 239-334-6384
E-Mail: jim@larue-planning.com

The proposed Plan Amendment package is not applicable to an area of critical state concern. [Rule 9J-11.006(1)(a)5, FAC]

The Plan does not apply to the Wekiva River Protection Area. [Rule 9J-11.006(1)(a)6, FAC]

The proposed Plan Amendment package will not to be adopted under a joint planning agreement. [Rule 9J-11.006(1)(a)9, FAC]

The Plan Amendment package will be available for public inspection during normal business hours and the Department's Objections, Recommendations and Comments will be made available for public inspection during normal business hours at the following location(s):

City of Bonita Springs City Hall
9101 Bonita Beach Road
Bonita Springs, Florida 34135

Should you have any questions or require additional information, please do not hesitate to contact me at 239-334-3366.

Sincerely,

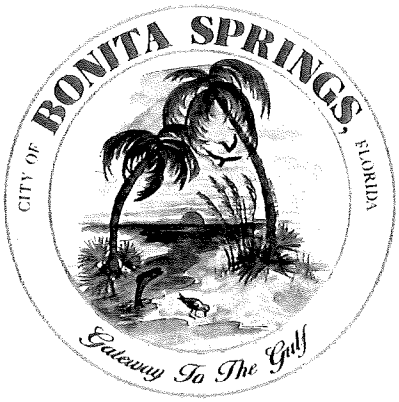
James G. LaRue

James G. LaRue, AICP
Planning Consultant

JGL:vr

Enclosures

cc: Gary Price, City Manager
Barbara Barnes-Buchanan, Assistant City Manger
Dianne Lynn, City Clerk
Audrey E. Vance, City Attorney
Mike Liggins, Bonita Springs Utilities
Mary Gibbs, Lee County Community Development Director
David Crawford, SWFRPC
P.K. Sharma, SFWMD
Thomas Inserra, FDOE
Ben Walker, FDOT District 1
Jim Quinn, FDEP
Susan Harp, DOS



WATER SUPPLY FACILITIES WORK PLAN

AMENDMENT PACKAGE

CITY OF BONITA SPRINGS, FLORIDA

TRANSMITTAL DRAFT: APRIL 30, 2008

Prepared by:
LaRue Planning & Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, FL 33901
239.334.3366 * Fax: 239.334.6384
www.larue-planning.com

Transmittal letter

Cover and Table of Contents

Application Memo

Citizens Courtesy Information Sheet

Affidavits of Publication

Minutes and Hearings backup

Water Supply Facilities Work Plan Ordinance
and Amendment package

Staff Report

City of Bonita Springs Water Supply Plan

1. Application Request

This application was filed by the City of Bonita Springs in response to Florida Statutes Chapter 13.3177(6)(c)requiring the creation and incorporation of a Water Supply Plan within the Capital Improvements Element, and amendments to the Intergovernmental Coordination Element, and Conservation/Coastal Management Element. The proposed amendments provide for level of service standards and planned capital improvements to increase capacity.

2. Background Discussion

In an effort to more link adequate capacity of potable water supply with future population growth, the Florida Legislature added the Water Supply Plan to be included within the comprehensive plan for all cities and counties within water management districts that, through a regional water supply plan show there may not be adequate capacity for anticipated growth. Under Florida Statutes Chapter 373.0361 these regional plans include all existing treatment and storage facilities for each utility within their District. All planned improvement projects to increase capacity are then included and matched with the anticipated level of growth based on population estimates from the University of Florida Bureau of Economics and Business Research. Currently, four of the five water management districts in Florida have identified water supply shortages in the next twenty years. These include the Northwest Florida Water Management District, the St. John's River Water Management District, the Southwest Florida Water Management District, and the South Florida Water Management District. Only the Suwannee River Water Management District has shown that there is not an anticipated shortage of water. The City of Bonita Springs, located within the South Florida Water Management District. Within the District, three regional plans were created. These were the Kissimmee Basin Water Supply Plan, Lower East Coast Water Supply Plan, including areas within the District generally lying east of Lake Okeechobee and the Lower West Coast Water Supply Plan including those areas west of Lake Okeechobee. The City of Bonita Springs is located within the Lower West Coast Water Supply Plan.

The City of Bonita Springs is not served by a City run utility. Bonita Springs Utilities, inc. is a member owned cooperative, run by a board of directors. The franchise area for BSU includes all land within the City of Bonita Springs and includes additional land to the north and east of the City. The Utility currently has additional capacity beyond current supply and with anticipated capacity expansions will have a surplus through the planning period. The supply of potable water meets or exceeds all Florida Department of Environmental Protection standards. BSU is also involved in increasing users for reuse water and connecting with the Collier County Utilities lines for shared use. Based on the permitted level of withdrawal in BSU's two Consumptive Use Permits, and the permitted treatment capacity, there is an adequate supply of water for the planning period.

3. Staff Recommendation

Planning staff recommended the City Council transmit this proposed amendment to the City of Bonita Springs Comprehensive Plan.

4. Public Hearings

Two public hearings were held for this request. The first was before the Bonita Springs Local Planning Agency (LPA) on April 15, 2008. At this hearing, the LPA, consistent with staff support, recommended the City Council transmit the proposed amendment. On April 16, 2008, the City Council accepted the recommendation of the LPA and voted unanimously to transmit the proposed amendment.

Comprehensive Plan Citizen Courtesy Information List

Local Government: City of Bonita Springs
Hearing Date: April 16, 2008
Type Hearing: __XXXXX__Transmittal (Proposed)
DCA Amendment Number: Water Supply Facilities Work Plan Amendment ___(DCA Official Use)

Please Print Clearly

By providing your name and address you will receive information concerning the date of publication of the Notice of Intent by the Department of Community Affairs.

Citizen Name	Address, City, State, Zip Code	✓ Check Appropriate Response(s)		Identify Amendment which is of Interest
		Written Comment	Spoken Comment	
Mike Liggins, Bonita Springs Utilities	11860 East Terry Street, Bonita Springs, FL 34135, 239-992-0711	XX		Water Supply Facilities Work Plan

Th.Th,
NAPLES DAILY NEWS
Published Daily
Naples, FL 34102

Affidavit of Publication

State of Florida
County of Collier

Before the undersigned they serve as the authority, personally appeared B. Lamb, who on oath says that they serve as the Assistant Corporate Secretary of the Naples Daily, a daily newspaper published at Naples, in Collier County, Florida; distributed in Collier and Lee counties of Florida; that the attached copy of the advertising, being a

PUBLIC NOTICE

in the matter of PUBLIC NOTICE

was published in said newspaper 1 time in the issue
On April 8th, 2008

Affiant further says that the said Naples Daily News is a newspaper Published at Naples, in collier county, Florida and that the said newspaper has heretofore been continuously published in said Collier County, Florida; distributed in Collier and Lee counties of Florida, each day and has been entered as second class mail matter at the post office in Naples, in said Collier County, Florida, for a period of 1 year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

B. L

(Signature of affiant)

Sworn to and subscribed before me
This 8th Day Of April 2008

Judy Janes

(Signature of notary public)

JUDY JANES
Commission DD 675029
Expires May 16, 2011
Bonded Thru Troy Fain Insurance 800-385-7019

FEI 59-2578327

Notice of Public Hearing
City of Bonita Springs, Florida

NOTICE IS HEREBY GIVEN that the City Council of the City of Bonita Springs, Florida will hold a public hearing on Wednesday, April 16, 2008, commencing at 9:00 a.m. The hearing will be held in the Bonita Springs City Hall located at 9101 Bonita Beach Road, Bonita Springs, Florida. The City Council will consider the recommendations from the Local Planning Agency on establishing the Public School Facilities Element, Goals, Objectives and Policies; amending the Capital Improvements Element and amending the Intergovernmental Coordination Element of the City of Bonita Springs Comprehensive Plan.

Which Ordinance is entitled as follows:

AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO ESTABLISH THE PUBLIC SCHOOL FACILITIES ELEMENT GOALS, OBJECTIVES AND POLICIES; BY AMENDING THE CAPITAL IMPROVEMENTS ELEMENT'S GOALS, OBJECTIVES AND POLICIES BY PROVIDING FOR INCORPORATION OF TABLES FROM THE LEE COUNTY SCHOOL DISTRICT'S FIVE YEAR CAPITAL FACILITIES PLAN; BY AMENDING THE INTERGOVERNMENTAL COORDINATION ELEMENT'S GOALS, OBJECTIVES AND POLICIES TO INCLUDE COORDINATION WITH THE SCHOOL BOARD ON SCHOOL CONCURRENCY; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

ALSO, the City Council will consider the recommendations from the Local Planning Agency of amending the Potable Water Sub-Element of the Infrastructure Element, amending the Conservation/Coastal Management Element, the Intergovernmental Coordination Element and the Capital Improvements Element to coordinate the City of Bonita Springs' Comprehensive Plan with the South Florida Water Management District's Water Supply Plan and to include a ten-year Water Supply Facilities' Work Plan as required by Florida Statutes, Section 163.3177(6)(c).

Which Ordinance is entitled as follows:

AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, CONSERVATION/COASTAL MANAGEMENT ELEMENT, THE INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S WATER SUPPLY PLAN, AND TO INCLUDE A TEN-YEAR WATER SUPPLY FACILITIES' WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 163.3177(6)(C); PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

A copy of the proposed amendments will be available for review at the office of the City Clerk, 9101 Bonita Beach Road, Bonita Springs, Florida 34135. Interested parties may appear at the meeting and be heard with respect to the proposed revised Comprehensive Plan. Interested parties may submit written or oral comments on the proposal before or at the public hearing.

In accordance with the Americans With Disabilities Act, any person requiring special accommodations at any of the meetings because of a disability or physical impairment should contact the office of the City Manager at 239-949-6262, at least 48 hours prior to the meeting.

If any person decides to appeal a decision made in any matter considered at this meeting/ hearing, such person may need to ensure that a verbatim record of the proceeding is made, to include the testimony and evidence upon which any such appeal is to be based.

CITY OF BONITA SPRINGS
By: Dianne J. Lynn, City Clerk/Treasurer

Th.Th,
NAPLES DAILY NEWS
Published Daily
Naples. FL 34102

Affidavit of Publication

State of Florida
County of Collier

Before the undersigned they serve as the authority, personally appeared B. Lamb, who on oath says that they serve as the Assistant Corporate Secretary of the Naples Daily, a daily newspaper published at Naples, in Collier County, Florida; distributed in Collier and Lee counties of Florida; that the attached copy of the advertising, being a

PUBLIC NOTICE

in the matter of PUBLIC NOTICE

was published in said newspaper 1times in the issue
On April 1st, 2008

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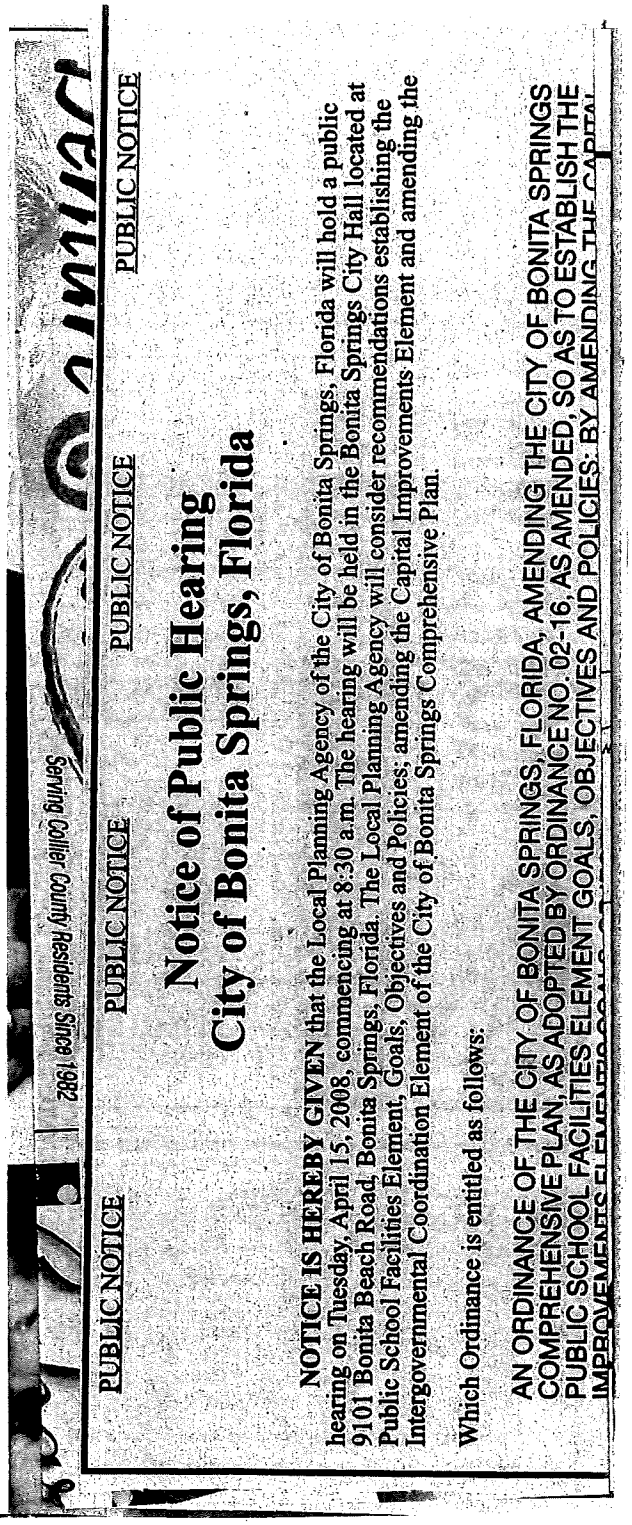
(Signature of affiant)

Sworn to and subscribed before me
This 1st. Day Of April 2008

(Signature of notary public)

JUDY JANES
Commission DD 675029
Expires May 16, 2011
Bonded Thru Troy Fain Insurance 800-385-7019

FEI 59-2578327



2008 APR 9 PM 3:12

Notice of Public Hearing
City of Bonita Springs, Florida

NOTICE IS HEREBY GIVEN that the Local Planning Agency of the City of Bonita Springs, Florida will hold a public hearing on Tuesday, April 15, 2008, commencing at 8:30 a.m. The hearing will be held in the Bonita Springs City Hall located at 9101 Bonita Beach Road, Bonita Springs, Florida. The Local Planning Agency will consider recommendations establishing the Public School Facilities Element, Goals, Objectives and Policies; amending the Capital Improvements Element and amending the Intergovernmental Coordination Element of the City of Bonita Springs Comprehensive Plan.

Which Ordinance is entitled as follows:

AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO ESTABLISH THE PUBLIC SCHOOL FACILITIES ELEMENT GOALS, OBJECTIVES AND POLICIES; BY AMENDING THE CAPITAL IMPROVEMENTS ELEMENT'S GOALS, OBJECTIVES AND POLICIES BY PROVIDING FOR INCORPORATION OF TABLES FROM THE LEE COUNTY SCHOOL DISTRICT'S FIVE YEAR CAPITAL FACILITIES PLAN; BY AMENDING THE INTERGOVERNMENTAL COORDINATION ELEMENT'S GOALS, OBJECTIVES AND POLICIES TO INCLUDE COORDINATION WITH THE SCHOOL BOARD ON SCHOOL CONCURRENCY; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

Also amending the Potable Water Sub-Element of the Infrastructure Element, amending the Conservation/Coastal Management Element, the Intergovernmental Coordination Element and the Capital Improvements Element to coordinate the City of Bonita Springs' Comprehensive Plan with the South Florida Water Management District's Water Supply Plan and to include a ten-year Water Supply Facilities' Work Plan as required by Florida Statutes, Section 163.3177(6)(c).

Which Ordinance is entitled as follows:

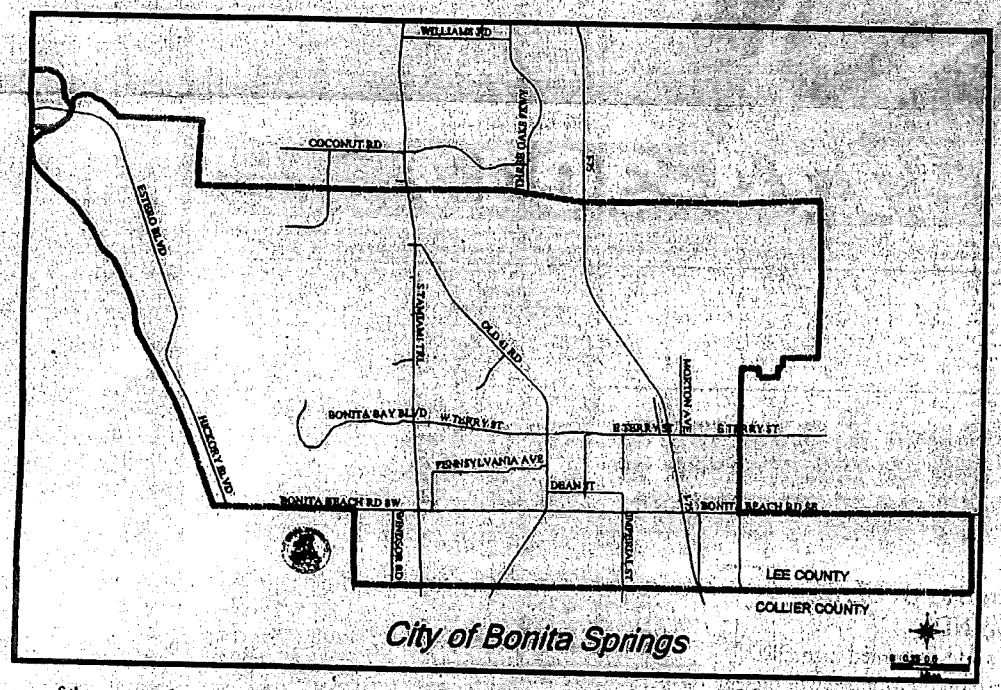
AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, CONSERVATION/COASTAL MANAGEMENT ELEMENT, THE INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S WATER SUPPLY PLAN, AND TO INCLUDE A TEN-YEAR WATER SUPPLY FACILITIES' WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 163.3177(6)(C); PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

Also, amending the City's Land Development Code, Chapter 3, Development Standards, to incorporate Design Standards and Guidelines for Commercial Development throughout the Old 41 Redevelopment Design District.

Which Ordinance is entitled as follows:

AN AMENDMENT TO THE BONITA SPRINGS LAND DEVELOPMENT CODE CHAPTER 3 (DEVELOPMENT STANDARDS); AMENDING ARTICLE IV, SECTION 3-601(F) (APPLICABILITY) TO CREATE THE OLD 41 REDEVELOPMENT AREA DESIGN STANDARDS; SETTING FORTH ADDITIONAL ARCHITECTURAL REVIEW REQUIREMENTS INTO THE DEVELOPMENT REVIEW PROCESS; PROVIDING FOR CONFLICTS OF LAW, SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, INCLUSION IN CODE AND AN EFFECTIVE DATE.

The area to be included is all of the City of Bonita Springs, as depicted on the map below.



A copy of the proposed amendments will be available for review at the office of the City Clerk, 9101 Bonita Beach Road Bonita Springs, Florida 34135. Interested parties may appear at the meeting and be heard with respect to the proposed revised Comprehensive Plan. Interested parties may submit written or oral comments on the proposal before or at the public hearing.

In accordance with the Americans With Disabilities Act, any person requiring special accommodations at any of the meetings because of a disability or physical impairment should contact the office of the City Clerk at 239-949-6262, at least 48 hours prior to the meeting.

If any person decides to appeal a decision made in any matter considered at this meeting/hearing, such person may need to ensure that a verbatim record of the proceeding is made, to include the testimony and evidence upon which any such appeal is to be based.

BONITA SPRINGS CITY COUNCIL	GREEN SHEET:	08-04-0190

AGENDA ITEM SUMMARY

REQUESTED MOTION:

Second Reading and public hearing of an Ordinance entitled:

AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, THE CONSERVATION/COASTAL MANAGEMENT ELEMENT, THE INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT; TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S LOWER WEST COAST WATER SUPPLY PLAN, AND INCLUDING A TEN-YEAR WATER SUPPLY FACILITIES WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 153.3177(6)(C);PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

MEETING DATE: April 16, 2008

AGENDA:		REQUIREMENT/PURPOSE: (Specify)		REQUESTOR OF INFORMATION:
	PRESENTATIONS		STATUTE	James LaRue, AICP LaRue Planning & Management Services And Audrey E. Vance City Attorney
	CONSENT	X	ORDINANCE	
X	PUBLIC HEARING		ADMIN. CODE	
	APPEALS		OTHER	
	MAYOR AND COUNCIL MEMBER'S REPORTS			
	CITY ATTORNEY			
	CITY MANAGER			

BACKGROUND:

The South Florida Water Management District approved its Lower West Coast Regional Water Supply Plan in June, 2006, with the City of Bonita Springs required within 18 months of the regional plan's approval to prepare a 10-year Water Supply Facilities Work Plan and adopt revisions to the City's Comprehensive Plan addressing the water supply requirements. The attached proposed ordinance amends the Bonita Springs Comprehensive Plan to include the water plan. While normally Comprehensive Plan amendments are limited in the amount that may be transmitted annually, an exception exists for newly required elements, such as this element and the Public Schools, and small Comprehensive Plan amendments, such as the one heard a month ago. Florida Statutes §163.3177(6)(c) permits these amendments to not count toward the limitation on the frequency of adoption of amendments to the Comprehensive Plan.

On April 15, 2008, the Bonita Springs LPA reviewed the proposed comprehensive plan amendment for consistency with the comprehensive plan. James LaRue, AICP, LaRue Planning & Management Services will be available to advise of any changes suggested by the Local Planning Agency and provide City Council with further information.

Attachments: Proposed Ordinance

STAFF RECOMMENDATIONS:

Adopt the ordinance, with the understanding there may be changes following transmittal to Florida Department of Community Affairs.

REVIEWED BY:
City Manager: Tony A. Pinto
City Attorney:
City Clerk: Diane Eggan

COUNCIL ACTION:
___ **APPROVED**
___ **DENIED**
___ **DEFERRED**
___ **OTHER**

CITY COUNCIL
CITY OF BONITA SPRINGS
APRIL 16, 2008
9:00 A.M.
CITY HALL
9101 BONITA BEACH ROAD
BONITA SPRINGS, FLORIDA 34135
MINUTES

I. CALL TO ORDER.

Mayor Jay Arend called the meeting to order at 9:00 A.M.

II. INVOCATION.

Mayor Arend furnished the invocation.

III. PLEDGE OF ALLEGIANCE.

Mayor Arend led in the Pledge of Allegiance.

IV. ROLL CALL.

Mayor Arend and all Council Members were in attendance.

V. SECOND READING AND PUBLIC HEARING OF THE FOLLOWING ORDINANCES:

A. AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO ESTABLISH THE PUBLIC SCHOOL FACILITIES ELEMENT GOALS, OBJECTIVES AND POLICIES; BY AMENDING THE CAPITAL IMPROVEMENTS ELEMENT'S GOALS, OBJECTIVES AND POLICIES BY PROVIDING FOR INCORPORATION OF TABLES FROM THE LEE COUNTY SCHOOL DISTRICT'S FIVE YEAR CAPITAL FACILITIES PLAN; BY AMENDING THE INTERGOVERNMENTAL COORDINATION ELEMENT'S GOALS, OBJECTIVES AND POLICIES TO INCLUDE COORDINATION WITH THE SCHOOL BOARD ON SCHOOL CONCURRENCY; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES. (GREENSHEET NO. 08-04-0189)

9:21:28 AM City Attorney Audrey Vance read the title block of the Ordinance into the record.

9:22:28 AM Jim LaRue, LaRue Planning & Management Service, explained that today would be the transmittal hearing. He has reviewed the Ordinance and has found it to be consistent with the public school facilities element of the Comprehensive Plan.

No public comments were made.

9:39:55 AM Council Member Martha Simons motioned to transmit the Ordinance to the Department of Community Affairs; Council Member Richard Ferreira seconded; and the motion carried unanimously.

B. AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, THE CONSERVATION/COASTAL MANAGEMENT ELEMENT, THE INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT; TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S LOWER WEST COAST WATER SUPPLY PLAN, AND INCLUDING A TEN-YEAR WATER SUPPLY FACILITIES WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 153.3177(6)(C);PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES. (GREENSHEET NO. 08-04-0190)

9:41:16 AM City Attorney Vance read the title block of the Ordinance into the record.

9:41:33 AM John Dulmer, LaRue Planning & Management, furnished a brief overview.

PUBLIC COMMENT:

9:44:45 AM Rick Steinmeyer stated that Bonita Springs Utilities sells 4 million gallons of water to Lee County every day.

9:45:29 AM Council Member Simons motioned to transmit the Ordinance to the Department of Community Affairs; Council Member Ferreira seconded; and the motion carried unanimously.

VI. ADJOURNMENT:

There being no further items to discuss, the meeting adjourned at 12:06 P.M.

Respectfully submitted,

_____
Debra Filipek, Recording Secretary

APPROVED:

BONITA SPRINGS CITY COUNCIL:

Date:_____
AUTHENTICATED:

_____
Jay Arend, Mayor

_____
Dianne J. Lynn, City Clerk

Local Planning Agency
TUESDAY, April 15, 2008
8:30 A.M.
Bonita Springs City Hall
9101 Bonita Beach Road
Bonita Springs, Florida 34135
MINUTES

I. CALL TO ORDER.

Chairman Cullum Hasty called the meeting to order at 8:30 A.M.

II. ROLL CALL.

Chairman Hasty and all Board Members were in attendance, except for Board Member Larry Warner.

III. REVIEW OF THE FOLLOWING ORDINANCES FOR CONSISTENCY WITH THE COMPREHENSIVE PLAN:

A. AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO ESTABLISH THE PUBLIC SCHOOL FACILITIES ELEMENT GOALS, OBJECTIVES AND POLICIES; BY AMENDING THE CAPITAL IMPROVEMENTS ELEMENT'S GOALS, OBJECTIVES AND POLICIES BY PROVIDING FOR INCORPORATION OF TABLES FROM THE LEE COUNTY SCHOOL DISTRICT'S FIVE YEAR CAPITAL FACILITIES PLAN; BY AMENDING THE INTERGOVERNMENTAL COORDINATION ELEMENT'S GOALS, OBJECTIVES AND POLICIES TO INCLUDE COORDINATION WITH THE SCHOOL BOARD ON SCHOOL CONCURRENCY; PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

8:37:22 AM Jim LaRue, LaRue Planning & Management Services, furnished an overview of the Ordinance, which he has reviewed and found to be consistent with the agreement with the School Board and with the Public Facilities element of the Comprehensive Plan.

8:55:20 AM Board Member Rex Sims made a motion finding the Ordinance consistent with the City's Comprehensive Plan; Board Member Bob Mills seconded; and the motion carried unanimously.

B. AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, CONSERVATION/COASTAL MANAGEMENT ELEMENT, THE INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S WATER SUPPLY PLAN, AND TO INCLUDE A TEN-YEAR WATER SUPPLY FACILITIES' WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 163.3177(6)(C); PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

8:55:48 AM Jim LaRue, LaRue Planning & Management Services, addressed this Ordinance. He explained that it pertains to the "Water Supply Facilities Work Plan" every governmental jurisdiction is required to have, which is to be consistent with the regional water supply plans in the various areas, which in the City entails the Lower West Coast Water Supply Plan (prepared by the South Florida Water Management District). The Ordinance would amend the sub element of the City's Comprehensive Plan dealing with the water supply.

John Dulmer also with LaRue Planning & Managements Services furnished an overview, explaining that the data and analysis portion would be located in the infrastructure element, which will show that through 2018 there will be an adequate water supply as well as adequate wastewater treatment facilities. Citrus Park and Glade Haven (Eagle Bay RPD a/k/a Jones Trailer Park) are the two providers in the City. The South Florida Water Management District also reviewed the Ordinance and did not have any issues, however, they did express a concern regarding the Level of Service number being used, which seemed a bit high to them. A second concern regarded the Bonita Springs Utilities franchise area which extends to the north and includes some unincorporated areas of Lee County. He explained that the reviewing agency (State) may ask that it be revised to include the City areas only.

9:01:27 AM Board Member Bob Mills referred to page 4-1 under item b. titled "Service Area," the second paragraph, which states "the southern boundary at Limerock Road, which he stated excluded about 500 homes in Citrus Park. Mr. Dulmer to revise. Board Member Mills further suggested the 1,000 reflected on page 4-2 under "Existing Potable Water Connections," be revised to reflect 1,500+ homes. Also to be revised.

19:03:06 AM Board Member Don Colapietro made a motion finding the Ordinance consistent with the City's Comprehensive Plan; Board Member Jose Lopez seconded; and the motion carried unanimously.

C. AN AMENDMENT TO THE BONITA SPRINGS LAND DEVELOPMENT CODE CHAPTER 3 (DEVELOPMENT STANDARDS); AMENDING ARTICLE IV, SECTION 3-601(F) (APPLICABILITY) TO CREATE THE OLD 41 REDEVELOPMENT AREA DESIGN STANDARDS; SETTING FORTH ADDITIONAL ARCHITECTURAL REVIEW REQUIREMENTS INTO THE DEVELOPMENT REVIEW PROCESS; PROVIDING FOR CONFLICTS OF LAW, SEVERABILITY, CODIFICATION, SCRIVENER'S ERRORS, INCLUSION IN CODE AND AN EFFECTIVE DATE.

8:31:39 AM City Attorney Audrey Vance read the title block of the Ordinance into the record. Amy Nowacki, with the American Institute of Architects was in attendance to respond to questions/concerns.

8:34:03 AM Assistant City Manager Barbara Barnes-Buchanan added that the Land Development Code currently consists of the City of Bonita Springs Community Redevelopment Overlay District Ordinance. She explained that even though the District was abolished by Lee County, the overlay requirements are still in existence. Work will be done on any revisions that may be needed.

8:36:44 AM Board Member Morton made a motion finding the Ordinance consistent with the City of Bonita Springs Comprehensive Plan; Board Member Colapietro seconded; and the motion carried unanimously.

IV. PUBLIC COMMENTS: NONE

V. SCHEDULING OF NEXT MEETING. April 30, 2008

VI. APPROVAL OF MINUTES: 02/27/08

Board Member David Morton motioned approval of the minutes; Board Member Mills seconded; and the motion carried unanimously.

VII. ADJOURNMENT.

There being no further items to discuss, the meeting adjourned at 9:05 A.M.

Respectfully submitted,

_____
Debra Filipek, Recording Secretary

APPROVED:

LOCAL PLANNING AGENCY:

Date:_____
AUTHENTICATED:

_____
Cullum Hasty, Chairman

_____
Dianne J. Lynn, City Clerk

BONITA SPRINGS CITY COUNCIL	GREEN SHEET:	08-04-0176

AGENDA ITEM SUMMARY

REQUESTED MOTION:

First Reading of an Ordinance entitled:

AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, THE CONSERVATION/COASTAL MANAGEMENT ELEMENT, AND THE INTERGOVERNMENTAL COORDINATION ELEMENT TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S LOWER WEST COAST WATER SUPPLY PLAN, AND INCLUDING A TEN-YEAR WATER SUPPLY FACILITIES WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 153.3177(6)(C);PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

The ordinance will be scheduled for adoption after the Second Reading & Public Hearing on April 16, 2008 at 9:00 a.m.

MEETING DATE: April 2, 2008

AGENDA:		REQUIREMENT/PURPOSE: (Specify)		REQUESTOR OF INFORMATION:
	PRESENTATIONS		STATUTE	James LaRue, AICP LaRue Planning & Management Services And Audrey E. Vance City Attorney
	CONSENT	X	ORDINANCE	
X	PUBLIC HEARING		ADMIN. CODE	
	APPEALS		OTHER	
	MAYOR AND COUNCIL MEMBER'S REPORTS			
	CITY ATTORNEY			
	CITY MANAGER			

BACKGROUND:

The South Florida Water Management District approved its Lower West Coast Regional Water Supply Plan in June, 2006, with the City of Bonita Springs required within 18 months of the regional plan's approval to prepare a 10-year Water Supply Facilities Work Plan and adopt revisions to the City's Comprehensive Plan addressing the water supply requirements. The attached proposed ordinance amends the Bonita Springs Comprehensive Plan to include the water plan. While normally Comprehensive Plan amendments are limited in the amount that may be transmitted annually, an exception exists for newly required elements, such as this element and the Public Schools, and small Comprehensive Plan amendments, such as the one heard a month ago. Florida Statutes §163.3177(6)(c) permits these amendments to not count toward the limitation on the frequency of adoption of amendments to the Comprehensive Plan.

On March 26, 2008, the Bonita Springs LPA will review the proposed comprehensive plan amendment for consistency with the comprehensive plan. James LaRue, AICP, LaRue Planning & Management Services will be available to provide City Council with further information.

Attachments: Proposed Ordinance

STAFF RECOMMENDATIONS:

Move to a second reading.

REVIEWED BY:
City Manager: Mary A. Rice
City Attorney:
City Clerk: Patricia Lyons

COUNCIL ACTION:
___ **APPROVED**
___ **DENIED**
___ **DEFERRED**
___ **OTHER**

LaRue Planning & Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, Florida 33901-2845
239-334-3366 • FAX: 239-334-6384

Memorandum

TO: Local Planning Agency Members

FROM: John Dulmer

DATE: April 9, 2008

RE: Water Supply Facilities Work Plan and related Comprehensive Plan Amendments

---

This is the final draft of the City's initial Water Supply Facilities Work Plan which will be transmitted to Department of Community Affairs following the April 16th Council meeting. The requirement of a water supply plan is relatively new within the State of Florida. The origination of this requirement began in 1998, when the Water Management Districts were requested to prepare water supply assessments. These assessments evaluated at a regional level the existing and future water needs and evaluated the adequacy of existing and potential sources to meet the reasonable-beneficial needs for the next 20 years. By August 2001, those Districts where the sources were determined not to be adequate to meet the future needs were required to prepare regional water supply plans. Those districts were Northwest Florida, St. Johns River, South Florida and Southwest Florida Water Management Districts. Bonita Springs lies within the area studied within the Lower West Coast Water Supply Plan prepared by the South Florida Water Management District; and as such is required to prepare and submit an individual Water Supply Facilities Work Plan.

Local plans differentiate from regional plans in specific demand and also the planning period to be studied is only ten years. The document is the result of continued coordination with Bonita Springs Utilities and the South Florida Water Management District. The information provided is an effort to ensure the requirements of F.S. 163.3177(3)(c) have been met as interpreted by the Department of Community Affairs and the South Florida Water Management District. The result of this plan is evidence that Bonita Springs Utilities has a surplus of water and can continue to provide a surplus for the ten year planning period based on the current level of service. The hearing on April 16th will serve as approval to transmit the amendment to DCA for review. The adoption hearing will be held after this review.

JD/vr

cc: Gary A. Price, City Manager
Barbara Barnes Buchanan, Assistant City Manager
Audrey Vance, City Attorney
Dianne Lynn, City Clerk
Debra Filipek, Deputy Clerk

III-B.

LaRue Planning & Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, Florida 33901-2845
239-334-3366 • FAX: 239-334-6384

Memorandum

TO: Mayor and City Council

FROM: James G. LaRue

DATE: April 9, 2008

RE: Water Supply Facilities Work Plan and related Comprehensive Plan Amendments

---

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Local plans differentiate from regional plans in specific demand and also the planning period to be studied is only ten years. The document is the result of continued coordination with Bonita Springs Utilities and the South Florida Water Management District. The information provided is an effort to ensure the requirements of F.S. 163.3177(3)(c) have been met as interpreted by the Department of Community Affairs and the South Florida Water Management District. The result of this plan is evidence that Bonita Springs Utilities has a surplus of water and can continue to provide a surplus for the ten year planning period based on the current level of service. At the April 15th LPA meeting, the LPA members will be reviewing the Amendments for Comprehensive Plan consistency and this should be accomplished prior to your hearing on April 16th which will serve as approval to transmit the Amendments to DCA for review. The adoption hearing will be held after the DCA review.

JGL/vr

LaRue Planning & Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, Florida 33901-2845
239-334-3366 • FAX: 239-334-6384

cc: Gary A. Price, City Manager
Barbara Barnes Buchanan, Assistant City Manager
Audrey Vance, City Attorney
Dianne Lynn, City Clerk
Debra Filipek, Deputy Clerk

CITY OF BONITA SPRINGS, FLORIDA

ORDINANCE NO. 08 – __

AN ORDINANCE OF THE CITY OF BONITA SPRINGS, FLORIDA, AMENDING THE CITY OF BONITA SPRINGS COMPREHENSIVE PLAN, AS ADOPTED BY ORDINANCE NO. 02-16, AS AMENDED, SO AS TO AMEND THE POTABLE WATER SUB-ELEMENT OF THE INFRASTRUCTURE ELEMENT, THE CONSERVATION/COASTAL MANAGEMENT ELEMENT, THE INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT; TO COORDINATE WITH THE SOUTH FLORIDA WATER MANAGEMENT DISTRICT'S LOWER WEST COAST WATER SUPPLY PLAN, AND INCLUDING A TEN-YEAR WATER SUPPLY FACILITIES WORK PLAN AS REQUIRED BY FLORIDA STATUTES, SECTION 163.3177(6)(C);PROVIDING FOR TRANSMITTAL TO THE STATE LAND PLANNING AGENCY, PROVIDING A CONFLICTS CLAUSE AND SEVERABILITY CLAUSE, AND PROVIDING FOR AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

WHEREAS, the City Council of the City of Bonita Springs, Florida recognizes the need to plan for orderly growth and development; and

WHEREAS, Chapter 163, Florida Statutes, and Rule 9J-5, Florida Administrative Code provide for amendment to adopted Comprehensive Plan; and

WHEREAS, City Council for the City of Bonita Springs adopted the City of Bonita Springs Comprehensive Plan pursuant to Bonita Springs Ordinance No. 02-16, as amended, in accordance with the Local Government Comprehensive Planning Act; and

WHEREAS, the Bonita Springs Comprehensive Plan provides for adoption of Plan Amendments with such frequency as may be permitted by applicable state statutes, in accordance with such administrative procedures as the City of Bonita Springs Council may adopt; and,

WHEREAS, The South Florida Water Management District approved its Lower West Coast Regional Water Supply Plan in June, 2006; and,

WHEREAS, The City is required to prepare a 10-year Water Supply Facilities Work Plan and adopt revisions to the City's Comprehensive Plan addressing the water supply requirements within 18 months of the regional plan's approval; and

WHEREAS, pursuant to Florida Statutes §163.3177(6)(c), these amendments to the City's Comprehensive Plan do not count toward the limitation on the frequency of adoption of amendments to the Comprehensive Plan; and

WHEREAS, Florida Statutes §163.3181 further provides an opportunity for individuals to participate in the plan amendment public hearing process; and,

WHEREAS, the City has received and reviewed the proposed Amendment to the City's Comprehensive Plan, and said proposed amendment being reviewed by the City's Local Planning Agency at a duly advertised meeting on April 15, 2008, and,

WHEREAS, the City Council has agreed with the recommendations of the Local Planning Agency that the proposed amendment complies with the requirements of Chapter 163, Florida Statutes, Part II, and that the proposed amendments is consistent with the Comprehensive Plan and appropriate to the future land uses within the City; and,

WHEREAS, the City Council of Bonita Springs adopted, pursuant to Chapter 163, Part II, Florida Statutes, after holding statutorily prescribed public hearings for the adoption of the amendment being proposed on April 2, 2008, April 16, 2008, and _____, 2008 and at the _____, 2008 hearing approved a motion to adopt said proposed amendments as more particularly set forth herein.

THE CITY OF BONITA SPRINGS HEREBY ORDAINS:

SECTION ONE: SHORT TITLE.

THIS ORDINANCE shall be known as the "Water Supply Facilities Work Plan" pursuant to the provisions of Florida Statutes §163.3187.

SECTION TWO: AMENDMENT.

The City of Bonita Springs Comprehensive Plan is hereby amended, which amendment consists of revising the Potable Water Sub-Element of the Infrastructure Element to include the Water Supply Plan Amendments to the Conservation/Coastal Management, Intergovernmental Coordination, and Capital Improvements Elements which is further described as Exhibit A, attached hereto and incorporated herein by reference.

SECTION THREE: EFFECTIVE DATE.

This Ordinance will not become effective until 31 days after adoption. If this Ordinance is challenged pursuant to Florida Statutes §163.3187 within 30 days after adoption, it will not become effective until the State Land Planning Agency or the Administration Commission, respectively, issues a Final Order determining the Ordinance is in compliance with Chapter 163, Florida Statutes.

SECTION FOUR: SEVERABILITY.

If any provision or portion of this Ordinance is declared by any court of competent jurisdiction to be void, unconstitutional or unenforceable, then all remaining provisions and portions of this Ordinance shall remain in full force and effect.

DULY PASSED AND ENACTED by the City Council of the City of Bonita Springs, Florida this _____day of _____, 2008.

AUTHENTICATION:

_____ _____

Mayor City Clerk

APPROVED AS TO FORM: _____

City Attorney

Vote:	Nelson	McCourt
	Ferreira	Simons
	Lonkart	Spear
	Martin	

Date filed with City Clerk: _____

(revised) Exhibit A

City of Bonita Springs Comprehensive Plan Infrastructure Element

Adoption Date: December 25, 2002

Amended: June 1, 2005
December 6, 2006
March 7, 2007
DRAFT: April 9, 2008

Prepared by

ADLEY
BRISSON
ENGMAN
PLANNERS &
ECONOMISTS
INCORPORATED

Coordination and Amendments provided by
LaRue Planning & Management Services, Inc.

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POTABLE WATER SUB-ELEMENT (revised draft 4-8-08)

Introduction

The City of Bonita Springs is not the water supplier for its residents. Of the potable water supplied by public or private facilities, Bonita Springs Utilities, Inc. (BSU) supplies approximately 96% of water needs, Citrus Park RV Resort (Citrus Park) provides three percent and Glade Haven Park (Glade Haven), f/k/a Jones Mobile Home Park, supplies less than one percent. These systems provide the potable water for both residential and non-residential uses, including fire-fighting demands. Other sources of water within Bonita Springs include individual wells. At this time, data is not available regarding the number of private wells.

This is the City of Bonita Spring's initial effort to complete a Water Supply Plan, which supports the intent of legislation adopted in 2005 to improve the coordination of water supply planning and local land use planning.

Data and analysis indicates that current water sources are sufficient to meet demands of future growth in Bonita Springs through 2018 and additional potable water sources during this time will not be necessary. However, water treatment facilities will require expansion in order to meet demands through 2018.

Public Potable Water Facilities Inventory

a. Operational Responsibility

BSU is responsible for approximately 96% (24,250 connections) of the City's water system service area. The remaining four percent is provided by two private facilities located in Citrus Park (1,000 connections or four percent) and Glade Haven (55 connections or less than one percent).

b. Service Area

The BSU system serves primarily urbanized areas with the northern boundary generally being Williams Road and the southern boundary at the City limits along the Collier County line, the Gulf of Mexico to the west and the city limit to the east. The predominant land uses are residential, commercial, industrial, recreational, and public and semi-public uses. The BSU service area includes approximately 24,250 connections with an average daily demand of 8.336 MGD in 2007.

Citrus Park provides water service to approximately 1,000 connections with an average daily demand of .21 MGD. The Citrus Park service area has a northern boundary at Holly Lane with a southern boundary at Limerock Road, 1st Street to the west and 14th Street to the east.

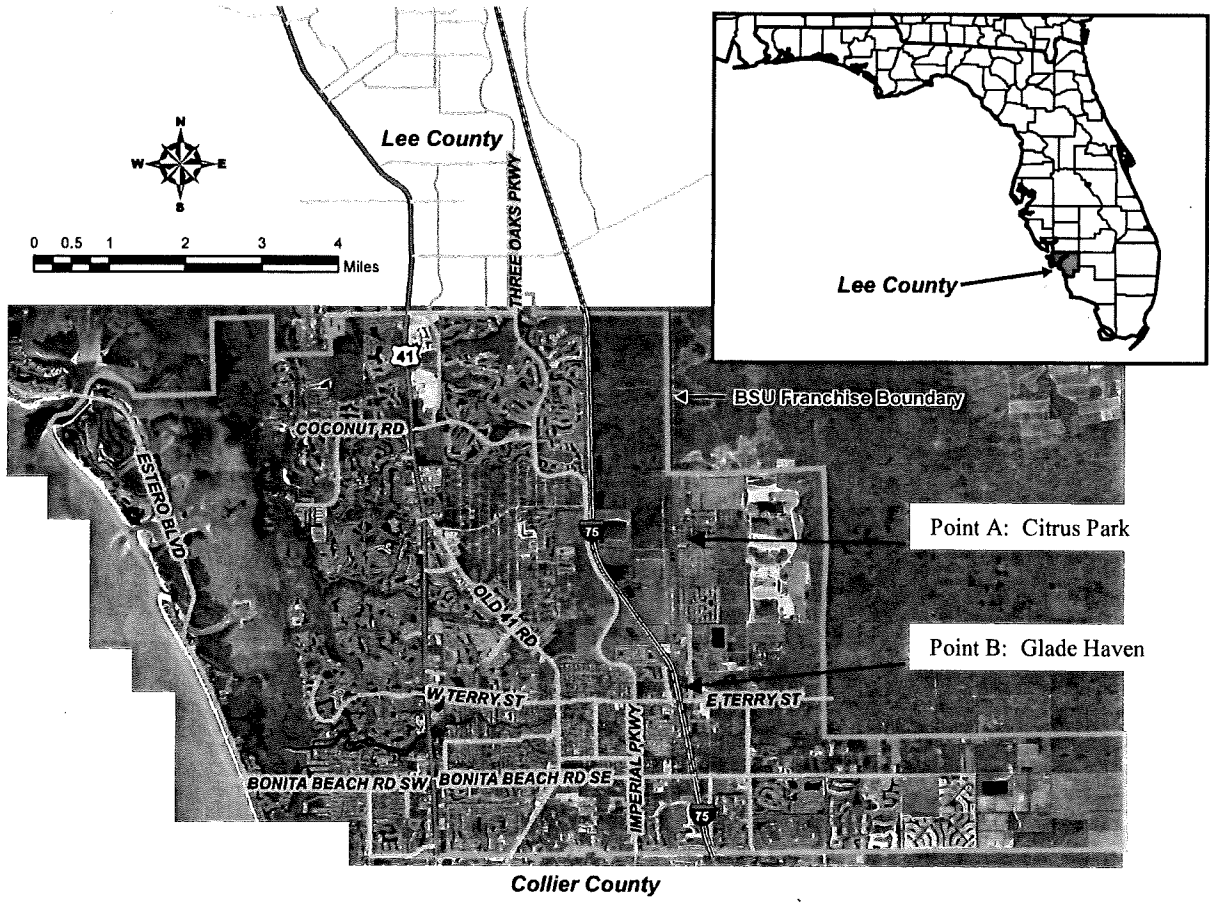
Glade Haven provides water service to approximately 55 connections with an average daily demand of .03 MGD. The Glade Haven service area has a northern boundary just south of Tower Road with a southern boundary at Terry Street, Kent Road to the west and Bonita Grande Drive nearest to the east.

Additionally, individual wells self-serve an undetermined number of single-family homes within the City limits.

Table 1-1: Existing Potable Water Connections, below, details residential and non-residential connections by service provider while Map 1-1: Service Area by Provider identifies the service area of each provider.

Table 1-1: Existing Potable Water Connections			
Type of User	BSU	Citrus Park	Glade Haven Park
Residential	21,050	1,000	55
Non-Residential	3,200	-	-
Total	24,250	1,000	55
Source: BSU			

Map 1-1: Service Area by Provider



Water Treatment Plants

Table 1-2: Water Treatment Facility Locations, on page 4-3, lists the water treatment facilities and the location of the site.

BSU currently operates a lime softening plant permitted for 9 MGD and a reverse osmosis (RO) plant permitted for 6.52 MGD on a single site located at 11860 East Terry Street. The facility allows expansion to meet additional needs consistent with permit specifications.

The Citrus Park water treatment facility is located at 25501 Trost Boulevard and has a permitted capacity of .540 MGD.

The Glade Haven Park water treatment facility is located at 12585 East Terry Street and has a permitted capacity of .025 MGD.

Table 1-2: Water Treatment Facilities

Provider	Location	Number of Plants
BSU	11860 East Terry Street	2
Citrus Park	25501 Trost Boulevard	1
Glade Haven Park	12585 East Terry Street	1

Source: BSU, CUP permits. Special Note: BSU is permitted as one plant with two processes.

d. Water Quality

BSU treated water meets federal and state requirements for safe drinking water.

e. Distribution System

BSU has approximately 412 miles of water mains varying in size from 2½ -inches to 36-inches. All new installations are minimum 4-inches in size with a minimum 6-inch main to fire hydrants. Service lines, which connect the water main lines to individual homes, are typically a 1-inch line with a ¾-inch meter.

f. Public Wells

BSU maintains 24 freshwater wells ranging in diameters of 8 – 12 inches and depths of 80 to 115 feet and 8 brackish water wells ranging in diameters of 12 – 14 inches and depths of 700 to 1,120 feet.

Citrus Park operates five wells (0.24 MGD) on site. Four wells withdraw from the Lower Tamiami Aquifer and one withdraws from the Surface Water Table Aquifer. Two of the Lower Tamiami Wells have a diameter of eight inches and are 112 and 117 feet in depth. The

remaining two Lower Tamiami Aquifer wells are 4 inches in diameter and are both 95 feet in depth. The Surface Water Table Aquifer well is eight inches in diameter and 32 feet in depth.

g. Potable Water Storage Facilities

BSU has six existing potable water storage facilities, of which three ground storage tanks are located at the treatment facility with a combined capacity of 6.0 million gallons and the remaining three are off-site with a combined capacity of 3.5 million gallons. Total potable water storage capacity provided by BSU is 9.5 million gallons.

Table 1-3: Existing Potable Water Storage Facilities – BSU, identifies the location and capacity of existing potable water storage facilities within the Bonita Springs service area.

Table 1-3: Existing Potable Water Storage Facilities	
Provider/Location	Capacity (MG)
BSU (WTP)	6.00
BSU (Estero Boulevard)	0.50
BSU (San Carlos Estates)	1.00
BSU (Coconut Road)	2.00
Source: BSU	

h. High Service Pumps

BSU has eight on site high service pumps that provide a capacity of 32 MGD; however, based on "out of service" criteria (resulting in the largest unit in the system not included in the projections), the capacity is reduced to 26 MGD. Additional peak hour capacity is available at each of the off-site storage tanks.

i. Consumptive Use Permit

The SFWMD regulates withdrawal of water from the aquifer through the issuance of a Consumptive Use Permit (CUP). Table 1-4: Existing Water Treatment Plant Permitted Well Capacities, identifies specific CUP criteria for each water treatment plant providing service to Bonita Springs.

Table 1-4: Existing Water Treatment Plant Permitted Well Capacities						
		Permitted Well Capacity Average Daily Demand		Permitted Well Capacity Maximum Daily Demand		Ground Storage
Location	CUP Number	GPM	MGD	GPM	MGD	(MG)
BSU - RO (8 wells)	36-04062-W	9,076.39	13.07	11,111.11	16.00	9.5
BSU - Lime Softening (24 wells)	36-00008-W	3,986.11	5.74	5,145.83	7.41*	
Citrus Park	36-00208-W			354.17	0.51	
Glade Haven Park						

*BSU's CUP NUMBER 36-00008-W does not set a maximum daily demand. The maximum daily demand has been replaced with a maximum monthly demand of 222.343 million gallons, allowing the plant to run at a maximum day demand equal to its rated capacity of 9.0 MGD.

Alternative Water Sources

Currently, five wastewater treatment plants serve the City of Bonita Springs. Two are BSU operated and the others are small private package plants and include Citrus Park, Glade Haven Park and Hunter's Ridge. The BSU and Hunter's Ridge facilities are water reclamation facilities providing reuse water. The treatment capacity of BSU is currently 9 MGD with a projected capacity of 11 MGD by 2018.

BSU sells reclaimed water to Resource Conservation Systems via a bulk sales agreement.

Conservation Programs

The South Florida Water Management District developed a water conservation program in 1990 that identified six measures specifically for urban areas and 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.

Water Supply Concurrency

As an urban area matures and becomes more affluent, the per capita water use generally tends to increase. The average usage in the BSU service area in the period from 1996 through 2000 was 190 GPD. The average usage for the period from the beginning of 2001 through the end of 2005 was 11 percent greater, or 211 GPD/ERC. In 2006, usage increased to 227 GPD/ERC. Therefore, to account for a reasonable increase in future usage, a factor of 1.10 was applied to

the 2001-2005 average usage after 2006, resulting in a projected future average day usage of 232 GPD/ERC for 2007 through 2018.

While the amount of water consumed by each ERC increases, recent changes in the housing market have created new issues for BSU. It is estimated by the utility that there are currently 3,000 vacant residential units within their franchise area. While these units have been taken into account for capacity, there is no way of knowing when these units will be occupied. Based on this calculation projected water demand for the year beyond 2012 can be met with the development and implementation of the proposed 3.27 MGD reverse osmosis plant.

Projected Water Needs and Sources

a. Population

Population changes of the water supply planning period show an increase of 13,548 to 57,374 according to BSU. BEBR has projected that by 2020, Lee County's population will increase by 15.6%. Assuming an equal percentage increase for the City, and using the 2007 estimated population used by BSU, this would increase the City's population from 50,662 to 58,565.

Because the utility expects to maintain a surplus for either of these population increases, a greater concern is the seasonal population. There is no specific formula or resource to estimate changes in this number. The City of Bonita Springs Comprehensive Plan has used straight line estimates based on previous year's information. This shows a seasonal population of 26,400 through the year 2014. Extending this estimate until 2018 the seasonal population could increase to 28,576.

b. Potable Water Capacity Surpluses and Deficiencies

Providers of potable water for Bonita Springs currently have a surplus of water. BSU has a current surplus potential of 5.36 MGD average day demand. With the 3.27 MGD addition in 2011, the surplus will increase to 7.63 MGD average day demand. This will provide a surplus of water for the expected population increases through the water supply planning period.

c. Future Demand Capacity

The Consumptive Use Permits (CUP) limit the amount of raw water withdrawn from groundwater. Based on the CUPs for local water providers, the City of Bonita Springs will have their potable water demands met through 2018. Table 1-5: Projected Water Demands, BSU identifies the anticipated needs of the City of Bonita Springs from BSU.

Table 1-5: Projected Water Demands in MGD for BSU				
Year	2008	2010	2015	2018
Population	43,826	47,071	51,727	57,374
Average Daily Flow	10.17	10.92	12.00	13.31
Maximum Daily Flow	14.53	15.79	17.49	18.76
Source: BSU				

d. Fire Protection

Bonita Springs fire flow LOS is 5,000 GPM for four hours with a storage requirement of 1.20 MG. BSU meets this level of service.

e. Performance and Condition of Existing Facilities

Each of BSU's water treatment plants has consistently operated in compliance with all criteria established by appropriate regulatory agencies. Furthermore, the facilities are state of the art and have been recognized by various organizations throughout the year, a few recent awards include: 2005/2006 Plant of the Year (SE Desalting Association) and 2007 Best Tasting Water (AWWA).

In 2004 a RO plant was placed into operation and will help preserve the lime-softening well fields by drawing from a different source. The RO plant has potential for continued expansion to meet the needs of the City of Bonita Springs through the planning period. Table 1-6: Projected Demand, Facility Capacity, Permitted Average Daily Demand and Resulting Surplus and Per Capita Actual for BSU, indicates the positive performance and condition of existing facilities and the capability of expansion to meet the needs of future demand (Table 1-7: Water Supply Needs and Sources, BSU).

Table 1-6: Projected Demand, Facility Capacity, Permitted Average Daily Demand and Resulting Surplus and Per Capita Actual for BSU						
Year	Population	Projected Average Daily Demand (MGD)	Permitted Plant Capacity (MGD)	Permitted Average Daily Demand (MGD)	Surplus (Deficiency)	Projected Per Capita Demand
2008	43,826	10.17	15.53	18.80	5.36	232.00
2009	45,539	10.57	15.53	18.80	4.96	232.00
2010	47,071	10.92	15.53	18.80	4.61	232.00
2011	48,291	11.20	18.83	18.80	7.63	232.00
2012	49,150	11.40	18.83	18.80	7.43	232.00
2013	50,009	11.60	18.83	18.80	7.23	232.00
2014	50,868	11.80	18.83	18.80	7.03	232.00
2015	51,727	12.00	18.83	18.80	6.83	232.00
2016	52,040	12.07	18.83	18.80	6.76	232.00
2017	54,642	12.68	18.83	18.80	6.15	232.00
2018	57,374	13.31	18.83	18.80	5.52	232.00

Table 1-7: Water Supply Needs and Sources, BSU					
Year	Total Water Demand - Projected (MGD)	Total Groundwater Sources - Projected (MGD)	Total Alternative Water Source - Projected (MGD)	Maximum Potential Reclaimed Water (MGD)	Conservation Program
2007	14.61	9.31	5.30	9.00	Yes
2008	15.92	10.17	5.75	9.00	Yes
2009	16.54	10.57	5.97	9.00	Yes
2010	17.09	10.92	6.17	9.00	Yes
2011	17.53	11.20	6.33	9.00	Yes
2012	17.85	11.40	6.45	9.00	Yes
2013	20.16	11.60	8.56	11.00	Yes
2014	20.47	11.80	8.67	11.00	Yes
2015	20.78	12.00	8.78	11.00	Yes
2016	20.90	12.07	8.83	11.00	Yes
2017	21.85	12.68	9.17	11.00	Yes
2018	22.84	13.31	9.53	11.00	Yes
TWD-P is calculated: TGWS-P plus TAWS-P.					
TGWS-P is based on CUP allowances.					
TAWS-P is based population calculation plus the anticipated 2.00 MGD available from a proposed surface water project.					
MPRW is based on maximum water treatment facility capacity plus the 2.00 MGD from a proposed surface water project.					
Source: BSU and calculations.					

Future Water Sources

Permitted facility capacity of the RO Water Treatment Plant (WTP) is currently 6.53 MGD but the service area will require a greater maximum daily water demand by 2011. A 3.27 MGD expansion of this plant to 9.8 MGD is planned for 2011 and will increase total water treatment capacity to 18.8 MGD.

Future Conservation Programs

According to the Lower West Coast Water Supply Plan (LWC WSP) prepared by the South Florida Water Management District, the major source of increased demand for water has come from irrigation. In an effort to reduce the amount of potable water used for irrigation, the LWC WSP recommends developing the Kehl Canal surficial intake to supplement the reuse system. This will allow for an additional 2.00 MGD for irrigation uses.

Water Supply Projects

Table 1-11: Water Supply Capital Improvements Projects

Project Name	Water Source	Responsible Agencies	Funding Sources	Estimated Project Cost ($M)	Estimated O&M ($M)	Project Capacity (MGD)	Year Water Produced
Brackish Wellfield Phase II - 3 wells	Brackish	BSU		3.80	0.25	3.00	2008
RO WTP Phase II	Brackish	BSU		10.00	1.00	3.00	2010
Brackish Wellfield Phase III - 4 wells	Brackish	BSU		3.40	0.04	4.00	2013
RO WTP Phase III	Brackish	BSU		5.00	0.20	3.70	2011
East WRF Transmission Main (East Phase	Reclaimed	BSU		8.30	0.00	0.00	NA
Reuse Interconnect to Collier County	Reclaimed	BSU/Collier County		46.25	0.04	2.00	2013
Kehl Canal Raw Water ASR	Surface	Water Management District		9.00	0.18	2.00	2013

Source: SFWMD LWC WSP

Potable Water Sub-Element Goals, Objectives and Policies

Goal 1: To provide quality potable water service throughout the City that is compatible with conservation of natural resources.

Objective 1.1: The City shall continue to ensure the provision of acceptable levels of potable water service throughout the City, indirectly through franchised utility companies.

Policy 1.1.1: Within certified, franchised or designated service areas an available supply, treatment and delivery of ~~250~~ 232 gallons per day per equivalent residential connection (ERC) and delivery of potable water at a minimum pressure of ~~40~~ 20 pounds per square inch (psi) at the meter anywhere in the system (Cross Reference: Capital Improvements Element Policy 1.1.3.a)

Policy 1.1.2: The City shall enforce these levels of service under the concurrency requirements of Florida law by requiring one of the following before issuance of development permits:

a. Development orders or building permits will be issued subject to the condition that, at the time of issuance of a certificate of occupancy, the necessary facilities and services must be in place and available to serve the development being authorized; or

b. 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.

Objective 1.2: To ensure an adequate supply of potable water, the City shall increase its role in influencing private utility providers about service alternatives, facility locations, and conservation of resources.

Policy 1.2.1: The City shall encourage residential uses, and require nonresidential uses, to connect to central potable water utility when potable water lines have been installed immediately adjoining the property and service is available.

Policy 1.2.2: The City shall seek to be involved with the utility company providing potable water when the utility is evaluating alternatives concerning the City's potable water service.

Policy 1.2.3: The City shall collect data from private suppliers of potable water, including reporting of water flows, storage capacity, pressures, number of customers, committed future connections and proposed expansion plans on a yearly basis.

Goal 2: To ensure that future populations have access to potable water by using and strongly encouraging the conservation and resource management measures to reduce the consumption of potable water.

Objective 2.1: To protect its potable water resources.

Policy 2.1.1: The City Council shall encourage privately operated potable water utilities and the Public Service Commission to adopt a "conservation" rate structure for users in their respective service areas.

Policy 2.1.2: The City shall consult with South Florida Water Management District to obtain suggestions on regulations to conserve water before adopting such regulations.

Policy 2.1.3: The City shall develop and implement a water conservation program which shall include:

a. public education through distribution of information to residents regarding conservation, and involvement with programs encouraging water conservation.

b. use of drought-tolerant vegetation, xeriscape techniques, recycled water, or other available methods for landscaping publicly owned lands, and encouragement of private landowners to do the same to reduce usage of potable water for irrigation purposes.

c. providing incentives to encourage developers and property owners to employ techniques such as water recycling, reclamation, and reuse of greywater to reduce demand upon the water and sanitary sewer systems serving the City.

Objective 2.2: In order to reduce demand for potable water, and consistent with the State's water policy to encourage and promote water conservation and the reuse of reclaimed water, the City shall require the use of reclaimed or other alternative irrigation water for irrigation purposes and other authorized uses in areas where franchised utility companies have constructed or operate a reclaimed or other alternative irrigation water distribution system.

Policy 2.2.1: For all new residential projects, the City shall evaluate the incorporation of use of reclaimed or other alternative irrigation water for irrigation

purposes. When deemed practical and feasible, the City shall require the project to connect to the franchised utility company's irrigation water system in accordance with the terms and conditions of the existing service availability policy.

Policy 2.2.2: Where reclaimed or other alternative irrigation water distribution facilities are available, the City shall enforce a requirement that no person use potable water, pro-vided by a franchised utility system, for irrigation purposes.

City of Bonita Springs
Comprehensive Plan
Conservation/Coastal Management Element

(Excerpt)

Adoption Date: December 25, 2002

Amended: June 1, 2005
December 6, 2006
March 7, 2007
DRAFT: April 9, 2008

Prepared by

ADLEY
BRISSON
ENGMAN
PLANNERS &
ECONOMISTS
INCORPORATED

Coordination and Amendments provided by
LaRue Planning & Management Services, Inc.

Policy 16.4.2: Upon completion of the study referred to in Policy 16.3.1, the City shall prepare an amendment to its Comprehensive Plan identifying the land uses considered most appropriate in the DRGR and the resource protection measures and practices necessary to ensure its continued viability and submit this amendment for review by the Florida Department of Community Affairs and other appropriate agencies.

Objective 16.5: Groundwater Resources.

Policy 16.5.1: The City will make efforts to encourage suppliers to seek alternative, renewable sources of water other than groundwater to meet current and future needs.

Policy 16.5.2 The City will make efforts to promote and establish and/or require water conservation when and where feasible for current and future development.

Policy 16.5.3 The City will make efforts to encourage the installation of ultra-low volume plumbing fixtures in all new construction and permitted remodels.

Policy 16.5.4 The City will make efforts to encourage the use of water efficient landscape methods.

Policy 16.5.5 The City will make efforts to encourage the use of irrigation systems designed to conserve water.

Policy 16.5.6 The City will make efforts to review potable water demands and work with the Water Management District, Bonita Springs Utilities and other applicable suppliers to ensure that potable water demands are considered (Cross Reference: Intergovernmental Coordination Element, Policy 5.1.1).

Goal 17: **Air Quality.** The City will improve air quality, meeting or exceeding State and Federal Air Quality Standards.

Objective 17.1: The City shall improve current air quality to maintain the present attainment status.

Policy 17.1.1: The City shall prohibit mining in the City limits to reduce airborne particulates.

City of Bonita Springs
Comprehensive Plan
Intergovernmental Coordination Element

(Excerpt)

Adoption Date: December 25, 2002

Amended: June 1, 2005
December 6, 2006
March 7, 2007
DRAFT: April 9, 2008

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Excerpt from: Intergovernmental Coordination Element (March 6, 2007)

Objective 4.2: **Financing** – To increase cooperation with other governments in financing transportation improvements, the City shall continue to pursue multi-jurisdictional funding sources for shared facilities.

Policy 4.2.1: The City shall continue to maintain a roads impact fee program.

Policy 4.2.2: The City shall encourage interlocal agreements with the State of Florida, Lee County, and Collier County to plan, design, construct, and/or maintain selected roadway facilities.

Policy 4.2.3: The City shall continue to cooperate with Lee County in the joint funding of road projects in the City of Bonita Springs.

Goal 5: To coordinate the Water Supply Facilities Plan with the appropriate agencies.

Objective 5.1: The City shall continue to participate and coordinate with Bonita Springs' water providers to adequately address water supply limitations.

Policy 5.1.1: The City will make every effort to coordinate with the Water Management District, Bonita Springs Utilities and any other water provider to help support water plans and initiatives developed by these entities.

Objective 5.2: Infrastructure Coordination.

Policy 5.2.1: The City will work with water suppliers when alternative sources of providing potable water need to be evaluated.

Policy 5.2.2: The City will work with water suppliers to coordinate alternative water source uses for activities that do not require potable water (Cross Reference: Conservation Element, Policy 16.5.6).

Policy 5.2.3: The City work with other agencies to determine appropriate stormwater management practices that assist with achieving water supply plan objectives.

City of Bonita Springs
Comprehensive Plan
Capital Improvements Element

Adoption Date: December 25, 2002

Amended: June 1, 2005
December 6, 2006
March 7, 2007
DRAFT: April 9, 2008

Prepared by

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GOALS, OBJECTIVES AND POLICIES

Goal 1: To provide public facilities and services in the City of Bonita Springs adequate to serve the needs of both existing and future development.

Objective 1.1: **Capital Improvements.** Ensure the provision of public facilities at the adopted Levels of Service by establishing a capital improvements programming and budgeting system and using the City's Levels of Service as the basic gauge of need and compliance through the City's concurrency management system and 5 year schedule of capital improvements.

Policy 1.1.1: **Capital Improvements Program (CIP).** The City shall annually prepare and adopt by resolution a Capital Improvements Program showing all public facility development projects to be undertaken during the ensuing five-year period. The City shall also annually evaluate and update this Capital Improvements element. The following actions shall govern the development of the CIP:

a. Preparation of the CIP

1. The City Manager or his designee shall annually review existing facilities, level-of-service standards, and current and projected deficiencies using the level-of-service standards contained in this plan, the established geographic units for each facility, and the latest population projections. Based on identified current and projected deficiencies, the City Manager shall prepare a capital improvements program based on facilities needed to meet these deficiencies.

2. The City Manager and members of the City Council will communicate with the general public in this process to ascertain the perceived need for each kind of public facility in the City.

3. A proposed CIP shall be presented by the City Manager in conjunction with the presentation of the proposed annual operating budget. The proposed CIP shall be "balanced" (i.e., proposed expenditures shall not be greater than the amount of revenues available to fund the expenditures). Attached to the proposed balanced CIP shall be a report of the projects designated as needed, but which cannot be funded.

4. The proposed CIP shall consider the consistency of the proposal with the Comprehensive Plan and the effect of the CIP on the growth management objectives of the City.

5. The proposed CIP shall be reviewed by the City Council. The City Council shall, by resolution, adopt the CIP approximately the same time as the adoption of the annual operating budget. The annual operating budget shall be consistent with the first year of the adopted CIP.

6. The adopted CIP will be reviewed by the City Council during periodic meetings, called to discuss the status of CIP projects. The City Manager will provide the City Council with a status report on all ongoing CIP projects prior to these meetings. The Council may amend the CIP at these meetings by resolution after making findings of fact that the amendment is consistent with the priorities in this policy and with the City's Comprehensive Plan in general. Where an amendment to the CIP affects the first year, the annual operating budget shall also be amended so as to remain consistent with the CIP.

7. All estimates of facility or service demand used to develop specific facility plans, or an annual update of the capital improvement program, shall be based on the specific volume and location of demand represented by developments for which local and DRI Development Orders were issued prior to the effective date of this plan, as well as more general estimates of population and land use intensity.

b. Priorities for the CIP

1. Projects that remove a direct and immediate threat to the public health or safety;

2. Projects are directed by a court order or otherwise by law;

3. Projects that are essential for the maintenance of the City's investment in existing infrastructure;

4. Projects that remove a service level deficiency that affects developed areas;

5. Projects that provide new or additional facility capacity.

Factors that may be considered in ranking projects that are otherwise equal in priority include (in no particular order of significance):

(a) Whether the project competes with other facilities that have been or could reasonably be provided by other governmental entities or the private sector.

(b) The revenue-generating potential of the project.

(c) Offers of donations of lands and/or services by the private sector and/or other governmental entities.

(d) The availability of grants and other revenue sources from non-city revenues.

(e) An extraordinary opportunity for the City.

(f) The flexibility of use of the project.

(g) Continuation of an ongoing project for which significant funds have been expended by the City in the past.

(h) Meets the established replacement schedule for the facility/equipment.

(i) Supports plans of the FDOT, FDEP and SFWMD.

c. Effect of the CIP

1. After adoption of the first year's projects of the CIP, no first-year public facility project shall be constructed by the City, nor shall land be acquired for such project, except in conformity with the adopted first year of the CIP.

2. It is the intent of this plan to actively pursue the development of any public facility project once it has been included in the adopted CIP. Any CIP amendment that delays or cancels a project should only be made after consideration of:

(a) Changes in facility needs based on more up-to-date populations projections;

(b) Changes in revenues compared with previous projections;

(c) Changes in adjusted level of service standards; and.

(d) Extraordinary opportunities not previously expected.

3. The City shall consider and may accept dedication of facilities contributed to the City. Where contributed facilities are not provided by city funds, they need not be included in the CIP prior to acceptance. The City may, however, establish procedures for including contributed facilities in the CIP where inclusion in the CIP is a requirement of the Concurrency Management System.

d. Capital Facility Financing

1. The City should annually prepare revenue estimates to provide information about revenue sources available to support capital facility construction.

2. The City Manager shall prepare estimates of the operating and maintenance costs of each CIP project along with the capital costs of each facility.

3. The City should actively seek grant funds from federal, state, and other sources where available and when appropriate for capital facility construction. Consideration will be given to limitations (including operating restrictions) involved in such grants.

4. The City should investigate the feasibility of charging user fees to offset the cost of each new CIP project for which user fees could reasonably and legally be collected.

5. Capital Improvement Funds shall be anticipated at mileages that will generate sufficient revenue to make all required payments.

6. A reserve for contingency should be budgeted in each capital fund. These funds should be available for

reallocation by the City Council as needed during the year to fund unexpected increases in capital costs and/or to fund additional projects which could not be anticipated in the annual CIP.

7. A reserve for cash flow will be budgeted in any fund that requires monies to be carried forward into the following year to support needed expenditures until sufficient current revenues are received.

8. The City should prepare an annual analysis of financial condition. This analysis will include consideration of capital facility financing needs and revenues available to finance such needs.

9. Capital Project budgets will only be altered in one of two ways:

   (a) Administrative approval of transfer of funds to reserves for projects funds not required for authorized expenditures; or

   (b) City Council approval of transfer of funds from reserves to increase a project.

10. At the end of each fiscal year, unexpended fund balances at the project level in each fund will be carried over to the subsequent fiscal year budget in an amount equal to the prior year's unexpended project budget. Any unexpended fund balance in excess of project budget will be redistributed to fund other capital obligations, if necessary. The excess fund balance shall be treated as capital reserves to be allocated in subsequent fiscal years.

11. The City will limit the amount of outstanding long-term liabilities to 10 percent of the assessed property value within the City.

Policy 1.1.2: The City shall establish replacement schedules for each of its major capital facilities and rolling stock.

Policy 1.1.3: **Level-of-Service Standards**. Level-of-service (LOS) standards shall be the basis for facility design, for setting impact fees, and for the operation of the Concurrency Management System (CMS).

Level-of-Service Standards

a. Potable Water Facilities: Within certified, franchised or designated service areas an available supply, treatment and delivery of ~~250~~ 232 gallons per day per equivalent residential connection (ERC) and delivery of potable water at a minimum pressure of ~~40~~ 20 pounds per square inch (psi) at the meter anywhere in the system (Cross Reference: Infrastructure Element Policy 1.1.1).

b. Sanitary Sewer Facilities: Within certified, franchised or designated service areas an available capacity to treat and dispose of a volume of wastewater equal to 200 gallons per day per equivalent residential connection (ERC), except that facilities serving only mobile home residential structures shall have a capacity of 150 gallons per day and facilities serving only travel trailer residential structures shall have a capacity of 120 gallons per day.

c. Facilities for Disposal of Solid Waste: The minimum acceptable level of service standard for availability of solid waste disposal facilities shall be 7 pounds per capita per day.

d. Stormwater Management Facilities:

1. Existing Infrastructure/Interim Standard

During a 3-day storm event (rainfall) accumulation of 13.7 inches or less (3-day, 100 year storm as defined by SFWMD), one lane of evacuation routes should remain passable (defined as less than 6 inches of standing water over the crown). Emergency shelters and essential services should not be flooded.

During a 3-day rainfall accumulation of 11.7 inches or less (3-day, 25-year storm as defined by SWFWMD), all lanes of evacuation routes should remain passable. Emergency shelters and essential services should not be flooded.

During coastal flooding of up to 4.0 feet above mean sea level, all lanes of evacuation routes should remain passable. Emergency shelters should not be flooded.

2. Regulations of Private and Public Development

The quality of water to be discharged from new surface water management systems is, and shall remain, subject to state and regional permitting pro-grams that determine compliance with state water quality standards. Storm-water management systems in new private and public developments (excluding improvements to existing roads) shall be designed to SFWMD standards (to detain or retain excess stormwater to match the predevelopment discharge rate for the 25-year, 3-day storm). Stormwater discharges from development must meet relevant water quality and surface water management standards as set forth in Chapters 17-3, 17-40 and 17-302, and the rule 40E-4, F.A.C. New developments shall be designed to avoid increased flooding of surrounding areas.

e. Parks and Recreation Facilities:

1. Regional Parks: 6 Acres of developed regional park land open for public use per 1000 total seasonal population.

2. Community Parks 0.8 acres of developed standard community parks open for public use per 1000 permanent city population.

f. Roadway Facilities: The minimum acceptable peak hour/peak season/peak direction roadway levels of service shall be as follows:

1-75	C
Freeways (non FIHS)	D
Arterials	E
Collectors	E
Local roads	D

Objective 1.2: **Concurrency Management System.** To ensure that public facilities are provided in conformance with the City's adopted level of service standards, the City shall adopt, maintain and enforce a concurrency management system.

Policy 1.2.1: The City shall enforce its facility level of service standards under the concurrency requirements of Florida law upon development orders or building permits which may cause the level of service of any facility to fall below the City's adopted minimum level of service for that facility by:

a. withholding approval, or

b. proceed with approval, notwithstanding a failure of the development to satisfy transportation concurrency, when all of the following factors enumerated in Florida Statutes #163.3180(11) are met:

1. The local government with jurisdiction over the property has adopted a local comprehensive plan that is in compliance.

2. The proposed development would be consistent with the future land use designation for the specific property and with pertinent portions of the adopted local plan, as determined by the local government.

3. The local plan includes a financially feasible capital improvements element that provides for transportation facilities adequate to serve the proposed development, and the local government has not implemented that element.

4. The local government has provided a means by which the landowner will be assessed a fair share of the cost of providing the transportation facilities necessary to serve the proposed development.

5. The landowner has made a binding commitment to the local government to pay the fair share of the cost of providing the transportation facilities to serve the proposed development. or:

c. issuing approvals subject, at a minimum, to the latest occurring of the following conditions:

Public facilities and Services			Conditions
Potable water, sanitary sewer, solid waste, and drainage facilities.	**Parks and Recreation**	**Transportation**	**(Dots indicate that the condition is an available option for meeting the concurrency requirements for the related set of public facilities).**
•	•	•	Necessary facilities and services are under construction when the development order is issued.
•	•	•	Necessary facilities and services are guaranteed to be in place when development impacts occur by an enforceable development order that includes any one or more of the three conditions listed above.

Public facilities and Services			Conditions
Potable water, sanitary sewer, solid waste, and drainage facilities.	Parks and Recreation	Transportation	(Dots indicate that the condition is an available option for meeting the concurrency requirements for the related set of public facilities).
•	•	•	The necessary facilities and services are subject to an executed, binding contract which provides for commencement of actual construction of facilities or provision of services must occur within one year of issuance of the development permit.
•	•	•	Necessary facilities and services are guaranteed in an enforceable development agreement which requires commencement of actual construction of facilities or provision of services within one year of issuance of the development permit.
•	•	•	Consistent with the public welfare, and except as otherwise provided in FS 163.3180, transportation facilities needed to serve new development shall be in place or under actual construction no more than 3 years after issuance by the local government of a certificate of occupancy or its functional equivalent.

Policy 1.2.2: The City's concurrency management system shall conform to the provisions of Chapter 163 Florida Statutes and Rule 9J-5.0055 by including commitments that:

a. The City of Bonita Springs will maintain its adopted level of service standards for potable water, sanitary sewer, solid waste, stormwater management, parks and recreations and roads.

b. The City of Bonita Springs will demonstrate in future Capital Improvement Elements and amendments to this element that the plan is financially feasible and that adopted level of service standards as stated in the Capital Improvement Elements Policy 1.1.3 will be achieved and maintained.

c. The City's concurrency management system will use a system for monitoring and ensuring adherence to the adopted level of service standards, the schedule of capital improvements, and the availability of public facility capacity. The City shall:

1. Maintain a listing of all City adopted levels of service as listed in Policy 1.1.3.

2. Maintain a continuous inventory of "available capacity" for each facility with an adopted level of service. "Available capacity" will consist of each facility's design capacity less

the demand on the capacity committed through the issuance of prior development orders.

3. Allow a comparison of a proposed development project's demand on each facility's "available capacity" to the City's adopted level of service for that facility and thus ascertain if the facility has sufficient available capacity to service the proposed project.

d. The City's concurrency management system will include standards for interpreting and using level of service standards to determine when the concurrency test must be met for development orders and permits. The City's concurrency management system will:

1. Consider the impact the development will have on the City's facilities and will consider the type and intensity of use of the proposed development in relation to the demands the use can reasonably be expected to make on those facilities and the times when the demand can reasonably be expected to occur during the course of the development. When measuring the expected impacts of a development, the City will include only the impacts of permanent continuing demands of the development.

2. Determine whether there will be sufficient capacity considering the "conditions" in Policy 1.2.1 for these facilities to serve the development at the time the impacts of the development will occur without causing the facilities and services to function at a level of service below the minimum levels established for them. The City will add the expected impacts of the development to the levels of use of the facility at the time of the determination. Anticipated additional use will be derived from other reasonably foreseeable factors. If this sum is less than the capacity of the facility in question to operate during the effective period at the minimum adopted levels of service and the development's projected impact is in compliance with the City's Plan, the City will certify the conclusion by a written statement.

At the latest, the test for concurrency is prior to the approval of an application for a development order or permit which contains a specific plan for development including the density and intensity of development.

e. The City's concurrency management system will be implemented through the City's Land Development Regulations and will ensure that the issuance of development orders and permits will not result in a reduction in the levels of service beyond the City's adopted level of service for the affected facility.

Policy 1.2.3: The City's concurrency management system will allow deferrals or exemptions only as specified below.

a. Deferrals will be allowed only when the development application does not include a specific plan for development including the density and intensity of uses or does not request or require any authorization of development.

b. Exemptions will include:

1. Dwelling permits which do not impact upon the City's facilities/services having adopted levels of service.

2. Building permits for single family, two family, and duplex buildings, as well as move-on permits for mobile homes, and recreational vehicles provided that the building or unit will be located within a subdivision or plat or other development which has a valid Certificate of Concurrency which specifically authorizes the City to issue building permits.

3. Commercial buildings to the extent that the Certificate of Concurrency for the Final Development Order (FDO) issued prior to adoption of the City's Comprehensive Plan specifically authorized the City to issue the building permits.

4. Permits which in themselves do not authorize construction of any building or structure which could impact the City's facility/service adopted levels of service.

5. Exemptions approved for vested rights.

6. Any other de minimis impact consistent with FS 163.3180(6). A de minimis impact is an impact that would not affect more than 1 percent of the maximum volume at the adopted level of service of the affected transportation facility as determined by the local government. No impact will be de minimis if the sum of existing roadway volumes and the projected volumes from approved projects on a

transportation facility would exceed 110 percent of the maximum volume at the adopted level of service of the affected transportation facility; provided however, that an impact of a singly family home on an exiting lot will constitute a de minimis impact on all roadways regardless of the level of the deficiency of the roadway. No impact will be de minimis if it would exceed the adopted level of service standard of any affected designated hurricane evacuation routes.

c. The City may grant exceptions from the concurrency requirement for transportation facilities if the proposed development is otherwise consistent with the adopted local government comprehensive plan and (1) is a project that promotes public transportation or (2) is located in an area for which the City has adopted an amendment designating the area for urban infill development, urban redevelopment, downtown revitalization, or urban infill and redevelopment, which amendment includes data and analysis demonstrating that the area(s) qualify under Chapter 163.2517, F. S.

Developments located within urban infill, urban redevelopment, existing urban service, or downtown revitalization areas or areas designated as urban infill and redevelopment areas which pose only special part-time demands on the transportation system may be excepted from the concurrency requirement for transportation facilities. A special part time demand is one that does not have more than 200 scheduled events during any calendar year and does not affect the 100 highest traffic volume hours. Prior to granting an exception the City will consider the impacts on the Florida Intrastate Highway System. The exceptions may be available only within the specific geographic area of the jurisdiction designated in the plan. Any affected person may challenge a plan amendment establishing these guidelines and the areas with which an exception could be granted.

Policy 1.2.4: The City Manager, as a component of his annual review of facilities and Levels of Service, in preparing the City's annual capital improvements program, shall prepare a formal assessment of the status of the City's adopted level of service standards including:

a. The existing demand on facilities having adopted levels of service.

b. The capacity available to meet future demand, and

c. The capacity of planned facilities.

Using this assessment, the City Council shall, after a public hearing, determine if there is sufficient cause to withhold or condition development orders or permits during the coming year.

Should City Council find that sufficient capacity will be available to serve all development reasonably expected to occur during the coming year, issuance of development permits may continue.

Should the City Council find that sufficient capacity will not be available to serve all development reasonably expected to occur during the coming year, City Council shall take at least one of the following actions:

1. Prepare a comprehensive plan amendment to adjust the adopted failing level of service or,

2. Identify the types of development permits which will have an immediate large demand on the failing levels of service, and direct that permits which depend on these levels of service shall not be granted or shall be granted conditionally so occupancy is dependent upon achievement of the adopted level of service and set a schedule for the reassessment of that level of service, or

3. Immediately amend the first three years of the City's 5 year schedule of capital improvement to provide or accelerate facility improvements or other means to negate or offset any apparent deficiencies in levels of service.

Policy 1.2.5: To provide for a reasonable economic use of land in those rare instances where a strict application of the concurrency requirements would constitute an unconstitutional taking of property without due process of law, the City may issue a concurrency variance certificate. This certificate may be issued only in the City finds all of the following circumstances to be true:

a. There are not sufficient facilities available to serve the development without violating minimum concurrency requirements.

b. No reasonable use can be made of the property unless a development permit is issued.

c. No reasonable economic use can be made of the property by conditioning the development permit upon sufficient facilities becoming available, and

d. The request to vary from the concurrency requirements is the minimum variance that would allow any reasonable economic use of the property in question.

Policy 1.2.6: Concurrency Management vested rights will be addressed in the City's Land Development Regulations.

Policy 1.2.7: The City's concurrency management system shall be administered by the City of Bonita Springs or its designee.

Policy 1.2.8: The City shall work with, encourage, and closely review the County's efforts to develop an alternative method that is acceptable to the City and the Department of Community Affairs (DCA) in determining traffic concurrency, particularly for roadways in the City subject to traffic generation by major residential and commercial planned developments having been approved prior to the adoption of the City's Comprehensive Plan.

Policy 1.2.9: The City shall investigate and initiate, if warranted, a Comprehensive Plan Amendment to designate a Transportation Concurrency Exception Area (TCEA) in order to accommodate redevelopment and infill along Old U S 41 between Bonita Beach Road and Terry Street and through the Comprehensive Plan review process, coordinate the City's designation of its TCEA with the DCA, FDOT, Lee County and the MPO.

Objective 1.3: **Other Financing Policies.** Establish a broad-based system of revenue regulations that ensure that new development pays at least 90% of the capital costs of the public infrastructure directly attributable to that new development.

Policy 1.3.1: The City's impact fees for and/or fees-in-lieu of private provision of designated public facilities shall be set to capture a substantial proportion of the full and real cost of the designated facility, and shall be reviewed and updated regularly.

Policy 1.3.2: Lee County shall assist any duly constituted public agency within its boundaries, at that agency's request, in developing an impact fee program to offset the impacts of new growth on that agency or jurisdiction's capital or facility requirements.

Policy 1.3.3: The City shall continue to develop and, by year-end 2003, shall investigate and, if warranted, adopt a stormwater utility to control volume of water discharge, maintain and improve water quality, provide monitoring and a finance source for the City's stormwater system.

Objective 1.4: The City, shall upon adoption of this Comprehensive Plan, limit public expenditures that subsidize development within the coastal high hazard area of the City.

Policy 1.4.1: All further City public expenditures for new facilities within the City's coastal high hazard Category 1 hurricane evacuation area shall require a finding by the City Council that such expenditures are necessary to maintain required service levels, to protect existing residents, or to provide for recreation/open space and preservation needs or enhanced water quality measures.

Objective 1.5: The City shall coordinate the City's Comprehensive Plan elements' capital requirements with the City's capital improvement program.

Policy 1.5.1: The City Manager shall, during his preparation of the proposed Capital Improvements Program for the City Council's consideration, include those capital needs identified in the Comprehensive Plan's elements.

Policy 1.5.2: Capital improvements are defined to include at least any major nonrecurring expenditure for physical facilities having an estimated useful life in excess of ten years and an acquisition cost of $25,000 or more.

City of Bonita Springs, Florida
Fiscal Year 2006-2007
5 Year Capital Improvements Projects

		Estimated				CIP	CIP	CIP	CIP	CIP	
		Total		Fund	Expended	Budget	Budget	Budget	Budget	Budget	Total City
Proj #	Project Name	Cost		Source	To Date	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11	Cost
	Roadway Projects										
				B	$3,500,000.00						$3,500,000.00
30.201.5416320	Old 41 Widening-Rosemary to US41	$26,900,000.00		Rd I		$5,561,200.00	$10,100,000.00	$5,200,000.00			$20,861,200.00
				GF							
				Dev		$2,538,800.00					$2,538,800.00
30.201.5416322	Imperial Street Widening-City Participation	$25,911,254.00		B	$18,845,600.00						$18,845,600.00
				Rd I	$4,077,489.00						$4,077,489.00
	County Participation			Cty	$2,988,165.00						$2,988,165.00
30.201.5416325	Bernwood Drive Traffic Lights (2)	$280,000.00		Rd I	$100,000.00	$180,000.00					$280,000.00
30.900.XXXXXXX	Sidewalk & Bikeway Improvement	$900,000.00		GT		$300,000.00	$150,000.00	$150,000.00	$150,000.00	$150,000.00	$900,000.00
30.901.XXXXXXX	Road Improvements - Minor Capital Projects	$750,000.00		GT		$150,000.00	$150,000.00	$150,000.00	$150,000.00	$150,000.00	$750,000.00
30.902.XXXXXXX	Canal/Drainage Improvements	$1,250,000.00		GF		$250,000.00	$250,000.00	$250,000.00	$250,000.00	$250,000.00	$1,250,000.00
30.903.XXXXXXX	Private Street Acceptance-City Contribution	$500,000.00		GF		$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$500,000.00
30.201.5416329	Roadway Beautification	$250,000.00		GF		$50,000.00	$50,000.00	$50,000.00	$50,000.00	$50,000.00	$250,000.00
30.201.5416331	East terry Street Improv-Old 41 to Imperial	$7,896,500.00		Rd I	$2,800,000.00	$4,096,500.00	$100,000.00				$7,896,500.00
30.201.5416332	Three Oaks Parkway Extension City Participation	$41,597,805.00		B	$13,942,000.00						$13,942,000.00
	County Participation			Cty	$27,655,805.00						$27,655,805.00
	Landscape Projects										
30.201.5416333	Three Oaks Landscaping Upgrade	$1,200,000.00		GF			$1,200,000.00				$1,200,000.00
30.201.5416338	Bonita Beach Road Landscaping Upgrade	$400,000.00		GF		$400,000.00					$400,000.00
30.201.5416339	US 41 Landscaping-City Participation	$1,200,000.00		GF	$478,000.00	$100,000.00					$578,000.00
	State Participation			St	$622,000.00						$622,000.00
to be assigned	US 41 Landscaping-Old 41 to N. County Line	$200,000.00		GF		$200,000.00					$200,000.00
n/a to current year	Imperial Street Landscaping	$600,000.00		GF			$600,000.00				$600,000.00
n/a to current year	Old 41 Landscaping	$1,000,000.00		GF			$125,000.00	$875,000.00			$1,000,000.00
	Total Landscape Projects	$4,600,000.00									
	Street Lighting Projects										
30.201.5416334	Three Oaks Street Lighting			GT							
30.201.541633B	US 41 Lighting-N. County Line to Old 41	$300,000.00		GT	$30,000.00	$270,000.00					$300,000.00
30.201.5416340	Street Lighting Improvements	$500,000.00		GT		$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$500,000.00
30.201.5416355	Livingston Road Decorative Lighting	$360,000.00		GT	$30,000.00	$330,000.00					$360,000.00
n/a to current year	Old 41 Decorative Street Lighting	$1,000,000.00		GT			$125,000.00	$875,000.00			$1,000,000.00
	Total Street Lighting Projects	$1,160,000.00									
30.201.5416341	West Terry Street Improvements	$4,600,000.00		Rd I	$500,000.00	$1,500,000.00	$2,600,000.00				$4,600,000.00
30.201.5416344	Traffic Calming	$100,000.00		GT			$100,000.00				$100,000.00
30.201.5416347	Carolina Extension-Arroyal to US 41	-		GT							-
30.201.5416348	Arroyal Road Widening-BB Rd to N. Crown Lake Ct.	$325,000.00		GT	$75,000.00	$250,000.00					$325,000.00
30.201.5416349	East Terry Widening-Imperial to Bonita Grande	$9,100,000.00		Rd I					$2,800,000.00	$6,300,000.00	$9,100,000.00
30.201.5416350	Permanent Traffic Count Stations	$60,000.00		Rd I			$60,000.00				$60,000.00
30.201.5416351	Implementation of Storm Water Master Plan	$1,250,000.00		GT		$250,000.00	$250,000.00	$250,000.00	$250,000.00	$250,000.00	$1,250,000.00
30.201.5416356	Old 41 Town Central/Alt Route/Ally Imp/Prk Lot/LA	$4,000,000.00		Rd I			$600,000.00	$3,400,000.00			$4,000,000.00
30.201.5416357	Road & Drainage-CDBG Eligible	$230,000.00		GR		$230,000.00					$230,000.00
30.201.5416360	Luke Street Finger Canal Dredging	$737,000.00		GF	$50,000.00	$50,000.00	$637,000.00				$737,000.00
to be assigned	Rosemary Creek Dredging	$100,000.00		GF		$100,000.00					$100,000.00

to be assigned	Shangrila Paving-Windley Key to Three Oaks	$6,000,000.00		GT		$2,500,000.00	$3,000,000.00				$5,500,000.00
	(ROW $2.5 mill, Design $0.5 mill, Construction $3mill)			GF		$500,000.00					$500,000.00
to be assigned	Major Street Upgrades/Connections	$4,000,000.00		GF		$200,000.00					$200,000.00
				Rd I			$100,000.00	$1,400,000.00	$1,400,000.00		$3,800,000.00
n/a to current year	Dean St./Quinn St. Paving & Drainage	$1,200,000.00		Rd I				$150,000.00	$1,050,000.00		$1,200,000.00
n/a to current year	ROW Acquisition Bonita Beach Road	$5,000,000.00		Dev						$5,000,000.00	$5,000,000.00
n/a to current year	Stoneheaven/Front St. Parking Lot										
n/a to current year	Sandy Lane Extension										
n/a to current year	CR951 - Land Acquisition										
	Roadway Projects Total	$149,697,559.00			$75,694,059.00	$20,206,500.00	$22,197,000.00	$12,950,000.00	$6,300,000.00	$12,350,000.00	$149,697,559.00
	Less County Participation			Cty=	-$30,643,970.00						-$30,643,970.00
	Less State Participation			State =	-$622,000.00						-$622,000.00
	CITY ROADWAY PROJECTS TOTAL				$44,428,089.00	$20,206,500.00	$22,197,000.00	$12,950,000.00	$6,300,000.00	$12,350,000.00	$118,431,589.00
B - Bonds, Rd I - Road Impact Fees; GT-Gas Tax; GR-Grant; GF-General Fund; REN-Renaissance Group; Cty-County;ST-State.											
	Road Capital Projects By Funding Source				Funding Provided Through September 30, 2006	Funding Provided FY 06-07	Funding Provided FY 07-08	Funding Provided FY 08-09	Funding Provided FY 09-10	Funding Provided FY 10-11	Funding Required October 1, 2005 through September 30, 2011
	Bond Funds-existing			B=	$36,287,600.00		-	-	-	-	-
	Road Impact Fees			Rd I=	$7,477,489.00	$11,337,700.00	$15,360,000.00	$10,150,000.00	$5,250,000.00	$6,300,000.00	$48,397,700.00
	Development Agreement Impact Fees			Dev=		$2,538,800.00				$5,000,000.00	$7,538,800.00
	Gas Tax Funds			GT=	$135,000.00	$4,150,000.00	$3,875,000.00	$1,525,000.00	$650,000.00	$650,000.00	$10,850,000.00
	General Fund - Contingency			GF-Cont=	-	-	-	-	-	-	-
	Renaissance Contribution			REN=	-	-	-	-	-	-	-
	Grant Funds			GR=		$230,000.00					$230,000.00
	General Fund			GF=	$528,000.00	$1,950,000.00	$2,962,000.00	$1,275,000.00	$400,000.00	$400,000.00	$6,987,000.00
	Total City Funded Projects				$44,428,089.00	$20,206,500.00	$22,197,000.00	$12,950,000.00	$6,300,000.00	$12,350,000.00	$74,003,500.00

Table 1-11: Water Supply Capital Improvements Projects							
Project Name	Water Source	Responsible Agencies	Funding Sources	Estimated Project Cost ($M)	Estimated O&M ($M)	Project Capacity (MGD)	Year Water Produced
Brackish Wellfield Phase II - 3 wells	Brackish	BSU		3.80	0.25	3.00	2008
RO WTP Phase II	Brackish	BSU		10.00	1.00	3.00	2010
Brackish Wellfield Phase III - 4 wells	Brackish	BSU		3.40	0.04	4.00	2013
RO WTP Phase III	Brackish	BSU		5.00	0.20	3.70	2011
East WRF Transmission Main (East Phase	Reclaimed	BSU		8.30	0.00	0.00	NA
Reuse Interconnect to Collier County	Reclaimed	BSU/Collier County		46.25	0.04	2.00	2013
Kehl Canal Raw Water ASR	Surface	Water Management District		9.00	0.18	2.00	2013

Source: SFWMD LWC WSP

MONITORING AND EVALUATION

Capital Improvements planning in the City of Bonita Springs is a continuous process, with on-going involvement by citizens, staff, and elected officials. Some of the factors considered are: fluctuating revenue streams, changing facilities needs; financial markets, interest rates and public perceptions of taxation and expenditures. The Capital Improvements Element should be reviewed on an annual basis.

The City's Capital Improvements planning process is organized to establish a sound basis in planning. Annual review of the Capital Improvements Element is coupled with annual adoption of the municipal budget.

The annual review will be the responsibility of the City Manager or his designee, with the involvement of the City Clerk. The City Manager will present the entire package to the City Council for review and adoption.

The review process will include an analysis of the following factors:

a. Updates, corrections, and revisions to costs, revenues, target dates, and locations.

b. Consistency with the other elements of the Comprehensive Plan.

c. Actions of other agencies such as the Florida Department of Transportation and the success of intergovernmental cooperation in implementing the element.

d. The continued validity of priority assignments.

e. Projects completed or progress towards completion.

f. The level of service achieved.

g. The debt capacity of the City.

h. Grants or private donations received or being considered.

i. Public perceptions of the process, the necessity of projects in the 5-year program, and willingness to support Capital Improvements at the level planned.

j. Success in achieving grants.

STATE OF FLORIDA

DEPARTMENT OF COMMUNITY AFFAIRS

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Secretary

MEMORANDUM

RECEIVED
MAY 0 8 2008
COMMUNITY DEVELOPMENT

TO Jim Quinn, DEP
Susan Harp, DOS
Tracy Suber, DOE
FDOT1- Crawley/Massey
David Crawford, Southwest Florida RPC
Kate Edger, South Florida WMD
Paul O'Conner, Lee County

DATE: May 5, 2008

SUBJECT: *COMMENTS* FOR PROPOSED COMPREHENSIVE PLAN AMENDMENT

LOCAL GOVERNMENT/ DCA AMENDMENT #: Bonita Springs 08RWSP-1

DCA CONTACT PERSON/PHONE NUMBER: Brenda Winningham 850-487-4545

COMMENTS DUE TO DCA NO LATER THAN: June 4, 2008

Please contact the local government if you do not have a copy of the proposed amendment. Please review the proposed comprehensive plan amendment documents for consistency with applicable provisions of Chapter 163, Florida Statutes and Chapter 9J-5, Florida Administrative Code. Pursuant to FS 163.3184(4), *forward objections, recommendations and comments* to the attention of Ray Eubanks, Administrator, Plan Review and Processing, at the Department address indicated below.

Please use the above referenced DCA AMENDMENT NUMBER on all correspondence related to this amendment.

Note: Review Agencies - The local government has indicated that they have mailed the proposed amendment *directly to your agency.* See attached transmittal letter. *Be sure to contact the local government if you have not received the amendment.* Also, letter to the local government from DCA acknowledging receipt of amendment is attached.

2555 SHUMARD OAK BOULEVARD TALLAHASSEE, FL 32399-2100
Phone: 850-488-8466 Fax: 850-921-0781 Website: www.dca.state.fl.us

COMMUNITY PLANNING
Phone: 850-488-2356 Fax: 850-488-3309

AREAS OF CRITICAL STATE CONCERN FIELD OFFICE
Phone: 305-289-2402 Fax: 305-289-2442

HOUSING AND COMMUNITY DEVELOPMENT
Phone: 850-488-7956 Fax: 850-922-5623

LaRue Planning & Management Services, Inc.

1375 Jackson Street, Suite 206
Fort Myers, Florida 33901-2845
239-334-3366 • FAX: 239-334-6384

April 30, 2008

Mr. D. Ray Eubanks, Planning Manager
Plan Review and Processing Team
Department of Community Affairs
255 Shumard Oak Boulevard
Tallahassee, Florida 32399-2100

Reference: Transmittal of Proposed City of Bonita Springs
Water Supply Facilities Work Plan and related
Comprehensive Plan Element revisions

Dear Mr. Eubanks:

Pursuant to Rule 9J-11.004(2)(c), enclosed are three (3) copies (one printed copy and two compact discs) of a proposed Comprehensive Plan Amendment for the City of Bonita Springs.

The City of Bonita Springs is located within an area studied within the Lower West Coast Water Supply Plan prepared by the South Florida Water Management District. The City is required to prepare its own Water Supply Facilities Work Plan, and the attached Amendment package was prepared in effort to ensure the requirements of Section 163.3177(3)(c), as interpreted by the Department and South Florida Water Management District.

The package consists of the new proposed Water Supply Facilities Work Plan, and changes to the Potable Water Sub-Element of the Infrastructure Element, Conservation/Coastal Management, Intergovernmental Coordination and Capital Improvements Elements for the City of Bonita Springs.

In furtherance of Rule 9J-11.004, the following information concerning the proposed amendment package is offered: The Local Planning Agency held its duly advertised public hearing on the proposed Comprehensive Plan Amendments on April 15, 2008 and forwarded its recommendation to the City Council for transmittal of the Amendments to DCA for its review. The City Council of the City of Bonita Springs held a duly advertised public hearing on April 16, 2008 at which time the Council authorized transmittal of the Comprehensive Plan Amendment package, as set forth herein, along with other such required documentation to the Florida Department of Community Affairs. [Rules 9J-11.006(1)(a)1 and 9J-11.006(1)(a)2, FAC]

One copy each of the proposed Comprehensive Plan Amendment package and this transmittal letter has been submitted to the following agencies on the above mentioned date. [Rules 9J-11.006(1)(a)1and 9J-11.006(1)(a)2, FAC]:

Southwest Florida Regional Planning Council
South Florida Water Management District
Department of Transportation, District 1
Department of Environmental Protection
Department of Education
Lee County Planning Department
Florida Department of State

The City desires that the Department of Community Affairs review the proposed Amendment as provided in 163.3184(3)(a), F.S., and Rule 9J-11.006(1)(a)3, FAC. [Rule 9J-11.006(1)(a)3,FAC]

The proposed Amendment is exempt from the limit of two amendments per year, since the proposed Amendment incorporates the South Florida Water Management District's Lower West Coast Regional Water Supply Plan as required pursuant to Section 163.3177(3)(c),F.S.

It is anticipated that the proposed Amendment will be adopted in May 2008. [Rule 9J-11.006(1)(a)4, FAC]

The contact person for the City of Bonita Springs is [Rule 9J-11.006(1)(a)10, FAC]:

Barbara Barnes-Buchanan, Assistant City Manager
City of Bonita Springs
9101 Bonita Beach Road
Bonita Springs, FL 34135
239-949-6262 * FAX: 239-929-6239
E-Mail: barbara.barnes-buchanan@cityofbonitasprings.org

And/or:

James G. LaRue, AICP, Planning Consultant
LaRue Planning & Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, FL 33901
239-334-3366 * FAX: 239-334-6384
E-Mail: jim@larue-planning.com

The proposed Plan Amendment package is not applicable to an area of critical state concern. [Rule 9J-11.006(1)(a)5, FAC]

The Plan does not apply to the Wekiva River Protection Area. [Rule 9J-11.006(1)(a)6, FAC]

The proposed Plan Amendment package will not to be adopted under a joint planning agreement. [Rule 9J-11.006(1)(a)9, FAC]

The Plan Amendment package will be available for public inspection during normal business hours and the Department's Objections, Recommendations and Comments will be made available for public inspection during normal business hours at the following location(s):

City of Bonita Springs City Hall
9101 Bonita Beach Road
Bonita Springs, Florida 34135

Should you have any questions or require additional information, please do not hesitate to contact me at 239-334-3366.

Sincerely,

James G. LaRue, AICP
Planning Consultant

JGL:vr

Enclosures

cc: Gary Price, City Manager
Barbara Barnes-Buchanan, Assistant City Manger
Dianne Lynn, City Clerk
Audrey E. Vance, City Attorney
Mike Liggins, Bonita Springs Utilities
Mary Gibbs, Lee County Community Development Director
David Crawford, SWFRPC
P.K. Sharma, SFWMD
Thomas Inserra, FDOE
Ben Walker, FDOT District 1
Jim Quinn, FDEP
Susan Harp, DOS

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CHARLIE CRIST
Governor

May 5, 2008

THOMAS G. PELHAM
Secretary

Mr. James LaRue, Planning Consultant
LaRue Planning and Management Services, Inc.
1375 Jackson Street, Suite 206
Fort Myers, Florida 33901-2845

Dear Mr. LaRue:

Thank you for submitting the City of Bonita Springs' proposed comprehensive plan amendments for our review. The reference number for this amendment is **Bonita Springs 08RWSP-1.**

We have conducted an inventory of the remaining plan amendment package to verify the inclusion of all required materials for the remaining proposed amendments. The submission package appears to be complete, and your remaining proposed plan amendments will be reviewed pursuant to Chapter 163, Florida Statutes. Once the review is underway, you may be asked to provide additional supporting documentation by the review team to ensure a thorough review. The Department's ORC report will be mailed to you on or about **July 4, 2008.**

Also, please be advised that Section 163.3184(8)(c), Florida Statutes, requires the Department to provide a courtesy information statement regarding the Department's Notice of Intent to citizens who furnish their names and addresses at the local government's plan amendment transmittal (proposed) or adoption hearings. In order to provide this courtesy information statement, local governments are required by law to furnish the names and addresses of the citizens requesting this information to the Department. Please provide these required names and addresses to the Department *when you transmit your adopted amendment package* for compliance review. In the event no names, addresses are provided, please provide this information as well. For efficiency, we encourage that the information sheet be provided in electronic format.

If you have any questions please contact Brenda Winningham, Regional Planning Administrator, that will be overseeing the review of the amendments, at (850) 487-4545.

Sincerely,

D. Ray Eubanks, Administrator
Plan Review and Processing

DRE/af

2555 SHUMARD OAK BOULEVARD TALLAHASSEE, FL 32399-2100
Phone: 850-488-8466 Fax: 850-921-0781 Website: www.dca.state.fl.us

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Secretary

September 2, 2008

RECEIVED
SEP - 4 2008
COMMUNITY DEVELOPMENT

The Honorable Ray Judah
Chairman, Lee County
Board of County Commissioners
P.O. Box 398
Ft. Myers, FL 33902

Re: Local Government 10-Year Water Supply Facilities Work Plan

Dear Chairman Judah:

As a result of legislation enacted in 2005 to strengthen the link between land use and water supply planning, local governments subject to a Regional Water Supply Plan prepared by a water management district are required to adopt a Water Supply Facilities Work Plan as a part of their comprehensive plans. This letter is to remind you that the plan amendment incorporating your local government's Water Supply Facilities Work Plan was due to be adopted on January 12, 2008.

Your local government will benefit from preparing a work plan and incorporating it into your comprehensive plan because it will help you to coordinate land use decisions with available water supply. The plan may provide critical supporting documentation for future amendments to your comprehensive plan.

Under Sections 163.3180(2)(a), 163.3177(3)(a)5., (6)(a) and (c), Florida Statutes, the work plan is to address the plans of regional water suppliers, private utilities, or other water suppliers as applicable, as well as the local government's plans for infrastructure, conservation and reclaimed water. Each work plan and revisions to the comprehensive plan shall address the following subjects:

- Water supply concurrency;
- Intergovernmental coordination with any regional water supply authorities and the water management district;
- Assurance that the future land use plan is based upon the availability of adequate water supplies, public facilities and services;

2555 SHUMARD OAK BOULEVARD ♦ TALLAHASSEE, FL 32399-2100
850-488-8466 (p) ♦ 850-921-0781 (f) ♦ Website: www.dca.state.fl.us
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♦ HOUSING AND COMMUNITY DEVELOPMENT 850-488-7956 (p) 850-922-5623 (f) ♦

- Identification of alternative water supply projects and water conservation and reuse programs to meet current and future water use demands; and,
- Incorporation of those improvements into the 5-year Capital Improvement Plan which are needed within the next five years to implement the work plan.

To assist local governments in preparing their work plans, the Department, together with the Department of Environmental Protection and the water management districts, has prepared a *Guide for Local Governments in Preparing Water Supply Comprehensive Plan Amendments and Water Supply Facilities Work Plans*. This document and other information about preparing 10-Year Water Supply Facilities Work Plans are available on the Department's website at http://www.dca.state.fl.us/fdcp/dcp/WaterSupplyPlanning/index.cfm.

I hope you find the information in the guidebook and on the website helpful in fulfilling this important responsibility. If you have questions about preparing your work plan, please contact Dr. Barbara Lenczewski at (850) 922-1786 or you may email her at barbara.lenczewski@dca.state.fl.us.

Sincerely,

Charles Gauthier

Charles Gauthier, AICP
Director, Division of Community Planning

CG/bl

cc: Eric Buermann, Chairman, South Florida Water Management District
Ken Heatherington, Executive Director, Southwest Florida Regional Planning Council
Paul O'Connor, AICP, Director, Community Development Division, Lee County

Gonzalez, Brandy L.

From: Bengtsson, Terrance [tbengts@sfwmd.gov]
Sent: Wednesday, December 10, 2008 11:18 AM
To: Wegis, Howard S.; Gonzalez, Brandy L.
Subject: comments on work plan

Our planning staff is preparing comments to FDCA on the facility work plan and other amendments in DCA 09-01.

These are my comments on the work plan and CPA2006-20 & 21:

Reconcile planning and utilities departments' population and demand projections. The Planning Department's projections seem to be the most current and best available to use.

The CPA2006-20 defines level of service but work plan does not mention or use.

Give details on bulk sales and interlocal agreements, including current and future demands, location of areas, and copies of the agreements.

Clarify that franchised utilities and county, and city and county have consistent plans, population and demands projections, for those unincorporated areas not served by the county, or incorporated areas served by the county.

Have the Potable Water Sub-element CIP include each year of the next five years and a 6 through 10 year period. Rectify this CIP with the CIP in CPA2006-21. Currently, some projects may be in both CIPs, some are in one or the other, and the work plan mentions an expansion project that is not in either CIP.

Check Figure 1- Potential Service Area. It appears to be out of date.

Terry Bengtsson
Lead Hydrogeologist
West Coast Water Supply Coordinator
Fort Myers Service Center
239-338-2929-7740
239-989-3075

Print this message only if it is necessary. Nature will thank you!

Gonzalez, Brandy

From: Wegis, Howard
Sent: Monday, February 09, 2009 11:39 AM
To: Gonzalez, Brandy
Subject: WSFWP Revisions
Attachments: Table of Contents Revised per ORC.doc; 08 WATER SUPPLY FACILITIES WORK PLAN Revised per ORC Accepted Revisions.doc; 08 WATER SUPPLY FACILITIES WORK PLAN Revised per ORC.doc; CIP List.xls; WSFWP Summary of Revisions per DCA ORC.doc

Brandy,
See attached two documents that reflect the revisions to the WSFWP per our meetings and discussions. The one file is the one I sent out last week for comments that shows changes in red font. The only difference between the attached version and the one I sent last week is the table of water supply development that was on page 28. Tom Hill had pointed out that this table did not reflect the revisions to come in line with the approved 08/09 CIP. I have revised this table to be consistent with the other changes. The second document is the revisions with the red font and cross out removed.

Also attached is the revised CIP Table 11 the revised table is under the CIP Element FY0809 Tab.

Also attached is the revised table of contents to reflect added sections on Level of Service and Irrigation Water Demand.

Also attached is a revised summary of the revisions that includes mention of the revision to the table mentioned above.

I am not sure what else I need to do from this point.

Howard S. Wegis
Staff Engineer
Lee County Utilities
P.O. Box 398
Fort Myers, FL 33901
Phone#: (239) 533-8163
Fax#: (239) 485-8385

Gonzalez, Brandy

From: Wegis, Howard
Sent: Thursday, March 12, 2009 2:16 PM
To: Bengtsson, Terrance
Cc: Gonzalez, Brandy; Meurer, Douglas; Hill, Thomas; Edelstein, Rand
Subject: FW: population projections

Terry,
The County did not revise our projections in response to DCA comments. In response to DCA's comments regarding demand projections we stated that the "official" projection was the one performed by the Lee County Planning Department. LCU is confident that the Lee County Planning Department's projection does not reflect the true demand that will be placed on our system in the future and therefore should not be utilized for water use permitting purposes.

We would be happy to meet with you to discuss this, if you wish.

Howard S. Wegis
Staff Engineer
Lee County Utilities
P.O. Box 398
Fort Myers, FL 33901
Phone#: (239) 533-8163
Fax#: (239) 485-8385

From: Gonzalez, Brandy
Sent: Thursday, March 12, 2009 1:47 PM
To: Wegis, Howard
Subject: FW: population projections

From: Bengtsson, Terrance [mailto:tbengts@sfwmd.gov]
Sent: Thursday, March 12, 2009 9:45 AM
To: Gonzalez, Brandy
Subject: population projections

I don't have your phone number so I'm emailing. I'm wondering if the county has revised population projections to address DCA comments on DCA amendment 09-1. The District is trying to move forward on the Utilities water use permit, so these projections are important for demand projections and permit allocations.

Terry Bengtsson
Lead Hydrogeologist
West Coast Water Supply Coordinator
Fort Myers Service Center
239-338-2929-7740
239-989-3075

Print this message only if it is necessary. Nature will thank you!

STAFF REPORTS

CPA 2006-20
WATER SUPPLY FACILITIES WORK PLAN
BoCC SPONSORED
AMENDMENT
TO THE

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

LPA Public Hearing Document
for the
September 22nd Public Hearing

Lee County Planning Division
1500 Monroe Street
P.O. Box 398
Fort Myers, FL 33902-0398
(239) 533-8585

September 12, 2008

LEE COUNTY
DIVISION OF PLANNING
STAFF REPORT FOR
COMPREHENSIVE PLAN AMENDMENT
CPA 2006-20

☑ Text Amendment ☐ Map Amendment

✓	**This Document Contains the Following Reviews:**
✓	**Staff Review**
	Local Planning Agency Review and Recommendation
	Board of County Commissioners Hearing for Transmittal
	Staff Response to the DCA Objections, Recommendations, and Comments (ORC) Report
	Board of County Commissioners Hearing for Adoption

STAFF REPORT PREPARATION DATE: September 12, 2008

PART I - BACKGROUND AND STAFF RECOMMENDATION

A. SUMMARY OF APPLICATION

1. **APPLICANT:**
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
REPRESENTED BY LEE COUNTY DIVISION OF PLANNING

2. **REQUEST:**
Amend the Community Facilities and Services, Potable Water sub-element, the Conservation and Coastal Management Element, and the Intergovernmental Coordination Element of the Lee Plan to coordinate appropriate aspects of the comprehensive plan with the South Florida Water Management District Water Supply Plan and to include a ten year Water Supply Facilities Work Plan as required by s. 163.3177 (6)(c), F.S.

B. STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners transmit this proposed amendment with the following text changes and proposed Table 6 as shown in Attachment 2:

> **POLICY 53.1.5:** ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more

than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to insure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

- The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning directing local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local

governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans.

- In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to facility capacity.

- In July of 2006 the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update).

- The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period.

- Staff is proposing new text and text changes to several elements of the Lee Plan, including the implementation of water supply concurrency requirements, and a new Table based on the Work Plan in order to comply with the expanded requirements.

C. BACKGROUND INFORMATION

This amendment was initiated by the Board of County Commissioners on October 3, 2006. The amendment addresses bills enacted by the Florida Legislature to improve the coordination between land use planning and water supply planning. In 2002 legislation added requirements to Chapter 163 F.S. requiring local governments to prepare a 10 year water supply facilities work plan and incorporate the work plan into the comprehensive plan. The work plan should describe the water supply facilities necessary to serve existing and future development for a 10 year planning period. The legislation focused on the need for comprehensive plans to coincide with the regional water supply plans prepared by each water management district.

In 2003 staff prepared a work plan and an update to the Lee Plan to incorporate the new requirements and the Board of County Commissioners transmitted the amendment to the Department of Community Affairs. In 2004 the Legislature increased the timeframe for local governments to adopt a water supply plan due to the fact that the water management districts were in the process of updating and receiving approval for regional water supply plans. At that time the 2003 work plan and plan amendment were placed on hold until the South Florida Water Management District's (SFWMD) regional water supply plan could be updated and approved.

In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. In July of 2006, the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update). The subject amendment encompasses the changes enacted by the legislature through the incorporation of the Work Plan and policy changes into the Lee Plan, Lee County's Comprehensive Plan.

PART II - STAFF ANALYSIS

A. STAFF DISCUSSION

Introduction

In 2006 the SFWMD issued the most recent water supply plan, titled the *Lower West Coast Water Supply Plan*. The plan describes traditional water sources and alternative water sources to meet projected demands through 2025. Lee County Utilities participated in the SFWMD's planning during the preparation of the *Lower West Coast Water Supply Plan* and has made every effort to ensure Lee County Utilities water supply planning is consistent with the regional plan. The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period. The Work Plan addresses sources, consumptive use permitting, facilities, and alternative water resources, addressing water supply planning through the planning period. The proposed Water Supply Facilities Work Plan is attached to the back of this staff report and is discussed in further detail below. In addition to the adoption of the Work Plan each local government must coordinate their comprehensive plans and water supply planning as follows:

- Future Land Use - Ensure adequate water supply and facilities will be available to meet projected growth demands using data and analysis demonstrating availability for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review.

- Water Supply Concurrency - Ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy.

- Revise the Potable Water Sub-element to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

- Revise the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

- Revise the Conservation and Coastal Management Element to assess projected water needs and sources for a ten year planning period.

- Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the regional water supply plan.

Work Plan

The proposed Work Plan provides a planning horizon through the year 2030. The attached work plan has been prepared by Lee County Utilities and is a technical document covering existing and proposed facilities and water supply sources, the County's capital improvement plan for water supply and treatment, alternative water resources, as well as covering the County's water conservation plan.

Lee County utilities provides water supply to the areas of Lee County that are not served by incorporated cities, private utility companies, or member owned non-profit systems. Lee County Utilities currently operates (6) six water supply facilities under Water Use Permits from the SFWMD, (7) seven water treatment facilities under permits issued by the Lee County Health Department, and (4) four reclaimed water systems.

The population and flow projections calculated in the Lee County Water Supply Facilities Work Plan were based on various planning efforts. The Work Plan compares the methodology developed in the Lower West Coast Water Supply Plan, data analysis and projections by Lee County Utilities supporting modifications to a current water use permit, and population estimates and projections computed by the Lee County Division of Planning.

During the formulation of the Lower West Coast Water Supply Plan the University of Florida Bureau of Economic and Business Research medium projections were utilized and disaggregated the historic population and projected population into Traffic Analysis Zones (TAZ's) for the existing and future service area. The Lower West Coast Water Supply Plan projected annual average daily demand in 2018 is 31.08 million gallons per day (mgd).

Lee County population estimates and projections performed by the Lee County Division of Planning use assumptions based on a review of the 1980, 1990, and 2000 United States Census data. To calculate the estimated population of the area served by Lee County Utilities staff geographically selected the parcels served and joined the data with the parcel inventory to obtain unit counts and planning community information allowing population assumptions to be multiplied to unit counts. Planning staff computed the existing population for the area served by Lee County Utilities and the projected population for the future service area depicted in the Lee County comprehensive plan for 2030. The development assumptions are the same as those used to generate the 2030 land use allocation acreages adopted in Lee Plan Table 1(b). The 2018 maximum demand projection based on this analysis is 35.65 mgd.

In support of an application to modify a current consumptive use permit, Lee County Utilities available data from billing records were used to develop population and demand projections. An average annual growth rate was determined and actual system demands was used in conjunction with population data to determine the average per capita daily use rate and a peaking ratio. Population projections were then made based on annual average growth rate. The projected maximum month daily average demand is 50.70 mgd. The subject projection represents the highest projected demand in the future.

In order to ensure sufficient future capacity, Lee County Utilities is planning to meet the highest projected future demand calculated through the application to modify a current consumptive use permit. Utilities staff have concluded that the projection represents a conservative approach. This projection uses a high growth period from 2003 through 2007 to develop a growth rate for the projection representing the highest projected demand.

As noted above, the population and flow projections discussed were based on various planning efforts and are described and summarized in greater detail in Section 3 of the Lee County Water Supply Facilities Work Plan.

Under the Work Plan's assessment of needs it concludes that Lee County Utilities is in need of additional water treatment and water supply capacity in order to meet the demands of population

growth to 2030. Lee County has developed and is in the process of implementing Capital Improvement Projects for water supply development as outlined in the proposed Water Supply Facilities Work Plan to expand water supply and treatment capacity to meet the anticipated growth demands for potable water. Implementation of the Capital Improvement Plan to increase production scheduled between now and 2014 will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 32 mgd to a combined capacity of 60 mgd. This combined capacity is in excess of the projected demand of 51 mgd anticipated in 2018.

Future Land Use

In 2005 Chapter 163.3177(6)(a) F.S. was revised requiring that the future land use plan to be based on the availability of water supplies and public facilities. The statutory requirements direct each local government to ensure adequate water supply and facilities for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review. Data and analysis should demonstrate that adequate water supply and associated facilities will be available to meet projected growth. The requirements focus on water supply planning and treatment/delivery facilities.

As part of the plan amendment review process for a Future Land Use Map amendment, staff currently evaluates existing and future conditions for facilities capable of serving the site. In response to the statutory requirements additional analysis for potable water will be evaluated pertaining to water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures applied to the site. This analysis will be undertaken in addition to the current facility analysis reviewed during the plan amendment process. The additional requirements have been added to the Lee County application for a comprehensive plan amendment and are shown in underline format as follows:

> *Provide an existing and future conditions analysis for (see Policy 95.1.3):*
> *a. Sanitary Sewer*
> *b. Potable Water*
> *c. Surface Water/Drainage Basins*
> *d. Parks, Recreation, and Open Space*
> *e. Public Schools.*
>
> *Analysis should include (but is not limited to) the following (see the Lee County Concurrency Management Report):*
> - *Franchise Area, Basin, or District in which the property is located;*
> - *Current LOS, and LOS standard of facilities serving the site;*
> - *Projected 2030 LOS under existing designation;*
> - *Projected 2030 LOS under proposed designation;*
> - *Existing infrastructure, if any, in the immediate area with the potential to serve the subject property.*
> - *Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and*
> - *Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).*
> - *Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water.*
>
> *In addition to the above analysis for Potable Water:*
>
> - *Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.*
> - *Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.*
> - *Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.*
> - *Include any other water conservation measures that will be applied to the site (see Goal 54).*

Water Supply Concurrency

Statutory provisions have also been amended to ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy. In 2005 Chapter 163.3180(2)(a), F.S. was revised to add water supply as a concurrency requirement and states the following: *Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water 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 or its functional equivalent. Prior to 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 the 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.*

Lee County currently ensures facility capacity through the County's concurrency management system. Facility capacity is reviewed and capacity determinations are made prior to a concurrency certificate being issued for local development order approvals and certificates are valid for 3 years. Building permits are verified for adequate facility capacity based on a valid concurrency certificate and single family permitting procedures require a letter from the utility company verifying availability.

The Lee Plan maintains several policies reproduced below requiring facility capacity. For example, Standard 11.1 sets the threshold for mandatory connection to a public water system as well as the requirement that the projected need of a development does not exceed the supply and facility capacity of the utility. Policy 53.1.5 specifies that no development order will be issued unless potable water service, at the minimum acceptable level of service, is available or surety is given that it will be installed prior to occupancy. Policy 95.1.3 specifies the minimum acceptable level of service for potable water facilities. These requirements are reproduced below.

In addition, as part of the subject review, staff has incorporated a proposed update to Policy 53.1.5 as shown below. The update proposes to delete the statement that "County development regulations will be amended." Potable water system requirements are incorporated into the County development regulations through Lee County Land Development Code Chapter 10, Division 4, Section 10-351 and 10-352 reflecting the standards and intent of Policy 53.1.5. The update also proposes to replace the reference to the Development Standards Ordinance with the reference to the Land Development Code. The updated reference replaces the old reference with the current code.

STANDARD 11.1: WATER.

1. *Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).*

2. *If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.*

3. *The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.*

4. *All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.*

5. *If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.*

6. *If a development lies outside any service area as described above, the developer may:*

   - *request that the service area of an adjacent water utility be extended to incorporate the property;*
   - *establish a community water system for the development; or*
   - *develop at an intensity that does not require a community water system.*

(Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.5: *~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)*

POLICY 70.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. *Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).*

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. *Potable Water Facilities:*

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

The additional statutory provisions require local governments to revise their comprehensive plans to address water supply concurrency. To maintain water supply concurrency the guidelines recommend policy revisions to local comprehensive plans and land development codes that suggest for example requiring a written statement from the water supplier regarding the availability of water to serve a proposed project. Determining the availability of water supply will involve determining the water use allocation through the consumptive use permit for the utility's service area based on the annual average daily withdrawal rate. An analysis of the current demand and the projected demand will identify the available water supply for all existing and proposed water demands.

The statutory requirements require assurance that adequate water supply and facilities are available to serve new development no later than issuance of a certificate of occupancy. Staff proposes new Objective 53.2 and Policy 53.2.1 as an addition to the Potable Water sub-element establishing concurrency management specifically for water supply planning. The Objective will ensure that water supply will be available concurrent with development in addition to facility capacity currently addressed through the Lee County Concurrency Management System. The Policy will ensure that new development meets concurrency standards for water supply prior to approval of a development order and the issuance of a concurrency certificate, similar to the facility requirement in Policy 53.1.5 noted above.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

Potable Water Sub-element

Statutory provisions also require revisions to the Potable Water sub-element directing local governments to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

The expansion of the comprehensive plan requirements strengthening the coordination of water supply and land use planning requires the adoption of a Water Supply Facilities Work Plan for a ten year planning period. The requirements also provide that the Potable Water sub-element should be revised to identify and incorporate alternative water supply projects identified by the regional water supply plan as well as identifying bulk sales agreements and conservation and reuse programs necessary to meet demands. Section 4 of Lee County's Work Plan addresses water supply facilities necessary to serve existing and projected development for which the local government is responsible through the year 2030. Section 5 of the Work Plan addresses alternative water resources. Bulk water service is provided to the Town of Fort Myers Beach through a bulk water service agreement. The Work Plan notes in the introduction section of the document that the Town of Fort Myers Beach and the Gateway Service District are included in the Lee County Utilities service area. Both service areas are accounted for in Lee County Utilities data analysis. Conservation and reuse are also discussed in Section 5 of the Work Plan.

In order to address the inclusion of the Water Supply Facilities Work Plan in the Potable Water sub-element staff proposes a new Table 6, titled Water Supply Development Plan, for adoption into the Lee Plan. Table 6 is based on the Work Plan and the Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff notes that while the proposed table shows estimated completion dates out to the year 2014, the projections assume the County's water supply needs for a ten year planning period. The proposed table can be found as Attachment 2.

Staff is also proposing new Policy 53.1.11 as an addition to the Potable Water sub-element. This policy refers to Table 6, outlining the facilities needed to meet the projections made in the Water Supply Facilities Work Plan while text changes to Policy 55.1.3 of the Potable Water sub-element implement the Water Supply Facilities Work Plan itself, fulfilling the Potable Water sub-element requirements.

> **POLICY 53.1.11:** The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

> **POLICY 55.1.3:** Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

Five Year Schedule of Capital Improvements

The statutory requirements call for any necessary revisions to the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

The Five Year Schedule of Capital Improvements will be updated to include projects and programs to be implemented during the five year period as part of the annual Capital Improvements Program review, per Florida Statute 163.3177(3)(b).

Conservation and Coastal Management Element

The statutory requirements require the local government to revise the Conservation Element to assess projected water needs and sources for a ten year planning period. Staff proposes the following text changes to Policy 117.1.2 as well as the addition of Policy 117.1.9 to the Conservation and Coastal Management Element. The additions to Policy 117.1.2 reflect the recommendations of the Lower West Coast Water Supply Plan, recognizing the regional water supply plan as well as implementing the Lee County Water Supply Facilities Work Plan. The addition of Policy 117.1.9 reflects the assessments made in the Water Supply Facilities Work Plan.

> **POLICY 117.1.2:** The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

Intergovernmental Coordination Element

Revisions to the Intergovernmental Coordination Element are also required to ensure coordination of the comprehensive plan with the regional water supply plan. The following new text, Objective 151.5 and Policy 151.5.1 are being proposed to insure such coordination. Objective 151.5 states that the county will coordinate with the SFWMD to insure Lee Plan consistency, while Policy 151.5.1 states that the county will continue to evaluate the District's water supply plans in order to maintain consistency.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

The Lee Plan

The Lee Plan contains an extensive amount of policies addressing water usage, conservation, protection, overlays, quality, quantity, surface water, and groundwater. Listed as Attachment 3 are those Goals, Objectives, and Policies of the Lee Plan that relate directly to the intent of the subject amendment. Included among those listed are the proposed changes in strike-through/underline format that address the additional changes required to be made to the Potable Water sub-element, the Conservation Element, and the Intergovernmental Coordination Element.

Additional Information

As part of the preparation of the Water Supply Facilities Work Plan amendment, local governments are required to coordinate with any water suppliers delivering water within the local government's jurisdiction. Planning data such as current consumptive use permits, projected demands, and planned resources for those components of the supply system that the local government does not have responsibility should be obtained from the suppliers and incorporated into the Work Plan confirming adequate sources.

The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Greater Pine Island Water Association, Florida Governmental Utility Authority, Gasparilla Island Water Association, Inc., and Island Water. Bonita Utilities provides water for the city of Bonita Springs and vicinity, Greater Pine Island Water Association provides water for Greater Pine Island and vicinity, Florida Governmental Utility Authority provides water for Lehigh Acres, Gasparilla Island Water Association, Inc. provides water for Gasparilla Island, and Island Water provides water for Sanibel and Captiva Islands.

Staff has coordinated with each of the suppliers to obtain information from their consumptive use permits as well as the suppliers projected demands and existing and planned water sources. The

collected data and analysis is reviewed under Section 7 of the Lee County Water Supply Facilities Work Plan.

B. CONCLUSIONS

The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning. These requirements direct local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans. In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. Staff is proposing new text and text changes to several elements of the Lee Plan as well as proposing a Water Supply Facilities Work Plan and a new Lee Plan Table based on the Work Plan in order to comply with the expanded requirements.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners transmit this proposed amendment. This recommendation is based upon the previously discussed issues and conclusions of this report. Planning staff recommends the Board of County Commissioners transmit the changes to the Lee Plan as proposed in Part I.B.1. of this report.

PART III - LOCAL PLANNING AGENCY REVIEW AND RECOMMENDATION

DATE OF PUBLIC HEARING: September 22, 2008

A. LOCAL PLANNING AGENCY REVIEW

B. LOCAL PLANNING AGENCY RECOMMENDATION AND FINDINGS OF FACT SUMMARY

1. **RECOMMENDATION:**

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:**

C. VOTE:

NOEL ANDRESS	_____
LES COCHRAN	_____
RONALD INGE	_____
JACQUE RIPPE	_____
CARLETON RYFFEL	_____
LELAND TAYLOR	_____
RAE ANN WESSEL	_____

PART IV - BOARD OF COUNTY COMMISSIONERS
HEARING FOR TRANSMITTAL OF PROPOSED AMENDMENT

DATE TRANSMITTAL HEARING: October 22, 2008

A. BOARD REVIEW:

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

C. VOTE:

A. BRIAN BIGELOW	_____
TAMMARA HALL	_____
ROBERT P. JANES	_____
RAY JUDAH	_____
FRANKLIN B. MANN	_____

PART V - DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS, AND COMMENTS (ORC) REPORT

DATE OF ORC REPORT: _____

A. DCA OBJECTIONS, RECOMMENDATIONS AND COMMENTS

B. STAFF RECOMMENDATION

PART VI - BOARD OF COUNTY COMMISSIONERS
HEARING FOR ADOPTION OF PROPOSED AMENDMENT

DATE OF ADOPTION HEARING: _____

A. BOARD REVIEW:

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

C. VOTE:

	_____
A. BRIAN BIGELOW	_____
TAMMARA HALL	_____
ROBERT P. JANES	_____
RAY JUDAH	_____
FRANKLIN B. MANN	_____

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 Pwky. 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

Potable Water Policy in the Lee Plan

Future Land Use Element

STANDARD 11.1: WATER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).

2. If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.

3. The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.

4. All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.

5. If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.

6. If a development lies outside any service area as described above, the developer may:

   - request that the service area of an adjacent water utility be extended to incorporate the property;
   - establish a community water system for the development; or
   - develop at an intensity that does not require a community water system.

(Amended by Ordinance No. 94-30, 00-22)

Community Facilities and Services Element

Potable Water Sub-Element

GOAL 53: POTABLE WATER INFRASTRUCTURE. To ensure the public health, welfare, and safety by the provision of high-quality central potable water service throughout the future urban areas of unincorporated Lee County, and to ensure that the costs of providing facilities for the supply of potable water are borne by those who benefit from them.

OBJECTIVE 53.1: The County will ensure the provision of acceptable levels of potable water service throughout the future urban areas of the unincorporated county, either directly by Lee County Utilities, or indirectly through franchised utility companies. (Amended by Ordinance No. 94-30, 00-22, 03-04)

POLICY 53.1.1: The Board of County Commissioners hereby establishes service areas for the Lee County Utilities water systems throughout which it will provide standard service as required by demand, and within which it will challenge applications by private water utilities to obtain a

Certificate of Operation from the Florida Public Service Commission and reject all applications for a county franchise therein. These service areas are illustrated in Map 6. Within the Fort Myers urban reserve area, the service areas shown on the map are subject to modifications in accordance with existing and future interlocal agreements. (Amended by Ordinance No. 93-25)

POLICY 53.1.2: The minimum acceptable level-of-service standards (see Policy 95.1.3) for potable water connections to Lee County Utilities will be:

- An available supply and treatment capacity of 250 gallons per day per equivalent residential connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.3: The Board of County Commissioners encourages all private utilities to set a minimum acceptable level of service to be adopted herein for use in the concurrency management system within their respective franchised or certificated areas. After the effective date of this plan or September l, l989, whichever is later, if the county has not adopted such standards into this plan, the standards adopted for the Lee County Utilities' water systems will apply in those certificated or franchised areas and will be used in enforcing concurrency regulations (see Policy 95.1.3).

After the deadline set above any private utility that cannot meet the Level-of- Service standards set forth for Lee County Utilities will have the opportunity to petition for a Plan Amendment for a revised Level-of-Service requirement for the specific private utility plant if it can be proved that such utility has sufficient plant and system capacity to properly service it's franchised or certificated area. The proof will be in the form of properly documented daily flow reports, occupancy rates or related statistical information, and any other necessary information that may be pertinent to the justification of the requested action, to establish a new individual Level-Of-Service standard. This data should be for a period covering at least the last two prior years. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.4: The Board of County Commissioners urges all utilities to construct and install sufficient treatment facilities and distribution systems that will meet or exceed the minimum acceptable service standards and with the capacity to deliver water at a pressure of 20 pounds per square inch (wp PSI static) at the meter anywhere on the individual system (excluding fire flow conditions). In addition, by September 30, 1994, all utilities are urged to deliver water pressure of 40 pounds per square inch (static pressure, excluding fire flow conditions). Each utility is encouraged to advise the planning and engineering staffs of the county regarding system expansions or modifications to ensure coordination with other utilities and with all other issues of public interest and to prevent duplication of facilities and services. (Amended by Ordinance No. 92-35)

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)

POLICY 53.1.6: No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised

area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required. (Amended by Ordinance No. 00-22)

POLICY 53.1.7: In allocating Industrial Development Revenue Bond capacity, the county will give priority to private water utility firms proposing to construct basic facilities and to provide or upgrade infrastructure serving developed areas and antiquated subdivisions undergoing redevelopment. (Amended by Ordinance No. 00-22)

POLICY 53.1.8: The costs of new or augmented potable water infrastructure that is developed by Lee County will be borne by those who benefit from the improved supply. (Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.9: New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard potable water for that development. (Amended by Ordinance No. 00-22)

POLICY 53.1.10: By 1999, county staff will formulate the study proposal to determine the appropriateness of requiring certain existing residential developments at a density equal to or in excess of 2.5 dwelling units per acre to connect to a potable water or sewer system, if available. The study will address the issue of health related problems and will include the collection and analysis of well samples to determine if there is an immediate health problem as well as a cost benefit analysis. This study proposal will include recommendations regarding which pre-platted communities and subdivisions should be required to connect to a potable water or sewer system, if available. (Added by Ordinance No. 98-09, Amended by Ordinance No. 00-22)

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

GOAL 54: CONSERVATION.

To ensure that future populations have access to potable water supplies and services at a reasonable price by using and encouraging conservation and resource management measures to reduce consumption of potable water.

OBJECTIVE 54.1: The county will continue its programs in education, technical advice, demonstration, rate revisions, and reuse to reduce potable water consumption and the consumption of large volumes of potentially potable water. Water consumption per Equivalent Residential Unit will be decreased by 2.5% annually through the year 2000. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.1: Using the personnel and resources of various county agencies, Lee County will continue to offer a program of public information and education. This program should include the

use of print media, advertising, and public service announcements on radio and television highlighting and advocating various strategies of water conservation, including, but not limited to:

- creating incentives for "gray water" systems or other recycling activities;
- adopting incentives for household and commercial use of appliances with low water consumption rates;
- advising householders to reduce water use;
- creating a demand for low water use appliances by publishing ratings of water use efficiency for appliances analogous to the energy efficiency ratings for electrical appliances;
- advocating the cost-effective use of appliances and water: i.e. run only full loads or use low water settings when appropriate;
- encouraging the building or grounds manager, including the individual householder, to maintain the water system, i.e. timely repair of dripping faucets, leaking water closets, broken or maladjusted sprinkler heads, etc.;
- installing alternatives to spray irrigation devices for lawns and grounds management such as drip or seep systems, or at least attending to the ambient humidity and evapo-transpiration rates in controlling sprinkler systems;
- encouraging the use of drought-tolerant ground covers and shrubbery according to the principles of "xeriscape" (see glossary and Objective 117.2) and demonstrating the uses of native vegetation in landscaping; and
- generally encouraging the thoughtful use of water in all necessary activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.2: In developing and implementing local landscape regulations including the preservation, reforestation, and wetlands restoration requirements, preference will be given to native species which are adapted to the region's climatic regime.

POLICY 54.1.3: Xeric landscaping, stressing the use of native vegetation, is to be emphasized through modifications to the county's development regulations and through direct action while landscaping county-owned projects.

POLICY 54.1.4: The Board of County Commissioners will periodically re-examine the "step rate" structure for the Lee County Utilities water systems which encourages water conservation by requiring that the commodity charge (basic monthly charge less readiness to serve fee and capital debt contribution) above a specified amount of water use increase continuously or by specified increments for that increased use of water. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.5: The Board of County Commissioners will encourage privately operated potable water utilities to adopt a "conservation" rate structure for users in their respective service areas. (Amended by Ordinance No. 00-22)

POLICY 54.1.6: Development regulations will continue to require that any development will pay the appropriate fees and connect to a re-use water system if such system is near or adjacent to the development and has sufficient surplus to supply the development. Development regulations will be amended further as follows:

- Where a significant modification is proposed to a major development subject to Chapter 10 of the Land Development Code, wastewater reuse systems will be required in the same manner as for new developments.

- The county will require by ordinance the connection of specified existing development to a utility wastewater distribution system when one is available near or adjacent to the property.

(Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.7: It is hereby declared that the conservation of potable water supply and facility capacity is of such importance to the orderly growth of the community that in order to further provide incentive for its use, reuse water may be provided at a price significantly lower than finished potable water (the residual costs of operation being charged to the sewer users as part of the cost of effluent disposal).

POLICY 54.1.8: Priority in the use of Industrial Development Revenue Bonds or other mechanisms of public finance will be given to regulated private utilities where not prohibited by the Florida constitution or statutes in order to achieve these public ends. (Amended by Ordinance No. 00-22)

POLICY 54.1.9: Lehigh Acres (as defined by outer boundaries of its Privately Funded Infrastructure overlay on the Future Land Use Map) is hereby declared a critical area for future potable water supply due to fluctuating water levels in the Sandstone aquifer. In response to this designation, the county will amend current regulations to provide that new wells in Lehigh Acres must be constructed to accommodate submersible pumps. (Also see Policy 1.7.10 for new permit requirements for irrigation wells in Bonita Springs, and Policy 2.4.2 for special requirements for amendments to the Future Land Use Map.) (Amended by Ordinance No. 94-30, 00-22, 02-02)

POLICY 54.1.10: The county will continue to implement and enforce regulations to reduce the amount of effluent being discharged into surface waters. (Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.11: Continue to encourage new and existing developments to utilize the Fort Myers Beach/Iona-McGregor sewer system's dual water system. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 98-09)

POLICY 54.1.12: Promote water conservation through the use of incentives and evaluate and apply a community based planning approach to water conservation, enabling more precision to be applied in achieving reduction targets. (Added by Ordinance No. 07-16)

GOAL 55: ORGANIZATION OF SERVICE AND FACILITY DELIVERY.

To provide greater local coordination of the activities of public and private utilities within the county.

OBJECTIVE 55.1: Ensure an adequate, reliable, and economical supply of potable water to meet the forecasted needs for all residents of Lee County through the year 2020 through regional planning and intergovernmental participation. (Amended by Ordinance No. 94-30)

POLICY 55.1.1: Lee County Utilities and Lee County Division of Natural Resources will plan and coordinate with other government agencies in the development of comprehensive plans as they relate to well field protection, aquifer recharge, water supply, and related capital facilities. (Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04).

POLICY 55.1.2: Lee County Division of Natural Resources in conjunction with Lee County Utilities will perform groundwater modeling and analysis for new development, as needed, to

assess the potential impact on the water resources of Lee County. The analysis will focus on the following issues:

- Adequacy of water supply, including groundwater level draw-down
- Avoidance of adverse impacts on natural systems from water supply withdrawals.

(Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04)

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~ (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22, Relocated by Ordinance No. 03-04)

POLICY 55.1.4: Lee County will continue to collect data from private suppliers of potable water, including reporting of water flows, storage capacity, pressures, number of customers, and committed future connections, and proposed expansion plans. This data will be updated on a yearly basis. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22)

Surface Water Management Sub-Element

GOAL 61: PROTECTION OF WATER RESOURCES.

To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.

OBJECTIVE 61.1: WATER SUPPLY PLANNING. All county water supply planning will include the recognition of surface water runoff as a possible resource and will consider integrating the use of surface water runoff in any supply program or strategy that results. (Amended by Ordinance No. 00-22)

POLICY 61.1.1: Lee County recognizes that all fresh waters are a resource to be managed and allocated wisely, and will support allocations of the resource on the basis 1) of ensuring that sufficient water is available to maintain or restore valued natural systems, and 2) of assigning to any specified use or user the lowest quality fresh water compatible with that use, consistent with financial and technical constraints. (Amended by Ordinance No. 00-22)

POLICY 61.1.2: The county will explore, and implement where financially and technically feasible, all existing options for storing and utilizing excess surface water runoff for human consumption and other uses. Such options may include surface impoundments; back-pumping to reservoirs, to upland wetlands, or to ground storage; and ground storage by exfiltration systems or by aquifer storage and recovery systems. Maximum contaminant levels consistent with Florida DEP and USEPA regulations governing receiving waters will be met through treatment as required. Excess surface water runoff will be defined as that water not required to maintain or restore estuarine waters or other valued wetland systems. (Amended by Ordinance No. 94-30, 00-22)

POLICY 61.1.3: In the event that the timing and volume of freshwater discharges necessary to maintain the health and productivity of estuaries and other wetlands cannot be determined or supported by existing scientific data, the county will sponsor, in collaboration with other agencies,

institutions, and organizations, adequate research programs to make such data available. (Amended by Ordinance No. 00-22, 07-12)

POLICY 61.1.4: The county's Surface Water Management Master Plan will place particular emphasis on 1) routing surface water runoff from areas of excess to areas where additional subsurface storage is available; and 2) maintaining and increasing historic surface and groundwater levels in the Density Reduction/Groundwater Resource land use category. (Amended by Ordinance No. 00-22)

POLICY 61.1.5: Work with the appropriate agencies to pursue funding a "mixing model" (freshwater flow into saltwater) as a management tool that will benefit recreation, water quality, public health, etc. (Added by Ordinance No. 07-16)

Groundwater Recharge Sub-Element

OBJECTIVE 63.2: POTABLE GROUNDWATER. Base all future development and use of groundwater resources on determinations of the safe yield of the aquifer system(s) in order not to impair the native groundwater quality or create other environmental damage. Criteria for safe-yield determinations will be determined by the SFWMD, the agency charged with permitting these activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 63.2.1: For maximum protection of groundwater resources, identify future wellfields and/or relocation site(s) for existing wellfields well in advance of need. Coordinate with SFWMD, other water suppliers, and DEP to avoid duplication and to assist in data collection and interchange. (Amended by Ordinance No. 94-30)

POLICY 63.2.2: Institute a program to identify sources of groundwater pollutants in Lee County and to map these (point and non-point) on a county-wide basis.

POLICY 63.2.3: Identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater. (Amended by Ordinance No. 94-30)

POLICY 63.2.4: Expand current programs to identify and map the contamination potential of groundwater resources for those areas of Lee County not currently under public ownership.

POLICY 63.2.5: Lee County, in cooperation with other agencies and the municipalities, will budget to maintain its current program of plugging non-valved, abandoned, or improperly-cased artesian wells so that at least seventy-five of these wells are plugged each year until such wells are eliminated. (Amended by Ordinance No. 94-30, 00-22)

Capital Improvements Element

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth

herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. Potable Water Facilities:

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

Conservation and Coastal Management Element

OBJECTIVE 112.2: The county will continue to participate with other governments to prepare and implement water management plans, including the Estero Bay Agency on Bay Management, Charlotte Harbor National Estuary Program, the Charlotte Harbor Management Plan, the Water Management District Surface Water Improvement and Management (SWIM) plans, DEP aquatic preserve management plans, water supply plans, and other water resource management plans. (Amended by Ordinance No. 94-30, 98-09, 00-22)

GOAL 117: WATER RESOURCES.

To conserve, manage, and protect the natural hydrologic system of Lee County to insure continued water resource availability. (Amended by Ordinance No. 94-30)

OBJECTIVE 117.1: WATER SUPPLIES. Insure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems.

POLICY 117.1.1: Natural water system features which are essential for retention, detention, purification, runoff, recharge, and maintenance of stream flows and groundwater levels shall be identified, protected, and managed.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.3: Freshwater resources will be managed in order to maintain adequate freshwater supplies during dry periods and to conserve water. (Amended by Ordinance No. 00-22)

POLICY 117.1.4: Development designs must provide for maintaining surface water flows, groundwater levels, and lake levels at or above existing conditions. (Amended by Ordinance No. 00-22)

POLICY 117.1.5: The county will cooperate with the United States Geological Survey, South Florida Water Management District, and state agencies to develop an area-wide water resources plan emphasizing planning and management of water resources on the basis of drainage basins; and addressing the needs of the existing and potential built environment, natural hydrologic system requirements, and freshwater flow impacts on estuarine systems. (Amended by Ordinance No. 00-22)

POLICY 117.1.6: The county will continue to support a monitoring program of existing baseline conditions of water resources. (Amended by Ordinance No. 00-22)

POLICY 117.1.7: The county will cooperate fully with emergency water conservation measures of the South Florida Water Management District. (Amended by Ordinance No. 00-22)

POLICY 117.1.8: The county will support the acquisition and protection of the Flint Pen Strand as a major water retention and aquifer recharge area. (See also Policy 107.11.4.) (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 117.2: XERISCAPE LANDSCAPE. The county will continue to promote xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.1: The county will continue to encourage xeriscape landscaping techniques for new development in the Land Development Code. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.2: The county will provide education on water conservation through creative landscaping, and promote the conservation and use of native plant species through xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.3: The county will establish local guidelines that will assist in efforts to reduce landscape irrigation water use to the lowest and most efficient, practical level. (Amended by Ordinance No. 00-22)

Intergovernmental Coordination Element

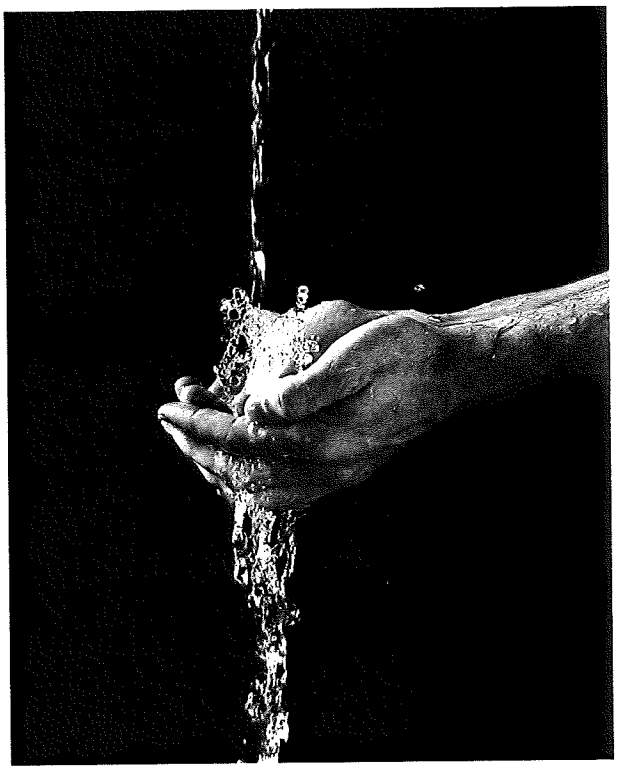
OBJECTIVE 151.3: COORDINATION OF ROADWAY AND UTILITY IMPROVEMENTS. Coordinate, where possible, between the Lee County Department of Transportation (DOT) and utility companies, including Lee County Utilities and the various privately operated water and wastewater companies, to insure that capital and maintenance projects are not adversely affected by subsequent utility construction. (Added by Ordinance No. 94-30)

POLICY 151.3.1: Lee County DOT will continue open communications with the various water and wastewater utility companies to coordinate expected utility construction projects with programmed roadway maintenance and capital projects. (Added by Ordinance No. 94-30, Amended by Ordinance No. 07-12)

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to insure consistency in the Lee Plan and the county's Water Supply Facilities Work Plan.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY, FLORIDA



Prepared by Lee County Utilities and Lee County Planning
July 2008

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Section 1
INTRODUCTION

1.1 PURPOSE

This Water Supply Facilities Work Plan has been prepared by Lee County Utilities (LCU) to meet the requirements of section 163.3177(6)(c), of the Florida Statutes regarding water supply planning.

1.2 PLAN OBJECTIVES

The objectives of this plan include:

- 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 LCU's efforts in developing alternative water supplies.

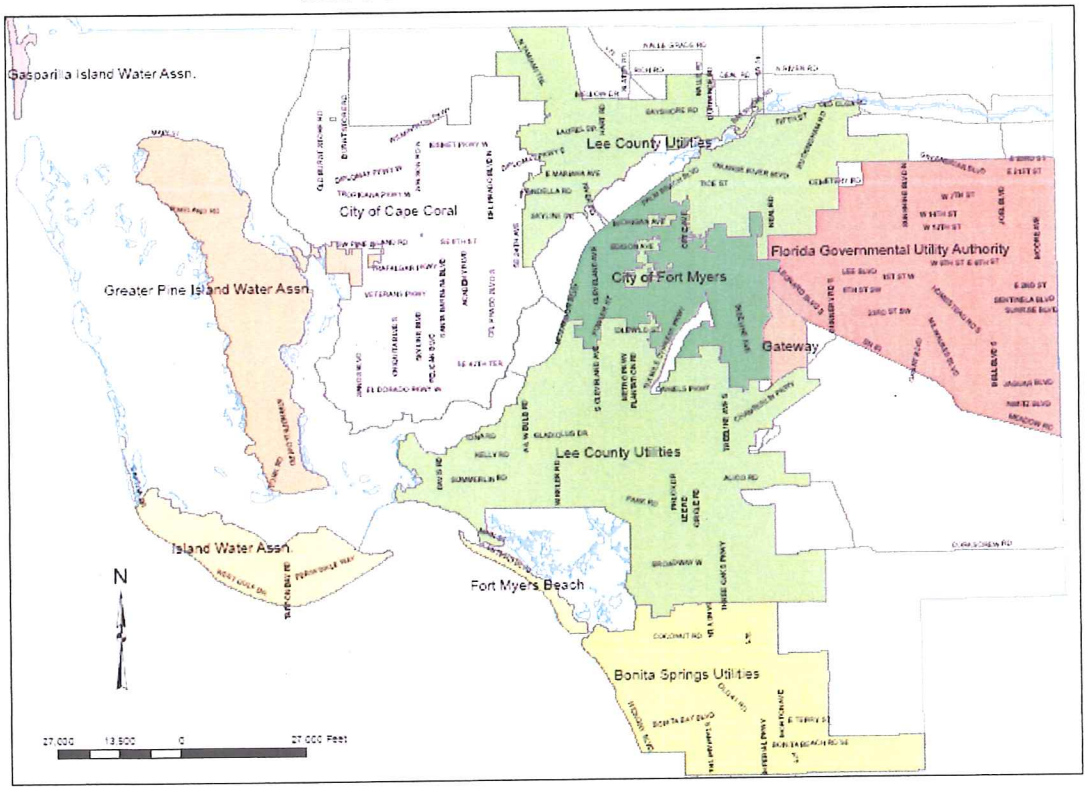
1.3 BACKGROUND

Lee County Utilities was a founding member of the former Lee County Regional Water Supply Authority (LCRWSA). The LCRSWA issued a Water Supply Master Plan in 1993 that was updated in 2000. This Water Supply Master Plan used a planning horizon through 2030. The information provided in this current Lee County Plan is an update to the work that was previously done by the LCRWSA as well as information that has been compiled and submitted to the South Florida Water Management District (SFWMD) in support of Water Use Permit applications as well as population projections performed by Lee County Planning Department.

Lee County Utilities provides water service to those portions of unincorporated Lee County that are not served by either a private utility company, member-owned non-profit systems operating under a franchise agreement from Lee County, or public utility formed through State legislation. These water utilities include; Florida Government Utility Authority (FGUA). Bonita Springs Utilities (BSU), Greater Pine Island Water Association (GPIWA), Gasparilla Island Water Association, and Island Water Association. Sections 1 through 6 of this Plan identify only the water supply needs for Lee County Utilities water system and service area. Section 7 of this Plan describes the water supply needs of the other utilities listed above. This Plan does not include water utilities serving incorporated cities within Lee County, including City of Fort Myers, City of Cape Coral, City of Bonita Springs, and City of Sanibel. Each of these entities is responsible for developing their own 10-Year Water Supply Facilities Work Plan to be

included in its City's comprehensive plan. The figure below depicts the service areas of the large water utilities throughout Lee County.

LEE COUNTY PUBLIC WATER SYSTEMS



It should be noted that LCU provides potable water service through a bulk water service agreement to the Town of Fort Myers Beach. Therefore, in this plan the Town of Fort Myers Beach is included in LCU service area and data presented in this portion of the Plan, include the areas within the Town of Fort Myers Beach. In addition the map above shows the Gateway Service District (GSD) as a water utility. LCU also provides water to GSD as a bulk customer and therefore demands in GSD service area are accounted for in LCU's demand data.

In addition to the public water supply utilities listed above, there are several small public water supply systems within Lee County that are serving developments such as mobile home parks and small developments. An inventory of these systems along with data related to permitted capacity and annual average daily flows is presented in the table below.

SMALL POTABLE WATER SELF SERVED DEVELOPMENTS IN LEE COUNTY

Facility	Design Capacity Avg Gal/Day	Max Day (GPD) Actual 2005	Max Day (GPD) Actual 2006	Max Day (GPD) Estimated 2007	Max Day (GPD) Projected 2008
Bayshore Utilities WTP	216,000	88,000	88,600	89,204	89,812
Citrus Park WTP	650,000	625,000	633,000	641,102	649,309
Lake Fairways WTP	300,000	219,000	263,000	270,000	275,000
Raintree WTP	230,000	53,000	41,200	45,000	48,000
Charleston Park WTP	20,000	24,000	21,700	19,000	19,000
Fountain View RV Park WTP	70,000	40,300	36,200	40,300	n/a
Oak Park MHV WTP	150,000	66,000	74,360	80,000	85,000
River Lawn Terrace WTP	7,800	7,405	8,610	7,000	7,000
Saldivar Migrant Camp WTP	160,000	151,000	120,700	125,000	130,000
Sunrich Mobile Home WTP	20,000	10,600	n/a	12,000	12,000
Useppa Island Club WTP	56,000	73,800	84,292	50,000	50,000

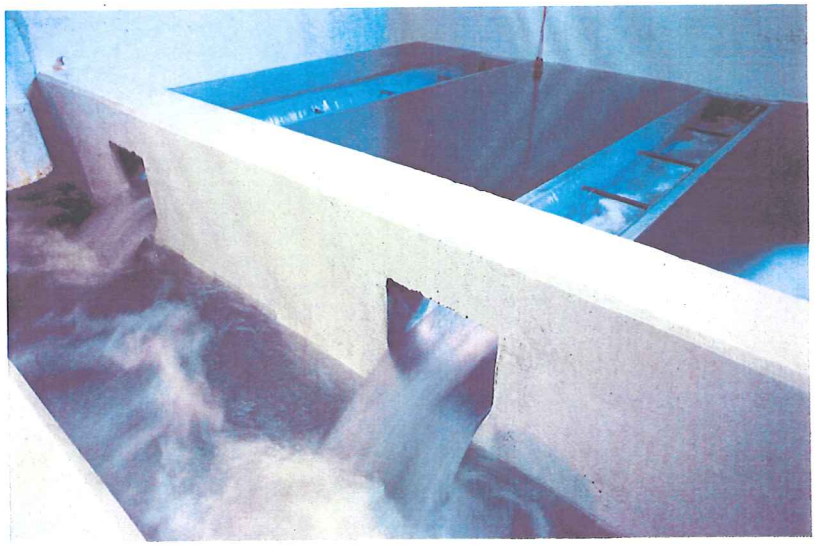
Source: Lee County Concurrance Report 2007 and Lee County Department of Health

1.4 LEE COUNTY UTILITIES SERVICE AREA

Lee County Utilities currently provides potable water throughout several areas in Unincorporated Lee County. Lee County Utilities has a large potential service area (see Figure 1). Essentially this area consists of all unincorporated areas of Lee County that are not served by private utilities through a franchise agreement with the County. The areas currently served within this potential service area are shown in Figure 2. The areas projected to be served by the year 2030 are depicted in Figure 3. It should be noted that the service area depicted in Figure 3 is also the Potable Water Future Service Area in the Lee County Comprehensive Plan.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
LEE COUNTY, FLORIDA

Section 2
EXISTING FACILITIES



2.1 EXISTING WATER SUPPLY RESOURCES

Lee County Utilities currently operates the following water supply facilities under Water Use Permits from the SFWMD. The general location of these facilities is depicted in Figure 4.

- The Olga surface water intake can withdraw up to 10.0 mgd from the Caloosahatchee River when flows in the river exceed 500 cfs at S-79 (Franklin Locks).
- The Corkscrew Wellfield can withdraw up to 10 mgd from 31 wells that withdraw water from the Surficial aquifer and the Sandstone aquifer.
- The Green Meadows Wellfield can withdraw up to 9 mgd from 27 wells that withdraw water from the Surficial aquifer and the Sandstone aquifer.
- The Waterway Estates Wellfield can withdraw up to 1.5 mgd from 18 wells that withdraw water from the Surficial aquifer, Mid-Hawthorne aquifer, and Lower Hawthorne aquifer.
- The Pinewoods Wellfield can withdraw up to 3.6 mgd from 27 wells that withdraw water from the Water Table, Sandstone, and Lower Hawthorne aquifers.
- The San Carlos Wellfield can withdraw up to 2.5 mgd from 5 wells that withdraw water from the Water Table aquifer.
- The North Lee County Wellfield can withdraw up to 6.25 mgd from 8 wells that withdraw brackish water from the Lower Hawthorne aquifer.

These water resources are described in more detail in the following sections.

2.1.1 Olga Surface Water Intake

The Olga WTP was constructed in 1967 and draws surface water from the Caloosahatchee River (SFWMD Canal C-43). The intake is located at the plant site in Section 23, T43S, R26E along the banks of the river approximately one mile East of the Franklin Locks (see Figure 4). The Olga WTP currently uses three raw water pumps to withdrawal water from the river. In 2000 an Aquifer Storage and Recovery (ASR) well was constructed at the Olga WTP. In 2007, a second ASR well was constructed at the facility. Three additional proposed ASR wells are included in the facilities water use permit.

2.1.2 Corkscrew Wellfield

The original Corkscrew Wellfield is 476 acres in size and is located in Section 22, T46S, R26E at the Northeast corner of Alico and Corkscrew Roads (See Figure 4 and 5). The original wellfield consists of a total of 23 wells. Six of these wells draw water from the Sandstone Aquifer and 17 wells draw water from the Surficial aquifer. In 1999 the wellfield was expanded and 8 wells were installed south of Corkscrew Road approximately one mile west of the existing wellfield. These wells were placed in four clusters, each cluster having one Sandstone aquifer well and one Surficial aquifer well. A description of the wells at Corkscrew is presented in Table 3.

Lee County Utilities has installed five Aquifer Storage and Recovery (ASR) wells at the Corkscrew facility (see Figure 14). These wells are currently fully operational and permitted for injection and recovery. Each well is 12 inch in diameter and has a capacity of 450 gallons per minute. The wells are used to store finished water seasonally in the Mid-Hawthorne aquifer. All of the wells have experienced close to 100% recovery rate. During periods of low demand, which coincides with the wet season, water is injected in the ASR wells. Water is withdrawn from the ASR wells during high demand periods, which coincides with the dry season. This allows for meeting peak demands and offset withdrawals from traditional sources during the dry season. A description of the ASR wells at Corkscrew is presented in Table 10.

2.1.3 Green Meadows Wellfield

The Green Meadows Wellfield is located in Sections 33, 34, 35 and 36 T45S, R26E and Section 31, T47S, R27E in South Lee County approximately 3 miles North of the Corkscrew Water Plant and 2 miles Southeast of the International Airport (See Figure 4). The wellfield has been in existence since 1974, with wells added as demand increased. Currently the wellfield consists of 27 wells. Fourteen of these wells draw water from the Surficial aquifer and thirteen of these wells draw water from the Sandstone aquifer. The linear configuration of this wellfield has minimized the effects of drawdown in the Surficial aquifer (see Figure 6). A description of the wells at Green Meadows is presented in Table 4.

2.1.4 Waterway Estates Wellfield

The Waterway Estates wellfield has been in operation since the late 1950's. Wells have gradually been added as the need arises. There are a total of 18 wells, 14 of which are in close proximity to the plant in Section 16, T44S, R24E (see Figure 4). One well is located in Section 9, T44S, R24E. In addition, there are three wells located in North Cape Coral in Section 6, T44S, R24E (see Figure 10). Six of the wells draw water from the Surficial Aquifer, 11 from the mid-Hawthorn and one from the Lower Hawthorne. LCU has experienced a reduced yield in the existing Waterway Estates Wellfield which has reduced the ability to withdrawal the entire permitted capacity for this facility. An additional Lower Hawthorne well is proposed and is permitted by the SFWMD. A description of the wells at Waterway Estates is presented in Table 7.

2.1.5 Pinewoods Wellfield

The Pinewoods wellfield was acquired by Lee County Utilities in 2003 from Gulf Environmental Services. The wellfield is located in Section 36, T456S, R25E in East Lee County south of Corkscrew Road (see Figure 4). The wellfield and treatment facility were expanded in 2007. Currently the wellfield consists of 19 wells. Eleven of these wells draw water from the Water Table aquifer, three draw water from the Sandstone aquifer and five new wells draw water from the Lower Hawthorne aquifer (see Figure 7). The wellfield is permitted by the SFWMD with a capacity of 3.60 MGD. A description of the wells at Pinewoods is presented in Table 5.

2.1.6 San Carlos Wellfield

The Bartow WTP is supplied by the San Carlos wellfield which was acquired by Lee County Utilities in 2003 from Gulf Environmental Services. The wellfield is located in Section 36, T456S, R25E, in South Lee County, south of Alico Road, North of Corkscrew Road and West of Interstate 75 (see Figure 4). Currently the wellfield consists of 5 wells (see Figure 8). Four of the five wells are active. The wellfield is permitted by the SFWMD with a capacity of 2.5 MGD. All four active wells are permitted to draw water from the Water Table aquifer. This treatment facility and related wellfield is currently off-line No expansion is planned for this wellfield. A description of the wells at San Carlos is presented in Table 5.

2.1.7 North Lee County Wellfield

The North Lee County Water Treatment Plant is located on Durrance Road in North Fort Myers (see Figure 4). The plant was placed into operation in August 2006 and was anticipated to produce 5.0 mgd of finished water through treatment of approximately 6.5 mgd of brackish water from the Lower Hawthorne aquifer. Eight wells were constructed to provide raw water to this first phase of the project (see Figure 11). A description of the existing wells is provided in Table 8. Early in 2007 LCU began to experience declining water quality in this wellfield. As a result one well was placed out of service and plugged and production from 3 wells was reduced, lowering the production capability of this facility to 3.5 mgd. To regain the full production capacity of this facility back to 5.0 mgd, LCU is developing a project to replace the one plugged well and add two additional wells. All three wells are proposed to be constructed off the existing wellfield site as a linear configuration has been recommended for a more sustainable yield from the wellfield. A description of the wells at the North Lee County Wellfield is presented in Table 8.

2.2 EXISTING CONSUMPTIVE USE PERMITS

LCU has three existing consumptive use permits issued by the SFWMD.
The following facilities are covered under Permit # 36-00003-W; Corkscrew wellfield, Olga surface water intake, Green Meadows wellfield and Cypress Lake wellfield (College Parkway).
The following facilities are covered under Permit # 36-00122-W; Pinewoods wellfield, and San Carlos wellfield (Bartow).
The following facilities are covered under Permit # 36-00152-W; Waterway Estates wellfield, and North Lee County wellfield.
The three permits have a combined annual allocation of 12,248 million gallons or 33.55 million gallons per day. Below is a table summarizing the existing consumptive use permits. The right side of this table shows the specific source limitations included in each permit. The difference between the total allocation and the combined daily source limits in each permit is fulfilled with sources that do not have specific limitations.

LEE COUNTY UTILITIES WATER USE PERMIT SUMMARY

Permit #	Facilities	Expiration Date	Annual Allocation (MGD)	Max Month Daily Allocation (MGD)	Max Day Allocation (MGD)	Source Limits	
						Source	Limit (MGD)
36-00003-W	Corkscrew Olga Green Meadows Cypress Lake	4/10/2008	21.23	31.38	30.37	Mid-Hawthorne (C.L.) Sandstone Surficial (Corskrew) Surficial (GM)	0.75 8.00 6.00 4.20
36-00122-W	Pinewoods San Carlos	9/9/2014	6.09	7.23	N/A	Surficial (San Carlos) Sandstone (Pinewoods) Surficial (Pinewoods)	2.50 0.75 2.30
36-00152-W	Waterway Estates North Lee County	1/15/2024	6.23	8.45	N/A	Surficial&Mid Hawthorne	1.55
TOTAL			33.55	47.06			

Notes
1. Annual Allocation (MGD) based on Perimtted Annual Total Allocation divided by 365
2. Max Month Daily Allocation (MGD) based on Permitted Max Month Total Allocation divided by 30
3. Max Day Allocation (MGD): Permits#'s 36-00122-W and 36-00152-W do not specify a Max Day

2.3 EXISTING WATER TREATMENT FACILITIES

Lee County Utilities currently operates the following water treatment facilities under permits issued by the Lee County Health Department as the local agency on behalf of the Florida Department of Environmental Protection (FDEP).

- The Olga Water Treatment Plant has a capacity of 5 mgd and treats water withdrawn from the Caloosahatchee River.
- The Corkscrew Water Treatment Plant has a capacity of 15 mgd and treats water withdrawn from the Corkscrew Wellfield.
- The Green Meadows Water Treatment Plant has a capacity of 9 mgd and treats water from the Green Meadows Wellfield.
- The Waterway Estates Water Treatment Plant has a capacity of 1.5 mgd and treats water from the Waterway Estates Wellfield.
- The Pinewoods Water Treatment Plant has a capacity of 5.14 mgd and treats water from the Pinewoods Wellfield.
- The Bartow Water Treatment Plant has a capacity of 2.4 mgd and treats water from the San Carlos Wellfield.

These water treatment plants are described in more detail in the following sections.

2.3.1 Olga Water Treatment Plant

The Olga plant is permitted as a Class "A", Category I potable water treatment facility by the Florida Department of Environmental Protection (FDEP) and is staffed 24 hours a day, 365 days a year. The current designed and permitted capacity of the Olga WTP is 5.0 MGD. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.2 Corkscrew Water Treatment Plant

The Corkscrew plant is permitted as a Class "A", Category I potable water treatment facility by the Florida Department of Environmental Protection (FDEP) and is staffed 24 hours a day, 365 days a year. The current designed and permitted capacity of the Corkscrew WTP is 15.0 MGD. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.3 Green Meadows Water Treatment Plant

The Green Meadows plant is permitted as a Class "A", Category I potable water treatment facility by the Florida Department of Environmental Protection (FDEP) and is staffed 24 hours a day, 365 days a year. The current designed and permitted capacity of the Green Meadows WTP is 9.0 MGD. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.4 Waterway Estates Water Treatment Plant

The Waterway Estates Water Treatment Plant is a 1.5 MGD plant, permitted with the FDEP as a Class "B", Category I potable water treatment facility and is staffed 16 hours per day 365 days per year. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.5 Pinewoods Water Treatment Plant

The Pinewoods facility consists of two treatment plants. The original Water Treatment Plant is a 2.12 MGD plant, permitted with the FDEP as a Class "B", Category II, potable water treatment facility. The plant processes water through nano-filtration membrane treatment and disinfection and treats raw water from the water table and sandstone aquifers. The second plant, which was completed in 2007, treats water withdrawn from the Lower Hawthorne aquifer and produces 3.0 mgd through low pressure reverse osmosis.

2.3.6 Bartow Water Treatment Plant (San Carlos Wellfield)

The Bartow Water Treatment Plant was a 2.41 MGD plant, permitted with the FDEP as a Class "B", Category I, potable water treatment facility. This facility was decommissioned in 2008. LCU is currently examining the feasibility of reactivating this facility and exploring different treatment options for a new facility at this location.

2.3.7 North Lee County Water Treatment Plant

The North Lee County Water Treatment Plant is a 5.0 mgd plant, permitted with the FDEP as a Class "B", Category II, potable water treatment facility. The plant processes raw water from the Lower Hawthorne aquifer through low pressure reverse osmosis.

2.4 EXISTING WATER STORAGE FACILITIES

Lee County Utilities currently operates seven potable water storage facilities. These existing storage facilities have the capacity to store a total of 33.0 million gallons. Figure 13 identifies the location of these facilities that are listed in Table 2. Regarding design criteria for minimum storage capacity within a public water system, Florida Administrative Code 62-555.320 (19) (a) states the following; "the total useful finish-water storage capacity (excluding any storage capacity for fire protection) connected to a water system shall at least equal 25 percent of the system's maximum-day water demand, excluding any design fire flow demand".

Assuming a fire flow demand of 3 fires each with 2 fire trucks pumping at 1,500 gpm for 4 hours, the fire flow demand would be 2.16 mgd. LCU's maximum daily flow in 2007 was 32.253 million gallons. Therefore; (32.253 X 0.25) + 2.16 = 10.22 million gallons. As stated above, LCU's current storage capacity is 33.0 million gallons.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
LEE COUNTY, FLORIDA

Section 3

PROJECTIONS

3.1 LOWER WEST COAST WATER SUPPLY PLAN 2005-2006

During the formulation of the 2005-2006 update to the Lower West Coast Water Supply Plan (LWCWSP) the SFWMD staff worked closely with LCU to refine the area currently served by LCU to develop a baseline for the plan's demand projections for LCU's service area. In addition, the methodology utilized for projecting population that was utilized by the District staff was very similar to those utilized in past planning efforts performed by LCU. That is, University of Florida Bureau of Economic and Business Research medium projections were utilized and this data was used to disaggregated the historic population and projected population into Traffic Analysis Zones (TAZs) for LCU's existing and future service area. The projected population and annual average finish water demand from the LWCWSP is shown below. From baseline years it was determined that LCU's per capita was 118 gallons of finished water per day per person. The demand is expressed in annual average daily flow.

Lower West Coast Water Supply Plan
Demand Projection for Lee County Utilities

Year	Population	Finish Water Demand (MGD)
2005	201,286	23.7
2015	250,687	29.6
2025	291,302	34.3

3.2 LCU WATER USE PERMIT APPLICATION – APRIL 2008

In support of an application to modify LCU's current consumptive use permit number 36-00003-W in April 2008, available data from LCU's billing records were utilized to develop a population and demand projection. The available data from LCU's billing records included equivalent residential unit (ERU) counts and estimated population from 2003-2007. The population at the end of the month of May in every year from 2003 through 2007 was determined using the records from the billing office. The population in 2007 was determined by utilizing the factors shown in the Table below.

Estimation of LCU Service Area Population from ERU Data - M

Residential Unit	Number of Units	Population Factor	Estimated Population
Single Family	74,922	2.3	172,321
Multi-Family	44,804	2.0	89,608
Mobile Homes	15,574	1.8	28,033
RV	7,991	1.5	11,948
Total	143,291		301,948

Utilizing this method, a population served for every year from 2003 to 2007 was determined. The analysis resulted in an annual average growth rate of 3.6%. Actual water system demand data for this time period was then used in conjunction with the population data to determine an average per capita daily use rate and a peaking ratio to determine a maximum month per capita. The average use rate was determined to be 87 gallons per capita per day (gpcd). The maximum month use rate was determined to be 102 gpcd, with a peaking ratio of 1.17.

Population projections were then made for the years 2008 through 2018 based on the annual average growth rate determined above. Future water demands were then determined by multiplying the per capita rates determined above by the projected population for each year. It should be noted that limitations in water supply and infrastructure during the base line years from 2003 to 2007 resulted in artificially low water pressure throughout LCU's water system. To account for the increases in demand as a result of returning the system to normal operation pressures, a factor of 1.10 was applied to the projected demands. The resulting demand projection is presented below.

LEE COUNTY UTILITIES DEMAND PROJECTION
FROM WUP APPLICATION APRIL 2008

Year	Projected Average Population	Projected Annual Average Demand (MGD)	Projected Max Month Average Daily Demand (MGD)
2008	312,945	29.92	35.46
2009	324,343	31.00	36.75
2010	336,156	32.13	38.09
2011	348,399	33.30	39.47
2012	361,088	34.52	40.91
2013	374,239	35.77	42.40
2014	387,869	37.08	43.94
2015	401,995	38.43	45.55
2016	416,636	39.82	47.20
2017	431,810	41.28	48.92
2018	447,537	42.78	50.70

For purposes of this plan, this growth rate was then projected out to the year 2025 and in shown in graphs that follow.

3.3 LEE COUNTY PLANNING DEPARTMENT – MAY 2008

In May of 2008 the Lee County Planning Department performed an analysis of current population served by LCU and the projected population served by LCU. The sections below describe the methodology utilized by the Lee County Planning Department.

3.3.1 Population Assumptions:

Lee County population estimates and projections have used assumptions based on the United States' Census data which are updated after each decennial census is released. The primary assumptions derived from each census are persons per household and the occupancy characteristics of dwelling units. Due to changes in census boundaries between the 1970 and 1980 censuses, the current assumptions are based on a review of the 1980, 1990, and 2000 censuses.

Originally, these assumptions were applied on a county-wide basis. However, over time, staff has refined these assumptions to reflect differences throughout the county. Historically, the coastal areas of the county have a larger percentage of seasonally occupied units and fewer residents per unit. Information is summarized for each of the 22 Lee Plan Planning Communities. This allows for estimates and projections to be customized for different areas of the county. Similarly, the persons per unit (PPU) assumptions were refined to reflect differences between unit types. It was determined that then number of occupants was significantly different between single family detached units and other types of units.

3.3.2 Existing Population:

The Planning Division estimates the current population of an area by multiplying the number of each type of dwelling unit (single family or non-single family) to the corresponding PPU and occupancy rate (OR) assumed for the corresponding planning community. The dwelling unit information is maintained by the Planning Division staff for the unincorporated areas of Lee County, Fort Myers Beach, and Bonita Springs (areas where building permits have been processed by Lee County) in a parcel specific land use inventory. This inventory is updated using certificate of occupancy and change of use information from building permit data.

To calculate the estimated population of the area served by Lee County Utilities, Planning Staff geographically selected the parcels served. This data was joined with the Planning Division inventory to obtain unit counts and planning community information. This allowed appropriate assumptions to be multiplied to the unit counts to estimate the population served. For those areas served by Lee County Utilities within the municipalities of Cape Coral and Fort Myers the unit information was obtained from the Lee County Property Appraiser's tax roll information.

3.3.3 Build out population:

Planning Staff has also projected the build out population for Lee County. In addition to the assumptions used to estimate the existing population, staff made assumptions for future development patterns in the undeveloped areas of the county. The underlying assumption made was that the no dramatic change in development patterns was anticipated. This is Lee County's "Status Quo" projection of population for the Future Land Use Map in effect in December 2006 when this study was initiated. The development assumptions included in the build out analysis are the same as those used to generate the 2030 land use allocation acreages adopted in the Lee Plan, Table 1(b).

First, using the Planning Division existing land use inventory, the amount of vacant and agricultural land remaining in each of the 22 Planning Communities was calculated. This data was also summarized by Future Land Use Map Designation. The population accommodation analysis for the Lee County Comprehensive Plan, the Lee Plan, anticipated the portion of each land use category that will be developed with residential uses. This percentage has been monitored over the years and adjusted to reflect emerging development trends when appropriate.

Second, for each Future Land Use Designation within each Planning Community the existing Dwelling Units per acre was calculated (DUPA). This calculation includes data from approved planned developments regardless of the development status of the project. This figure is compared to the Lee Plan Assumption for DUPA in each Future Land Use designation. Development patterns vary across the county and the DUPA for each designation is expected to be different for each Planning Community. Planning staff compared the historical DUPA to the assumed county wide DUPA for each designation and made the appropriate adjustments. In certain areas of the county, such as the Estero Planning Community, staff gave more consideration to the development patterns of more recent approvals that have been influenced by the adoption of the Estero Community Plan. In other areas, such as Lehigh Acres, staff found no compelling reason to anticipate that future development patters would be significantly different from the historical patterns.

The 4 assumptions used in formulating the build out population projections are:

- Persons per Unit (by planning community) - PPU
- Occupancy Rate (by planning community) - OR
- Percent of Residential Land (by future land use designation) - %RL
- Dwelling Units Per Acre (by future land use designation and planning community) – DUPA

Calculating build out population

1. Total Residential Land (TRL) = Total acreage of land in each future land use designation for each planning community is multiplied by the %RL assumption.
2. New Residential Land (NRL) = TRL – existing residential. (this acreage figure is compared to the available land supply (vacant land + agricultural land) and adjusted if required).
3. New Dwelling Units (NDU) = NRL multiplied by the appropriate DUPA.

4. Build out Dwelling Untis (BDU) = NDU + existing Dwelling Units.
5. Projected Occupied Build out Dwelling Units (OBDU) = BDU multiplied by the appropriate OR.
6. Build out Population = OBDU multiplied by the appropriate PPU.

3.3.4 Demand Projection

The Lee County Planning Department computed the population within the area of un-incorporated Lee County served by LCU in 2007.The computed permanent population for 2007 was 230,581. The Planning Department then computed the projected population for Lee County Utilities entire future service as depicted in the Lee County Comprehensive Plan for the year 2030. The 2030 projected population for LCU's service area was determined to be 296,256. The actual annual average demand for LCU in 2007 was 24.95 MGD and the maximum day demand was 31.72 MGD. Utilizing this data an annual average per-capita rate of 108.2 gallons per capita day (gpcd) and a maximum day per-capita rate of 137.58 gpcd was determined. Applying these per-capita rate to the population projection performed by the Lee County Planning Department yields a projected annual average demand of 30.51 MGD and a maximum day demand of 38.79 MGD in 2025 (see table below).

LCU DEMAND PROJECTION BASED ON LEE COUNTY PLANNING DEPARTMENT

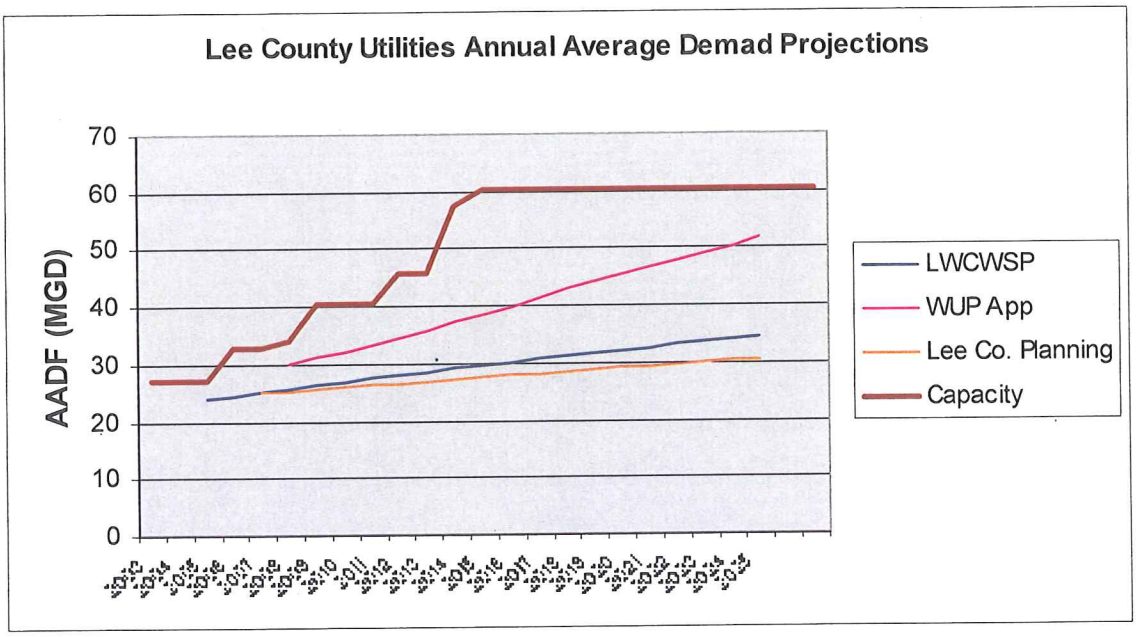
Year	Population	Demand AADF	Demand MDF
2007	230581	24.95	31.72
2008	233436	25.26	32.12
2009	236292	25.57	32.51
2010	239147	25.88	32.90
2011	242003	26.18	33.29
2012	244858	26.49	33.69
2013	247714	26.80	34.08
2014	250569	27.11	34.47
2015	253424	27.42	34.87
2016	256280	27.73	35.26
2017	259135	28.04	35.65
2018	261991	28.35	36.04
2019	264846	28.66	36.44
2020	267702	28.97	36.83
2021	270557	29.27	37.22
2022	273412	29.58	37.62
2023	276268	29.89	38.01
2024	279123	30.20	38.40
2025	281979	30.51	38.79
2026	284834	30.82	39.19
2027	287690	31.13	39.58
2028	290545	31.44	39.97
2029	293400	31.75	40.37
2030	296256	32.05	40.76

3.4 SUMMARY OF DEMAND PROJECTIONS

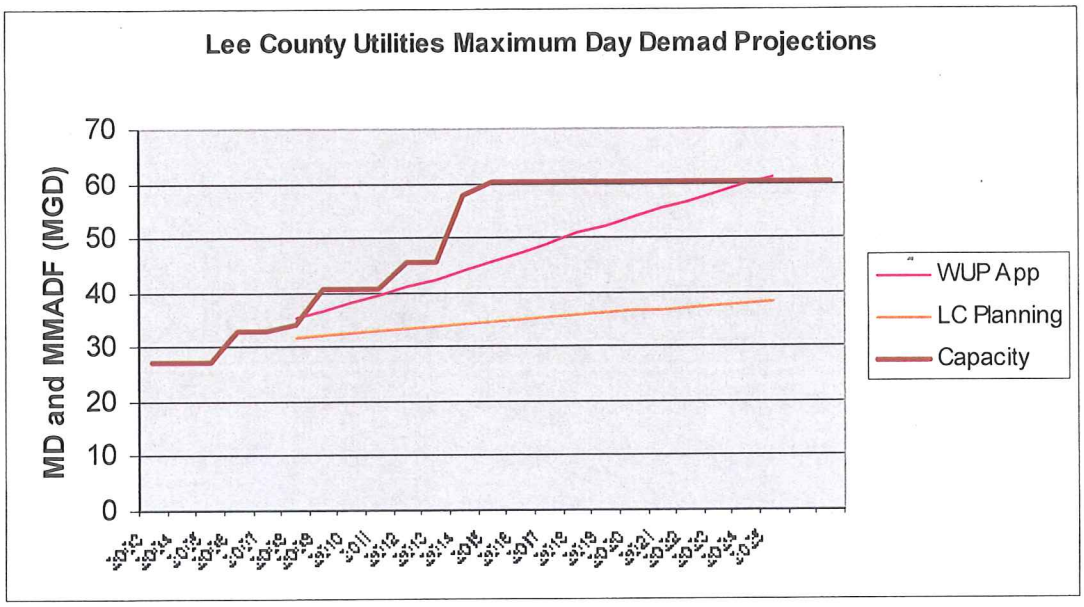
The table below summarizes the projections from the various Planning efforts described above. The following graph depicts the annual average daily demand projection for each and the actual annual average daily flows from 2003 through 2007.

Planning Effort	2025 AADF (MGD)	2025 MDF (MGD)	2025 MMADF (MGD)	Per Capita (gpcd)	2025 Population
2006 LWCWSP	34.30	N/A	N/A	118	290,677
2008 WUP Application	51.60	N/A	61.15	87	593,103
2008 Lee Co. Planning Dept.	30.51	38.79	N/A	108.2	281,979

The projections described above are shown in the graphs below.



In the graph above, the blue line represents the annual average daily demand projection as calculated for the SFWMD Lower West Coast Regional Water Supply Plan. The magenta line represents the annual average daily demand projection as calculated in support of the application for renewal of LCU water use permit. The orange line represents the annual average daily flow projection calculated utilizing the population projection performed by the Lee County Planning Department. The thick purple line represents capacity development planned by LCU. As summary of capacity development is summarized in the next section.



In the graph above the magenta line represents a projection of the maximum month daily average demand as calculated in support of a water use permit application submitted by LCU. The Orange line represents the maximum daily demand as calculated utilizing the population projection provided by the Lee County Planning Department. The projection performed during the SFWMD Lower West Coast Water did not consider maximum month or maximum daily demands. The thick purple line depicts capacity development planned by LCU. Capacity development is summarized in the next section.

3.5 SUMMARY OF CAPACITY DEVELOPMENT

As shown in previous sections LCU is at various stages of capacity development at several of its facilities. The following is a summary of these plans for developing capacity.

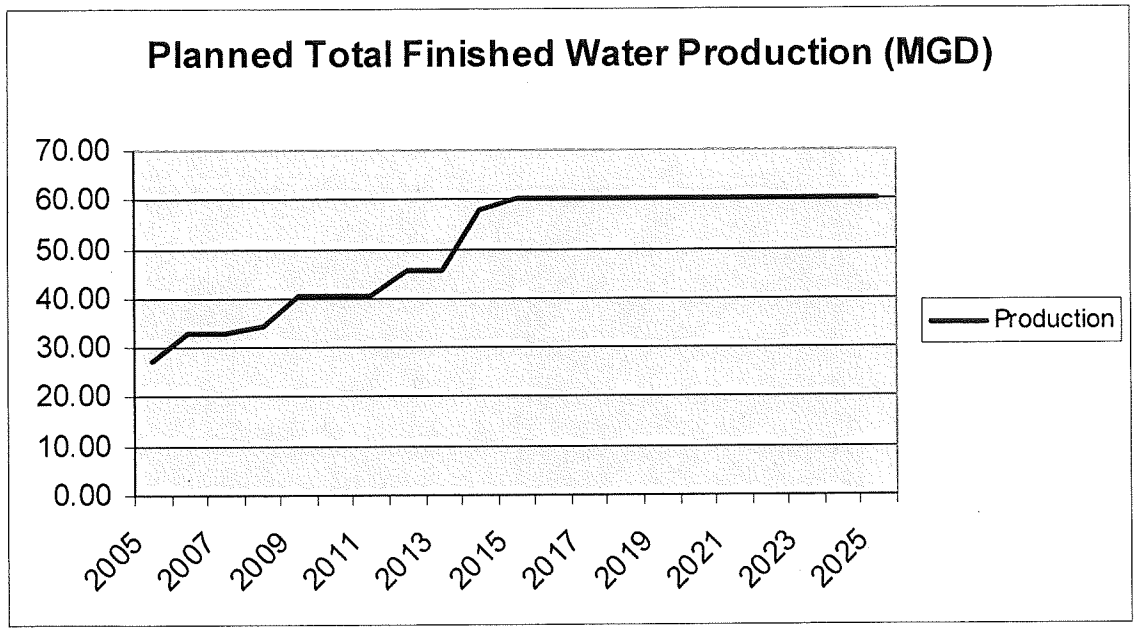
2009 - Regain capacity of the North Lee County Wellfield from 3.50 mgd to 5.0 mgd and complete Corkscrew Wellfield expansion to 15.0 mgd. This represents an increase in capacity of **6.5 mgd**.

2012 - Complete expansion of North Lee County Water Plant and Wellfiled to increase capacity from 5.0 mgd to 10.0 mgd. This represents an increase in capacity of **5.0 mgd**.

2014 - Complete Green Meadows Water Plant and Wellfield expansion increasing capacity from 9.0 mgd to 16.0 mgd and complete expansion of Olga Water Plant from 5.0 to 10.0 mgd. Potential sources for expansion at Olga are presently being studied. This represents an increase in capacity of **12.0 mgd**.

2015 - Complete Bartow Water Treatment Plant to utilize existing San Carlos Wellfield with a capacity of **2.50 mgd.**

The graph below depicts the increases in total system capacity as a result of these planned expansions as well as those increases in capacity that were completed between 2005 and 2008. The planned capacity shown on this graph is also shown as a dark purple line on the previous two graphs along with the projected demands.



3.6 SUMMARY

The above graphs and tables show the projected annual average and maximum demands from various planning efforts. They also show LCU's planned capacity development. LCUs planned capacity in 2018 is 60.13 mgd. The Lower West Coast Water Supply Plan projected annual average daily demand in 2018 is 31.08 mgd. The 2018 maximum day demand projection based on the Lee County Planning Department's population projection is 35.65 mgd. The projected maximum month daily average demand based on the projection performed for the water use permit application is 50.70 mgd. It should be noted that the projection performed in support of the water use permit application submitted in 2008 represents the highest projected demand in the future. In order to ensure sufficient capacity in the future LCU is planning to meet this highest projected demand, that is the maximum month average day of 50.17 mgd for the year 2018. It should be noted that planning to meet the projection demand developed from the water use permit planning effort represents a conservative approach as this projection utilized a high growth period, 2003 through 2007 to develop a growth rate for the projection and therefore represents the highest projected demand.

WATER SUPPLY FACILITIES WORK PLAN
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Section 4
PROPOSED FACILITIES

4.1 PROPOSED WATER SUPPLY SOURCES

4.1.1 Olga Surface Water Intake

Two additional pumps are permitted by the SFWMD and are part of a planned expansion of the facility (see Table 9). This expansion would increase the current capacity of 5.0 MGD to 10.0 MGD.

An additional 3 ASR wells are permitted by the SFWMD for this facility (see Table 10). They are planned to be installed during the plant expansion. The existing and proposed ASR wells along with the plant expansion at the Olga plant will provide seasonal storage of water. This will allow for maximizing withdrawals during high river flows in the rainy season and minimizing the withdrawal from the river during low flows in the dry season, thereby aiding in the recovery of a MFL water body, the Caloosahatchee River. The ASR program at this facility is on hold due to permitting issues regarding Arsenic. LCU anticipates this issue will be resolved shortly and the program can progress.

LCU is also conducting a study to identify additional raw water supply alternatives for this facility. Potential supply options being studied include both traditional and alternative sources.

4.1.2 Corkscrew Wellfield

An expansion of the Corkscrew Treatment Plant was completed in 2006. The expansion increased the treatment capacity of the facility from 10.0 MGD to 15.0 MGD. The wellfield expansion project associated with the plant expansion is currently under construction and is expected to be completed by the end of 2008. The wellfield expansion includes the addition of 25 wells which are currently permitted by the SFWMD. Eleven of these wells will withdrawal water from the Sandstone aquifer, eleven will withdrawal water from the Surficial aquifer and three will withdrawal water from the Lower Hawthorne aquifer. The overall objective in the design of this expansion is to widen the aerial extent of the wellfield, while maintaining the same amount of withdrawal from the Surficial aquifer. This should spread out the withdrawal to minimize the drawdown in the Surficial aquifer surrounding the wellfield (See Figure 5). In addition LCU is developing 2 Lower Hawthorne aquifer wells to augment raw water supplies from traditional sources.

4.1.3 Green Meadows Wellfield

LCU's current water use permit for this facility allows for an expansion of the wellfield including the installation of 21 new wells. The permit allows for the installation of nine Surficial aquifer wells, nine Sandstone aquifer wells and three Lower Hawthorne wells.

Instead, LCU proposes to construct a new 16.0 mgd reverse osmosis (RO) water treatment plant to replace the aging existing lime softening treatment system currently permitted for 9.0 mgd at this site. Additional withdrawals of brackish water from the Lower Hawthorne aquifer along with current withdrawals from Surficial and Sandstone aquifers will be blended and treated in the new facility. An increase in allocation from traditional fresh water sources currently permitted is not proposed. Fourteen new Lower Hawthorne wells located in LCU's existing easement are proposed to increase the capacity of the wellfield (see Figure 6). A Lower Hawthorne pilot/production well is currently under construction and an application to modify LCU's current water use permit has been submitted. LCU anticipates this expansion to be completed by 2014.

4.1.4 Pinewoods Wellfield

An expansion of the Pinewoods Wellfield was completed in 2007. See the section addressing existing water supply resources and treatment facilities for a description. The expansion increased the utilization of the Lower Hawthorne aquifer and did not increase the use of traditional fresh water aquifers. Utilizing the Lower Hawthorne aquifer instead of the fresh water aquifers allowed for expansion while relieving some of the stress placed on traditional sources.

4.1.5 North Lee County Wellfield

As mentioned in a previous section, this wellfield has lost production since being placed into service in August 2006. The finish water production has been lowered from 5.0 mgd to a sustainable yield of 3.5 mgd. This loss in production was caused by interference between wells caused by the current configuration of the wellfield and well spacing. The first phase of wellfield expansion for this facility will involve regaining the capacity to produce 5.0 mgd. Three new Lower Hawthorne wells are proposed to be constructed off-site. The wells will be spaced farther apart that the existing wells and a linear configuration will be employed. These three wells should allow LCU to regain the 5.0 finish water capacity as originally intended. LCU expects to complete this project by 2009.

The North Lee County Water Treatment Plant was designed to be easily expandable to 10.0 mgd. The second phase of expansion for this facility will involve expansion of the treatment plant to 10.0 mgd. An associated expansion of the wellfield is also proposed. Seven additional Lower Hawthorne Wells will be required to provide sufficient raw water to produce the additional 5.0 mgd of finished water. Phase II of the wellfield expansion and expansion of the treatment facility is expected to be completed by 2013. See Figure 11 for the proposed configuration of this wellfield.

4.2 PROPOSED MODIFICATIONS TO CONSUMPTIVE USE PERMITS

4.2.1 Permit # 36-00003-W

LCU has recently submitted an application to renew/modify Consumptive Use Permit number 36-00003-W covering the Corkscrew, Green Meadows wellfields as well as the surface water withdrawal at the Olga facility. LCU is requesting the following in the application:

- Continued use, at the current allocation, of surface water from the Caloosahatchee River (C-43), and fresh groundwater from the Sandstone, Surficial, and Water-table aquifers.
- An increase in annual allocation from the Lower Hawthorne (Upper Floridan) aquifer at the Green Meadows Wellfield to 2,471 MG.
- An increase in maximum monthly allocation from the Lower Hawthorne (Upper Floridan) aquifer at the Green Meadows Wellfield to 322.4 MG.

The increase in allocation from the Lower Hawthorne aquifer will allow LCU to operate the proposed Green Meadows R.O. Treatment facility at full capacity (16.0 mgd) without exceeding current fresh water withdrawal limits (see Proposed Water Resources, Green Meadows wellfield above). It should be noted that due to a supply deficit in the last few years, LCU has been operating the water distribution system at lower pressure than normal to manage the demand in the system. The requested allocation in this permit renewal application was based on a projection that assumed a 10% increase in demand as a result of increasing pressure in the system to acceptable levels.

4.2.2 Permit # 36-00152-W

In addition, LCU has recently submitted an application to modify Consumptive Use Permit number 36-00152-W covering the Waterway Estates and North Lee County wellfields. The requested permit duration is 20 years. The requested modification includes the addition of 10 Lower Hawthorne aquifer water supply wells and an increase in allocation from that aquifer to serve as raw water for the North Lee County Water Treatment Plant. The application requests an annual average daily allocation of 8.808 MGD and a maximum monthly average daily demand of 12.5 MGD. This added allocation will allow LCU to expand the North Lee County Plant to produce 10.0 MGD of finished water.

LCU's requested allocation will provide redundancy allowing for flexibility in source options to meet demands.

The Table below summarizes the proposed water use permits.

PROPOSED LEE COUNTY UTILITIES WATER USE PERMIT SUMMARY

Permit #	Facilities	Expiration Date	Annual Allocation (MGD)	Max Month Daily Allocation (MGD)	Max Day Allocation (MGD)	Source Limits	
						Source	Limit (MGD)
36-00003-W	Corkscrew Olga Green Meadows Cypress Lake	**Application Submitted**	**28.00**	**40.77**	N/A	Mid-Hawthorne (C.L.) Sandstone Surficial (Corskrew) Surficial (GM)	0.75 8.00 6.00 4.20
36-00122-W	Pinewoods San Carlos	9/9/2014	6.09	7.23	N/A	Surficial (San Carlos) Sandstone (Pinewoods Surficial (Pinewoods)	2.50 0.75 2.30
36-00152-W	Waterway Estates North Lee County	**Application Submitted**	**8.808**	**12.5**	N/A	Surficial&Mid Hawthorn	1.55
TOTAL			42.898	60.5			

Notes
1. Annual Allocation (MGD) based on Perimtted Annual Total Allocation divided by 365
2. Max Month Daily Allocation (MGD) based on Permitted Max Month Total Allocation divided by 30
3. Max Day Allocation (MGD): Permits no longer specify a Max Day
4. Boldface represents requested increases in allocation

4.3 PROPOSED WATER TREATMENT FACILITIES

4.3.1 Olga Water Treatment Plant

Lee County Utilities plans on expanding the Olga WTP from 5.0 to 10.0 mgd. The primary mode of treatment at this facility will likely change as LCU identifies the various source water options in the study mentioned in the section 4.1.1.

4.3.2 Corkscrew Water Treatment Plant

Lee County Utilities has recently completed an expansion of the Corkscrew WTP from 10.0 mgd to 15.0 mgd. The treatment remains the same as the original plant, which is lime softening followed by filtration.

4.3.3 Green Meadows Water Treatment Plant

Lee County Utilities plans on expanding the Green Meadows WTP from 9.0 mgd to 16.0 mgd. A new low pressure reverse osmosis treatment plant is proposed.

4.3.4 Pinewoods Water Treatment Plant

Lee County Utilities recently completed the 3.0 mgd low pressure reverse osmosis plant at this facility. This added capacity coupled with the original low pressure nano-filtration plant brings the total treatment capacity of this facility to 5.0 mgd.

4.3.5 North Lee County Water Treatment Plant

The new 5.0 mgd North Lee County WTP was completed in August 2006. The facility was constructed for future expansion to 10.0 mgd. This facility is a reverse osmosis facility treating brackish water (Lower Hawthorne). Expansion of the treatment plant from 5.0 mgd to 10.0 mgd will be completed in conjunction with Phase II wellfield expansion and is expected to be completed by 2013.

A table summarizing the water supply development proposed by LCU is shown below.

LEE COUNTY UTILITIES EXISTING AND PROPOSED WATER SUPPLY RESOURCES SUMMARY

EXISTING					PROPOSED				
Facility	Existing Treatment Capacity (MGD)	Existing Source Capacity (MGD)	Existing Number of Wells/Pumps	Source	Facility	Proposed Treatment Capacity (MGD)	Proposed Source Capacity (MGD)	Proposed Additional Wells/Pumps	Source
Olga	5.00	5.00	3	Surface Water	Olga	10.00	10.00	2	Surface Water
Corkscrew	15.00	10.00	21	Surficial	Corkscrew	15.00	15.00	11	Surficial
			10	Sanstone				11	Sandstone
								3	**Lower Hawthorne**
Green Meadows	9.00	9.00	14	Surficial	Green Meadows	16.00	16.00		
			13	Sandstone					
								14	**Lower Hawthorne**
Cypress Lake	0.00	0.00		Decommisioned	Cypress Lake	0.00	0.00	none	
Waterway Estates	1.50	1.50	6	Surficial	Waterway Estates	1.50	1.50	none	
			11	Mid-Hawthorne					
			1	Lower Hawthorne					
Pinewoods	5.13	5.13	11	Water Table	Pinewoods	5.12	5.12	none	
			3	Sandstone					
			5	**Lower Hawthorne**					
San Carlos	0.00	2.50	4	Water Table	San Carlos	2.41	2.50	none	
North Lee County	5.00	3.50	**7**	**Lower Hawthorne**	North Lee County	10.00	10.00	**10**	**Lower Hawthorne**
TOTAL	40.63	36.63			TOTAL	60.03	60.12		

BOLD FACE = Proposed and recently developed Alternative Water Supplies

4.4 CAPITAL IMPROVEMENT PLAN

Lee County Utilities' Capital Improvement Plan is summarized in Table 11. Implementation of the primary components of this plan to increase production of potable water is scheduled between 2008 and 2012. The projects will increase the combined maximum day capacity of all of the Lee County Utilities production facilities from 35.10 mgd to a combined capacity in excess of 60.12 mgd. This combined capacity of 60.12 mgd is essentially equal to the highest projected maximum day demand of approximately 60 MGD anticipated in 2025.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
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Section 5
ALTERNATIVE WATER RESOURCES

5.1 Introduction

Lee County Utilities is proactively implementing, utilizing, and exploring alternative water resources. LCU's use of alternative sources is supported by the South Florida Water Management District's Lower West Coast Water Supply Plan. Several alternatives are incorporated in the current program or are proposed; they include:

- Aquifer Storage and Recovery
- Reclaimed Water Irrigation Systems
- Use of Floridan Aquifer
- Captured Storm water
- Desalination
- Water Conservation

Many benefits are obtained from Lee County's alternative water resource program; they include:

- Maintain sustainability of the shallow fresh water aquifers.
- Maintain a steady raw water supply for growth.
- Minimize stress on the wellfields.
- Provide landscape irrigation water supply during droughts.
- Minimize the amount of water withdrawn from the Surficial aquifer.
- Minimize withdrawal from a Minimum Flow and Level (MFL) water body during droughts.
- Recharging the Surficial Aquifer

Below is a summary of each component of the program.

5.2 Aquifer Storage and Recovery

In simple terms, Aquifer Storage and Recovery (ASR) is the storage of excess fresh water by injection into a confined aquifer for recovery during periods of high demand. Typically, treated fresh water is injected into an aquifer suitable for storage during the rainy season which in Southwest Florida coincides with the low demand period. As seasonal residents and tourists arrive, typically during the dry season, stored water is recovered from the ASR wells to meet the increase in demand. Utilization of ASR is an effective means to maintain a steady raw water supply and minimize stress on wellfields and surrounding wetlands by minimizing the amount of water withdrawn from the Surficial aquifer during the dry season. In the case of the Olga WTP ASR program, use of ASR will minimize the withdrawal of water during the dry season from a water body that has an established Minimum Flow and Level.

5.2.1 Potable Water ASR

Lee County Utilities has experienced a great deal of success with its ASR program. Currently, there are five ASR wells at the Corkscrew Water Treatment Plant (see Figure 14). These five wells have been in full operation for several years and a recovery rate of nearly 100% has been realized. LCU also has installed two ASR wells at the Olga Water Treatment Plant and one well at the North Reservoir site (see Figure 4 &13). Three additional ASR wells are planned for the Olga WTP. These wells will allow for additional injection of treated surface water from the Caloosahatchee River during the rainy season and recovery during the dry season. A description of the eight existing and three proposed ASR wells are shown in Table 10. It should be noted that the progress of LCU's Potable Water ASR program has been slowed due to a change in regulation regarding Arsenic. LCU is moving forward cautiously with this program as FDEP and EPA formulate a policy regarding Arsenic as it relates to potable water ASR wells.

5.2.2 Groundwater to Groundwater ASR

LCU has plans to develop a groundwater to groundwater ASR well system in the Green Meadows area. Groundwater from the Sandstone aquifer will be withdrawn during the rainy season and stored in ASR for recovery during the dry season.

5.2.3 Reclaimed Water ASR

LCU is examining the feasibility of utilizing ASR technology for the storage of reclaimed water. Seasonal Storage of reclaimed water will allow for better management of this resource, allowing for a higher percentage of utilization and possibly eliminate the need for disposal through a deep injection well or surface water discharge.

5.3 Reclaimed Water Systems

5.3.1 Introduction

Lee County Utilities owns and maintains several reclaimed water systems (see Figure 15). These systems provide many benefits. They reduce the amount of groundwater that is withdrawn in their respective service areas as well as recharge the local aquifers. Increasing the utilization of reclaimed water reduces the amount of water lost through surface water discharge or down a deep injection well. Lee County Utilities has taken and plans to take several steps to reduce these losses. LCU has installed interconnects between systems to enable systems with low demand to provide reclaimed water to systems with high demands. LCU has installed storage facilities to better manage reclaimed water and increase utilization. LCU has plans to enhance storage of reclaimed water. These plans include conventional above ground facilities for short-term storage and LCU is exploring the possibility of reclaimed water ASR for long-term seasonal storage. LCU was an active participant and contributed funds to the SFWMD's Regional Irrigation Distribution System Study. Below is a brief description of LCU's reclaimed water systems.

5.3.2 Fort Myers Beach WWTP

Lee County Utilities initiated its reclaimed water program in 1990 with the completion of the Fort Myers Beach WWTP Reuse System (see Figure 16). At that time the system consisted of 10 reuse sites, most of which were large users such as golf courses. Also included in the system is a set of 6 percolation ponds with a capacity of 60 million gallons. Since that time the system has grown and now consists of more than 25 reuse sites and the percolation ponds with a deep injection well for alternative disposal. The Fort Myers Beach WWTP has a permitted capacity of 6.0 million gallons per day (MGD). The plant currently produces approximately 3.8 mgd of reclaimed water. In 2007, an annual average of 3.81 MGD of the reclaimed water produced at the plant and 0.38 MGD was sent to the reuse service through an interconnect with LCU's Fiesta Village reuse system. Of the 4.19 MGD available for use 3.55 MGD was reused. Reclaimed water utilization in 2007 for this facility was 85%.

5.3.3 Fiesta Village WWTP

In 1999 Lee County Utilities purchased the Fiesta Village WWTP Reclaimed Water System from Florida Cities Water Company (see Figure 16). With two of the reuse sites being placed into service in the early 1970's, this reclaimed water system is one of the oldest public access reclaimed water system in Florida. The system currently consists of more than 10 reuse sites consisting of golf courses, parks, roadway medians and common areas. For alternative disposal the system has a permit to discharge into the Caloosahatchee River. The permitted capacity of the plant is 5.0 MGD. The plant currently produces approximately 2.5 mgd of reclaimed water. In 2007 the plant produced 2.95 mgd on annual average. Of this 2.95 mgd, 1.93 mgd was reused. Reclaimed water utilization in 2007 for this facility was 65%.

In an effort to increase the reclaimed water utilization for this facility and reduce the amount reclaimed water discharged to the Caloosahatchee River an interconnect between the Fiesta Village reuse system and the Fort Myers Beach reuse system was installed in 2002. This interconnect allows for a transfer of reclaimed water from the Fiesta Village system, which has a low demand to the Fort Myers Beach system which has a high demand.

5.3.4 Waterway Estates WWTP

In 1999 Lee County Utilities purchased the Waterway Estates WWTP Reclaimed Water System from Florida Cities Water Company (see Figure 17). The system currently consists of 2 reuse site, a proposed golf course, and the City of Cape Coral. LCU also has a permit to discharge into the Caloosahatchee River for alternative disposal. The permitted capacity of this facility is 1.3 mgd. The plant currently produces approximately 1.0 mgd of reclaimed water, on annual average. In 2007 the plant produced 0.983mgd of reclaimed water on annual average. Of this 0.983 mgd, only 0.325 mgd was reused. Reclaimed water utilization in FY 2007 for this facility was 33% and 50% for calendar year 2007.

In the past, issues related to storage in this reclaimed water system have resulted in low reclaimed water utilization. In an effort to increase the reclaimed water utilization for this facility, and reduce the amount reclaimed water discharged to the Caloosahatchee River, LCU has taken the following steps. A reclaimed water interconnect between the Waterway Estates system and the City of Cape Coral's reclaimed water system has been installed. A reuse agreement between Lee County Utilities and The City of Cape Coral has been executed. A 0.75 million-gallon storage tank and pumping facility was constructed and placed into service in mid 2007. Completion of this infrastructure has enhanced delivery of reclaimed water to the City of Cape Coral and will enhance delivery to the proposed golf course. Having this storage tank in the system for half of FY 2007 has increased the annual average utilization from 0% to 33% and to 50% in calendar year 2007. LCU will continue to enhance the reclaimed water system in the service area with a goal of achieving as close as 100% reclaimed water utilization as possible.

5.3.5 Three Oaks WWTP

In 2003 Lee County Utilities purchased the Three Oaks WWTP Reclaimed Water System from Gulf Environmental Services Inc (see Figure 18). The system currently consists of 6 active reuse sites all are golf course communities. The plant currently has a permitted capacity of 3.0 mgd. A plant expansion to bring this facility to 6.0 mgd is currently underway and the expansion should be completed by the end of 2008. Included in the expansion project is a deep injection well which will be utilized for wet weather disposal. The plant currently produces approximately 1.84 mgd of reclaimed water on an annual average. 100% or the reclaimed water that is currently produced at this facility is reclaimed for irrigation.

5.3.6 San Carlos WWTP

In 2003 Lee County Utilities purchased the San Carlos WWTP Reclaimed Water System from Gulf Environmental Services Inc (see Figure 18). The system currently consists of 1 reuse site, a golf course. Like the Fiesta Village system, the San Carlos WWTP Reclaimed Water System enjoys the distinction of being one of the oldest public access reclaimed water systems. The plant has been serving its one customer since the early 1970's. The plant has a permitted capacity of 0.30 mgd. The plant currently produces approximately 0.218 mgd of reclaimed water on an annual average. Having no alternative disposal method, this system's reclaimed water utilization in 100%.

5.3.7 Pine Island WWTP

In 1999 Lee County Utilities constructed the Pine Island WWTP. The plant has a treatment capacity of 0.50 mgd and a permitted capacity of 0.474 mgd. It is currently producing approximately 0.117 mgd of reclaimed water. The reclaimed water produced at this plant recharges the local shallow aquifer through two spray irrigation fields. The plant also has wet weather disposal capability through a deep injection well shared with the Greater Pine Island Water Association. LCU

has recently executed agreements for delivery of reclaimed water for irrigation of common areas and agricultural operations in the regional reuse service area permitted through FDEP. Currently this systems reclaimed water utilization is 100%.

5.3.8 High Point WWTP

The High Point plant is a small package plant in North Fort Myers that produces approximately 0.012mgd of reclaimed water. The plant has a permitted capacity of 0.024 mgd. The reclaimed water from this plant is sent to percolation ponds were it recharges the local shallow aquifer.

5.3.9 Gateway WWTP

In 2003 Lee County Utilities purchased the Gateway WWTP Reclaimed Water System from Gateway Services District. The system currently consists of 1 reuse site, the Gateway community and golf course. The plant has a permitted capacity of 1.0 mgd. The plant currently produces approximately 0.601 mgd of reclaimed water on an annual average. The Gateway Community's irrigation demand is far more than the reclaimed water produced by this facility, therefore, this system's reclaimed water utilization in 100%. A design to expand this facility to 3.0 mgd has been completed and construction of this expansion will start in 2008.

The table below provides a summary of LCU's reclaimed water system.

LEE COUNTY UTILITIES
RECLAIMED WATER SYSTEMS
DETAILS

Facility	Reuse Type (golf course, residential, etc.)	Alternative Disposal	FY 2006-2007 % Reclaimed Utilization
Fort Myers Beach WWTP	golf course, residential, parks, percolation ponds, road median,	Deep Injection Well	93%
Fiesta Village WWTP	golf course, sports field, residential, road median	Surface Water Discharge	65%
Three Oaks WWTP	golf course	Deep Injection Well	100%
San Carlos WWTP	golf course	None	100%
Pine Island WWTP	spray fields	None	100%
Waterway Estates WWTP	golf course, bulk service to another reclaimed water system	Surface Water Discharge	33% *
High Point WWTP	perc ponds	None	100%
Gateway WWTP	golf course, residential common areas	None	100%

* increased to 50% in calendar year 2007

5.4 Use of the Floridan Aquifer

Lee County Utilities has recently initiated and plans to continue use of this alternative source for drinking water. By utilizing this deep saline aquifer we will reduce our dependency on conventional sources such as shallow aquifers and surface water.

5.4.1 North Lee County Water Treatment Plant

Placed on-line in August 2006 the North Lee County Water Treatment Plant and wellfield initially produced 5.0 mgd of water from the Floridan aquifer. Due to lost production the facility is currently yielding 3.5 mgd. Phase I of the wellfield expansion project will regain the loss in production back to 5.0 mgd. Phase II will involve expanding the treatment plant and the wellfield to a capacity of 10.0 mgd.

5.4.2 Corkscrew Water Treatment Plant

Currently under construction is an expansion to the Corkscrew Wellfield. Expansion of the wellfield includes the installation of 3 Lower Hawthorne aquifer wells. Raw water from these 3 wells will be blended with water from conventional sources to provide additional capacity to the facility (see Proposed Wells LH1-LH3, Figure 5).

5.4.3 Pinewoods Water Treatment Plant

An expansion of the Pinewoods wellfield was completed in 2007. The expansion included the addition of 5 Lower Hawthorne aquifer wells (see Figure 7). Raw water from these 5 wells is treated in a new reverse osmosis plant also completed in 2007. The finish water from the RO facility is blended with water from conventional sources to provide additional capacity to the facility.

5.4.4 Green Meadows Water Treatment Plant

LCU proposes to construct a new 16.0 mgd reverse osmosis (RO) water treatment plant to replace the aging existing lime softening treatment system currently permitted for 9.0 mgd at this site. Additional withdrawals of brackish water from the Lower Hawthorne aquifer along with current withdrawals from Surficial and Sandstone aquifers will be blended and treated in the new facility. An increase in allocation from traditional fresh water sources currently permitted is not proposed. Fourteen new Lower Hawthorne wells located in LCU's existing easement are proposed to increase the capacity of the wellfield (see Figure 6). The proposed capacity increase of 7.0 mgd will be supplied by raw water from the Lower Hawthorne aquifer, an alternative source. The project is currently under design and an application for modification to the consumptive use permit has been submitted to the SFWMD.

5.4.5 Olga Water Treatment Plant

LCU is currently performing a study on alternative water supplies for the Olga facility. One of the options being considered is use of the Floridan aquifer for a source of supply for this facility.

5.5 Captured Storm Water

LCU is currently exploring opportunities for capturing storm water for potable water supply. Multiple benefits can be realized from developing storm water storage. Along with the possibility of providing raw water for meeting potable water demands there is a potential for providing flood protection, improvement in water quality, and restoration of base flows to in natural systems.

5.6 Desalination

LCU has cooperated with, provided information for, and remained engaged with previously completed feasibility studies regarding desalination facilities. In June 2002 one such feasibility study was completed. The study was commissioned by the SFWMD and Florida Power and Light (FP&L) and completed by Water Resource Associates, Inc. and URS. This study was titled, "Feasibility Study for Co-Locating Reverse Osmosis Treatment Facilities with Electric Power Plants". The study evaluated 23 potential sites for co-locating a desalination facility with a power plant. Of the 23 sites evaluated two sites were deemed "highly desirable" and recommended for further evaluation. One of those sites was the Florida Power and Light site on S.R. 80, within LCU's service area and in close proximity to one of LCU's main water transmission lines. The conclusion of this study prompted LCU to give serious consideration to the option of desalination. Since this study was released, LCU representatives have participated in several meetings with FP&L and the SFWMD to discuss the potential for co-location a desalination facility at the location referenced above. Another feasibility study titled "Technical & Economic Feasibility of Co-Locating Desalination Facilities" was completed by Metcalf and Eddy in December of 2006. This study further refined technical, economic and regulatory feasibility of the desalination option. As in the first study the FP&L site in LCU's service area emerged as a top ranking potential site. LCU continues to give serious consideration to the desalination option. LCU is also considering a pilot study to further evaluate the feasibility of this option.

5.7 Water Conservation Plan

1) Permanent Irrigation Ordinance – Patterned after the SFWMD rule FAC 40E-24 "Mandatory Year-Round Landscape Irrigation Measures for Lee, Collier & Charlotte Counties", an ordinance, which restricts landscape irrigation to the hours of 5:00 p.m. to 9:00 a.m. two days per week, is in effect for Le County Utilities' service area (Lee County Ordinance 05-10). This ordinance is more restrictive than the SFWMD rule referenced above. The ordinance also incorporates the SFWMD water shortage rules by reference.
2) Xeriscape Ordinance –An ordinance that requires the use of xeriscape landscape principles has not been adopted, however, Lee County Land Development Code

does require Xeriscaping. Chapter 10, Article III, Division 6 (Open Space, Buffering, and Landscaping), Section 10-412 (Purpose and Intent) states: "Promote water conservation and xeriscape principles by requiring the use of native plants, organic mulch, reduction of turf grass, and appropriate irrigation." Also Section 10-421 (Plant Installation and Maintenance Standards) states: "All required plants used in buffers and landscaping must be installed using xeriscape principles. Xeriscape principles include water conservation through drought-tolerant landscaping, the use of appropriate plant material, mulching and reduction of turf areas."

3) Ultra-low Volume Plumbing Fixture Ordinance – An ordinance that requires ultra-low volume plumbing fixtures on all new construction is in effect for the service area (Lee County Ordinance 92-36.)

4) Water Conservation Rate Structure – Lee County Resolution No. 07-08-70, adopted August 14, 2007, provides for an increasing block rate structure. The resolution also provides for an 18% surcharge to the rates in the event of a District declared reduction in water use of 15% or greater due to a declared water shortage.

5) Leak Detection Program – Lee County 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).

6) Rain Sensor Device Ordinance – In January 1999 the Lee County Land Development Code was revised to include a requirement for rain sensors on irrigation systems. Chapter 10, Article III, Division 6, Section 10-414(b)(3) states: "A moisture (rain) sensor will be included in the irrigation system and located on the site so that it will receive direct rainfall, not impeded by other objects."

7) Water Conservation Education Program – In the summer of 2000 Lee County Utilities developed a web site that is updated regularly. This web site contains several pages devoted to water conservation and water restrictions. The address for this site is http://www,lee-county.com/utilities/. In addition, Lee County Utilities periodically prints water conservation tips on the water bills. These messages direct the customer to the web site for additional information. The annual Consumer Confidence Report is also used to direct customers to the web site for additional information. Water Conservation posters and pamphlets are placed in schools, libraries, and other county offices. During times of water restrictions Lee County Utilities has run public service announcements in cooperation with the District. LCU has an active program that provides water conservation presentations to third grade students in several schools throughout Lee County. Approximately 20 presentations are given to third graders every year. LCU also participates in the Lee County Speakers Bureau program resulting in 4-5 water conservation presentations being provided to civic organization throughout Lee County.

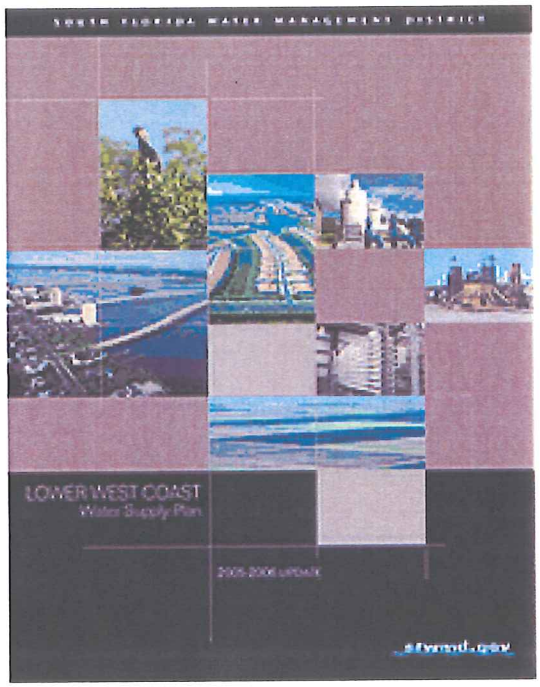
8) Reclaimed Water – Reuse (Reclaimed) water is a very important part of Lee County Utilities' water conservation strategy. Currently, seven wastewater treatment plants that serve the LCU service area produce reuse water under permit from FDEP. They are Fort Myers Beach WWTP, Fiesta Village WWTP, Waterway Estates WWTP, Pine Island WWTP, Three Oaks WWTP, San Carlos WWTP and Gateway WWTP. The percentage of reclaimed water utilization by LCU has increased steadily throughout the years as the use of reclaimed water has expanded. In fiscal year 2006/2007, approximately 79.3% of the wastewater treated by LCU was beneficially used for irrigation.

9) Conservation Plan Updating – Lee County staff recognizes the importance of regularly evaluating its conservation plan. Assessment of future demands leads to discussion and research into possibilities for the reduction of water demand. Continuing education of customers and cooperation with various agencies' programs of water reduction and re-use reduce the need for increased treatment capacity. As more advanced leak detection and accounting methods become available, it is the best interest of Lee County to utilize these tools.

10) Television Ads on Water Conservation – Lee County T.V. air daily information on water conservation. We keep these ads up to date. The ads address many ways with which our customers can save this precious resource.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
LEE COUNTY, FLORIDA

Section 6
CONSISTENCY WITH REGIONAL PLAN



6.1 CONSISTENCY WITH REGIONAL PLAN

Based on recommendations from previous Lower West Coast Water Supply Plans, LCU has followed a strategy of diversifying water supply options and developing alternative sources and storage options. LCU currently utilizes the following sources of raw water; Water Table, Surficial, Sandstone, Mid-Hawthorne and Lower Hawthorne aquifers as well as surface water. In addition LCU continues to increase its use of reclaimed water, increasing the percentage of utilization of this resource every year. LCU has developed interconnects between reclaimed water systems in an effort to maximize its use of this resource. LCU has also developed several successful potable water ASR systems and plans to develop reclaimed ASR systems in the future.

In July of 2006 the SFWMD adopted the updated Lower West Coast Water Supply Plan 2005-2006 (LWCWSP). Lee County Utilities participated in the regional planning conducted during preparation of the Plan and has made every effort to ensure that LCU's water supply planning is consistent with the regional plan. The focus of the 2005-2006 LWCWSP is the development of alternative water sources. LCU has followed the recommendations of the plan and has developed alternative water supplies. LCU has developed supplies from the Lower Hawthorne aquifer at the North Lee County WTP, Pinewoods WTP and Corkscrew WTP. LCU plans to utilize the Lower Hawthorne aquifer at the Green Meadows WTP. LCU has developed potable water ASR facilities at the Corkscrew WTP and the Olga WTP and plans to expand the use of potable water ASR at the Olga facility as well as in the Green Meadows/Corkscrew area. LCU is also planning to utilize ASR for the storage of reclaimed water in the future. As demonstrated in the proceeding information presented in this plan, all of LCU's future water supply development is planned to be from alternative water supply sources. Presented below is a table showing the Lee County Utilities' alternative water supply projects listed in the 2005-2006 LWCWSP.

LEE COUNTY UTILITIES
ALTERNATIVE WATER SUPPLY PROJECTS LISTED IN THE
2005-2006 LOWER WEST COAST WATER SUPPLY PLAN

Project	Water Source	Project Capacity (MGD)	Year Water is First Produced	Total Esimated Capital Cost ($M)	Annual O&M Costs ($M)
Corkscrew Lower Hawthorne Wells Phase II	Brackish	0.75	2007	$0.35	$0.01
Green Meadows Lower Hawthorne Wells	Brackish	2.00	2007	$0.80	$0.01
North Lee County Lower Hawthorne Wellfield & Plant Expansion	Brackish	5.00	2008	$20.00	$0.07
Pinewoods WTP Expansion Phase II	Brackish	3.00	2007	$6.67	$1.65
Green Meadows ASR	Capture ASR	0.37	2008	$7.00	$0.09
Three Oaks Parkway Reclaimed Water Transission System	Reclaimed	1.00	2007	$1.22	$0.00
Fort Myers Beach WWTP Reclaimed Water Elevated Storage Tank	Reclaimed	1.20	2007	$1.50	$0.01
Health Park Reclaimed Water ASR Phase I	Reclaimed	1.00	2008	$1.20	$0.01
Health Park Reclaimed Water ASR Phase II	Reclaimed	1.00	2010	$0.80	$0.01
FGCU / Mirror Lakes Reclaimed Water Main	Reclaimed	1.00	2007	$0.30	$0.00
RCS Reclaimed Water Interconnect	Reclaimed	1.00	2007	$0.55	$0.00

Several of the projects listed above have been completed and some others have had a change in scope since being published in the 2005-2006 LWCWSP. As required, LCU submitted an updated list and status report for alternative water supply projects listed in the LWCWSP to the SFWMD in October of 2007. Below is a summary of the update that was provided.

LEE COUNTY UTILITIES
ALTERNATIVE WATER SUPPLY PROJECTS LISTED IN THE
2005-2006 LOWER WEST COAST WATER SUPPLY PLAN
PROJECT UPDATE JANUARY 2008

Project	Water Source	Project Capacity (MGD)	Year Water is First Produced	Scope Change	Status
Corkscrew Lower Hawthorne Wells Phase II	Brackish	2.00	2008	Original Scope changed from 1 well producing 0.75mgd to 2 wells producing a total of 2.0 mgd	Project underway, scheduled for completion by August 08
Green Meadows Lower Hawthorne Wells	Brackish	7.00	2011	Original Scope changed from 2 wells producing 2.0 mgd to 14 Lower Hawthorne wells to produce 7.0mgd finished water	Phase I, Pilot /Production well under construction
North Lee County Lower Hawthorne Wellfield & Plant Expansion	Brackish	5.00	2010	No change in scope	Water Use Permit application for modification submitted, planning underway
Pinewoods WTP Expansion Phase II	Brackish	3.00	2007	No change in scope	Project Complete
Green Meadows ASR	Capture ASR	3.35	2010	Original scope was to procuce 0.37 mgd. Feasibility Study has indicated 3.35 mgd	Planning
Three Oaks Parkway Reclaimed Water Transission System	Reclaimed	3.00	2007	Originally anticipated to increase capacity of reclaimed system by 1.0, however enhancement will add an ultimate capacity of 3.0mgd	Completed
Fort Myers Beach WWTP Reclaimed Water Elevated Storage Tank	Reclaimed	1.20	2010	No change in scope	A low cost interim alternative has eliminated the emmediate need for this project, rescheduled to 2010
Health Park Reclaimed Water ASR Phase I	Reclaimed	1.00	2011	No change in scope	Issues related to Arsenic have delayed the project, now scheduled for 2011
Health Park Reclaimed Water ASR Phase II	Reclaimed	1.00	2012	No change in scope	Issues related to Arsenic have delayed the project, now scheduled for 2012
FGCU / Mirror Lakes Reclaimed Water Main	Reclaimed	1.00	2008	No change in scope	Lack of immediate need by developer has delayed the project one year
RCS Reclaimed Water Interconnect	Reclaimed	0.00	N/A	No change in scope	Lack of reclaimed water supply and finacial feasibility has reulted in postponing this project to a later date. The project is on hold.

6.2 COMPREHENSIVE LONG TERM WATER SUPPLY PLANNING

LCU is currently negotiating a contract with a consultant to develop an "Integrated Water Resources Master Plan" for Lee County Utilities. The Plan will integrate water supply, water treatment, wastewater collection, wastewater treatment, and the use of reclaimed water. This study will explore further use of alternative water sources such as brackish groundwater and surface water, expanded use of reclaimed water, the potential for utilizing storm water for supply, improved storage opportunities such as ASR and above ground storage, as well as the potential for seawater desalination. LCU expects to have the contract for this planning effort executed by June 2008 and a completed plan by early 2010.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY, FLORIDA

SECTION 7
OTHER UTILITIES IN UN-INCORPORATED LEE COUNTY

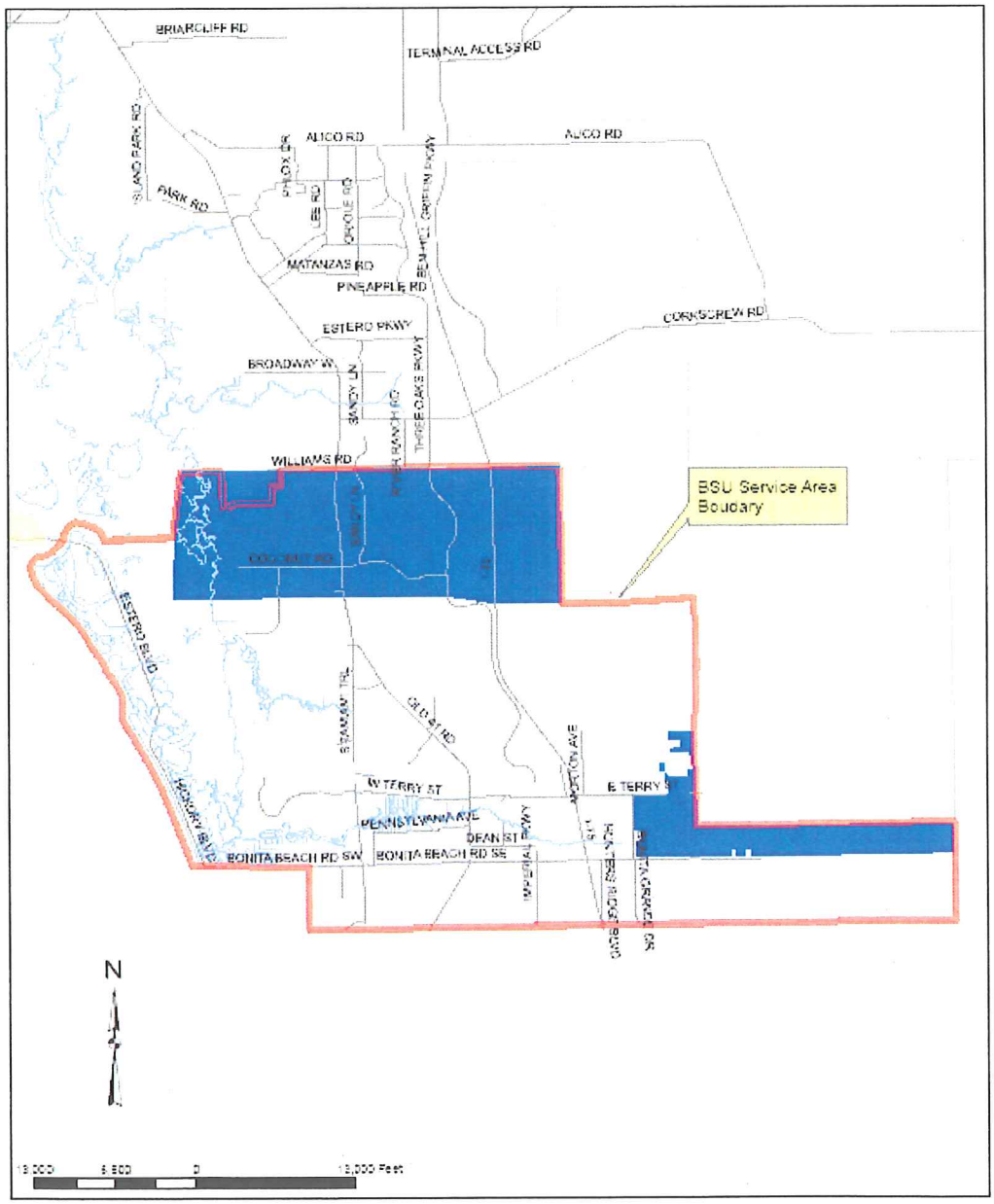
SECTION 7.1
BONITA SPRINGS UTILITIES

BONITA SPRINGS UTILITIES

Service Area

Bonita Springs Utilities (BSU) provides potable water service within the City of Bonita Springs as well as areas within Un-Incorporated Lee County. The BSU service area within Un-Incorporated Lee County is shown on the figure below. Approximately 25% of the BSU service area is within Un-Incorporated Lee County.

Bonita Springs Utilities
Water Service Area in Un-Incorporated Lee County



Consumptive Use Permits

BSU has two Consumptive Use Permits issued by the SFWMD. A summary of the general permit information is presented below.

Permit Number: 36-00008-W
Issued: August 9, 2007
Expires: August 9, 2027
Annual Allocation: 2,094 million gallons (2,094/365=5.74 mgd)
Maximum Month Allocation: 222.3 million gallons (222.3/30=7.41 mgd)
Source Limitation Annual: 985.5 mg (Lower Tamiami-West Wellfield)
Source Limitation Daily: 3.18 mg (Lower Tamiami-West Wellfield)

Permit Number: 36-04062-W
Issued: January 21, 2005
Expires: January 21, 2025
Annual Allocation: 4,769 million gallons (4,769/365=13.06 mgd)
Maximum Daily Allocation: 16.0 mgd

Existing Water Supply

BSU has three wellfields, the East Wellfield, West Wellfield, and the R.O. Wellfield.

East and West Wellfields – Lower Tamiami
The East and West Wellfields withdrawal water from the Lower Tamiami Aquifer. The location of these two wellfields is shown on the attached map labeled Exhibit 3 from the consumptive use permit staff report of permit number 36-00008-W referenced above. There are a total of 22 Lower Tamiami wells in these two wellfields. The diameter of these wells range from 8" to 12" and they range in depth from 80 feet to 115 feet. The capacity of each well range from 125 gpm to 1,000 gpm. The combined total capacity of all the wells is 11,550 gpm.

R.O. Wellfield
The R.O. wellfield withdrawals water from the Floridan Aquifer. The location of this wellfield is shown on the attached map labeled Exhibit 3 from the consumptive use permit staff report of permit number 36-04062-W referenced above. The wellfield consists of 8 existing wells. The diameter of these wells range from 12" to 16" and the total depths range from 701 feet to 1,080 feet. The capacities of the wells range from 1,000 gpm to 2,000 gpm. The combined total capacity of all the wells is 9,000 gpm.

Treatment Facilities

Raw water from the East and West wellfields is treated in a conventional lime softening water treatment plant with a permitted capacity of 9.0 mgd. Water from the R.O. wellfield is treated in a Reverse Osmosis treatment Plant with a permitted capacity of 6.54 mgd. The plant is expandable to 12 mgd. Both facilities are located on East Terry Street on the west side of I-75, in Bonita Springs.

Storage Facilities

BSU has above ground storage tanks with a combine total of 7.75 million gallons of capacity to meet peak hour demands in the system.

Demand Projections

Water demand projections are presented in the table below. This demand projection was supplied to Lee County by Bonita Springs Utilities.

BONITA SPRINGS UTILITIES
WATER DEMAND PROJECTIONS

Year	Projected Population	Number of Units (ERC's)	Average Daily Demand (MGD)	Maximum Day Demand (MGD)
2005	65,300	43,100	9.3	12.9
2010	71,700	48,700	10.5	14.6
2015	73,650	49,600	10.7	14.8
2020	74,500	50,200	10.8	15.0

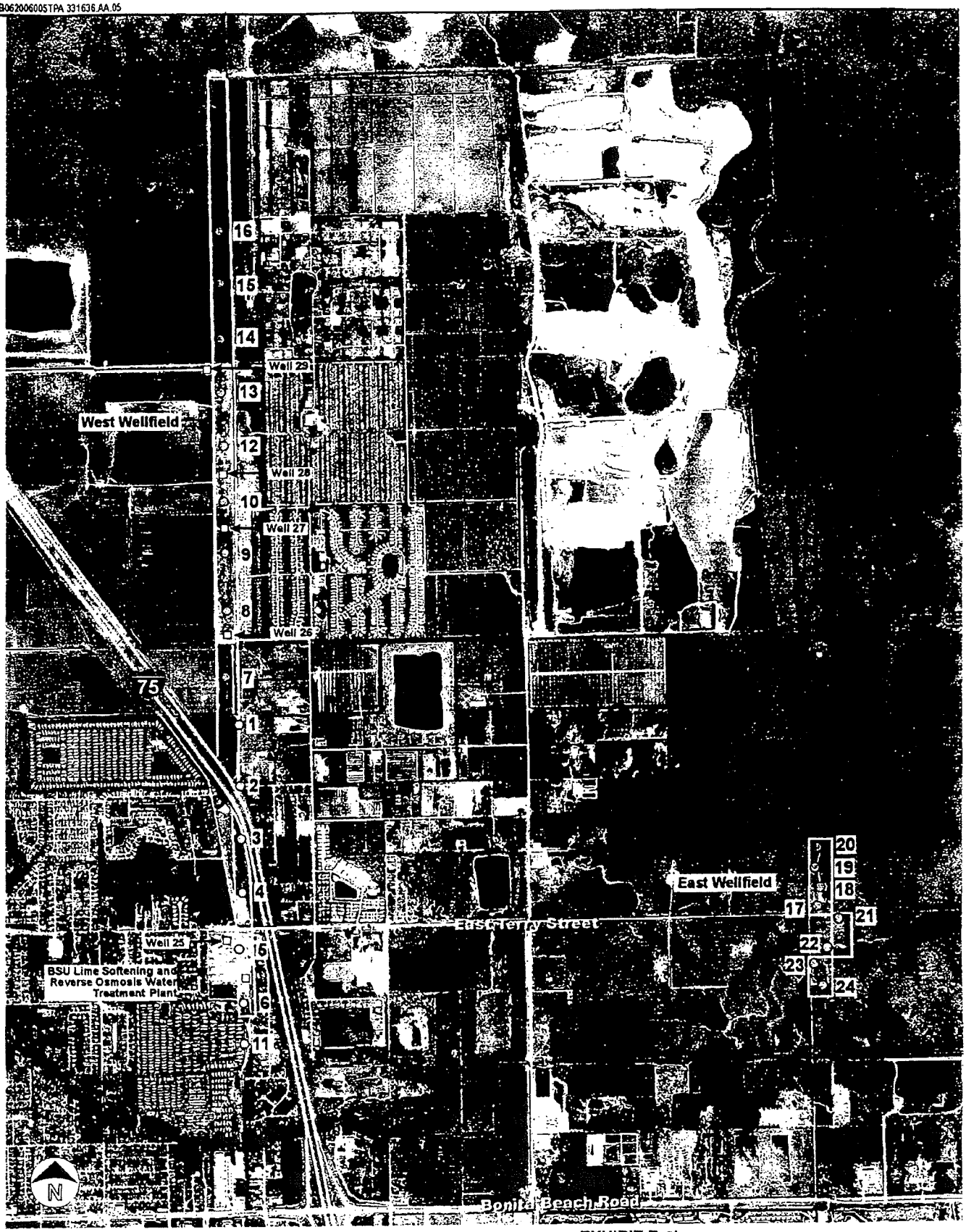
Proposed Water Supply Sources

BSU plans to install seven additional Floridan wells in its R.O. wellfield. The wells are proposed to be 16" in diameter, 900 feet deep and each with a capacity of 1,400 gpm. The wells are currently included in permit number 36-04062-W. As mentioned above the existing R.O. plant is expandable to 12 mgd.

Note

It should be noted that the information provided above includes the entire service area for BSU. The unincorporated portion of this service area only represents approximately 25% of the total.

WB062006005TPA 331636.AA.05



Scale in Feet
0 1000 2000
0 1/4 1/2
Scale in Miles

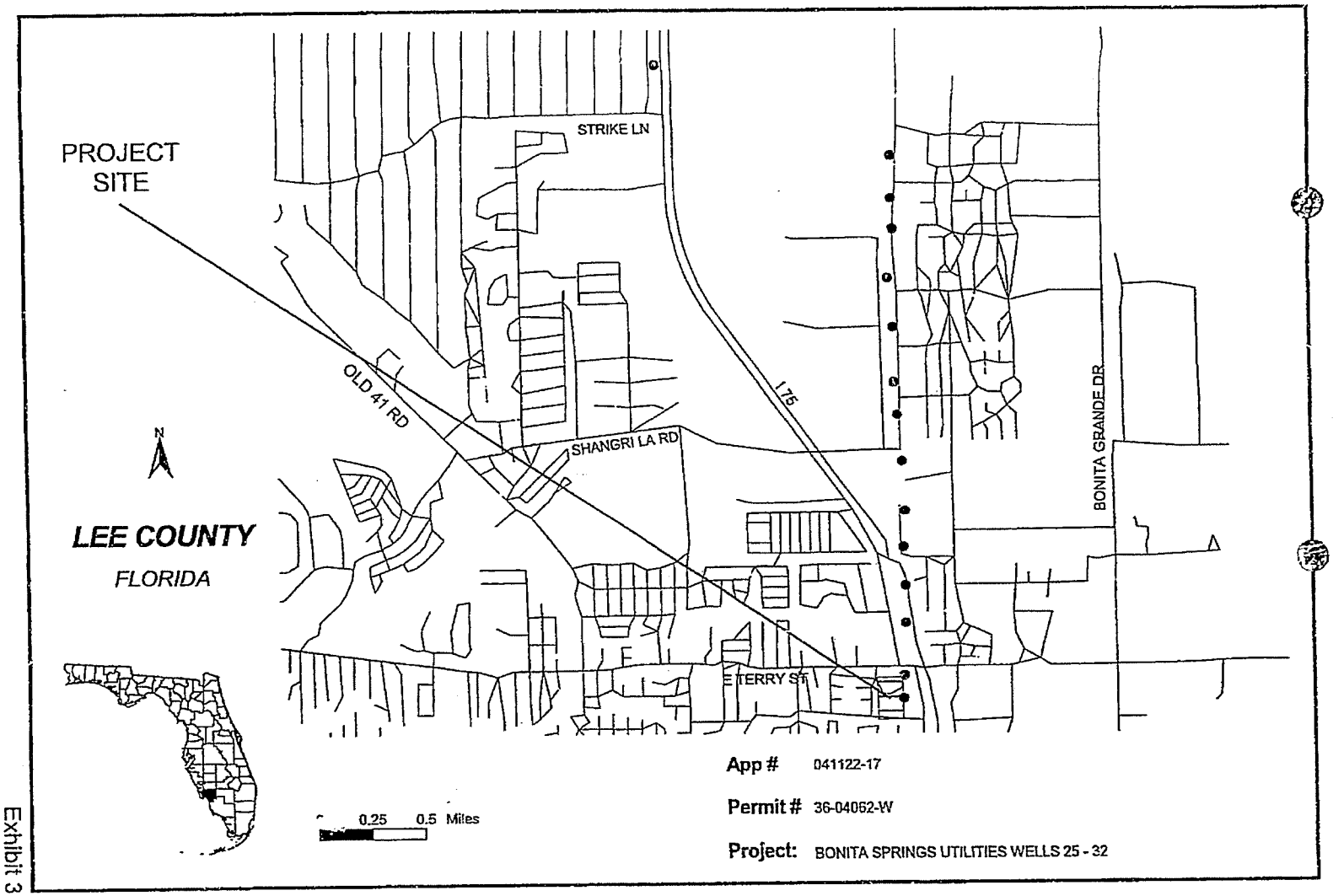
LEGEND

- BSU Franchise Area Boundary
- ○ Lower Tamiami Wells 36-0008-W
- □ RO WTP Injection Well
- □ Upper Floridan Wells 36-04062-W

EXHIBIT B-2b
Tamiami Wellfield Site Map
Application for Water Use Permit Renewal
Bonita Springs Utilities, Inc.

CH2MHILL

EXHIBIT 3


PROJECT SITE
STRIKE LN
OLD 41 RD
SHANGRI LA RD
175
BONITA GRANDE DR
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N
LEE COUNTY
FLORIDA
0.25 0.5 Miles
App # 041122-17
Permit # 36-04062-W
Project: BONITA SPRINGS UTILITIES WELLS 25 - 32

Exhibit 3

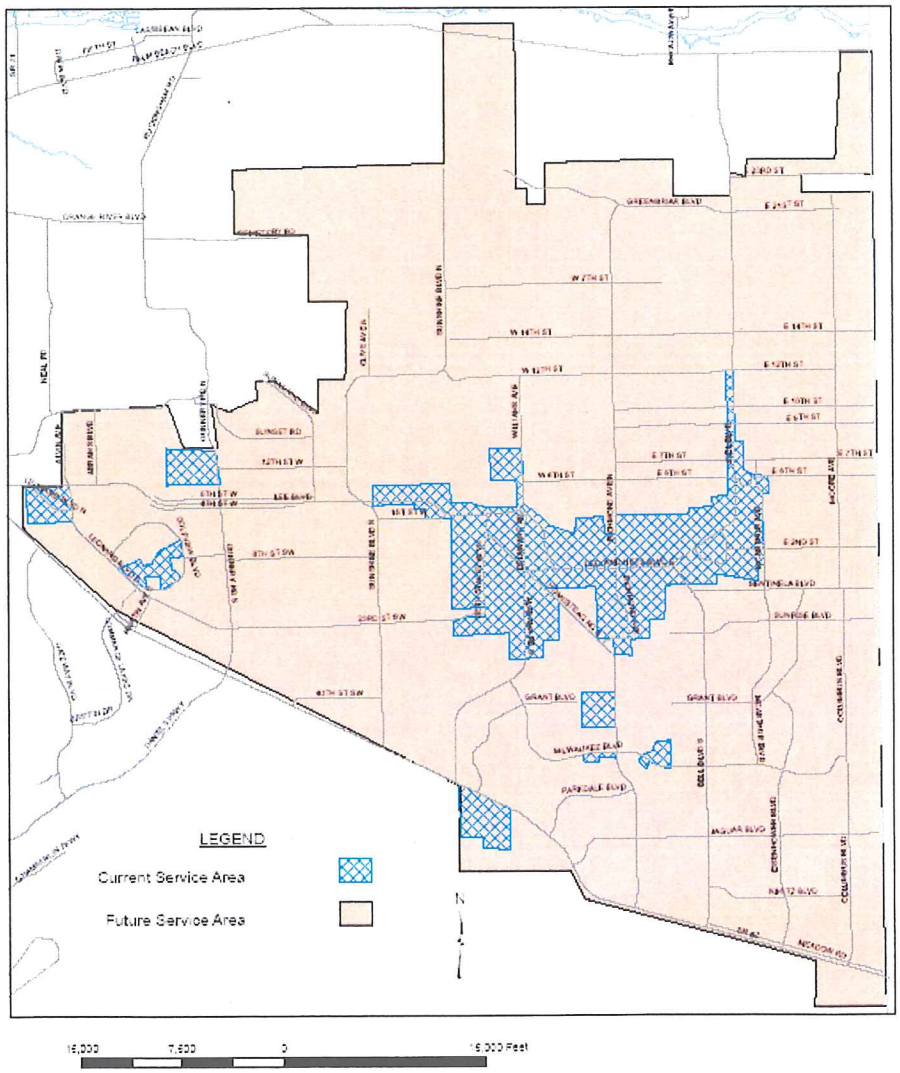
SECTION 7.2
FLORIDA GOVERNMENTAL UTILITY AUTHORITY

FLORIDA GOVERNMENTAL UTILITY AUTHORITY

Service Area

The Florida Governmental Utility Authority (FGUA) has a franchise area that generally encompasses the area of un-incorporated Lee County known as the community of Lehigh Acres. The area currently served with water is shown in blue cross hatch. The area shown in pink is FGUA's entire service area and the proposed area to be served in the future.

FLORIDA GOVERNMENTAL UTILITY AUTHORITY
Future Service Area, Current Service Area



Existing Consumptive Use Permit

FGUA has a Consumptive Use Permit issued by the SFWMD. A summary of the general permit information is presented below.

Permit Number: 36-00166-W
Issued: March 11, 2004
Expired: December 11, 2006
Annual Allocation: 1,206 Million Gallons (1206/365= 3.304 MGD AADF)
Maximum Monthly Allocation: 112.499 Million Gallons (112.499/30 = 3.75 MGD)
Note: a timely application for renewal / modification was submitted on 12/8/06, (see discussion below)

Existing Water Supply

The existing FGUA wellfield in the center of Lehigh Acres 13 existing Sandstone aquifer wells that vary in diameter from 6" to 12" in diameter. There is one existing Sandstone well at the new wellfield location near the corner of Bell Blvd. and Milwaukee Ave (see attached figure Exhibit 3A from FGUA's CUP) The wells are rated at capacities between 150 gallons per minute (gpm) and 500 gpm. The wells have a total capacity of 3,050 gpm. The existing permit includes 3 proposed Sandstone aquifer wells with a total capacity of 1,500 gpm. The location of the existing and proposed wells is shown on the attached figures titled Exhibit 3A, 3B, and 3C. These exhibits are copies of exhibits from FGUA's existing consumptive use permit staff report. A description of these wells is shown on the attached copy of Table A, labeled Exhibit No: 8 from FGUA's existing consumptive use permit staff report.

Existing Treatment Facilities

FGUA's Treatment Plant #1 is rated at 3.11 MGD and treats raw water from the 13 Sanstone aquifer wells referenced above. FGUA's recently completed Treatment Plant #2 has a capacity of 1.10 MDG. Treatment Plant #2 will initially treat raw water from the 3 of the four permitted sandstone aquifer wells at the plant site.

Existing Storage Facilities

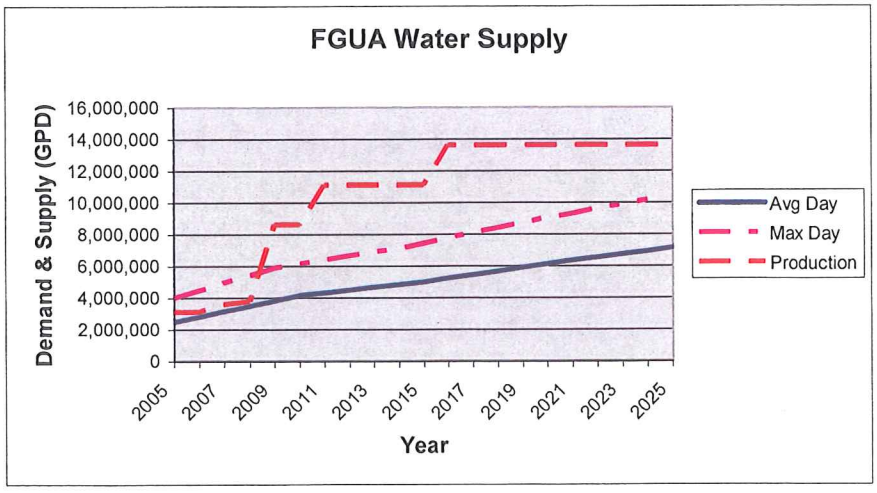
FGUA currently has two storage facilities. One elevated storage tank at he corner of Homestead Road and Arthur Ave with a storage capacity of 0.25 MG and a ground storage tank on Lee Blvd. and Abrams Blvd with a capacity of 0.5 MG.

Demand Projections

Finished water demand projections are presented in the table below. This demand projection was obtained from FGUA's recent consumptive use permit application. This projection is based on the median values of a projection performed by Lee County Planning Department and a linear projection based on past growth. The table also shows the proposed production from the various existing and proposed water treatment plants (WTP) and related wellfields.

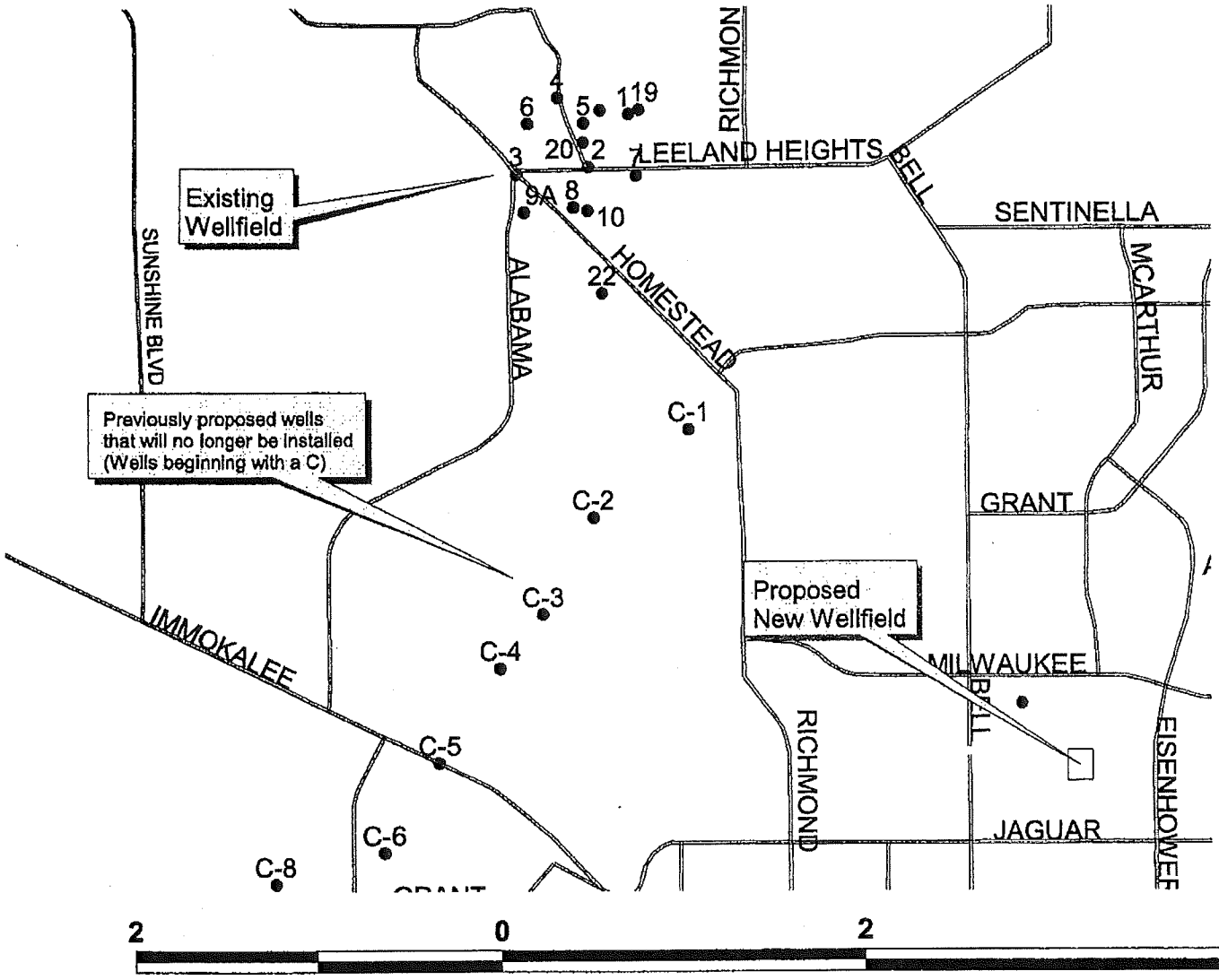
FLORIDA GOVERNMENT UTILITY AUTHORITY, LEHIGH ACRES
WATER PROJECTED DEMAND AND PROPOSED PRODUCTION

YEAR	DEMAND AVG DAY (GPD)	DEMAND MAX DAY (GPD)	OUTPUT WTP #1 (GPD)	OUTPUT WTP #2 (GPD)	FT MYERS INTER-CONNECT (GPD)	TOTAL PRODUCTION
2005	2,471,810	3,213,355	3,100,000	0	0	3,100,000
2006	2,800,000	4,010,000	3,100,000	0	0	3,100,000
2007	3,130,000	4,480,000	3,100,000	0	500,000	3,600,000
2008	3,460,000	4,950,000	2,200,000	1,100,000	500,000	3,800,000
2009	3,800,000	5,430,000	3,100,000	5,000,000	500,000	8,600,000
2010	4,130,000	5,900,000	3,100,000	5,000,000	500,000	8,600,000
2011	4,300,000	6,140,000	3,100,000	7,500,000	500,000	11,100,000
2012	4,470,000	6,390,000	3,100,000	7,500,000	500,000	11,100,000
2013	4,640,000	6,630,000	3,100,000	7,500,000	500,000	11,100,000
2014	4,810,000	6,880,000	3,100,000	7,500,000	500,000	11,100,000
2015	4,980,000	7,120,000	3,100,000	7,500,000	500,000	11,100,000
2016	5,200,000	7,440,000	3,100,000	10,000,000	500,000	13,600,000
2017	5,430,000	7,760,000	3,100,000	10,000,000	500,000	13,600,000
2018	5,660,000	8,090,000	3,100,000	10,000,000	500,000	13,600,000
2019	5,880,000	8,410,000	3,100,000	10,000,000	500,000	13,600,000
2020	6,110,000	8,730,000	3,100,000	10,000,000	500,000	13,600,000
2021	6,310,000	9,020,000	3,100,000	10,000,000	500,000	13,600,000
2022	6,510,000	9,300,000	3,100,000	10,000,000	500,000	13,600,000
2023	6,710,000	9,590,000	3,100,000	10,000,000	500,000	13,600,000
2024	6,900,000	9,870,000	3,100,000	10,000,000	500,000	13,600,000
2025	7,100,000	10,160,000	3,100,000	10,000,000	500,000	13,600,000



Source:Data obtained from FGUA's Consumptive Use Permit application

FGUA Lehigh Acres Wellfields



N
W E
S

State Roads
WU GW PWS Wells, Lee

Exhibit 3A

USGS Sandstone Monitor Wells in the Vcinity of the proposed new Lehigh Acres Utilities/FWS Wellfield

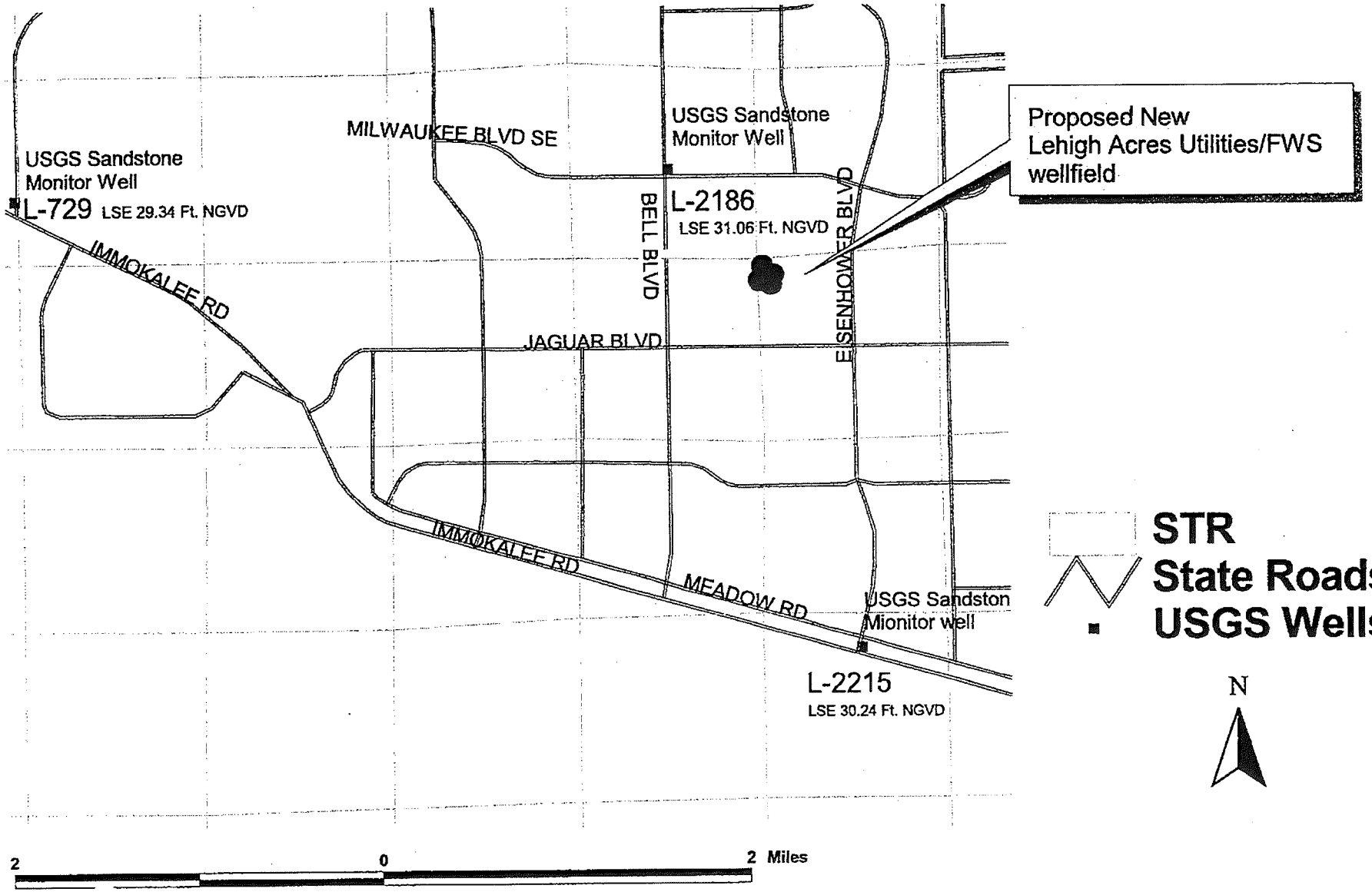
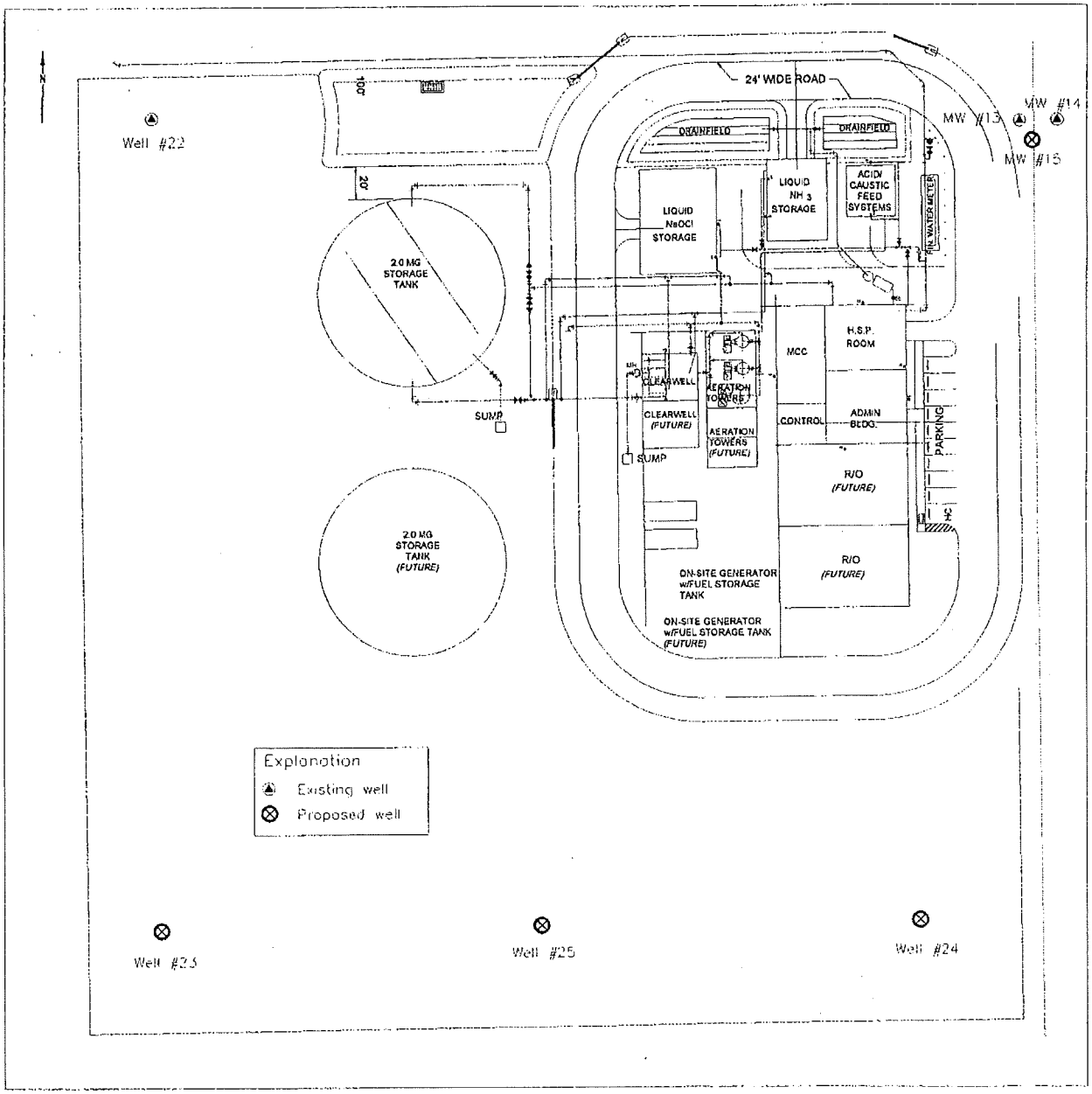


Exhibit 3B



CCI Connect Consulting, Inc. Water Resources Consultants 18963 SE Fernwood Dr. Tequesta, FL 33469 561/747-9917	**SITE MAP**				FIGURE NUMBER: 1
	FGUA 614 N. Wymore Road Winter Park, FL 32789		Lehigh Acres South Wellfield		
	SCALE: 1 in = 100 ft	DRAWN BY: glm	DATE: 1/26/04		

Exhibit 3C

TABLE - A
Description Of Wells.

Application Number: 030521-21

Well ID	32388	32389	32390	32391	32392	32393
Name	1	2	3	4	5	6
Map Designator	1	2	3	4	5	6
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	6	6	8	8	8	8
Total Depth(feet)	65	69	68	85	66	62
Cased Depth(feet)	50	52	58	50	54	52
Facility Elev. (ft. NGVD)						
Screened Interval From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	turbine	turbine	turbine	turbine	turbine	turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	0	0	0	0	0	0
Pump Capacity(GPM)	150	150	150	150	150	100
Year Drilled	1955	1962	1970	1970	1962	1970
Planar Location Source	Migrate	Migrate	Migrate	Migrate	Migrate	Migrate
Feet East	448529	447360	445267	446461	447213	445586
Feet North	826905	825368	825155	827396	826643	826635
Accounting Method	unspecified	unspecified	unspecified	unspecified	unspecified	unspecified
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer

Exhibit No: 8

~~TABLE~~ - A
Description Of Wells.

Application Number: 030521-21

Well ID	32394	32395	32396	32397	32406	32407
Name	7	8	9A	10	19	20
Map Designator	7	8	9A	10	19	20
FLUWID Number						
Well Field						
Existing/Proposed	E	E	E	E	E	E
Well Diameter(Inches)	8	8	8	8	8	8
Total Depth(feet)	85	80	80	62	90	90
Cased Depth(feet)	57	62	63	55	55	55
Facility Elev. (ft. NGVD)						
Screened Interval						
From	0	0	0	0	0	0
To	0	0	0	0	0	0
Pumped Or Flowing	P	P	P	P	P	P
Pump Type	turbine	turbine	turbine	turbine	turbine	turbine
Pump Int. Elev. Feet (NGVD)						
Feet (BLS)	0	0	0	0	0	0
Pump Capacity(GPM)	200	250	200	350	200	200
Year Drilled	1970	1970	1970	1989	1999	9999
Planar Location						
Source	Migrate	Migrate	Migrate	Migrate	REVIEWER	REVIEWER
Feet East	448758	446918	445479	447344	448825	447202
Feet North	825106	824182	824043	824084	827042	826073
Accounting Method	unspecified	unspecified	unspecified	unspecified	other	other
Use Status	Primary	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer

Exhibit No: 8

TABLE - A
Description Of Wells.

Application Number: 030521-21

Well ID	131113	145779	145783	145784	145788	138650
Name	21	Well 22	Well 23	Well 24	Well 25	L-2186
Map Designator	21	Well 22	Well 23	Well 24	Well 25	
FLUWID Number						
Well Field						
Existing/Proposed	E	E	P	P	P	E
Well Diameter(Inches)	10	12	12	12	12	
Total Depth(feet)	100	180	180	180	180	160
Cased Depth(feet)	60	70	80	80	80	133
Facility Elev. (ft. NGVD)	20	30	30	30	30	
Screened Interval From						
To						
Pumped Or Flowing	P	P	P	P	P	
Pump Type	unspecified	submersible	submersible	submersible	submersible	none
Pump Int. Elev. Feet (NGVD)		-40	-40	-40	-40	
Feet (BLS)		70	79	70	70	
Pump Capacity(GPM)	300	500	500	500	500	0
Year Drilled	2003	2003	2004	2004	2004	
Planar Location Source	REVIEWER	DIGITIZED	DIGITIZED	DIGITIZED	DIGITIZED	
Feet East	447707	461398	461414	462021	461726	
Feet North	827017	808162	807510	807499	807518	
Accounting Method	flow meter	flow meter	flow meter	flow meter	flow meter	none
Use Status	Primary	Primary	Primary	Primary	Primary	Monitor
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Monitor
Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer

Exhibit No: 8

TABLE - A

Description Of Wells.

Application Number: 030521-21

Well ID	138651	138652	145789	146772	146773
Name	L-2215	L-729	MW-13	MW-14	MW-15
Map Designator			MW-13		
FLUWID Number					
Well Field					
Existing/Proposed	E	E	P	P	P
Well Diameter(Inches)			4	4	4
Total Depth(feet)	149	103	180	94	20
Cased Depth(feet)	99	81	145	54	15
Facility Elev. (ft. NGVD)					
Screened Interval					
From					
To					
Pumped Or Flowing				F	
Pump Type	none	none	none	none	none
Pump Int. Elev.					
Feet (NGVD)					
Feet (BLS)					
Pump Capacity(GPM)	0	0	0	0	0
Year Drilled			2004	2004	2004
Planar Location					
Source			DIGITIZED		
Feet East			461971		
Feet North			808147		
Accounting Method	none	none	none	none	none
Use Status	Monitor	Monitor	Monitor	Monitor	Monitor
Water Use Type	Monitor	Monitor	Monitor	Monitor	Monitor
Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Sandstone Aquifer	Water Table Aquifer

Exhibit No: 8

Public Water Supply Demands

Application Number: 030521-21

Service Area: LEHIGH ACRES, EASTERN LEE COUNTY
System Efficiency:
Treatment Name:
Standard PCUR: 67
Standard Max Monthly Ratio: 1.12
Standard Max Day Ratio:

Past Water Use (Table-F):

Year	Population	PCUR	Average Use (MGD)	Max Day Use (MGD)	Ratio	Average Monthly Use(MG)	Max Monthly Use (MG)	Ratio	Basis For Demand	Basis For Ratio
1998	22,275	57	1.28			38.91	41.10	1.06	Y	
1999	22,699	64	1.46			44.32	48.04	1.08	Y	
2000	22,843	71	1.61			49.04	53.57	1.09	Y	Y
2001	23,513	73	1.71			52.04	55.84	1.07	Y	Y
2002	25,119	68	1.72			52.14	62.12	1.19	Y	Y

Projected Water Use(Table-G):

Year	Population	PCUR	Recommended Average (MGD)	Recommended Max Day (MGD)	Ratio	Average Monthly Use(MG)	Rec Max Monthly (MG)	Ratio	Basis for Allocation
2003	26,833	71	1.91			57.92	67.83	1.17	
2004	28,667	81	2.32			70.59	82.8	1.17	
2005	30,623	91	2.79			84.72	99.6	1.18	
2006	32,714	101	3.30			100.45	111.494	1.11	Y

Exhibit No:9

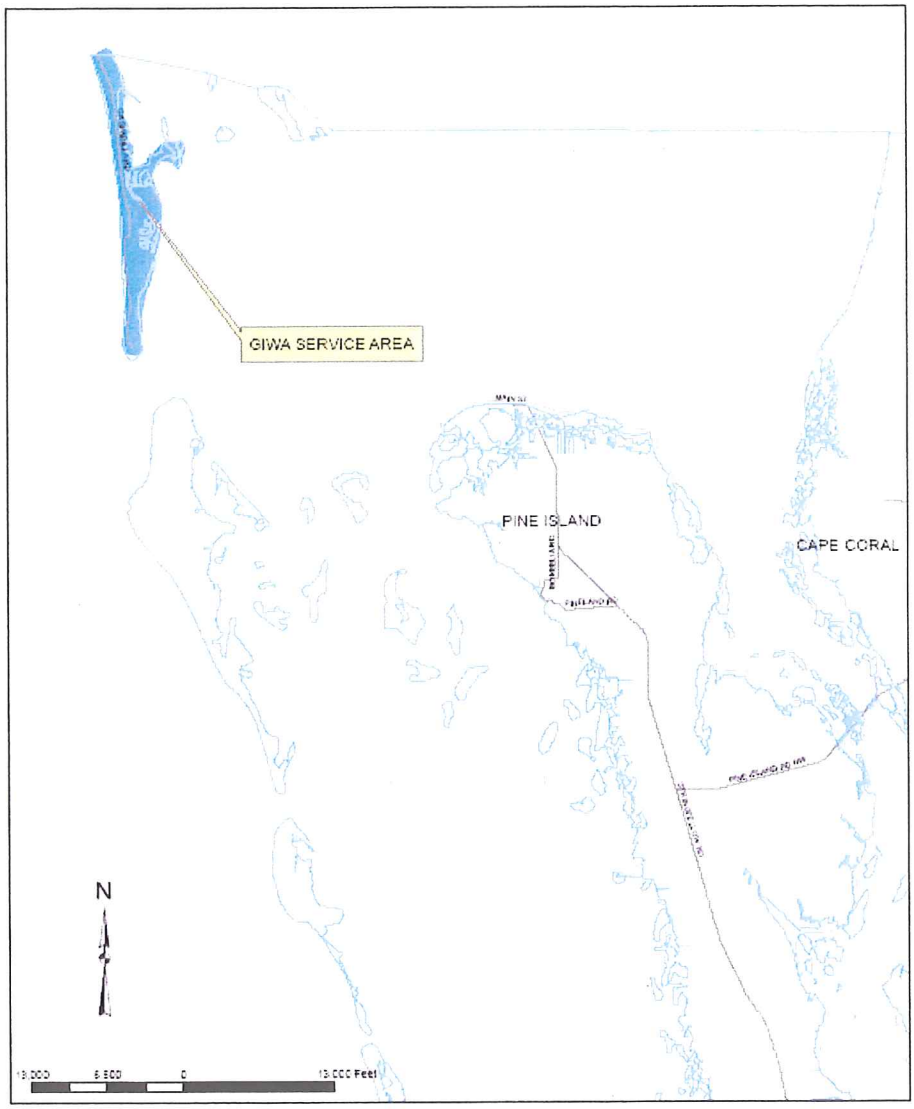
SECTION 7.3
GASPARILLA ISLAND WATER ASSOCIATION

GASPARILLA ISLAND WATER ASSOCIATION

Service Area

The Gasparilla Island Water Association (GIWA) serves potable water to the Gasparilla Island and a small portion of the mainland in Charlotte County. GIWA serves water customers in both Charlotte County and Lee County. The GIWA service area within unincorporated Lee County is shown below. GIWA has calculated that 59.8% of the units they serve are within un-incorporated Lee County. However based on water demand data for fiscal year 2006-2007, 76.4% of the water produce by GIWA was used in the Lee County portion of their service area.

Gasparilla Island Water Association
Water Service Area in Lee County



Consumptive Use Permit

GIWA has a Consumptive Use Permit issued by Southwest Florida Water Management District (SWFWMD). A summary of the general permit information is presented below.

Permit Number: 718.008
Issued: June 26, 2001
Expires: June 26, 2011
Annual Average Allocation: 1,537,600 gallons per day
Peak Daily Allocation: 1,952,800 gallons per day

Existing Water Supply

GIWA currently utilizes reverse osmosis treatment to treat brackish raw water from an intermediate aquifer. SWFWMD records indicate that the permitted annual average withdrawal from this source is 1,076,300 gallons per day. GIWA also utilizes surficial aquifer wells for raw water and provides treatment for color removal from this wellfield. SWFWMD records indicate that the permitted annual average withdrawal from the surficial aquifer is 461,300 gallons per day. In addition, GIWA has an interconnect with Charlotte County Utilities.

Demand Projections

Demand Projections for GIWA are presented below. The data in this table was provided by GIWA and was developed in support of their application to renew the above referenced consumptive use permit. GIWA projects that Gasparilla Island will reach build-out by 2011. In addition, GIWA has informed Lee County that areas served by GIWA in Charlotte County are being turned over to Charlotte County Utilities.

Gasparilla Island Water Association Projected Water Use

Year	Funcional Population	Gross Per Capita Water Use (gpcd)	Projected Gross Water AADF (gpd)	Projected Treatment Loss (%)	Projected Raw Water AADF (gpd)	Peak Factor	Projected Peak Month ADF (gpd)
2005	4,449	262	1,165,638	23%	1,513,816	1.27	1,922,546
2006	4,461	262	1,168,782	23%	1,517,899	1.27	1,927,731
2007	4,472	262	1,171,664	23%	1,521,642	1.27	1,932,485
2008	4,483	262	1,174,546	23%	1,525,384	1.27	1,937,238
2009	4,496	262	1,177,952	23%	1,529,808	1.27	1,942,856
2010	4,507	262	1,180,834	23%	1,533,551	1.27	1,947,609
2011	4,519	262	1,183,978	23%	1,537,634	1.27	1,952,795

Proposed Water Supply Sources

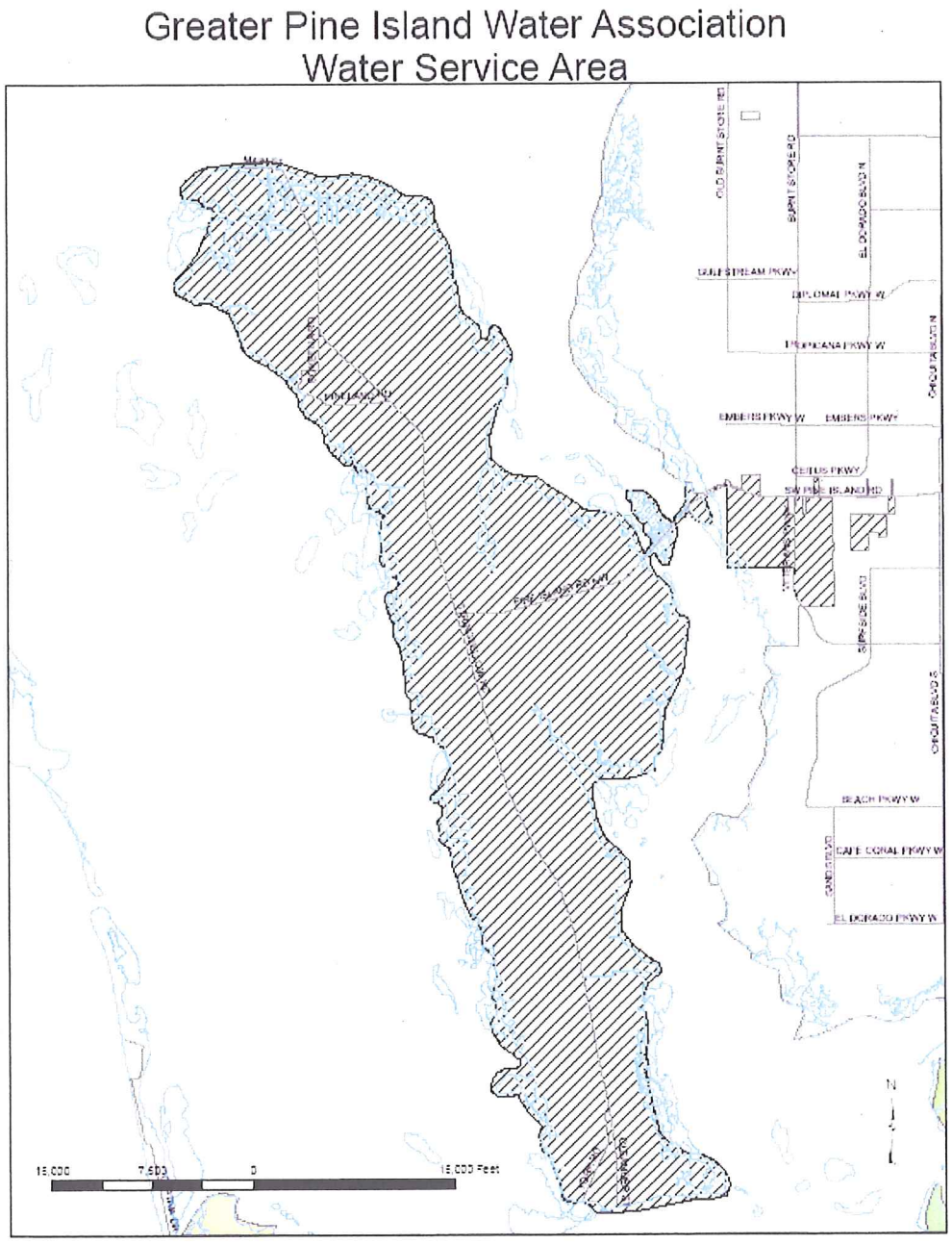
GIWAS plans one last expansion of their reverse osmosis treatment facility and related raw water supply to add an additional 170,000 gallons per day. The utility is also planning to conduct an analysis of options for future water supplies in the event their shallow water wellfield is impacted by salt water intrusion.

SECTION 7.4
GREATER PINE ISLAND WATER ASSOCIATION

Greater Pine Island Water Association

Service Area

The Greater Pine Island Water Association (GPIWA) serves potable water to the islands of Matlacha as well as Pine Island proper. Also included in the GPIWA service area is a small portion of the mainland. The GPIWA service area is shown below.



Consumptive Use Permit

GPIWA has a Consumptive Use Permit issued by the SFWMD. A summary of the general permit information is presented below.

Permit Number: 36-00045-W
Issued: October 12, 2005
Expires: October 12, 2015
Annual Allocation: 890 Million Gallons (890/365= 2.44 MGD AADF)
Maximum Monthly Allocation: 97.1 Million Gallons (97.1/30 = 3.24 MGD)

Existing Water Supply

The GPIWA wellfield on Pine Island consist of 4 Lower Hawthorne wells that are 12" in diameter. Each well is rated at 700 gallons per minute for a total well capacity of 2,800 gallons per minute. The location of these existing wells, is shown on the attached copy of Figure 6-1 from GPIWA's consumptive use permit staff report. A description of these wells is shown on the attached copy of Table A, labeled Exhibit No: 7 from GPIWA's consumptive use permit staff report.

Treatment Facility
Raw water from the wellfield is treated at GPIWA's Reverse Osmosis Treatment Plant. The plant is permitted to treat 2.25 MGD. The location of this facility is also shown on Figure 6-1 reference above. A deep injection well at the plant site is used for concentrate disposal.

Storage Facilities
Storage facilities along with their capacities are shown on the attached copy of Figure 1-2 from GPIWA's consumptive use permit staff report.

Demand Projections

Finished water demand projections are presented in the table below. This demand projection was supplied by GPIWA.

GREATER PINE ISLAND WATER ASSOCIATION
WATER DEMAND PROJECTION

Year	Water Demand ADF-MGD
2006	1.659
2007	1.742
2008	1.829
2009	1.92
2010	2.017
2011	2.117
2012	2.223
2013	2.334
2014	2.451
2015	2.574
2016	2.702
2017	2.837

Proposed Water Supply Sources

GPIWA plans to construct a fifth Lower Hawthorne aquifer production well to meet future needs. The proposed well is planned to be 783 feet deep and have a capacity of 700 gallons per minute, bringing the total pumping capacity of the wellfield to 3,500 gallons per minute. This wells is projected to be on-line in 2009.

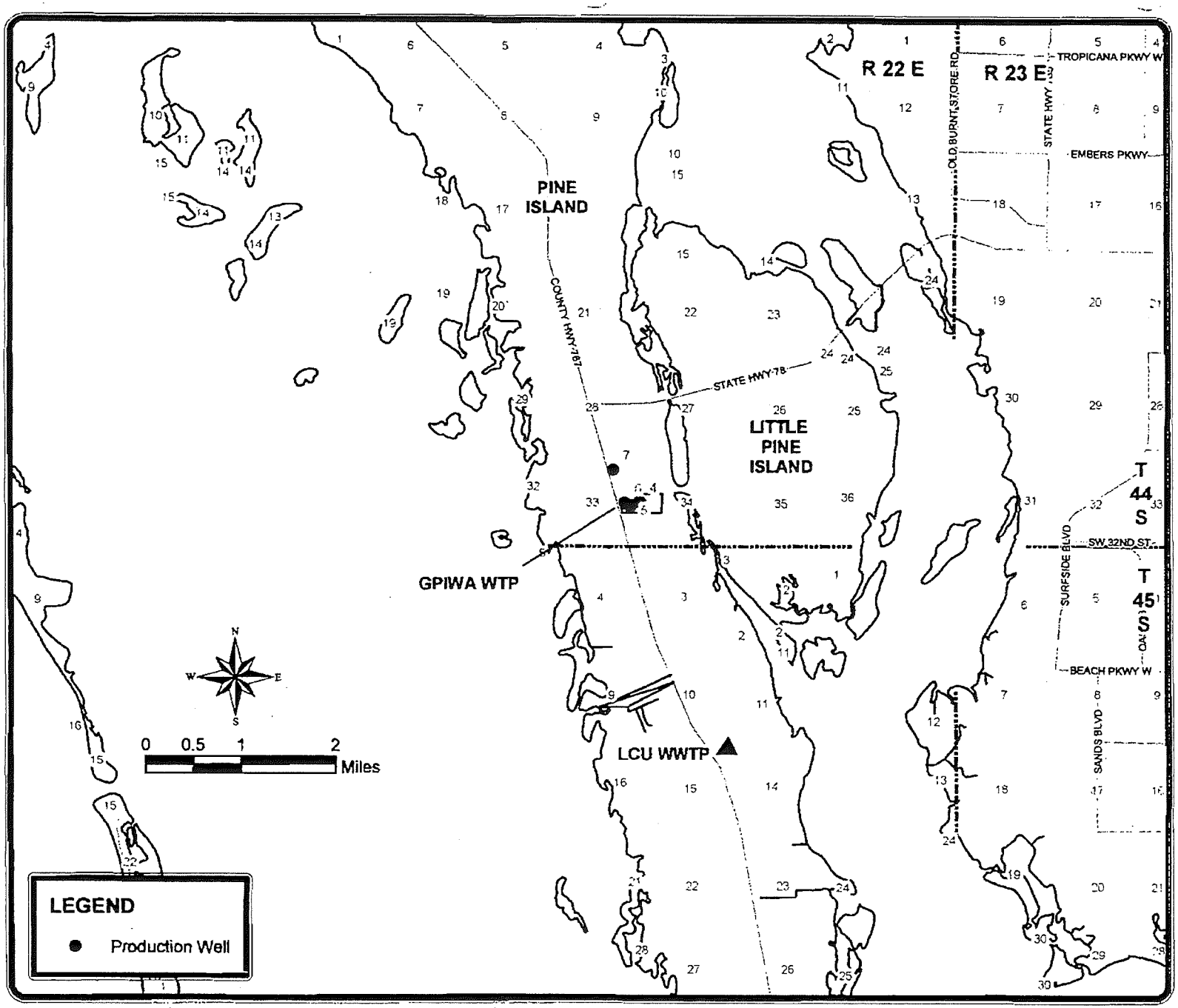


FIGURE 6-1. MAP SHOWING EXISTING GPIWA PRODUCTION WELLS

EXHIBIT 5

TABLE - A
Description Of Wells.

Application Number: 050524-9

Well ID	22056	22057	22058	22059	184315
Name	RO-4	RO-5	RO-6	RO-7	RO-8
Map Designator	4	5	6	7	7
FLUWID Number					
Well Field					
Existing/Proposed	E	E	E	E	P
Well Diameter(Inches)	12	12	12	12	12
Total Depth(feet)	739	770	737	783	770
Cased Depth(feet)	583	563	598	598	600
Facility Elev. (ft. NGVD)					
Screened Interval					
From	0	0	0	0	
To	0	0	0	0	
Pumped Or Flowing	P	P	P	P	P
Pump Type	submersible	submersible	submersible	submersible	submersible
Pump Int. Elev.					
Feet (NGVD)					
Feet (BLS)	0	0	0	0	0
Pump Capacity(GPM)	700	700	700	700	700
Year Drilled	1991	1991	1992	2001	
Planar Location					
Source	Migrate	Migrate	Migrate	Migrate	Migrate
Feet East	293103	292839	292666	292295	293157
Feet North	824786	824315	824791	826006	822453
Accounting Method	totalizer	totalizer	totalizer	totalizer	totalizer
Use Status	Primary	Primary	Primary	Primary	Primary
Water Use Type	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply	Public Water Supply
Aquifer	Lower Hawthorn Aquifer	Lower Hawthorn Aquifer	Lower Hawthorn Aquifer	Lower Hawthorn Aquifer	Lower Hawthorn Aquifer

Exhibit No. 7

Public Water Supply Demands

Application Number: 050524-9

Service Area: GREATER PINE ISLAND
System Efficiency: 78%
Treatment Name: RO Membrane
Standard PCUR: 98
Standard Max Monthly Ratio: 1.31
Standard Max Day Ratio:

Past Water Use (Table-F):

Year	Population	PCUR	Average Use (MGD)	Max Day Use (MGD)	Ratio	Average Monthly Use(MG)	Max Monthly Use (MG)	Ratio	Basis For Demand	Basis For Ratio
1999	11,787	94	1.11			33.72	45.27	1.34	Y	
2000	11,999	100	1.20			36.40	48.26	1.33	Y	Y
2001	12,273	100	1.23			37.33	49.12	1.32	Y	Y
2002	12,550	95	1.19			36.11	47.61	1.32		
2003	12,950	90	1.16			35.36	45.50	1.29		
2004	13,197	98	1.30			39.47	50.95	1.29	Y	Y

Projected Water Use(Table-G):

Year	Population	PCUR	Recommended Average (MGD)	Recommended Max Day (MGD)	Ratio	Average Monthly Use(MG)	Rec Max Monthly (MG)	Ratio	Basis for Allocation
2005	13,260	98	1.30			39.50	51.7505	1.31	
2006	14,178	98	1.39			42.24	55.3332	1.31	
2007	15,102	98	1.48			44.99	58.9394	1.31	
2008	16,030	98	1.57			47.76	62.5611	1.31	
2009	16,965	98	1.66			50.54	66.2102	1.31	
2010	17,905	98	1.75			53.34	69.8788	1.31	
2011	18,197	98	1.78			54.21	71.0184	1.31	
2012	18,495	98	1.81			55.10	72.1814	1.31	
2013	18,801	98	1.84			56.01	73.3756	1.31	
2014	19,111	98	1.87			56.94	74.5855	1.31	
2015	19,427	98	1.90			57.88	75.8188	1.31	Y

Exhibit No:8

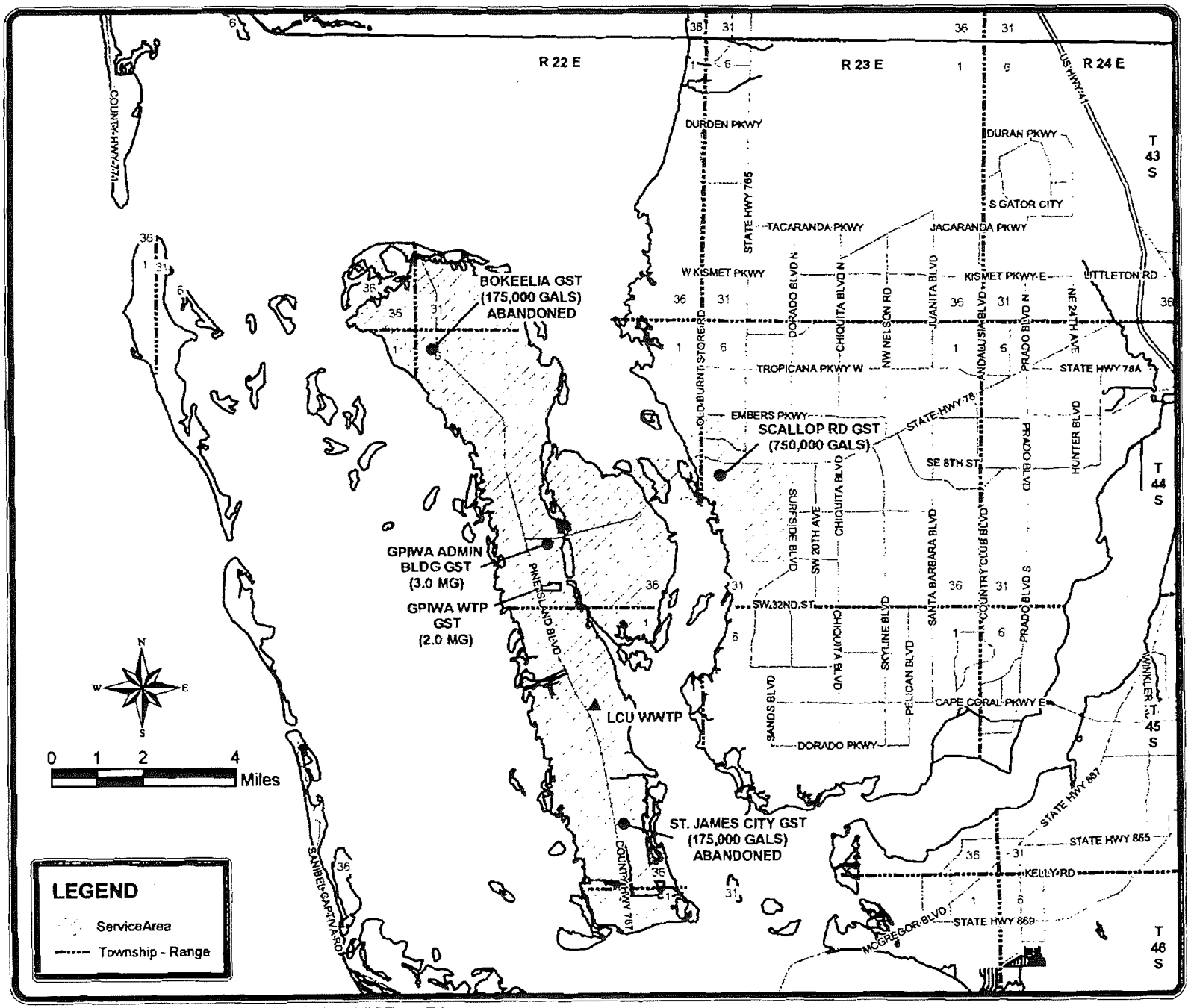


FIGURE 1-2. MAP SHOWING GPIWA SERVICE AREA

EXHIBIT 4

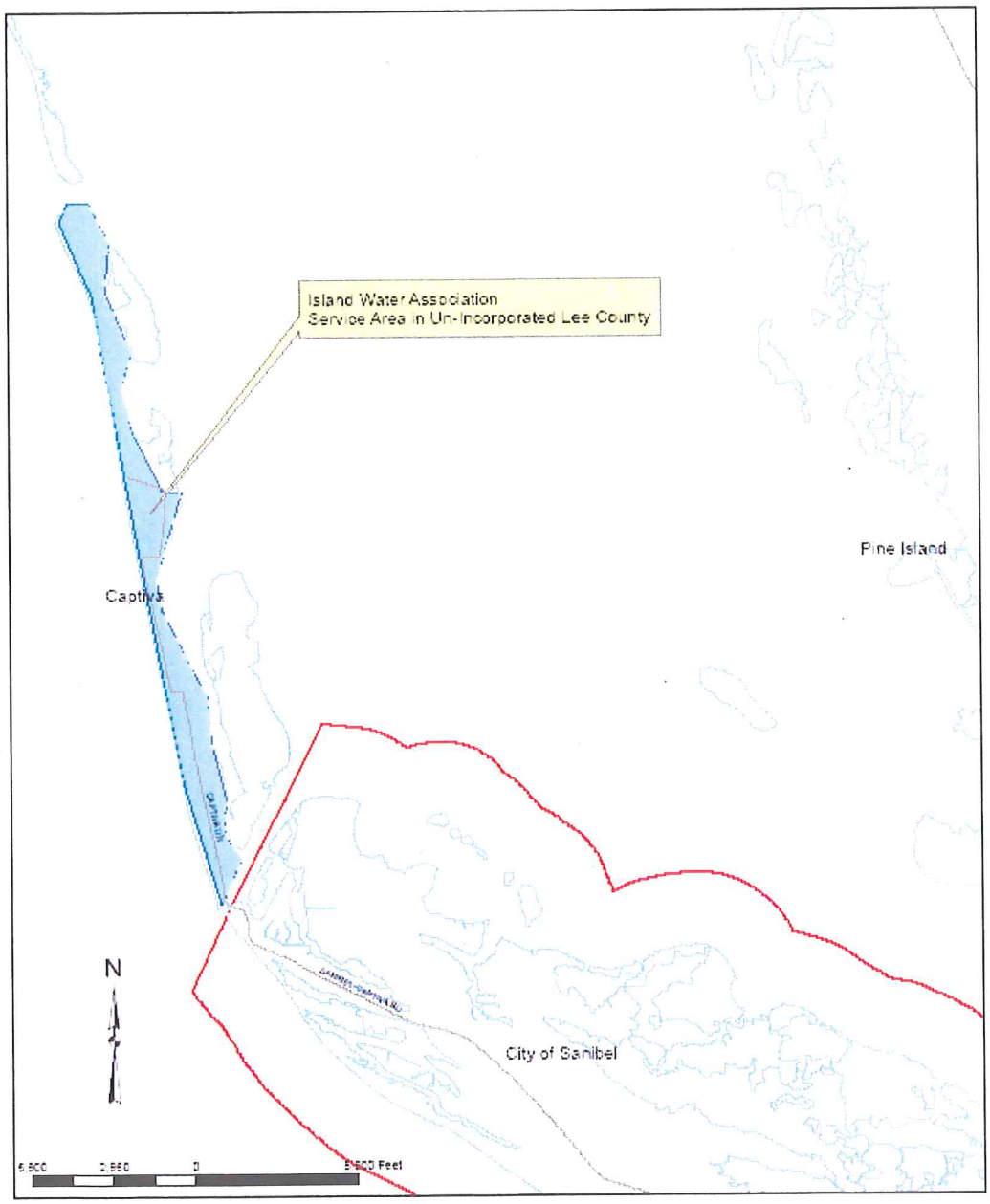
SECTION 7.5
ISLAND WATER ASSOCIATION

ISLAND WATER ASSOCIATION

Service Area

The Island Water Association (IWA) provides water service to Sanibel Island and Captiva Island. IWA serves areas within the City of Sanibel and Un-Incorporated Lee County. The IWA service area located within unincorporated Lee County is shown on the figure below. IWA has calculated that the unincorporated Lee County portion of its service area accounts for 25% of its potable water demand.

Island Water Association
Water Service Area in Lee County



Consumptive Use Permit

IWA has a Consumptive Use Permit issued by South Florida Water Management District (SFWMD). A summary of the general permit information is presented below.

Permit Number: 36-00034-W
Issued: November 13, 1997
Expires: November 13, 2017
Annual Allocation: 1809 Million Gallons (1809/365 = 4.96MGD AADF)
Maximum Daily Allocation: 8.08 MGD

Existing Water Supply

The IWA wellfield on Sanibel Island consists of 8 Floridan aquifer wells and 10 Lower Hawthorne aquifer wells. These wells range in diameter from 6" to 10". The capacity of the wells range from 30 gallons per minute (gpm) to 525 gpm. The total capacity of the 18 wells is 6460 gpm. The depths of these wells range from 605 feet to 770 feet. The location of these wells is depicted in the attached figure labeled Exhibit 4 from IWA's consumptive use permit staff report. IWA maintains an interconnect with Greater Pine Island Water Association. The location of this interconnect is depicted on the attached map titled "IWA Facilities and Service Area" provided by IWA.

Treatment Facility

Raw water from the brackish water wellfield is treated at the IWA's Reverse Osmosis Treatment Plant. The plant has a permitted capacity of 4.7 MGD. Concentrate disposal for the facility is provided through a discharge to the Gulf of Mexico.

Storage Facilities

The location of storage facilities in IWA's system along with their capacities are shown on the attached map titled "IWA Facilities and Service Area" provided by IWA.

Demand Projections

Raw Water demand projections are presented in the table below. This demand projection was supplied by IWA and is in Table F&G of the IWA's consumptive use permit staff report.

ISLAND WATER ASSOCIATION
WATER DEMAND PROJECTION

Year	Permanent Population	Per Capita Usage	Demand AADF (MGD)	Demand Maximum Day (MGD)
2005	7,753	556	4.31	7.02
2006	7,866	554	4.36	7.11
2007	7,979	553	4.41	7.19
2008	8,092	552	4.47	7.28
2009	8,206	551	4.52	7.37
2010	8,318	550	4.58	7.46
2011	8,431	549	4.63	7.56
2012	8,545	548	4.68	7.64
2013	8,657	547	4.74	7.72
2014	8,771	546	4.79	7.81
2015	8,884	546	4.85	7.9
2016	8,997	545	4.9	7.99
2017	9,110	544	4.96	8.08

Proposed Water Supply Sources

IWA plans to install 3 additional Floridan aquifer wells. The wells are proposed to be 10" in diameter, each with a capacity of 525 gallons per minute which will provide an additional 2.27 MGD. These wells are included in IWA's current consumptive use permit.

Note

It should be noted that the information provided above included the entire service area for IWA. The unincorporated portion of this service area only represents approximately 25% of the total.

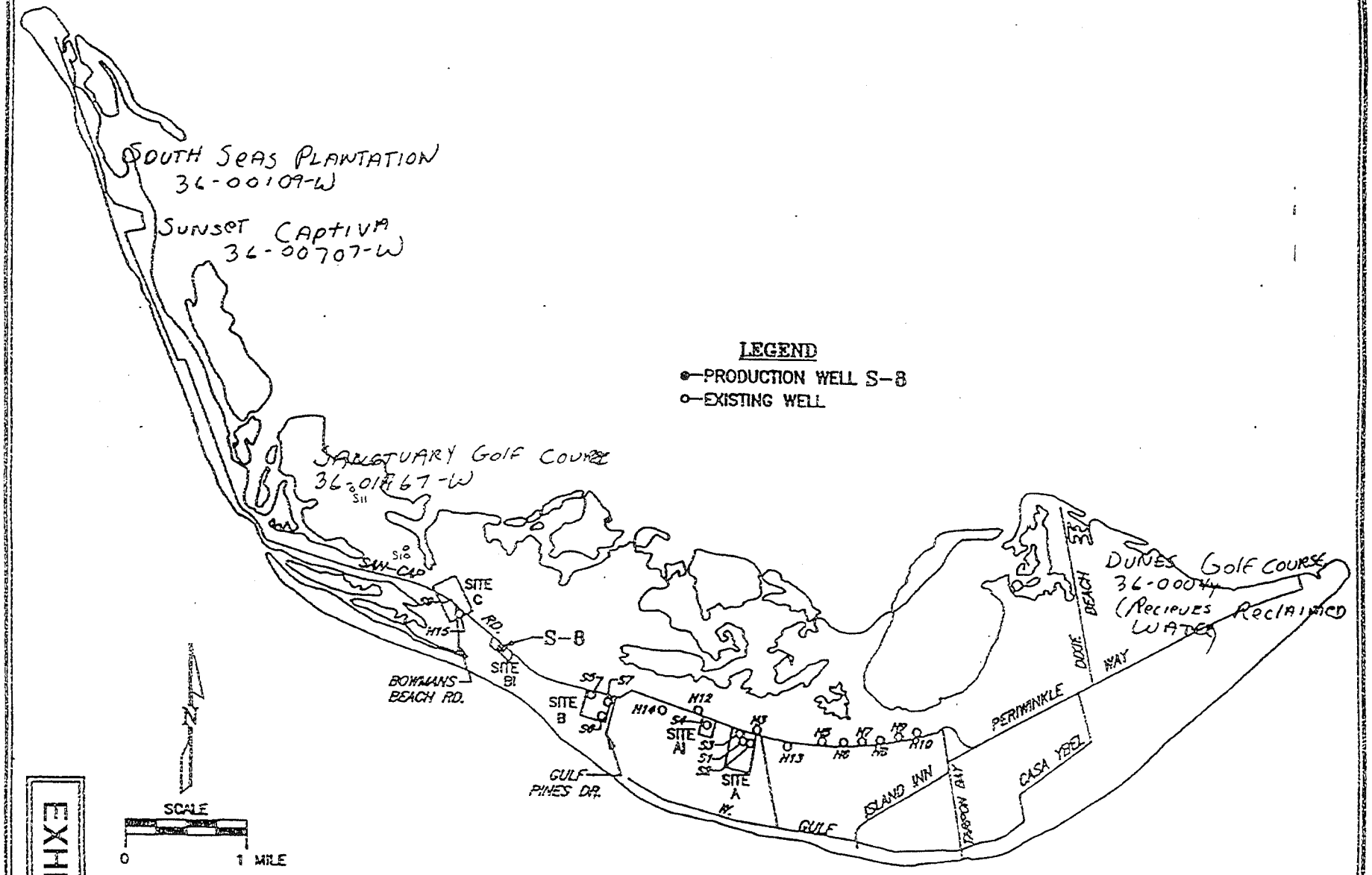


EXHIBIT 4

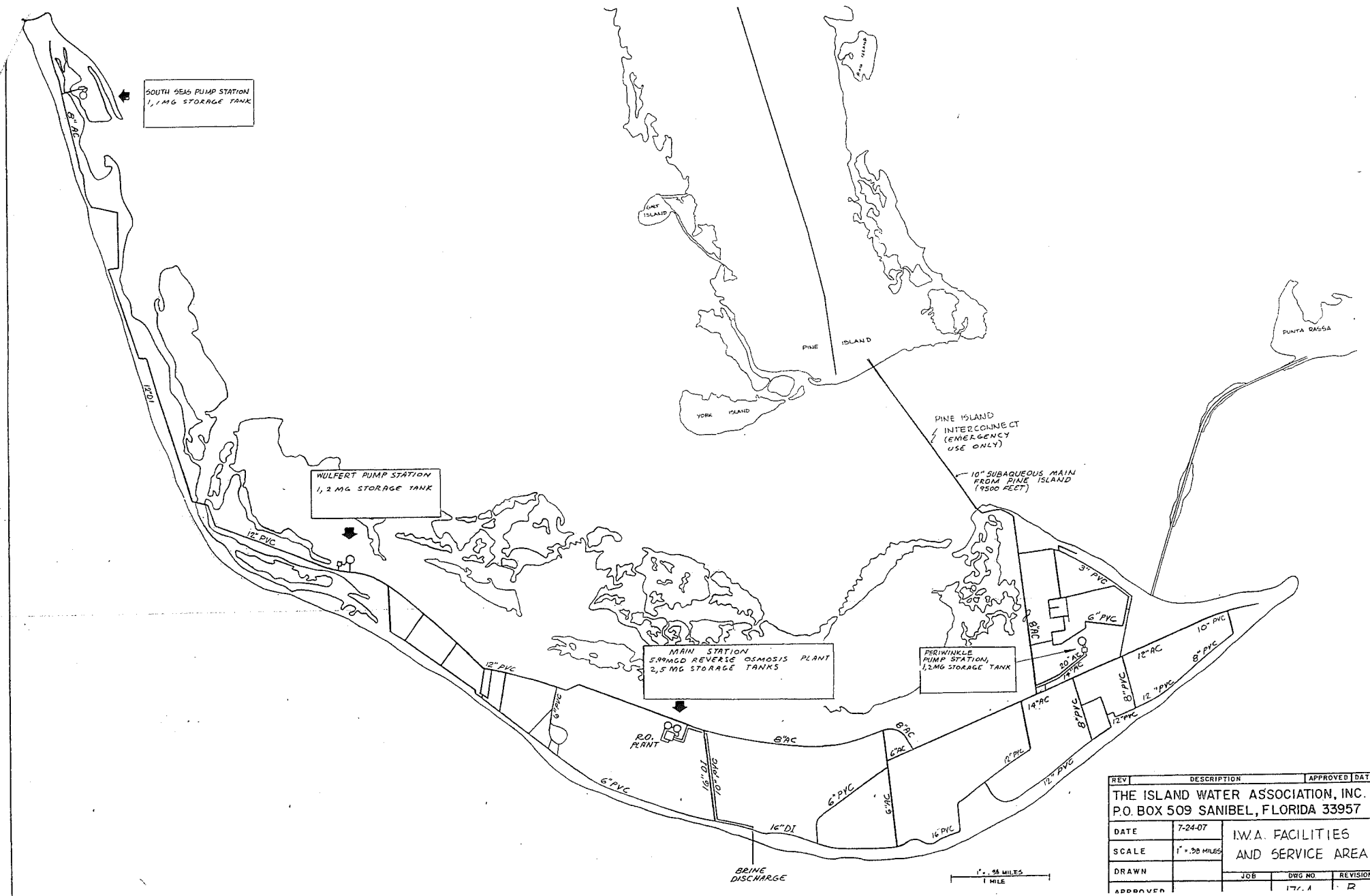
ENVIRONMENTAL AND GROUNDWATER SERVICES

DRN. BY: TWO DWG NO. A-C1629SIT-3 DATE: 4/7/92

PROJECT NAME: IWA S-8 WELL PROJECT NUMBER: CH1-629

Missimer & Associates, Inc.

FIGURE 2-1. MAP SHOWING THE LOCATION OF IWA PRODUCTION WELLS.



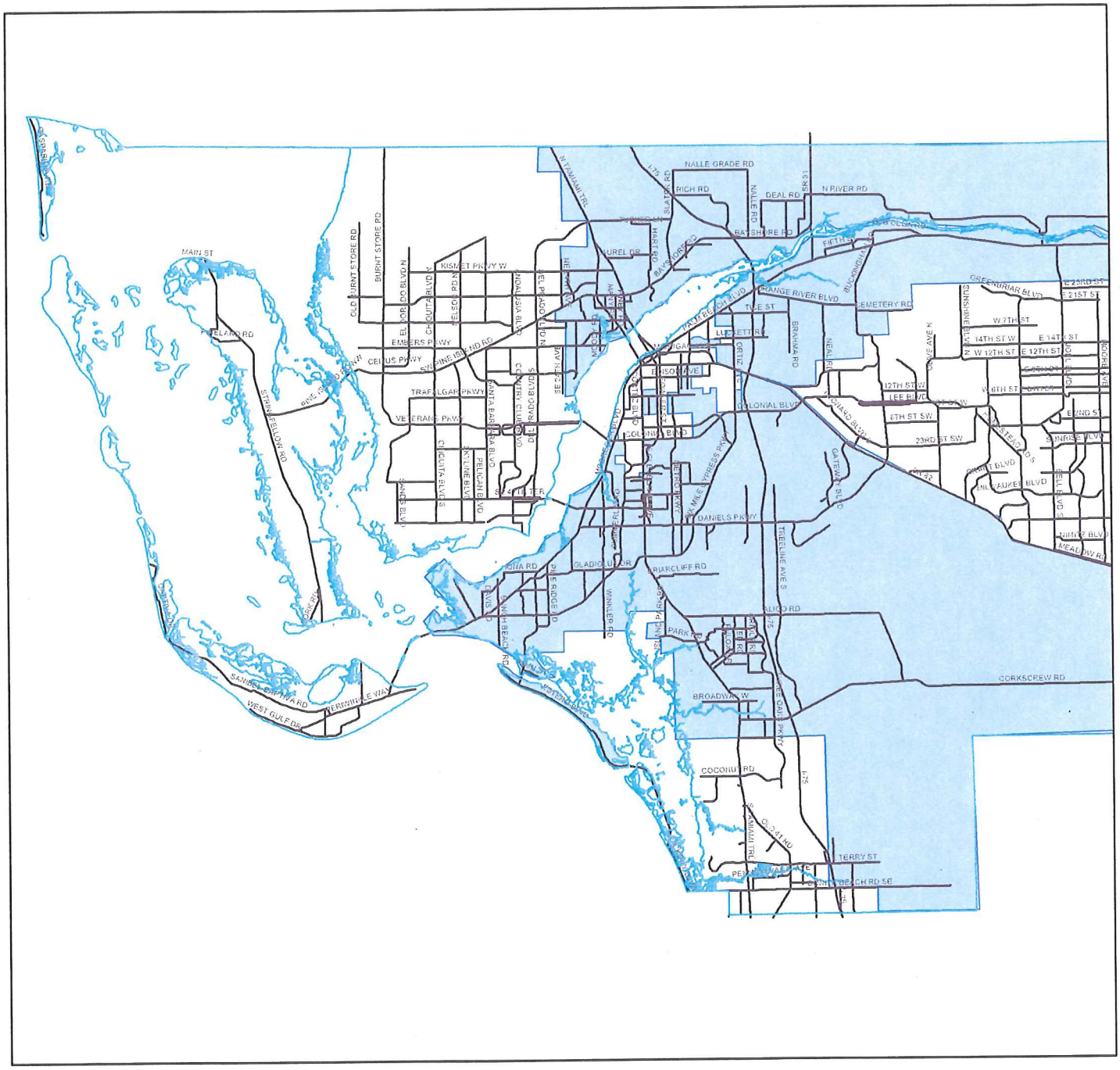
REV	DESCRIPTION	APPROVED	DATE

THE ISLAND WATER ASSOCIATION, INC.
P.O. BOX 509 SANIBEL, FLORIDA 33957

DATE	7-24-07	I.W.A. FACILITIES AND SERVICE AREA	
SCALE	1" = .38 MILES		
DRAWN		JOB	DWG NO. / REVISION
APPROVED			17C-1 / B

FIGURES

Figure 1
Lee County Utilities
Potential Service Area



N
W E
S

Legend

- sde.DOT.MajorRoads
- sde.GIS.CountyBoundary
- Potential Service Area

FIGURE 2

Lee County Utilities
Current Area Served

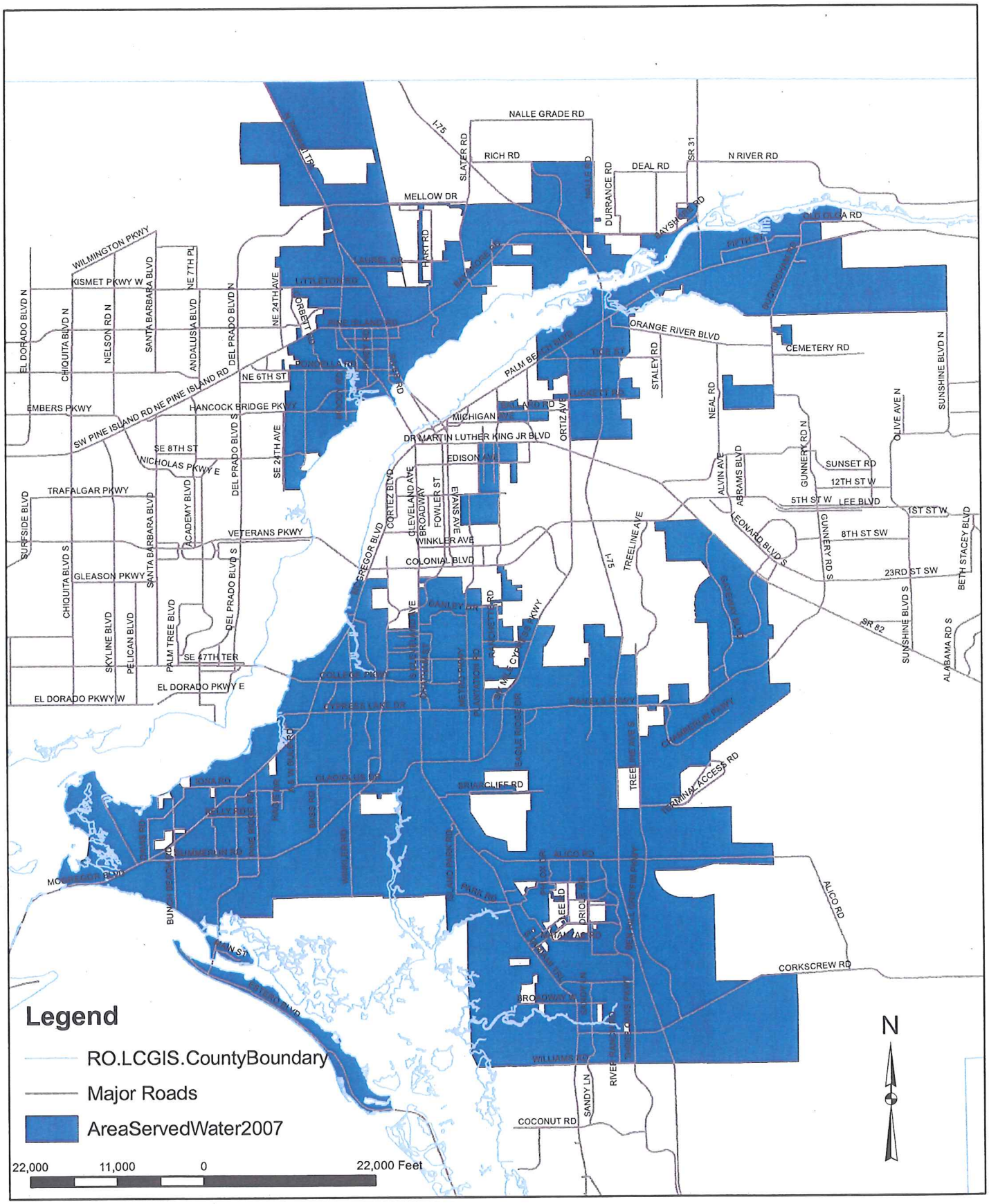


FIGURE 3

Lee County Utilities
Future Service Area

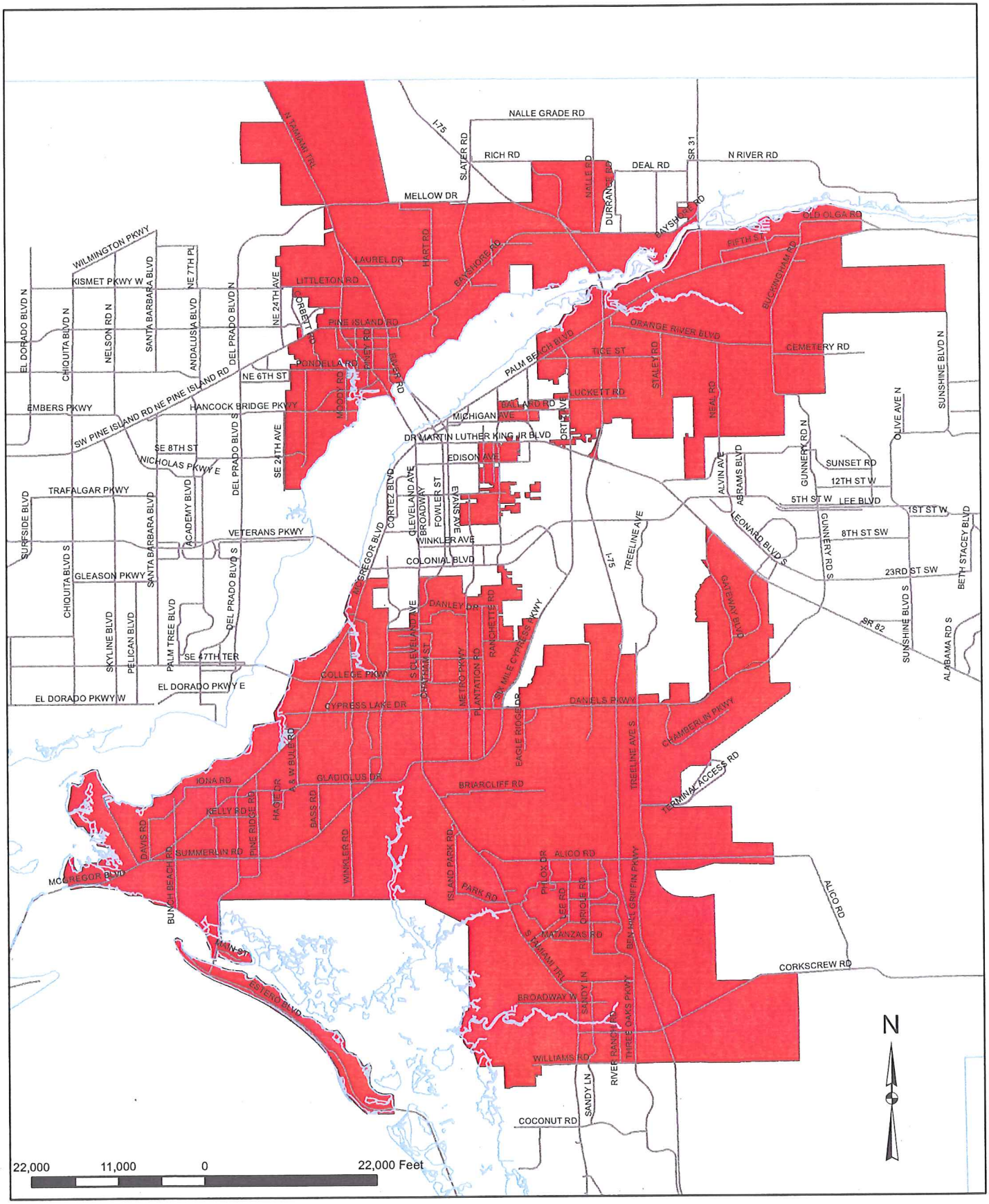


FIGURE 4
Lee County Utilities Water Treatment Facilities

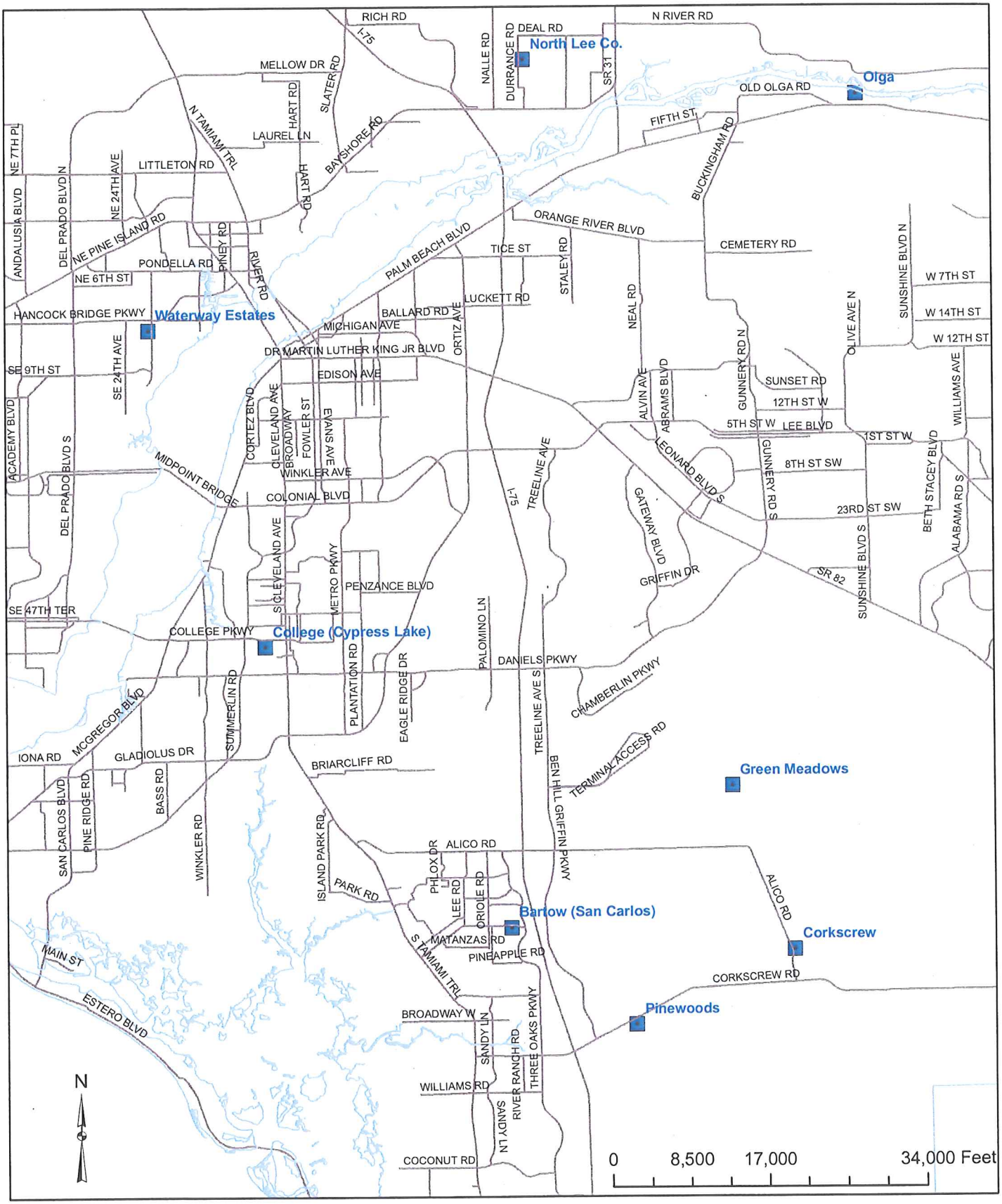


FIGURE 5

Corkscrew Wellfield

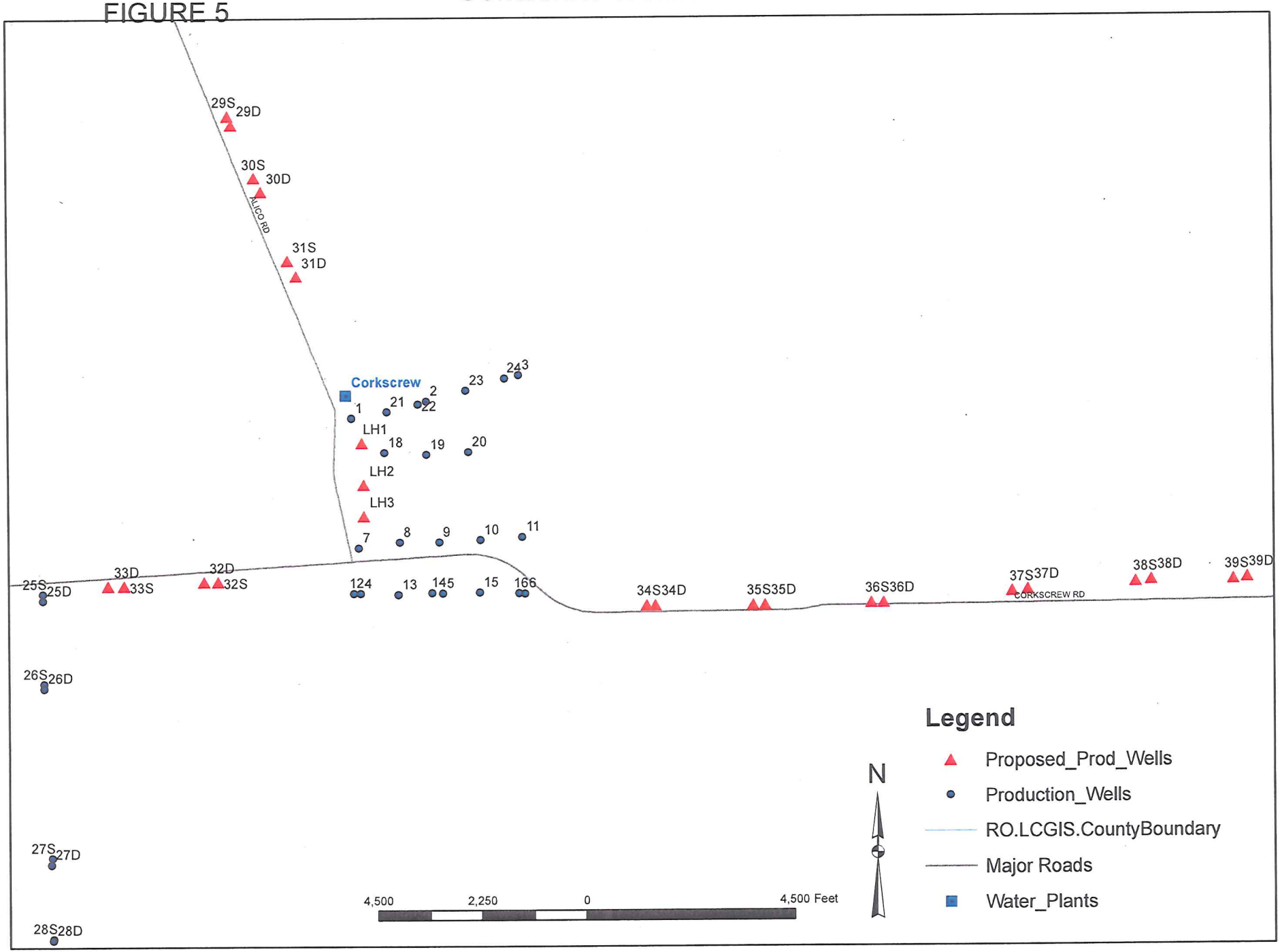
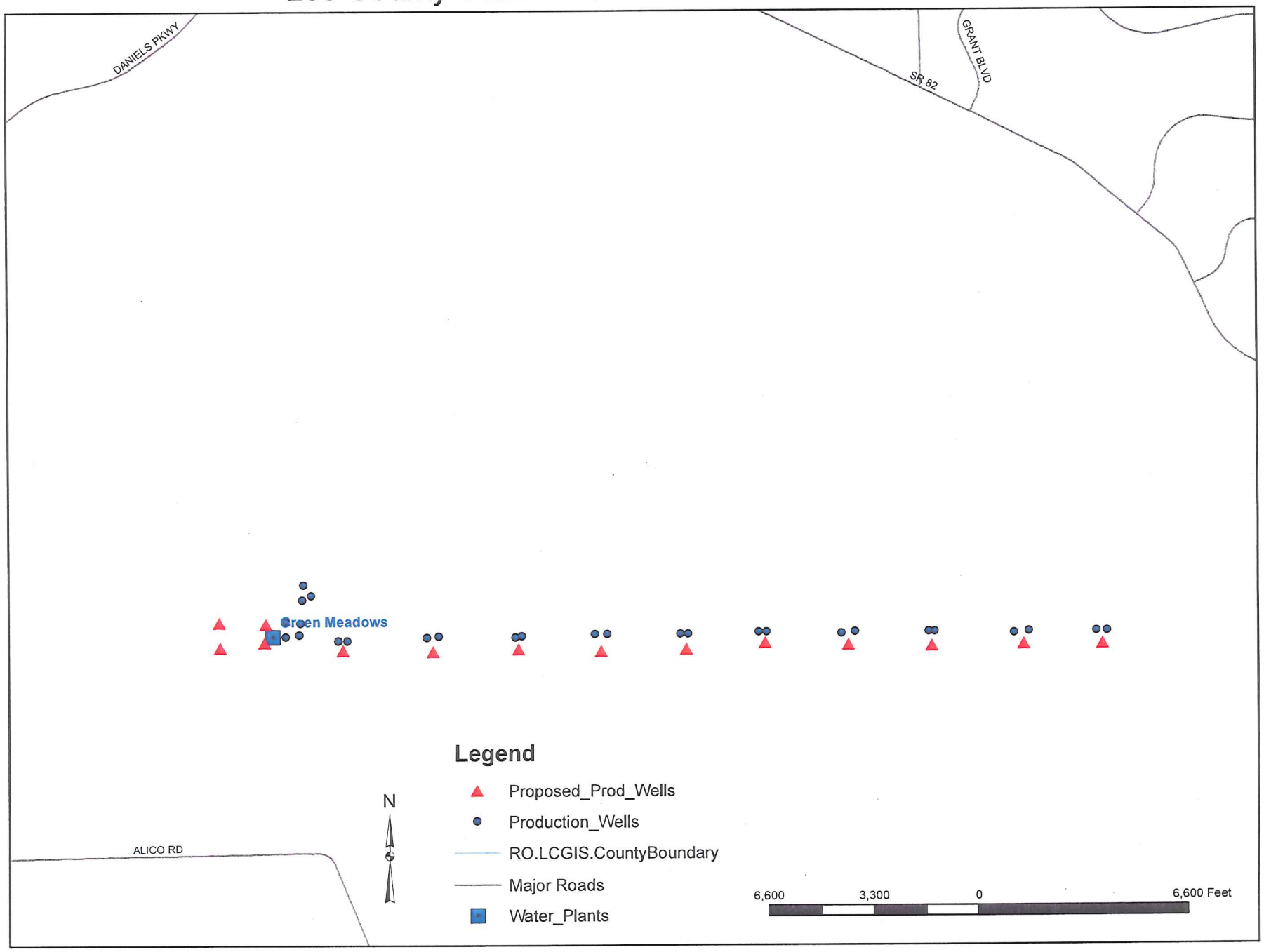
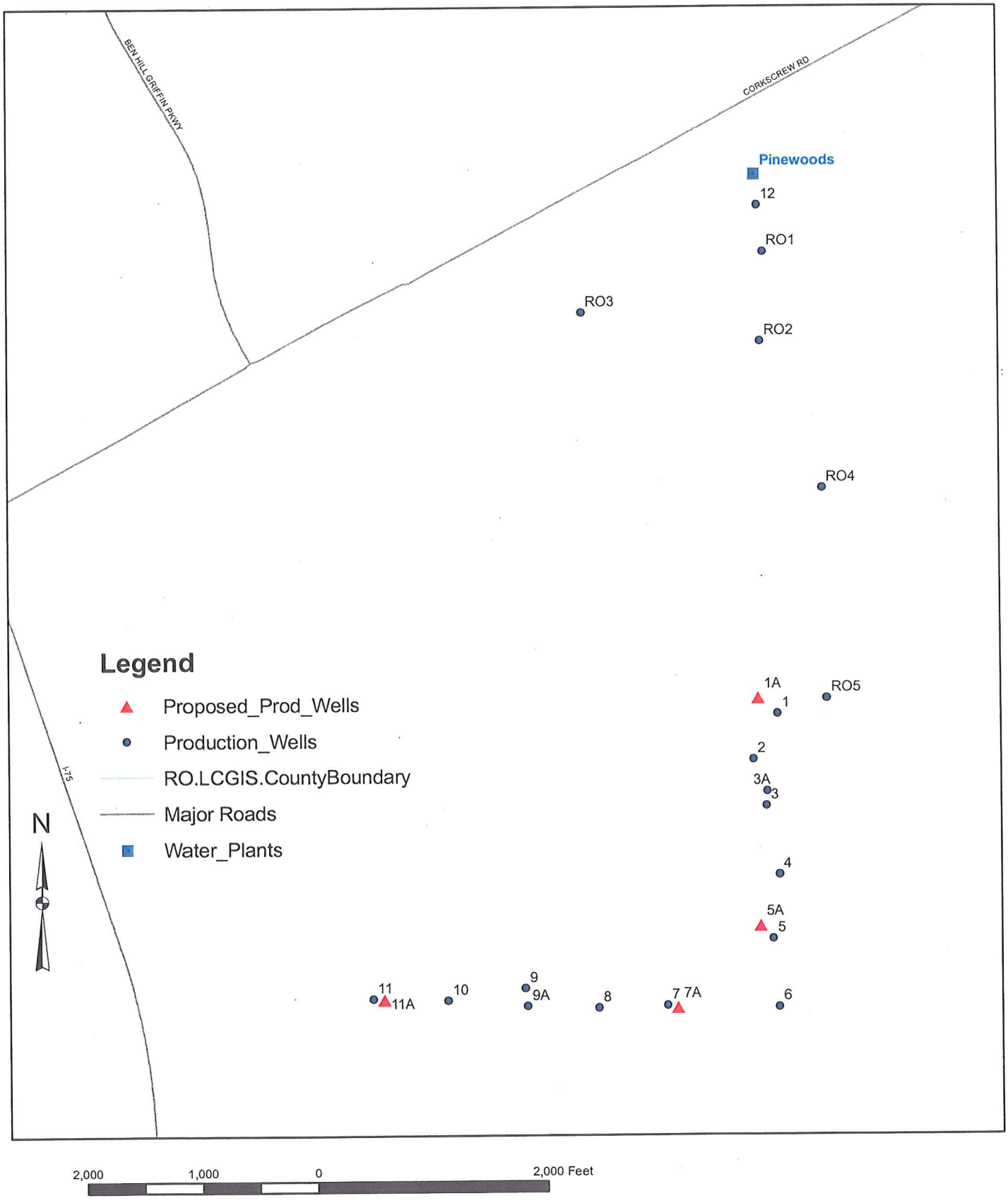


FIGURE 6
Lee County Utilities Green Meadows Wellfield



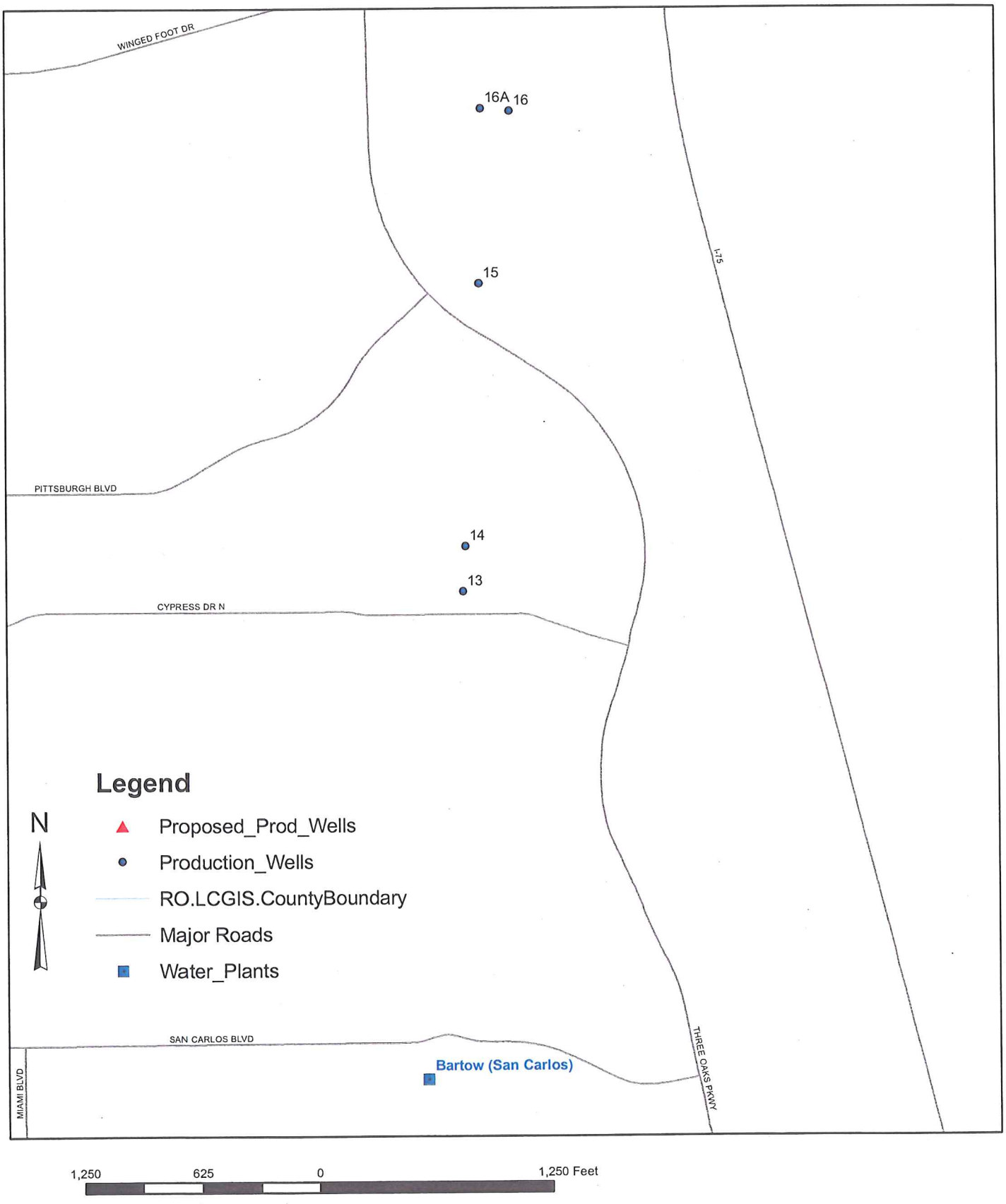
Pinewoods Wellfield

FIGURE 7



San Carlos / Bartow Wellfield

FIGURE 8



Waterway Estates Wellfield

FIGURE 10

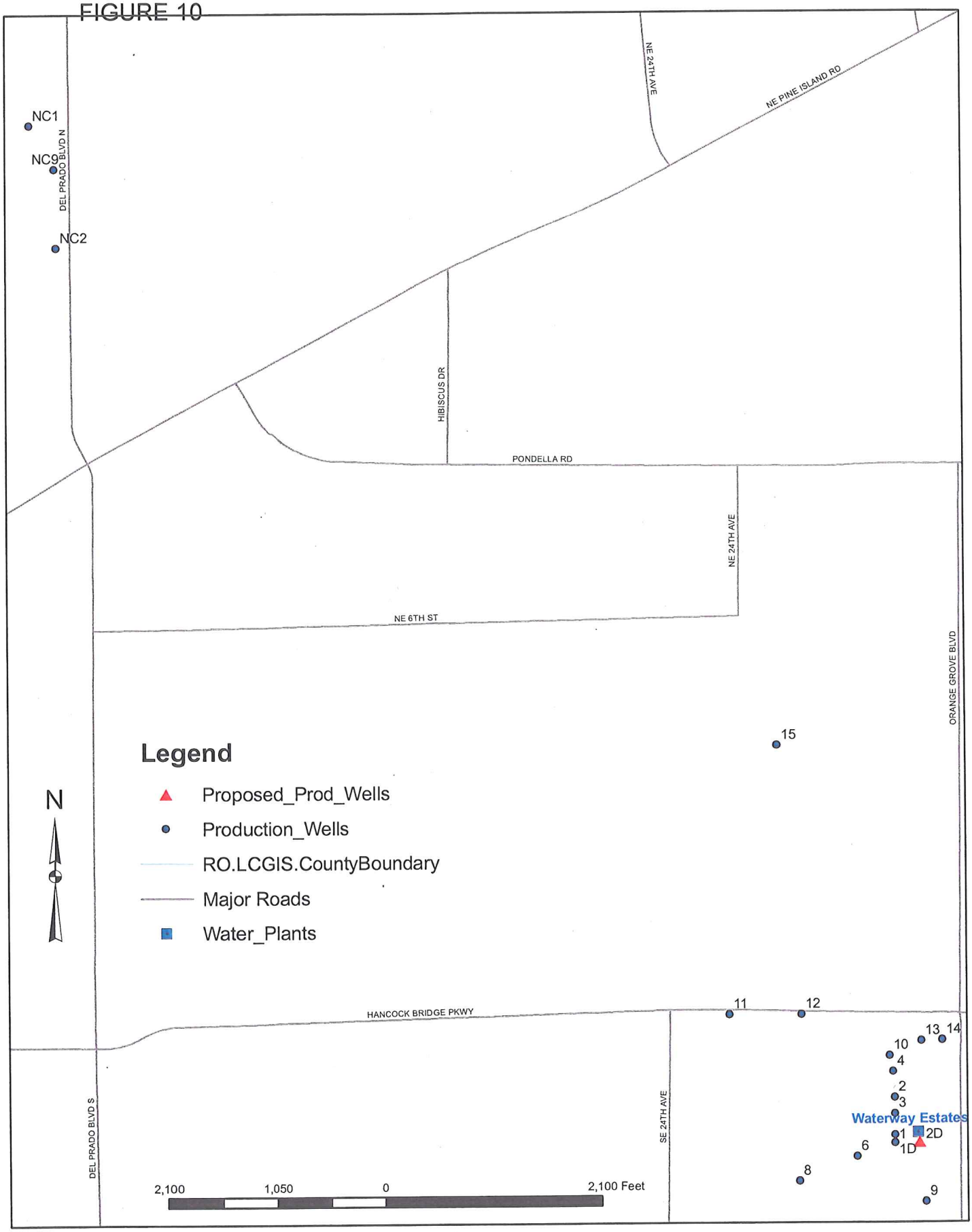


FIGURE 11
North Lee County Existing and Proposed Wellls

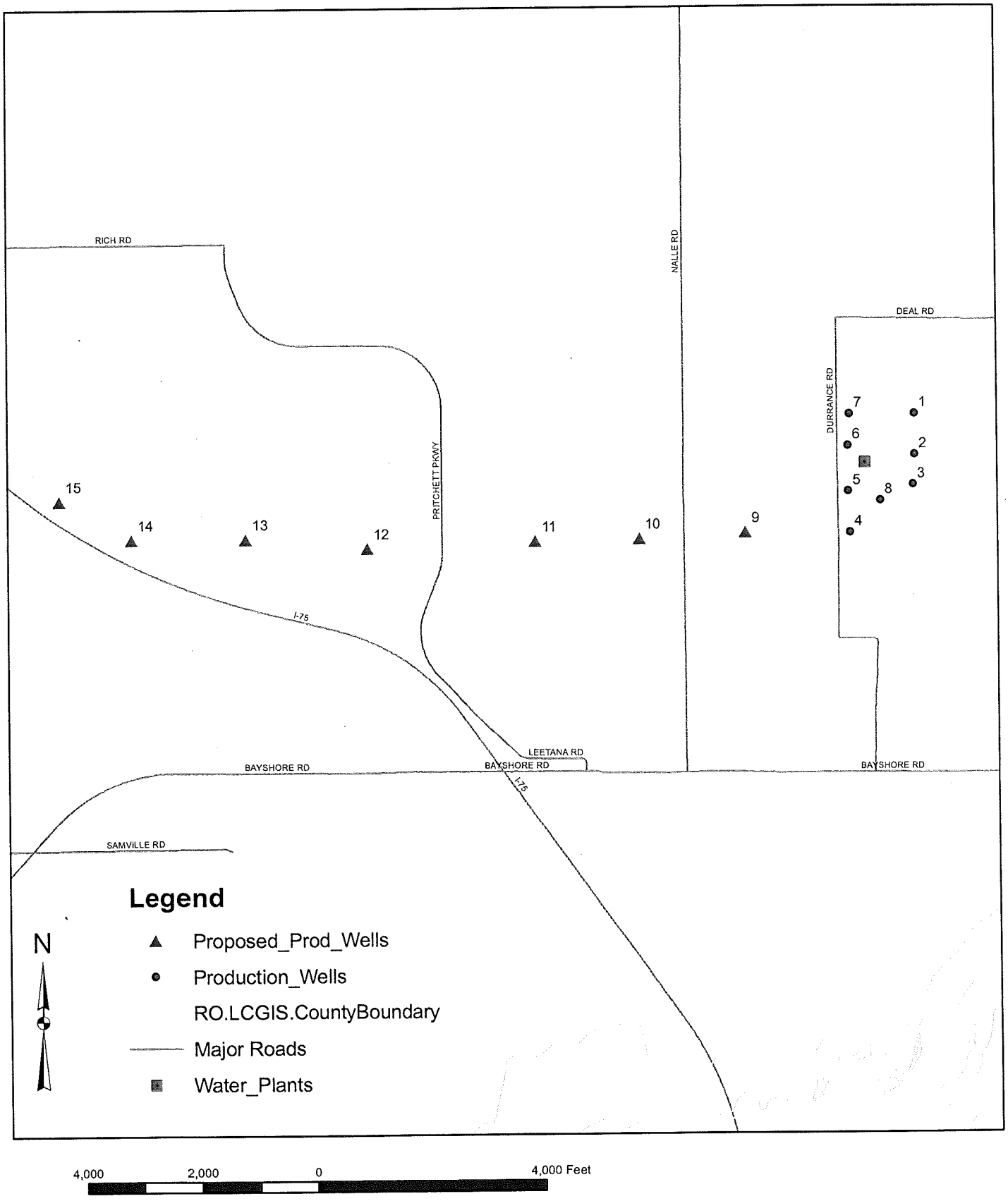


FIGURE 13
Lee County Utilities Storage Facilities

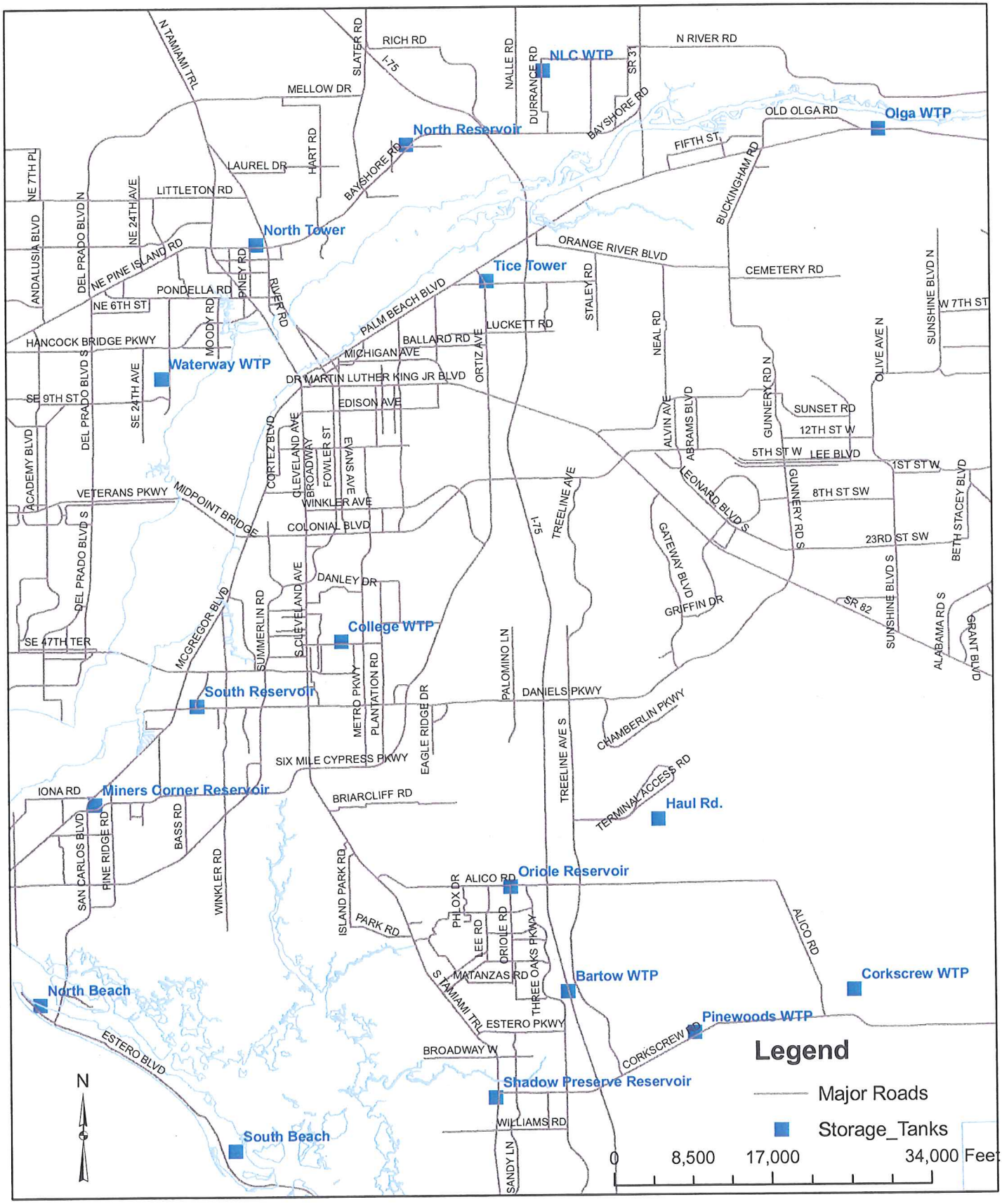


FIGURE 14
Lee County Utilities Corkscrew ASR Wells

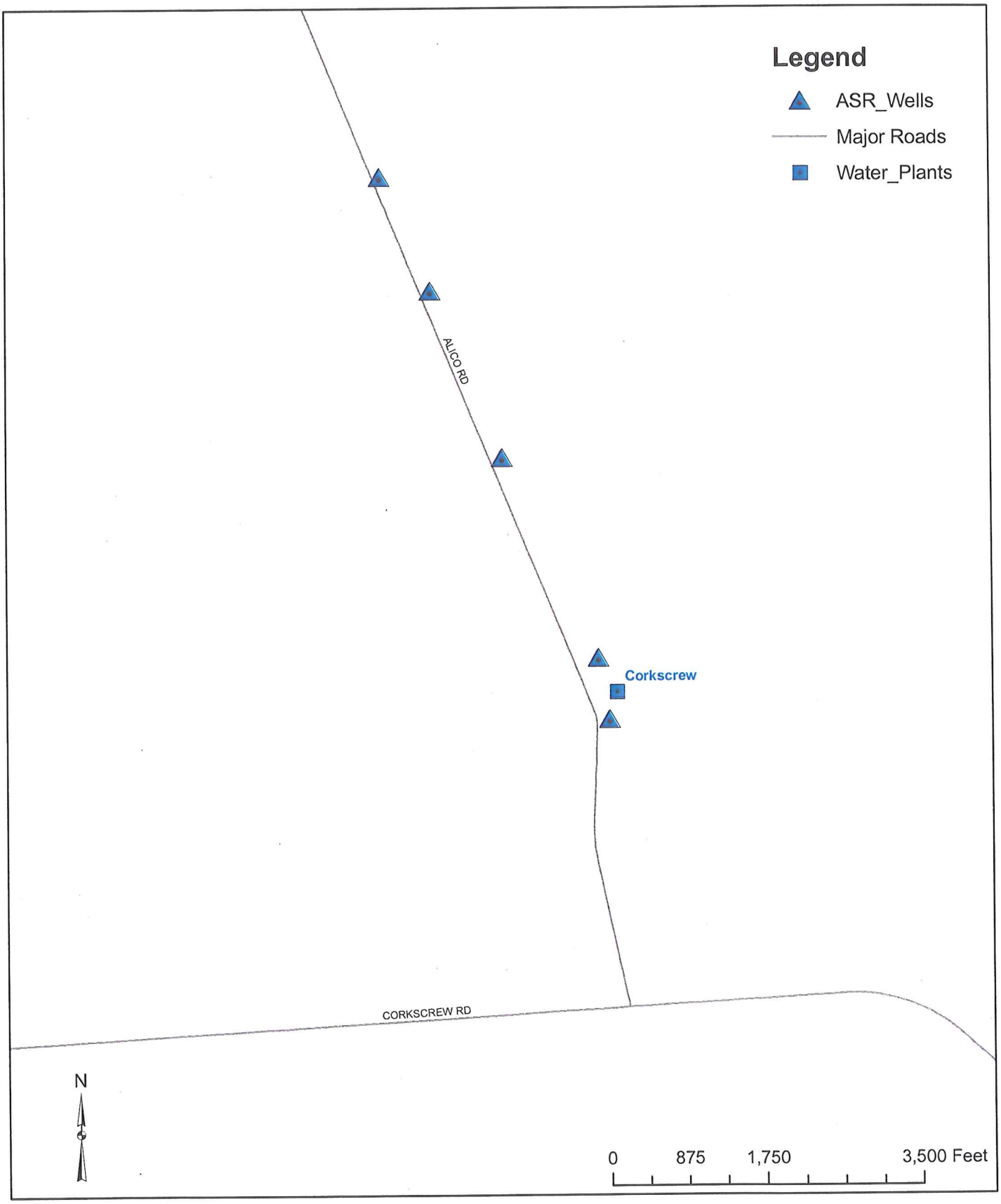


Figure 15
Wastewater Plants & Reuse Lines

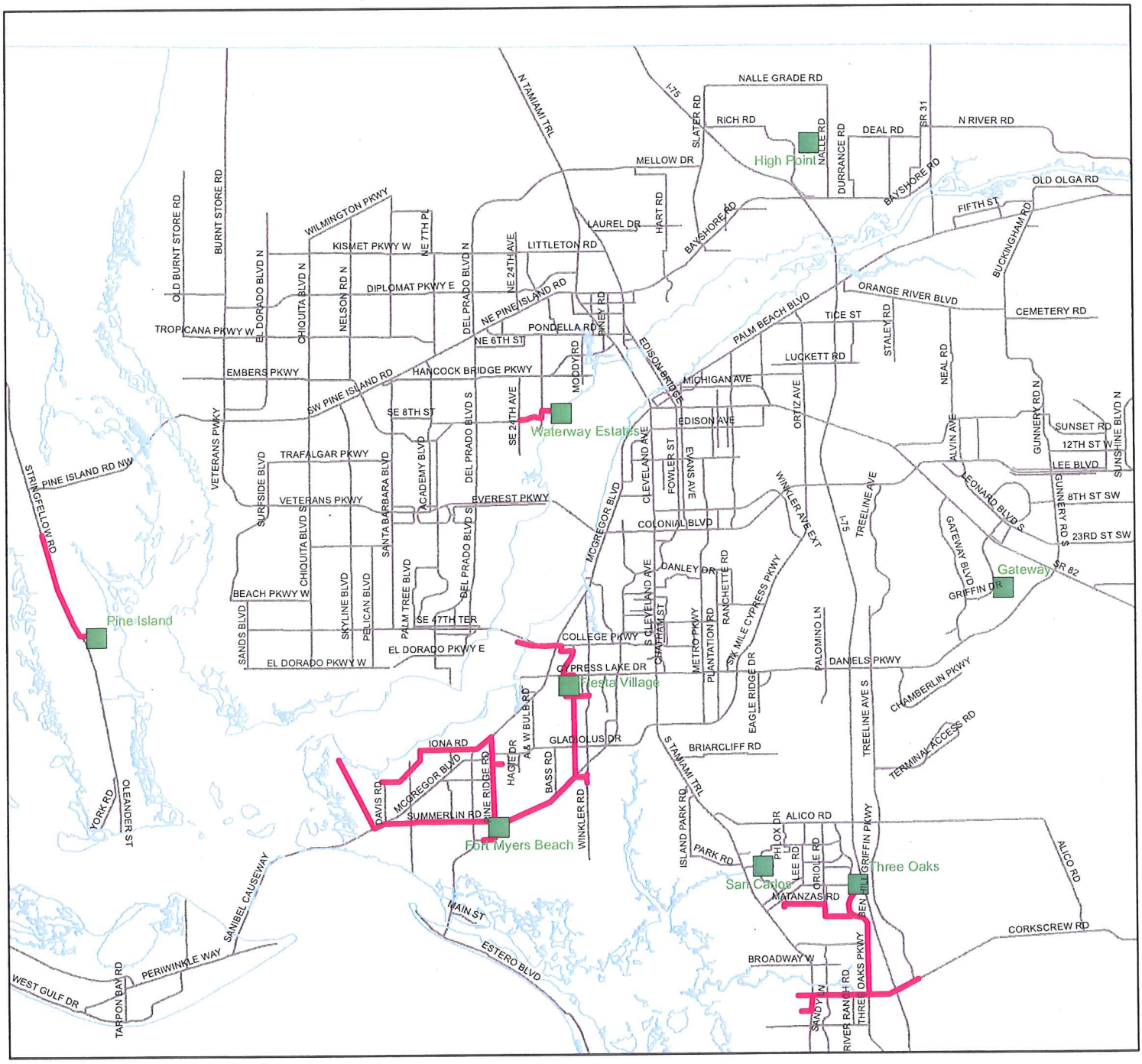


Figure 16
Fort Myers Beach WWTP
& Fiesta VillageWWTP Reuse Lines

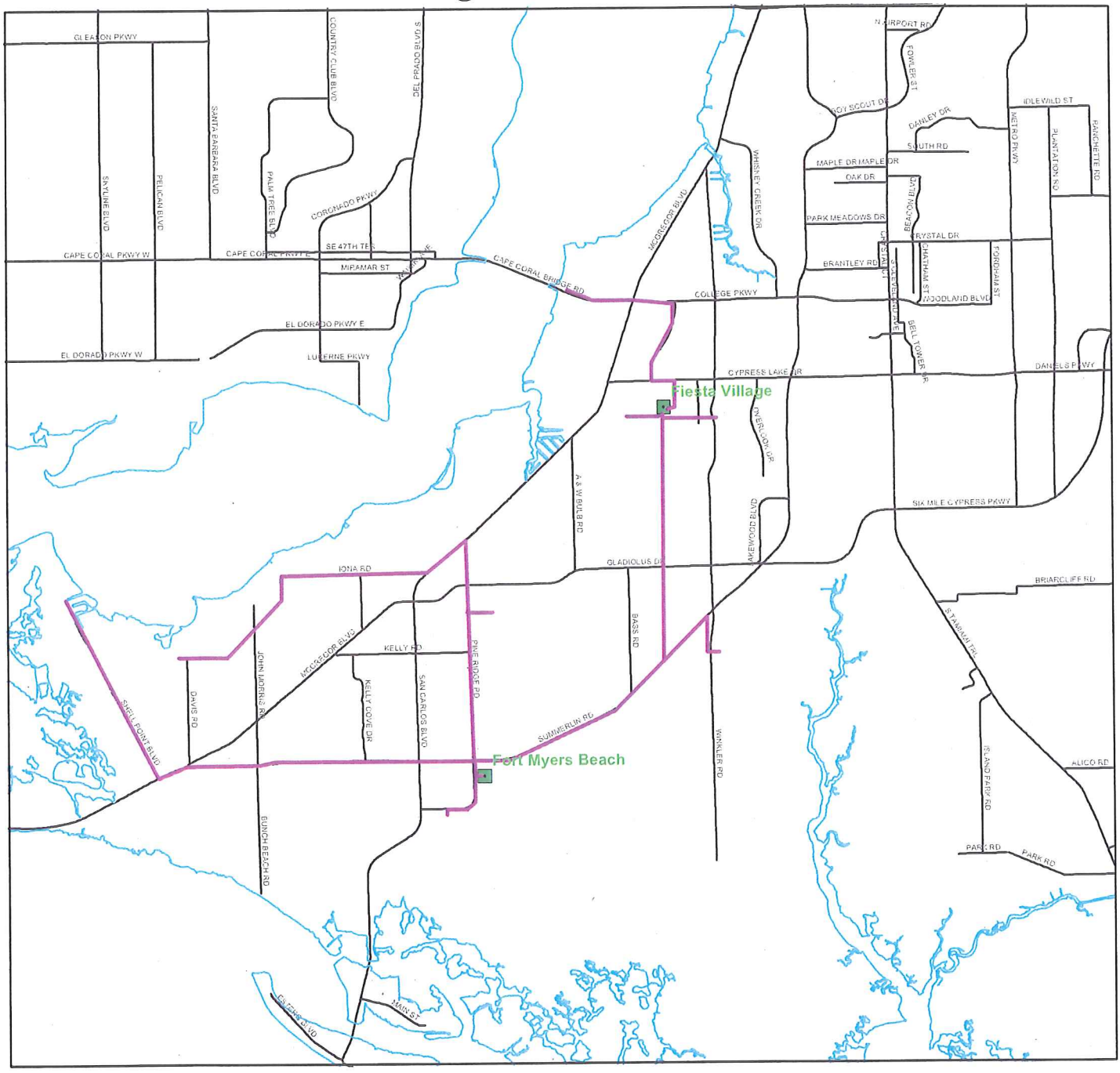


FIGURE 17
Lee County Utilities Waterway Estates Reuse

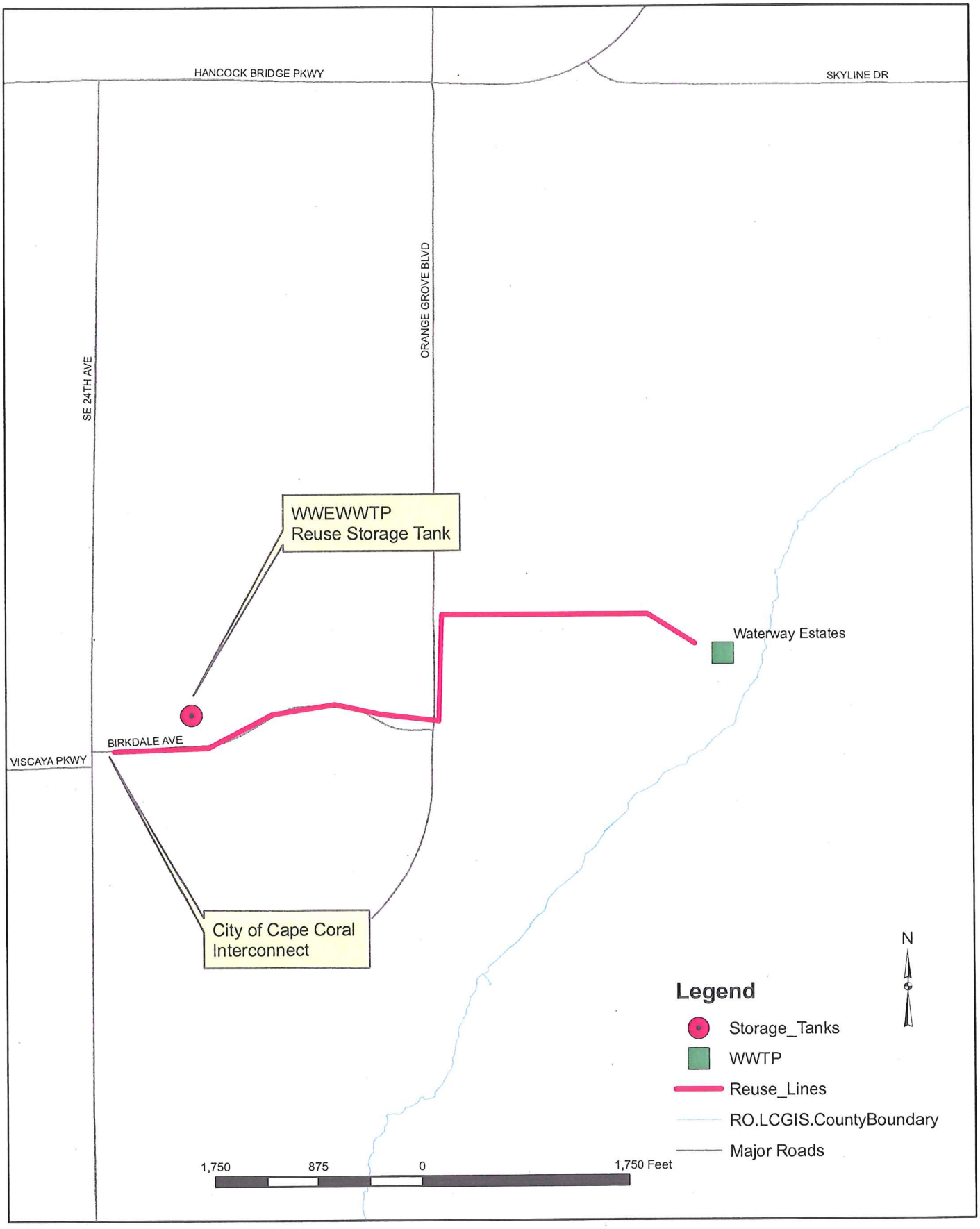
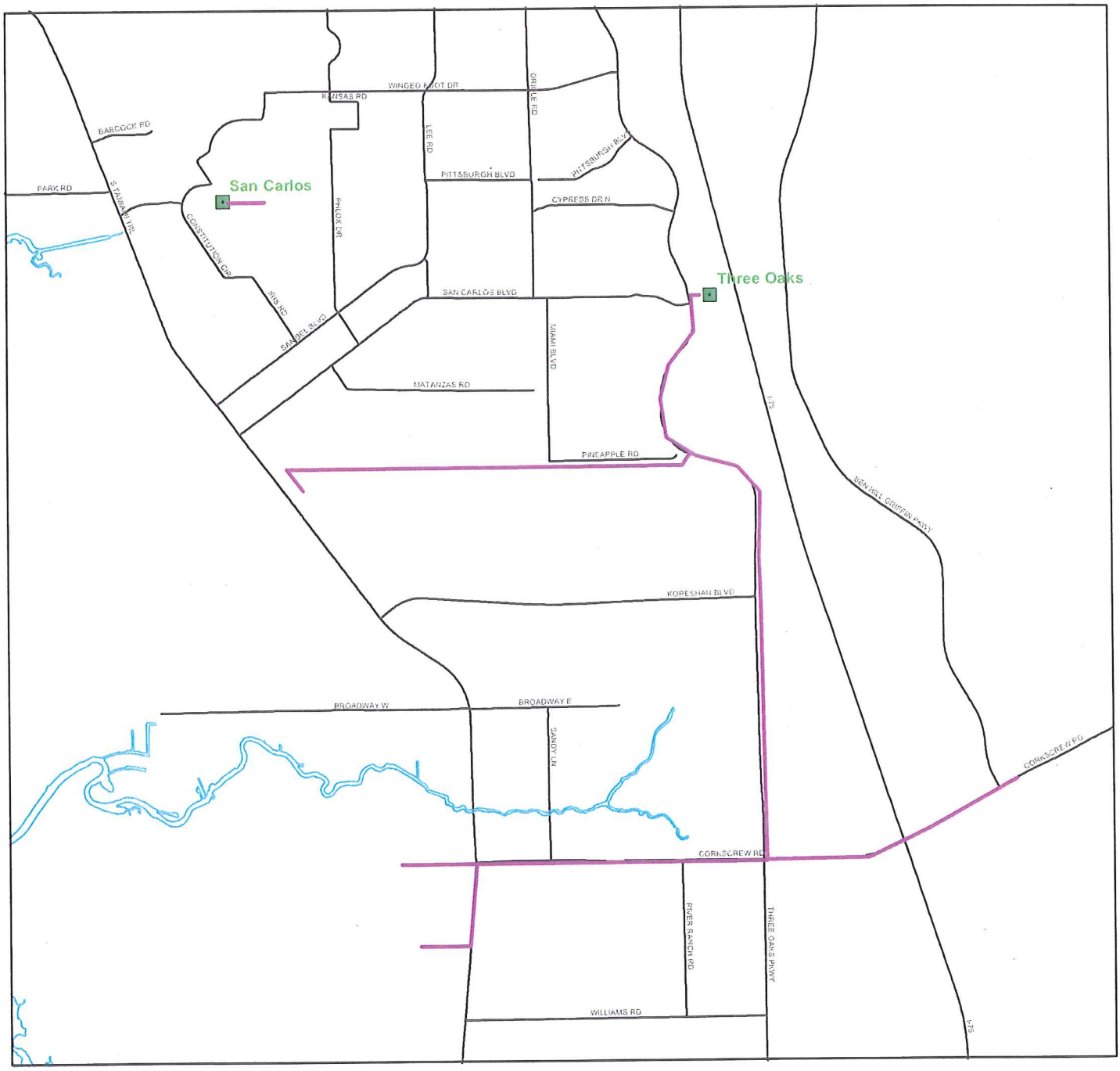


Figure 18
Three Oaks WWTP
& San Carlos WWTP Reuse Lines



TABLES

TABLE 2

Potable Water Storage Facilities

Name	Existing / Proposed	Type	Material	Capacity Million Gallons
North Tower	E	Elevated Tank	Steel	0.2
North Reservoir	E	Ground Storage	Concrete	2.0
South Reservoir	E	Ground Storage	Concrete	2.0
Tice Tower	E	Elevated Tank	Steel	0.3
Miners Corner Reservoir	E	Ground Storage	Concrete	2.0
Alico Reservoir	E	Ground Storage	Concrete	1.0
41 Reservoir	E	Ground Storage	Steel	1.0
Airport Haul Road	E	Ground Storage	Concrete	10.0
North Lee County WTP	E	Ground Storage	Concrete	5.0
Olga WTP	E	Ground Storage	Concrete	1.0
Corkscrew WTP	E	Ground Storage	Concrete	2.0
South Beach Tank	E	Ground Storage	Concrete	1.0
North Beach Tank	E	Ground Storage	Concrete	0.5
Waterway Estates WTP	E	Ground Storage	Concrete	1.0
College Pkwy WTP	E	Ground Storage	Concrete	1.5
Pinewoods WTP	E	Ground Storage	Concrete	2.0
Bartow WTP	E	Ground Storage	Concrete	0.5
Total System Storage				**33.0**

TABLE 3
CORKSCREW WELLFIELD
DESCRIPTION OF WELLS
EXISTING WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Capacity	Active	Year Drilled
1	E	12	243	132	open hole	500	Yes	2007
2	E	12	305	209	open hole	500	Yes	2004
3	E	12	305	209	open hole	500	Yes	2004
4	E	12	305	209	open hole	500	Yes	2004
5	E	12	305	209	open hole	500	Yes	2004
6	E	12	305	209	open hole	500	Yes	2004
7	E	12	135	45	45-130	500	Yes	1980
8	E	12	145	60	60-140	500	Yes	1980
9	E	12	145	55	55-140	500	Yes	1980
10	E	12	156	60	60-150	500	Yes	1980
11	E	12	155	55	55-145	500	Yes	1980
12	E	12	145	50	50-140	500	Yes	1980
13	E	12	140	50	50-135	500	Yes	1980
14	E	12	150	50	50-145	500	Yes	1980
15	E	12	150	58	58-145	500	Yes	1980
16	E	12	155	76	76-149	500	Yes	1980
18	E	12	115	45	45-105	500	Yes	1980
19	E	12	120	50	50-110	500	Yes	1980
20	E	12	120	50	50-110	500	Yes	1980
21	E	12	105	35	35-95	500	Yes	1980
22	E	12	110	40	40-100	500	Yes	1980
23	E	12	115	45	45-105	500	Yes	1980
24	E	12	120	50	50-110	500	Yes	1982
25S	E	12	80	30	30-60	500	Yes	1998
26S	E	12	80	30	30-70	500	Yes	1998
27S	E	12	80	30	30-70	500	Yes	1998
28S	E	12	85	30	30-75	500	Yes	1998
25D	E	12	180	115	115-170	350	Yes	1998
26D	E	12	170	120	120-160	350	Yes	1998
27D	E	12	170	120	120-160	350	Yes	1998
28D	E	12	185	125	125-175	350	Yes	1998

PROPOSED WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Capacity	Active	Year Drilled
29S	P	12	130	40	N/A	400	No	2008
29D	P	12	250	150	N/A	500	No	2008
30S	P	12	130	40	N/A	400	No	2008
30D	P	12	250	150	N/A	500	No	2008
31S	P	12	130	40	N/A	400	No	2008
31D	P	12	250	150	N/A	500	No	2008
32S	E	12	89	40	N/A	400	No	2008
32D	E	12	292	79	N/A	500	No	2008
33S	E	12	79	40	N/A	400	No	2008
33D	E	12	238	130	N/A	500	No	2008
34S	P	12	130	40	N/A	400	No	2008
34D	P	12	300	215	N/A	500	No	2008
35S	P	12	130	40	N/A	400	No	2008
35D	P	12	295	210	N/A	500	No	2008
36S	P	12	130	40	N/A	400	No	2008
36D	P	12	290	190	N/A	500	No	2008
37S	P	12	130	40	N/A	400	No	2008
37D	E	12	217	183	N/A	500	No	2008
38S	P	12	130	40	N/A	400	No	2008
38D	P	12	286	185	N/A	500	No	2008
39S	P	12	130	40	N/A	400	No	2008
39D	P	12	280	180	N/A	500	No	2008
40	P	12	820	700	N/A	1000	No	2008
41	E	12	810	699	open hole	1000	No	2008

TABLE 4
GREEN MEADOWS WELLFIELD
DESCRIPTION OF WELLS

EXISTING WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
1	E	16	160	95	N/A	N/A	500	Yes	1974	Flow Meter
1D	E	10	38	20	N/A	N/A	500	Yes	1983	Flow Meter
2	E	16	182	99	N/A	N/A	500	Yes	1974	Flow Meter
2A	E	10	36	20	N/A	N/A	500	Yes	1983	Flow Meter
3	E	16	195	100	N/A	N/A	500	Yes	1975	Flow Meter
3A	E	10	42	23	N/A	N/A	500	Yes	1983	Flow Meter
3B	E	10	42	23	N/A	N/A	500	Yes	1983	Flow Meter
4	E	16	185	104	N/A	N/A	500	Yes	1978	Flow Meter
4A	E	10	43	20	N/A	N/A	500	Yes	1983	Flow Meter
5	E	16	185	104	N/A	N/A	500	Yes	1977	Flow Meter
5A	E	10	24	20	N/A	N/A	200	Yes	1991	Flow Meter
6	E	16	235	90	N/A	N/A	500	Yes	1981	Flow Meter
6A	E	10	40	18	N/A	N/A	200	Yes	1991	Flow Meter
7	E	16	235	90	145	N/A	500	Yes	1981	Flow Meter
7A	E	10	36	18	N/A	N/A	200	Yes	1990	Flow Meter
8	E	16	235	91	N/A	N/A	500	Yes	1989	Flow Meter
8A	E	10	42	20	N/A	N/A	500	Yes	1989	Flow Meter
9	E	16	120	91	N/A	N/A	500	Yes	1981	Flow Meter
9A	E	10	42	20	N/A	N/A	500	Yes	1983	Flow Meter
10	E	18	200	97	N/A	N/A	500	Yes	1989	Flow Meter
10A	E	10	42	18	N/A	N/A	200	Yes	1989	Flow Meter
11	E	10	185	115	N/A	N/A	500	Yes	1989	Flow Meter
11A	E	10	60	23	N/A	N/A	200	Yes	1989	Flow Meter
12	E	10	212	142	N/A	N/A	500	Yes	1990	Flow Meter
12A	E	10	40	21	N/A	N/A	200	Yes	1990	Flow Meter
13	E	10	210	140	N/A	N/A	500	Yes	1990	Flow Meter
13A	E	10	40	20	N/A	N/A	200	Yes	1990	Flow Meter

PROPOSED WELLS IN EXISTING PERMIT

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Proposed Year Drilled	Meter Type
15	P	12	200	100	N/A	N/A	500	No	N/A	N/A
15A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
16	P	12	200	100	N/A	N/A	500	No	N/A	N/A
16A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
17	P	12	200	100	N/A	N/A	500	No	N/A	N/A
17A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
18	P	12	200	100	N/A	N/A	500	No	N/A	N/A
18A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
19	P	12	200	100	N/A	N/A	500	No	N/A	N/A
19A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
20	P	12	200	100	N/A	N/A	500	No	N/A	N/A
20A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
21	P	12	200	100	N/A	N/A	500	No	N/A	N/A
21A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
22	P	12	200	100	N/A	N/A	500	No	N/A	N/A
22A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
23	P	12	200	100	N/A	N/A	500	No	N/A	N/A
23A	P	12	50	20	N/A	N/A	200	No	N/A	N/A
24	P	12	800	500	N/A	N/A	600	No	N/A	N/A
25	P	12	800	500	N/A	N/A	600	No	N/A	N/A
26	P	12	800	500	N/A	N/A	600	No	N/A	N/A

PROPOSED WELLS IN PROPOSED PERMIT

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Proposed Year Drilled	Meter Type
1F	P	14	850	650	N/A	100	700	No	2008	Flow Meter
2F	P	14	850	650	N/A	100	700	No	2008	Flow Meter
3F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
4F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
5F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
6F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
7F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
8F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
9F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
10F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
11F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
12F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
13F	P	14	850	650	N/A	100	700	No	2009	Flow Meter
15F	P	14	850	650	N/A	100	700	No	2009	Flow Meter

TABLE 5
PINEWOODS WELLFIELD
DESCRIPTION OF WELLS

EXISTING WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
1	E	16	31	16	N/A	N/A	450	Yes	1988	Flow Meter
2	E	16	40	19	N/A	N/A	450	Yes	1988	Flow Meter
3	E	16	40	19	N/A	N/A	450	Yes	1988	Flow Meter
4	E	16	39	19	N/A	N/A	450	Yes	1988	Flow Meter
5	E	16	42	20	N/A	N/A	450	Yes	1988	Flow Meter
6	E	16	32	22	N/A	N/A	450	Yes	1988	Flow Meter
7	E	16	39	19	N/A	N/A	450	Yes	1988	Flow Meter
8	E	16	30	20	N/A	N/A	450	Yes	1988	Flow Meter
9	E	16	30	21	N/A	N/A	450	Yes	1988	Flow Meter
10	E	16	30	18	N/A	N/A	450	Yes	1988	Flow Meter
11	E	16	30	17	N/A	N/A	450	Yes	1988	Flow Meter
12	E	6	123	83	N/A	N/A	75	Yes	1990	Flow Meter
9A	E	8	171	85	85-125	N/A	75	Yes	2001	Flow Meter
3A	E	8	138	85	N/A	N/A	75	Yes	2002	Flow Meter
RO-1	E	14	651	603	N/A	N/A	700	Yes	2003	Flow Meter
RO-2	E	14	700	550	N/A	N/A	700	Yes	2007	Flow Meter
RO-3	E	14	700	550	N/A	N/A	700	Yes	2007	Flow Meter
RO-4	E	14	700	550	N/A	N/A	700	Yes	2007	Flow Meter
RO-5	E	14	700	550	N/A	N/A	700	Yes	2007	Flow Meter

PROPOSED WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
1A	P	8	200	85	N/A	N/A	75	No	N/A	N/A
5A	P	8	200	85	85-125	N/A	75	No	N/A	N/A
7A	P	8	200	85	85-125	N/A	75	No	N/A	N/A
11A	P	8	200	85	85-125	N/A	75	No	N/A	N/A

SAN CARLOS WELLFIELD
DESCRIPTION OF WELLS

EXISTING WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
13	E	8	41	19	N/A	N/A	500	Standby	1988	Flow Meter
14	E	8	45	22	N/A	N/A	500	Standby	1984	Flow Meter
15	E	8	40	18	N/A	N/A	500	Standby	1980	Flow Meter
16	E	8	40	19	N/A	N/A	N/A	No	1980	Flow Meter
16A	E	8	40	22	N/A	N/A	375	Standby	2000	Flow Meter

TABLE 7
WATERWAY ESTATES WELLFIELD
DESCRIPTION OF WELLS

EXISTING WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Capacity	Active	Year Drilled	Meter Type
1	E	8	48	30	40	Yes	1957	Flow Meter
2	E	8	57	42	75	Yes	1957	Flow Meter
3	E	6	130	130	30	Yes	1966	Flow Meter
4	E	8	48	14	50	Yes	1966	Flow Meter
6	E	8	205	124	45	Yes	1971	Flow Meter
8	E	8	43	13	40	Yes	1976	Flow Meter
9	E	8	230	125	50	Yes	1971	Flow Meter
10	E	8	235	134	30	Yes	1972	Flow Meter
11	E	10	230	130	85	Yes	1983	Flow Meter
12	E	10	60	40	60	Yes	1983	Flow Meter
13	E	10	80	50	30	Yes	1983	Flow Meter
14	E	10	230	136	85	Yes	1982	Flow Meter
15	E	8	208	160	65	Yes	1988	Flow Meter
NC-1	E	8	240	140	70	Yes	1970	Flow Meter
NC-2	E	8	240	140	85	Yes	1975	Flow Meter
NC-9	E	8	225	164	110	Yes	1975	Flow Meter
1D	E	4	600	300	100	Yes	1989	Flow Meter

PROPOSED WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Capacity	Active	Year Drilled	Meter Type
2D	P	12	600	300	N/A	No	N/A	N/A

TABLE 8
NORTH LEE COUNTY WELLFIELD
DESCRIPTION OF WELLS

EXISTING WELLS

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
1	E	17	637	500	N/A	120	700	Yes	2003	Flowmeter
2	E	17	700	493	N/A	120	700	Yes	2003	Flowmeter
3	E	17	592	441	N/A	120	800	Yes	2003	Flowmeter
4	E	17	653	451	N/A	120	780	Yes	2003	Flowmeter
5	E	17	670	500	N/A	120	550	Yes	2003	Flowmeter
6	E	17	700	475	N/A	N/A	Plug&Aban	No	2003	Flowmeter
7	E	17	700	478	N/A	140	500	Yes	2002	Flowmeter
8	E	17	600	470	N/A	120	670	Yes	2003	Flowmeter

PROPOSED WELLS IN EXISTING PERMIT

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
9	P	12	N/A	N/A	N/A	N/A	580	N/A	2008	N/A
10	P	12	N/A	N/A	N/A	N/A	580	N/A	2008	N/A
11	P	12	N/A	N/A	N/A	N/A	580	N/A	2008	N/A
12	P	12	N/A	N/A	N/A	N/A	580	N/A	2008	N/A

PROPOSED WELLS IN PROPOSED PERMIT

Well #	Existing / Proposed	Diameter	Total Depth	Cased Depth	Screen Interval	Intake Depth	Capacity	Active	Year Drilled	Meter Type
9	P	17	700	500	N/A	120	725	No	2008	Flowmeter
10	P	17	700	500	N/A	120	725	No	2008	Flowmeter
11	P	17	700	500	N/A	120	725	No	2008	Flowmeter
12	P	17	700	500	N/A	120	725	No	2008	Flowmeter
13	P	17	700	500	N/A	120	725	No	N/A	Flowmeter
14	P	17	700	500	N/A	120	725	No	N/A	Flowmeter
15	P	17	700	500	N/A	120	725	No	N/A	Flowmeter
16	P	17	700	500	N/A	120	725	No	N/A	Flowmeter
17	P	17	700	500	N/A	120	725	No	N/A	Flowmeter
18	P	17	700	500	N/A	120	725	No	N/A	Flowmeter

TABLE 9
OLGA WTP
SURFACE WATER PUMP DESCRIPTION

Pump #	Existing/ Proposed	Pump Manufacturer	Pump Type	Capacity(GPM)	Horsepower	Diameter	Elevation of Intake
1	E	Peerless	Verticle Turbine	3850	75	14	5.4
2	E	Peerless	Verticle Turbine	3000	40	14	5.4
3	E	Peerless	Verticle Turbine	3850	60	14	5.4
4	P	N/A	N/A	2900	50	16	5.4
5	P	N/A	N/A	2900	50	16	5.4

TABLE 10
ASR WELLS
DESCRIPTION OF WELLS

EXISTING

Well #	Facility	Existing / Proposed	Diameter	Total Depth	Cased Depth	Capacity	Active	Year Drilled	Meter Type
ASR#1	Corkscrew	E	12	397	328	450	Y	1995	Flowmeter
ASR#2	Corkscrew	E	12	397	337	450	Y	2000	Flowmeter
ASR#3	Corkscrew	E	12	347	285	450	Y	2000	Flowmeter
ASR#4	Corkscrew	E	12	368	310	450	Y	2000	Flowmeter
ASR#5	Corkscrew	E	12	291	253	450	Y	2000	Flowmeter
ASR#1	N. Res.	E	12	642	540	500	Y	1999	Flowmeter
ASR#1	Olga	E	16	920	859	500	Y	2000	Flowmeter
ASR#5	Olga	E	16	925	864	500	Y	2007	Flowmeter

PROPOSED

Well #	Facility	Existing / Proposed	Diameter	Total Depth	Cased Depth	Capacity	Active	Year Drilled	Meter Type
ASR#2	Olga	P	16	650	550	375	N	NA	N/A
ASR#3	Olga	P	16	650	550	375	N	NA	N/A
ASR#4	Olga	P	16	650	550	375	N	NA	N/A

TABLE 11
CAPITAL IMPROVEMENT PROJECTS
APPROVED FY 07/08 LEE COUNTY CIP

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	Novemeber 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 upconing 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 wellfield 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 RESOUCE 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 Pwky. 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 substatially 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 arrises	$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 arrises	$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 arrises	$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

CPA 2006-20
WATER SUPPLY FACILITIES WORK PLAN
BoCC SPONSORED
AMENDMENT
TO THE

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

BoCC Public Hearing Document
for the
October 22nd, 2008 Public Hearing

Lee County Planning Division
1500 Monroe Street
P.O. Box 398
Fort Myers, FL 33902-0398
(239) 533-8585

October 8, 2008

LEE COUNTY
DIVISION OF PLANNING
STAFF REPORT FOR
COMPREHENSIVE PLAN AMENDMENT
CPA 2006-20

☑ Text Amendment ☐ Map Amendment

✓	**This Document Contains the Following Reviews:**
✓	**Staff Review**
✓	**Local Planning Agency Review and Recommendation**
	Board of County Commissioners Hearing for Transmittal
	Staff Response to the DCA Objections, Recommendations, and Comments (ORC) Report
	Board of County Commissioners Hearing for Adoption

STAFF REPORT PREPARATION DATE: September 12, 2008

PART I - BACKGROUND AND STAFF RECOMMENDATION

A. SUMMARY OF APPLICATION

1. **APPLICANT:**
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
REPRESENTED BY LEE COUNTY DIVISION OF PLANNING

2. **REQUEST:**
Amend the Community Facilities and Services, Potable Water sub-element, the Conservation and Coastal Management Element, and the Intergovernmental Coordination Element of the Lee Plan to coordinate appropriate aspects of the comprehensive plan with the South Florida Water Management District Water Supply Plan and to include a ten year Water Supply Facilities Work Plan as required by s. 163.3177 (6)(c), F.S.

B. STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners transmit this proposed amendment with the following text changes and proposed Table 6 as shown in Attachment 2:

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more

than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to insure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

- The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning directing local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local

governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans.

- In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to facility capacity.

- In July of 2006 the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update).

- The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period.

- Staff is proposing new text and text changes to several elements of the Lee Plan, including the implementation of water supply concurrency requirements, and a new Table based on the Work Plan in order to comply with the expanded requirements.

C. BACKGROUND INFORMATION

This amendment was initiated by the Board of County Commissioners on October 3, 2006. The amendment addresses bills enacted by the Florida Legislature to improve the coordination between land use planning and water supply planning. In 2002 legislation added requirements to Chapter 163 F.S. requiring local governments to prepare a 10 year water supply facilities work plan and incorporate the work plan into the comprehensive plan. The work plan should describe the water supply facilities necessary to serve existing and future development for a 10 year planning period. The legislation focused on the need for comprehensive plans to coincide with the regional water supply plans prepared by each water management district.

In 2003 staff prepared a work plan and an update to the Lee Plan to incorporate the new requirements and the Board of County Commissioners transmitted the amendment to the Department of Community Affairs. In 2004 the Legislature increased the timeframe for local governments to adopt a water supply plan due to the fact that the water management districts were in the process of updating and receiving approval for regional water supply plans. At that time the 2003 work plan and plan amendment were placed on hold until the South Florida Water Management District's (SFWMD) regional water supply plan could be updated and approved.

In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. In July of 2006, the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update). The subject amendment encompasses the changes enacted by the legislature through the incorporation of the Work Plan and policy changes into the Lee Plan, Lee County's Comprehensive Plan.

PART II - STAFF ANALYSIS

A. STAFF DISCUSSION

Introduction

In 2006 the SFWMD issued the most recent water supply plan, titled the *Lower West Coast Water Supply Plan*. The plan describes traditional water sources and alternative water sources to meet projected demands through 2025. Lee County Utilities participated in the SFWMD's planning during the preparation of the *Lower West Coast Water Supply Plan* and has made every effort to ensure Lee County Utilities water supply planning is consistent with the regional plan. The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period. The Work Plan addresses sources, consumptive use permitting, facilities, and alternative water resources, addressing water supply planning through the planning period. The proposed Water Supply Facilities Work Plan is attached to the back of this staff report and is discussed in further detail below. In addition to the adoption of the Work Plan each local government must coordinate their comprehensive plans and water supply planning as follows:

- Future Land Use - Ensure adequate water supply and facilities will be available to meet projected growth demands using data and analysis demonstrating availability for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review.

- Water Supply Concurrency - Ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy.

- Revise the Potable Water Sub-element to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

- Revise the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

- Revise the Conservation and Coastal Management Element to assess projected water needs and sources for a ten year planning period.

- Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the regional water supply plan.

Work Plan

The proposed Work Plan provides a planning horizon through the year 2030. The attached work plan has been prepared by Lee County Utilities and is a technical document covering existing and proposed facilities and water supply sources, the County's capital improvement plan for water supply and treatment, alternative water resources, as well as covering the County's water conservation plan.

Lee County utilities provides water supply to the areas of Lee County that are not served by incorporated cities, private utility companies, or member owned non-profit systems. Lee County Utilities currently operates (6) six water supply facilities under Water Use Permits from the SFWMD, (7) seven water treatment facilities under permits issued by the Lee County Health Department, and (4) four reclaimed water systems.

The population and flow projections calculated in the Lee County Water Supply Facilities Work Plan were based on various planning efforts. The Work Plan compares the methodology developed in the Lower West Coast Water Supply Plan, data analysis and projections by Lee County Utilities supporting modifications to a current water use permit, and population estimates and projections computed by the Lee County Division of Planning.

During the formulation of the Lower West Coast Water Supply Plan the University of Florida Bureau of Economic and Business Research medium projections were utilized and disaggregated the historic population and projected population into Traffic Analysis Zones (TAZ's) for the existing and future service area. The Lower West Coast Water Supply Plan projected annual average daily demand in 2018 is 31.08 million gallons per day (mgd).

Lee County population estimates and projections performed by the Lee County Division of Planning use assumptions based on a review of the 1980, 1990, and 2000 United States Census data. To calculate the estimated population of the area served by Lee County Utilities staff geographically selected the parcels served and joined the data with the parcel inventory to obtain unit counts and planning community information allowing population assumptions to be multiplied to unit counts. Planning staff computed the existing population for the area served by Lee County Utilities and the projected population for the future service area depicted in the Lee County comprehensive plan for 2030. The development assumptions are the same as those used to generate the 2030 land use allocation acreages adopted in Lee Plan Table 1(b). The 2018 maximum demand projection based on this analysis is 35.65 mgd.

In support of an application to modify a current consumptive use permit, Lee County Utilities available data from billing records were used to develop population and demand projections. An average annual growth rate was determined and actual system demands was used in conjunction with population data to determine the average per capita daily use rate and a peaking ratio. Population projections were then made based on annual average growth rate. The projected maximum month daily average demand is 50.70 mgd. The subject projection represents the highest projected demand in the future.

In order to ensure sufficient future capacity, Lee County Utilities is planning to meet the highest projected future demand calculated through the application to modify a current consumptive use permit. Utilities staff have concluded that the projection represents a conservative approach. This projection uses a high growth period from 2003 through 2007 to develop a growth rate for the projection representing the highest projected demand.

As noted above, the population and flow projections discussed were based on various planning efforts and are described and summarized in greater detail in Section 3 of the Lee County Water Supply Facilities Work Plan.

Under the Work Plan's assessment of needs it concludes that Lee County Utilities is in need of additional water treatment and water supply capacity in order to meet the demands of population

growth to 2030. Lee County has developed and is in the process of implementing Capital Improvement Projects for water supply development as outlined in the proposed Water Supply Facilities Work Plan to expand water supply and treatment capacity to meet the anticipated growth demands for potable water. Implementation of the Capital Improvement Plan to increase production scheduled between now and 2014 will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 32 mgd to a combined capacity of 60 mgd. This combined capacity is in excess of the projected demand of 51 mgd anticipated in 2018.

Future Land Use

In 2005 Chapter 163.3177(6)(a) F.S. was revised requiring that the future land use plan to be based on the availability of water supplies and public facilities. The statutory requirements direct each local government to ensure adequate water supply and facilities for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review. Data and analysis should demonstrate that adequate water supply and associated facilities will be available to meet projected growth. The requirements focus on water supply planning and treatment/delivery facilities.

As part of the plan amendment review process for a Future Land Use Map amendment, staff currently evaluates existing and future conditions for facilities capable of serving the site. In response to the statutory requirements additional analysis for potable water will be evaluated pertaining to water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures applied to the site. This analysis will be undertaken in addition to the current facility analysis reviewed during the plan amendment process. The additional requirements have been added to the Lee County application for a comprehensive plan amendment and are shown in underline format as follows:

> *Provide an existing and future conditions analysis for (see Policy 95.1.3):*
> *a. Sanitary Sewer*
> *b. Potable Water*
> *c. Surface Water/Drainage Basins*
> *d. Parks, Recreation, and Open Space*
> *e. Public Schools.*
>
> *Analysis should include (but is not limited to) the following (see the Lee County Concurrency Management Report):*
> - *Franchise Area, Basin, or District in which the property is located;*
> - *Current LOS, and LOS standard of facilities serving the site;*
> - *Projected 2030 LOS under existing designation;*
> - *Projected 2030 LOS under proposed designation;*
> - *Existing infrastructure, if any, in the immediate area with the potential to serve the subject property.*
> - *Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and*
> - *Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).*
> - *Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water.*
>
> *In addition to the above analysis for Potable Water:*
>
> - *Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.*
> - *Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.*
> - *Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.*
> - *Include any other water conservation measures that will be applied to the site (see Goal 54).*

Water Supply Concurrency

Statutory provisions have also been amended to ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy. In 2005 Chapter 163.3180(2)(a), F.S. was revised to add water supply as a concurrency requirement and states the following: *Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water 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 or its functional equivalent. Prior to 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 the 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.*

Lee County currently ensures facility capacity through the County's concurrency management system. Facility capacity is reviewed and capacity determinations are made prior to a concurrency certificate being issued for local development order approvals and certificates are valid for 3 years. Building permits are verified for adequate facility capacity based on a valid concurrency certificate and single family permitting procedures require a letter from the utility company verifying availability.

The Lee Plan maintains several policies reproduced below requiring facility capacity. For example, Standard 11.1 sets the threshold for mandatory connection to a public water system as well as the requirement that the projected need of a development does not exceed the supply and facility capacity of the utility. Policy 53.1.5 specifies that no development order will be issued unless potable water service, at the minimum acceptable level of service, is available or surety is given that it will be installed prior to occupancy. Policy 95.1.3 specifies the minimum acceptable level of service for potable water facilities. These requirements are reproduced below.

In addition, as part of the subject review, staff has incorporated a proposed update to Policy 53.1.5 as shown below. The update proposes to delete the statement that "County development regulations will be amended." Potable water system requirements are incorporated into the County development regulations through Lee County Land Development Code Chapter 10, Division 4, Section 10-351 and 10-352 reflecting the standards and intent of Policy 53.1.5. The update also proposes to replace the reference to the Development Standards Ordinance with the reference to the Land Development Code. The updated reference replaces the old reference with the current code.

STANDARD 11.1: WATER.

1. *Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).*

2. *If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.*

3. *The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.*

4. *All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.*

5. *If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.*

6. *If a development lies outside any service area as described above, the developer may:*

   - *request that the service area of an adjacent water utility be extended to incorporate the property;*
   - *establish a community water system for the development; or*
   - *develop at an intensity that does not require a community water system.*

(Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.5: *~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)*

POLICY 70.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. *Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).*

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. *Potable Water Facilities:*

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

The additional statutory provisions require local governments to revise their comprehensive plans to address water supply concurrency. To maintain water supply concurrency the guidelines recommend policy revisions to local comprehensive plans and land development codes that suggest for example requiring a written statement from the water supplier regarding the availability of water to serve a proposed project. Determining the availability of water supply will involve determining the water use allocation through the consumptive use permit for the utility's service area based on the annual average daily withdrawal rate. An analysis of the current demand and the projected demand will identify the available water supply for all existing and proposed water demands.

The statutory requirements require assurance that adequate water supply and facilities are available to serve new development no later than issuance of a certificate of occupancy. Staff proposes new Objective 53.2 and Policy 53.2.1 as an addition to the Potable Water sub-element establishing concurrency management specifically for water supply planning. The Objective will ensure that water supply will be available concurrent with development in addition to facility capacity currently addressed through the Lee County Concurrency Management System. The Policy will ensure that new development meets concurrency standards for water supply prior to approval of a development order and the issuance of a concurrency certificate, similar to the facility requirement in Policy 53.1.5 noted above.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

Potable Water Sub-element

Statutory provisions also require revisions to the Potable Water sub-element directing local governments to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

The expansion of the comprehensive plan requirements strengthening the coordination of water supply and land use planning requires the adoption of a Water Supply Facilities Work Plan for a ten year planning period. The requirements also provide that the Potable Water sub-element should be revised to identify and incorporate alternative water supply projects identified by the regional water supply plan as well as identifying bulk sales agreements and conservation and reuse programs necessary to meet demands. Section 4 of Lee County's Work Plan addresses water supply facilities necessary to serve existing and projected development for which the local government is responsible through the year 2030. Section 5 of the Work Plan addresses alternative water resources. Bulk water service is provided to the Town of Fort Myers Beach through a bulk water service agreement. The Work Plan notes in the introduction section of the document that the Town of Fort Myers Beach and the Gateway Service District are included in the Lee County Utilities service area. Both service areas are accounted for in Lee County Utilities data analysis. Conservation and reuse are also discussed in Section 5 of the Work Plan.

In order to address the inclusion of the Water Supply Facilities Work Plan in the Potable Water sub-element staff proposes a new Table 6, titled Water Supply Development Plan, for adoption into the Lee Plan. Table 6 is based on the Work Plan and the Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff notes that while the proposed table shows estimated completion dates out to the year 2014, the projections assume the County's water supply needs for a ten year planning period. The proposed table can be found as Attachment 2.

Staff is also proposing new Policy 53.1.11 as an addition to the Potable Water sub-element. This policy refers to Table 6, outlining the facilities needed to meet the projections made in the Water Supply Facilities Work Plan while text changes to Policy 55.1.3 of the Potable Water sub-element implement the Water Supply Facilities Work Plan itself, fulfilling the Potable Water sub-element requirements.

> **POLICY 53.1.11:** The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

> **POLICY 55.1.3:** Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

Five Year Schedule of Capital Improvements

The statutory requirements call for any necessary revisions to the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

The Five Year Schedule of Capital Improvements will be updated to include projects and programs to be implemented during the five year period as part of the annual Capital Improvements Program review, per Florida Statute 163.3177(3)(b).

Conservation and Coastal Management Element

The statutory requirements require the local government to revise the Conservation Element to assess projected water needs and sources for a ten year planning period. Staff proposes the following text changes to Policy 117.1.2 as well as the addition of Policy 117.1.9 to the Conservation and Coastal Management Element. The additions to Policy 117.1.2 reflect the recommendations of the Lower West Coast Water Supply Plan, recognizing the regional water supply plan as well as implementing the Lee County Water Supply Facilities Work Plan. The addition of Policy 117.1.9 reflects the assessments made in the Water Supply Facilities Work Plan.

> **POLICY 117.1.2:** The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

Intergovernmental Coordination Element

Revisions to the Intergovernmental Coordination Element are also required to ensure coordination of the comprehensive plan with the regional water supply plan. The following new text, Objective 151.5 and Policy 151.5.1 are being proposed to insure such coordination. Objective 151.5 states that the county will coordinate with the SFWMD to insure Lee Plan consistency, while Policy 151.5.1 states that the county will continue to evaluate the District's water supply plans in order to maintain consistency.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

The Lee Plan

The Lee Plan contains an extensive amount of policies addressing water usage, conservation, protection, overlays, quality, quantity, surface water, and groundwater. Listed as Attachment 3 are those Goals, Objectives, and Policies of the Lee Plan that relate directly to the intent of the subject amendment. Included among those listed are the proposed changes in strike-through/underline format that address the additional changes required to be made to the Potable Water sub-element, the Conservation Element, and the Intergovernmental Coordination Element.

Additional Information

As part of the preparation of the Water Supply Facilities Work Plan amendment, local governments are required to coordinate with any water suppliers delivering water within the local government's jurisdiction. Planning data such as current consumptive use permits, projected demands, and planned resources for those components of the supply system that the local government does not have responsibility should be obtained from the suppliers and incorporated into the Work Plan confirming adequate sources.

The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Greater Pine Island Water Association, Florida Governmental Utility Authority, Gasparilla Island Water Association, Inc., and Island Water. Bonita Utilities provides water for the city of Bonita Springs and vicinity, Greater Pine Island Water Association provides water for Greater Pine Island and vicinity, Florida Governmental Utility Authority provides water for Lehigh Acres, Gasparilla Island Water Association, Inc. provides water for Gasparilla Island, and Island Water provides water for Sanibel and Captiva Islands.

Staff has coordinated with each of the suppliers to obtain information from their consumptive use permits as well as the suppliers projected demands and existing and planned water sources. The

collected data and analysis is reviewed under Section 7 of the Lee County Water Supply Facilities Work Plan.

B. CONCLUSIONS

The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning. These requirements direct local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans. In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. Staff is proposing new text and text changes to several elements of the Lee Plan as well as proposing a Water Supply Facilities Work Plan and a new Lee Plan Table based on the Work Plan in order to comply with the expanded requirements.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners transmit this proposed amendment. This recommendation is based upon the previously discussed issues and conclusions of this report. Planning staff recommends the Board of County Commissioners transmit the changes to the Lee Plan as proposed in Part I.B.1. of this report.

PART III - LOCAL PLANNING AGENCY REVIEW AND RECOMMENDATION

DATE OF PUBLIC HEARING: September 22, 2008

A. LOCAL PLANNING AGENCY REVIEW

Planning staff gave a brief presentation concerning the proposed amendment. One member of the LPA asked what is being planned for developing a desalinization plant. Lee County Utilities staff provided that desalinization is an option covered in the Water Supply Work Plan. Utilities staff provided that Lee County Utilities is currently in negotiations for a contract with a consultant to do an integrated water resource master plan which will look at desalinization. Staff has also been following the efforts of the water management district. The member of the LPA then asked if it is anticipated that Lee County will have sufficient water resources for urban use for the next 20 to 30 years. Utilities staff noted that the work plan addresses potable demands and the conclusions made in the work plan confirm that Lee County is planning enough capacity development to meet the projected demand out at least 10 years and depending on the demand projection you use, meeting the projected demand out to 2025. Another member of the LPA noted that utility staff will be attending the water conference and was interested in hearing an update when staff returned. Utilities staff noted that the water supply work plan must be updated every 5 years, 18 months after the Lower West Coast Water Supply Plan is revised.

B. LOCAL PLANNING AGENCY RECOMMENDATION AND FINDINGS OF FACT SUMMARY

1. **RECOMMENDATION:** The LPA recommends that the Board of County Commissioners transmit the proposed amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The LPA accepted the findings of fact as advanced by the staff.

C. VOTE:

NOEL ANDRESS	**AYE**
LES COCHRAN	**AYE**
RONALD INGE	**AYE**
JACQUE RIPPE	**AYE**
CARLETON RYFFEL	**AYE**
LELAND TAYLOR	**ABSENT**
RAE ANN WESSEL	**AYE**

PART IV - BOARD OF COUNTY COMMISSIONERS
HEARING FOR TRANSMITTAL OF PROPOSED AMENDMENT

DATE TRANSMITTAL HEARING: October 22, 2008

A. BOARD REVIEW:

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

C. VOTE:

A. BRIAN BIGELOW	_____
TAMMARA HALL	_____
ROBERT P. JANES	_____
RAY JUDAH	_____
FRANKLIN B. MANN	_____

PART V - DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS, AND COMMENTS (ORC) REPORT

DATE OF ORC REPORT: _____

A. DCA OBJECTIONS, RECOMMENDATIONS AND COMMENTS

B. STAFF RECOMMENDATION

PART VI - BOARD OF COUNTY COMMISSIONERS
HEARING FOR ADOPTION OF PROPOSED AMENDMENT

DATE OF ADOPTION HEARING: _____

A. BOARD REVIEW:

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

C. VOTE:

	_____
A. BRIAN BIGELOW	_____
TAMMARA HALL	_____
ROBERT P. JANES	_____
RAY JUDAH	_____
FRANKLIN B. MANN	_____

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 Pwky. 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

Potable Water Policy in the Lee Plan

Future Land Use Element

STANDARD 11.1: WATER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).

2. If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.

3. The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.

4. All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.

5. If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.

6. If a development lies outside any service area as described above, the developer may:

   - request that the service area of an adjacent water utility be extended to incorporate the property;
   - establish a community water system for the development; or
   - develop at an intensity that does not require a community water system.

(Amended by Ordinance No. 94-30, 00-22)

Community Facilities and Services Element

Potable Water Sub-Element

GOAL 53: POTABLE WATER INFRASTRUCTURE. To ensure the public health, welfare, and safety by the provision of high-quality central potable water service throughout the future urban areas of unincorporated Lee County, and to ensure that the costs of providing facilities for the supply of potable water are borne by those who benefit from them.

OBJECTIVE 53.1: The County will ensure the provision of acceptable levels of potable water service throughout the future urban areas of the unincorporated county, either directly by Lee County Utilities, or indirectly through franchised utility companies. (Amended by Ordinance No. 94-30, 00-22, 03-04)

POLICY 53.1.1: The Board of County Commissioners hereby establishes service areas for the Lee County Utilities water systems throughout which it will provide standard service as required by demand, and within which it will challenge applications by private water utilities to obtain a

Certificate of Operation from the Florida Public Service Commission and reject all applications for a county franchise therein. These service areas are illustrated in Map 6. Within the Fort Myers urban reserve area, the service areas shown on the map are subject to modifications in accordance with existing and future interlocal agreements. (Amended by Ordinance No. 93-25)

POLICY 53.1.2: The minimum acceptable level-of-service standards (see Policy 95.1.3) for potable water connections to Lee County Utilities will be:

- An available supply and treatment capacity of 250 gallons per day per equivalent residential connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.3: The Board of County Commissioners encourages all private utilities to set a minimum acceptable level of service to be adopted herein for use in the concurrency management system within their respective franchised or certificated areas. After the effective date of this plan or September l, 1989, whichever is later, if the county has not adopted such standards into this plan, the standards adopted for the Lee County Utilities' water systems will apply in those certificated or franchised areas and will be used in enforcing concurrency regulations (see Policy 95.1.3).

After the deadline set above any private utility that cannot meet the Level-of- Service standards set forth for Lee County Utilities will have the opportunity to petition for a Plan Amendment for a revised Level-of-Service requirement for the specific private utility plant if it can be proved that such utility has sufficient plant and system capacity to properly service it's franchised or certificated area. The proof will be in the form of properly documented daily flow reports, occupancy rates or related statistical information, and any other necessary information that may be pertinent to the justification of the requested action, to establish a new individual Level-Of-Service standard. This data should be for a period covering at least the last two prior years. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.4: The Board of County Commissioners urges all utilities to construct and install sufficient treatment facilities and distribution systems that will meet or exceed the minimum acceptable service standards and with the capacity to deliver water at a pressure of 20 pounds per square inch (wp PSI static) at the meter anywhere on the individual system (excluding fire flow conditions). In addition, by September 30, 1994, all utilities are urged to deliver water pressure of 40 pounds per square inch (static pressure, excluding fire flow conditions). Each utility is encouraged to advise the planning and engineering staffs of the county regarding system expansions or modifications to ensure coordination with other utilities and with all other issues of public interest and to prevent duplication of facilities and services. (Amended by Ordinance No. 92-35)

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)

POLICY 53.1.6: No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised

area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required. (Amended by Ordinance No. 00-22)

POLICY 53.1.7: In allocating Industrial Development Revenue Bond capacity, the county will give priority to private water utility firms proposing to construct basic facilities and to provide or upgrade infrastructure serving developed areas and antiquated subdivisions undergoing redevelopment. (Amended by Ordinance No. 00-22)

POLICY 53.1.8: The costs of new or augmented potable water infrastructure that is developed by Lee County will be borne by those who benefit from the improved supply. (Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.9: New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard potable water for that development. (Amended by Ordinance No. 00-22)

POLICY 53.1.10: By 1999, county staff will formulate the study proposal to determine the appropriateness of requiring certain existing residential developments at a density equal to or in excess of 2.5 dwelling units per acre to connect to a potable water or sewer system, if available. The study will address the issue of health related problems and will include the collection and analysis of well samples to determine if there is an immediate health problem as well as a cost benefit analysis. This study proposal will include recommendations regarding which pre-platted communities and subdivisions should be required to connect to a potable water or sewer system, if available. (Added by Ordinance No. 98-09, Amended by Ordinance No. 00-22)

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

GOAL 54: CONSERVATION.

To ensure that future populations have access to potable water supplies and services at a reasonable price by using and encouraging conservation and resource management measures to reduce consumption of potable water.

OBJECTIVE 54.1: The county will continue its programs in education, technical advice, demonstration, rate revisions, and reuse to reduce potable water consumption and the consumption of large volumes of potentially potable water. Water consumption per Equivalent Residential Unit will be decreased by 2.5% annually through the year 2000. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.1: Using the personnel and resources of various county agencies, Lee County will continue to offer a program of public information and education. This program should include the

use of print media, advertising, and public service announcements on radio and television highlighting and advocating various strategies of water conservation, including, but not limited to:

- creating incentives for "gray water" systems or other recycling activities;
- adopting incentives for household and commercial use of appliances with low water consumption rates;
- advising householders to reduce water use;
- creating a demand for low water use appliances by publishing ratings of water use efficiency for appliances analogous to the energy efficiency ratings for electrical appliances;
- advocating the cost-effective use of appliances and water: i.e. run only full loads or use low water settings when appropriate;
- encouraging the building or grounds manager, including the individual householder, to maintain the water system, i.e. timely repair of dripping faucets, leaking water closets, broken or maladjusted sprinkler heads, etc.;
- installing alternatives to spray irrigation devices for lawns and grounds management such as drip or seep systems, or at least attending to the ambient humidity and evapo-transpiration rates in controlling sprinkler systems;
- encouraging the use of drought-tolerant ground covers and shrubbery according to the principles of "xeriscape" (see glossary and Objective 117.2) and demonstrating the uses of native vegetation in landscaping; and
- generally encouraging the thoughtful use of water in all necessary activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.2: In developing and implementing local landscape regulations including the preservation, reforestation, and wetlands restoration requirements, preference will be given to native species which are adapted to the region's climatic regime.

POLICY 54.1.3: Xeric landscaping, stressing the use of native vegetation, is to be emphasized through modifications to the county's development regulations and through direct action while landscaping county-owned projects.

POLICY 54.1.4: The Board of County Commissioners will periodically re-examine the "step rate" structure for the Lee County Utilities water systems which encourages water conservation by requiring that the commodity charge (basic monthly charge less readiness to serve fee and capital debt contribution) above a specified amount of water use increase continuously or by specified increments for that increased use of water. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.5: The Board of County Commissioners will encourage privately operated potable water utilities to adopt a "conservation" rate structure for users in their respective service areas. (Amended by Ordinance No. 00-22)

POLICY 54.1.6: Development regulations will continue to require that any development will pay the appropriate fees and connect to a re-use water system if such system is near or adjacent to the development and has sufficient surplus to supply the development. Development regulations will be amended further as follows:

- Where a significant modification is proposed to a major development subject to Chapter 10 of the Land Development Code, wastewater reuse systems will be required in the same manner as for new developments.

- The county will require by ordinance the connection of specified existing development to a utility wastewater distribution system when one is available near or adjacent to the property.

(Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.7: It is hereby declared that the conservation of potable water supply and facility capacity is of such importance to the orderly growth of the community that in order to further provide incentive for its use, reuse water may be provided at a price significantly lower than finished potable water (the residual costs of operation being charged to the sewer users as part of the cost of effluent disposal).

POLICY 54.1.8: Priority in the use of Industrial Development Revenue Bonds or other mechanisms of public finance will be given to regulated private utilities where not prohibited by the Florida constitution or statutes in order to achieve these public ends. (Amended by Ordinance No. 00-22)

POLICY 54.1.9: Lehigh Acres (as defined by outer boundaries of its Privately Funded Infrastructure overlay on the Future Land Use Map) is hereby declared a critical area for future potable water supply due to fluctuating water levels in the Sandstone aquifer. In response to this designation, the county will amend current regulations to provide that new wells in Lehigh Acres must be constructed to accommodate submersible pumps. (Also see Policy 1.7.10 for new permit requirements for irrigation wells in Bonita Springs, and Policy 2.4.2 for special requirements for amendments to the Future Land Use Map.) (Amended by Ordinance No. 94-30, 00-22, 02-02)

POLICY 54.1.10: The county will continue to implement and enforce regulations to reduce the amount of effluent being discharged into surface waters. (Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.11: Continue to encourage new and existing developments to utilize the Fort Myers Beach/Iona-McGregor sewer system's dual water system. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 98-09)

POLICY 54.1.12: Promote water conservation through the use of incentives and evaluate and apply a community based planning approach to water conservation, enabling more precision to be applied in achieving reduction targets. (Added by Ordinance No. 07-16)

GOAL 55: ORGANIZATION OF SERVICE AND FACILITY DELIVERY.

To provide greater local coordination of the activities of public and private utilities within the county.

OBJECTIVE 55.1: Ensure an adequate, reliable, and economical supply of potable water to meet the forecasted needs for all residents of Lee County through the year 2020 through regional planning and intergovernmental participation. (Amended by Ordinance No. 94-30)

POLICY 55.1.1: Lee County Utilities and Lee County Division of Natural Resources will plan and coordinate with other government agencies in the development of comprehensive plans as they relate to well field protection, aquifer recharge, water supply, and related capital facilities. (Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04).

POLICY 55.1.2: Lee County Division of Natural Resources in conjunction with Lee County Utilities will perform groundwater modeling and analysis for new development, as needed, to

assess the potential impact on the water resources of Lee County. The analysis will focus on the following issues:

- Adequacy of water supply, including groundwater level draw-down
- Avoidance of adverse impacts on natural systems from water supply withdrawals.

(Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04)

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implementation of the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~ (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22, Relocated by Ordinance No. 03-04)

POLICY 55.1.4: Lee County will continue to collect data from private suppliers of potable water, including reporting of water flows, storage capacity, pressures, number of customers, and committed future connections, and proposed expansion plans. This data will be updated on a yearly basis. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22)

Surface Water Management Sub-Element

GOAL 61: PROTECTION OF WATER RESOURCES. To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.

OBJECTIVE 61.1: WATER SUPPLY PLANNING. All county water supply planning will include the recognition of surface water runoff as a possible resource and will consider integrating the use of surface water runoff in any supply program or strategy that results. (Amended by Ordinance No. 00-22)

POLICY 61.1.1: Lee County recognizes that all fresh waters are a resource to be managed and allocated wisely, and will support allocations of the resource on the basis 1) of ensuring that sufficient water is available to maintain or restore valued natural systems, and 2) of assigning to any specified use or user the lowest quality fresh water compatible with that use, consistent with financial and technical constraints. (Amended by Ordinance No. 00-22)

POLICY 61.1.2: The county will explore, and implement where financially and technically feasible, all existing options for storing and utilizing excess surface water runoff for human consumption and other uses. Such options may include surface impoundments; back-pumping to reservoirs, to upland wetlands, or to ground storage; and ground storage by exfiltration systems or by aquifer storage and recovery systems. Maximum contaminant levels consistent with Florida DEP and USEPA regulations governing receiving waters will be met through treatment as required. Excess surface water runoff will be defined as that water not required to maintain or restore estuarine waters or other valued wetland systems. (Amended by Ordinance No. 94-30, 00-22)

POLICY 61.1.3: In the event that the timing and volume of freshwater discharges necessary to maintain the health and productivity of estuaries and other wetlands cannot be determined or supported by existing scientific data, the county will sponsor, in collaboration with other agencies,

institutions, and organizations, adequate research programs to make such data available. (Amended by Ordinance No. 00-22, 07-12)

POLICY 61.1.4: The county's Surface Water Management Master Plan will place particular emphasis on 1) routing surface water runoff from areas of excess to areas where additional subsurface storage is available; and 2) maintaining and increasing historic surface and groundwater levels in the Density Reduction/Groundwater Resource land use category. (Amended by Ordinance No. 00-22)

POLICY 61.1.5: Work with the appropriate agencies to pursue funding a "mixing model" (freshwater flow into saltwater) as a management tool that will benefit recreation, water quality, public health, etc. (Added by Ordinance No. 07-16)

Groundwater Recharge Sub-Element

OBJECTIVE 63.2: POTABLE GROUNDWATER. Base all future development and use of groundwater resources on determinations of the safe yield of the aquifer system(s) in order not to impair the native groundwater quality or create other environmental damage. Criteria for safe-yield determinations will be determined by the SFWMD, the agency charged with permitting these activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 63.2.1: For maximum protection of groundwater resources, identify future wellfields and/or relocation site(s) for existing wellfields well in advance of need. Coordinate with SFWMD, other water suppliers, and DEP to avoid duplication and to assist in data collection and interchange. (Amended by Ordinance No. 94-30)

POLICY 63.2.2: Institute a program to identify sources of groundwater pollutants in Lee County and to map these (point and non-point) on a county-wide basis.

POLICY 63.2.3: Identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater. (Amended by Ordinance No. 94-30)

POLICY 63.2.4: Expand current programs to identify and map the contamination potential of groundwater resources for those areas of Lee County not currently under public ownership.

POLICY 63.2.5: Lee County, in cooperation with other agencies and the municipalities, will budget to maintain its current program of plugging non-valved, abandoned, or improperly-cased artesian wells so that at least seventy-five of these wells are plugged each year until such wells are eliminated. (Amended by Ordinance No. 94-30, 00-22)

Capital Improvements Element

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth

herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. Potable Water Facilities:

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

Conservation and Coastal Management Element

OBJECTIVE 112.2: The county will continue to participate with other governments to prepare and implement water management plans, including the Estero Bay Agency on Bay Management, Charlotte Harbor National Estuary Program, the Charlotte Harbor Management Plan, the Water Management District Surface Water Improvement and Management (SWIM) plans, DEP aquatic preserve management plans, water supply plans, and other water resource management plans. (Amended by Ordinance No. 94-30, 98-09, 00-22)

GOAL 117: WATER RESOURCES. To conserve, manage, and protect the natural hydrologic system of Lee County to insure continued water resource availability. (Amended by Ordinance No. 94-30)

OBJECTIVE 117.1: WATER SUPPLIES. Insure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems.

POLICY 117.1.1: Natural water system features which are essential for retention, detention, purification, runoff, recharge, and maintenance of stream flows and groundwater levels shall be identified, protected, and managed.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.3: Freshwater resources will be managed in order to maintain adequate freshwater supplies during dry periods and to conserve water. (Amended by Ordinance No. 00-22)

POLICY 117.1.4: Development designs must provide for maintaining surface water flows, groundwater levels, and lake levels at or above existing conditions. (Amended by Ordinance No. 00-22)

POLICY 117.1.5: The county will cooperate with the United States Geological Survey, South Florida Water Management District, and state agencies to develop an area-wide water resources plan emphasizing planning and management of water resources on the basis of drainage basins; and addressing the needs of the existing and potential built environment, natural hydrologic system requirements, and freshwater flow impacts on estuarine systems. (Amended by Ordinance No. 00-22)

POLICY 117.1.6: The county will continue to support a monitoring program of existing baseline conditions of water resources. (Amended by Ordinance No. 00-22)

POLICY 117.1.7: The county will cooperate fully with emergency water conservation measures of the South Florida Water Management District. (Amended by Ordinance No. 00-22)

POLICY 117.1.8: The county will support the acquisition and protection of the Flint Pen Strand as a major water retention and aquifer recharge area. (See also Policy 107.11.4.) (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 117.2: XERISCAPE LANDSCAPE. The county will continue to promote xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.1: The county will continue to encourage xeriscape landscaping techniques for new development in the Land Development Code. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.2: The county will provide education on water conservation through creative landscaping, and promote the conservation and use of native plant species through xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.3: The county will establish local guidelines that will assist in efforts to reduce landscape irrigation water use to the lowest and most efficient, practical level. (Amended by Ordinance No. 00-22)

Intergovernmental Coordination Element

OBJECTIVE 151.3: COORDINATION OF ROADWAY AND UTILITY IMPROVEMENTS. Coordinate, where possible, between the Lee County Department of Transportation (DOT) and utility companies, including Lee County Utilities and the various privately operated water and wastewater companies, to insure that capital and maintenance projects are not adversely affected by subsequent utility construction. (Added by Ordinance No. 94-30)

POLICY 151.3.1: Lee County DOT will continue open communications with the various water and wastewater utility companies to coordinate expected utility construction projects with programmed roadway maintenance and capital projects. (Added by Ordinance No. 94-30, Amended by Ordinance No. 07-12)

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to insure consistency in the Lee Plan and the county's Water Supply Facilities Work Plan.

CPA 2006-20
WATER SUPPLY FACILITIES WORK PLAN
BoCC SPONSORED
AMENDMENT
TO THE

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

DCA Transmittal Document

Lee County Planning Division
1500 Monroe Street
P.O. Box 398
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October 22, 2008

LEE COUNTY
DIVISION OF PLANNING
STAFF REPORT FOR
COMPREHENSIVE PLAN AMENDMENT
CPA 2006-20

☑ Text Amendment ☐ Map Amendment

✓	**This Document Contains the Following Reviews:**
✓	**Staff Review**
✓	**Local Planning Agency Review and Recommendation**
✓	**Board of County Commissioners Hearing for Transmittal**
	Staff Response to the DCA Objections, Recommendations, and Comments (ORC) Report
	Board of County Commissioners Hearing for Adoption

STAFF REPORT PREPARATION DATE: September 12, 2008

PART I - BACKGROUND AND STAFF RECOMMENDATION

A. SUMMARY OF APPLICATION

1. **APPLICANT:**
   LEE COUNTY BOARD OF COUNTY COMMISSIONERS
   REPRESENTED BY LEE COUNTY DIVISION OF PLANNING

2. **REQUEST:**
   Amend the Community Facilities and Services, Potable Water sub-element, the Conservation and Coastal Management Element, and the Intergovernmental Coordination Element of the Lee Plan to coordinate appropriate aspects of the comprehensive plan with the South Florida Water Management District Water Supply Plan and to include a ten year Water Supply Facilities Work Plan as required by s. 163.3177 (6)(c), F.S.

B. STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners transmit this proposed amendment with the following text changes and proposed Table 6 as shown in Attachment 2:

   POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more

than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to insure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

- The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning directing local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local

governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans.

- In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to facility capacity.

- In July of 2006 the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update).

- The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period.

- Staff is proposing new text and text changes to several elements of the Lee Plan, including the implementation of water supply concurrency requirements, and a new Table based on the Work Plan in order to comply with the expanded requirements.

C. BACKGROUND INFORMATION

This amendment was initiated by the Board of County Commissioners on October 3, 2006. The amendment addresses bills enacted by the Florida Legislature to improve the coordination between land use planning and water supply planning. In 2002 legislation added requirements to Chapter 163 F.S. requiring local governments to prepare a 10 year water supply facilities work plan and incorporate the work plan into the comprehensive plan. The work plan should describe the water supply facilities necessary to serve existing and future development for a 10 year planning period. The legislation focused on the need for comprehensive plans to coincide with the regional water supply plans prepared by each water management district.

In 2003 staff prepared a work plan and an update to the Lee Plan to incorporate the new requirements and the Board of County Commissioners transmitted the amendment to the Department of Community Affairs. In 2004 the Legislature increased the timeframe for local governments to adopt a water supply plan due to the fact that the water management districts were in the process of updating and receiving approval for regional water supply plans. At that time the 2003 work plan and plan amendment were placed on hold until the South Florida Water Management District's (SFWMD) regional water supply plan could be updated and approved.

In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. In July of 2006, the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update). The subject amendment encompasses the changes enacted by the legislature through the incorporation of the Work Plan and policy changes into the Lee Plan, Lee County's Comprehensive Plan.

PART II - STAFF ANALYSIS

A. STAFF DISCUSSION

Introduction

In 2006 the SFWMD issued the most recent water supply plan, titled the *Lower West Coast Water Supply Plan*. The plan describes traditional water sources and alternative water sources to meet projected demands through 2025. Lee County Utilities participated in the SFWMD's planning during the preparation of the *Lower West Coast Water Supply Plan* and has made every effort to ensure Lee County Utilities water supply planning is consistent with the regional plan. The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period. The Work Plan addresses sources, consumptive use permitting, facilities, and alternative water resources, addressing water supply planning through the planning period. The proposed Water Supply Facilities Work Plan is attached to the back of this staff report and is discussed in further detail below. In addition to the adoption of the Work Plan each local government must coordinate their comprehensive plans and water supply planning as follows:

- Future Land Use - Ensure adequate water supply and facilities will be available to meet projected growth demands using data and analysis demonstrating availability for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review.

- Water Supply Concurrency - Ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy.

- Revise the Potable Water Sub-element to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

- Revise the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

- Revise the Conservation and Coastal Management Element to assess projected water needs and sources for a ten year planning period.

- Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the regional water supply plan.

Work Plan

The proposed Work Plan provides a planning horizon through the year 2030. The attached work plan has been prepared by Lee County Utilities and is a technical document covering existing and proposed facilities and water supply sources, the County's capital improvement plan for water supply and treatment, alternative water resources, as well as covering the County's water conservation plan.

Lee County utilities provides water supply to the areas of Lee County that are not served by incorporated cities, private utility companies, or member owned non-profit systems. Lee County Utilities currently operates (6) six water supply facilities under Water Use Permits from the SFWMD, (7) seven water treatment facilities under permits issued by the Lee County Health Department, and (4) four reclaimed water systems.

The population and flow projections calculated in the Lee County Water Supply Facilities Work Plan were based on various planning efforts. The Work Plan compares the methodology developed in the Lower West Coast Water Supply Plan, data analysis and projections by Lee County Utilities supporting modifications to a current water use permit, and population estimates and projections computed by the Lee County Division of Planning.

During the formulation of the Lower West Coast Water Supply Plan the University of Florida Bureau of Economic and Business Research medium projections were utilized and disaggregated the historic population and projected population into Traffic Analysis Zones (TAZ's) for the existing and future service area. The Lower West Coast Water Supply Plan projected annual average daily demand in 2018 is 31.08 million gallons per day (mgd).

Lee County population estimates and projections performed by the Lee County Division of Planning use assumptions based on a review of the 1980, 1990, and 2000 United States Census data. To calculate the estimated population of the area served by Lee County Utilities staff geographically selected the parcels served and joined the data with the parcel inventory to obtain unit counts and planning community information allowing population assumptions to be multiplied to unit counts. Planning staff computed the existing population for the area served by Lee County Utilities and the projected population for the future service area depicted in the Lee County comprehensive plan for 2030. The development assumptions are the same as those used to generate the 2030 land use allocation acreages adopted in Lee Plan Table 1(b). The 2018 maximum demand projection based on this analysis is 35.65 mgd.

In support of an application to modify a current consumptive use permit, Lee County Utilities available data from billing records were used to develop population and demand projections. An average annual growth rate was determined and actual system demands was used in conjunction with population data to determine the average per capita daily use rate and a peaking ratio. Population projections were then made based on annual average growth rate. The projected maximum month daily average demand is 50.70 mgd. The subject projection represents the highest projected demand in the future.

In order to ensure sufficient future capacity, Lee County Utilities is planning to meet the highest projected future demand calculated through the application to modify a current consumptive use permit. Utilities staff have concluded that the projection represents a conservative approach. This projection uses a high growth period from 2003 through 2007 to develop a growth rate for the projection representing the highest projected demand.

As noted above, the population and flow projections discussed were based on various planning efforts and are described and summarized in greater detail in Section 3 of the Lee County Water Supply Facilities Work Plan.

Under the Work Plan's assessment of needs it concludes that Lee County Utilities is in need of additional water treatment and water supply capacity in order to meet the demands of population

growth to 2030. Lee County has developed and is in the process of implementing Capital Improvement Projects for water supply development as outlined in the proposed Water Supply Facilities Work Plan to expand water supply and treatment capacity to meet the anticipated growth demands for potable water. Implementation of the Capital Improvement Plan to increase production scheduled between now and 2014 will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 32 mgd to a combined capacity of 60 mgd. This combined capacity is in excess of the projected demand of 51 mgd anticipated in 2018.

Future Land Use

In 2005 Chapter 163.3177(6)(a) F.S. was revised requiring that the future land use plan to be based on the availability of water supplies and public facilities. The statutory requirements direct each local government to ensure adequate water supply and facilities for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review. Data and analysis should demonstrate that adequate water supply and associated facilities will be available to meet projected growth. The requirements focus on water supply planning and treatment/delivery facilities.

As part of the plan amendment review process for a Future Land Use Map amendment, staff currently evaluates existing and future conditions for facilities capable of serving the site. In response to the statutory requirements additional analysis for potable water will be evaluated pertaining to water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures applied to the site. This analysis will be undertaken in addition to the current facility analysis reviewed during the plan amendment process. The additional requirements have been added to the Lee County application for a comprehensive plan amendment and are shown in underline format as follows:

> *Provide an existing and future conditions analysis for (see Policy 95.1.3):*
> *a. Sanitary Sewer*
> *b. Potable Water*
> *c. Surface Water/Drainage Basins*
> *d. Parks, Recreation, and Open Space*
> *e. Public Schools.*
>
> *Analysis should include (but is not limited to) the following (see the Lee County Concurrency Management Report):*
> - *Franchise Area, Basin, or District in which the property is located;*
> - *Current LOS, and LOS standard of facilities serving the site;*
> - *Projected 2030 LOS under existing designation;*
> - *Projected 2030 LOS under proposed designation;*
> - *Existing infrastructure, if any, in the immediate area with the potential to serve the subject property.*
> - *Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and*
> - *Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).*
> - *Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water.*
>
> *In addition to the above analysis for Potable Water:*
>
> - *Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.*
> - *Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.*
> - *Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.*
> - *Include any other water conservation measures that will be applied to the site (see Goal 54).*

Water Supply Concurrency

Statutory provisions have also been amended to ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy. In 2005 Chapter 163.3180(2)(a), F.S. was revised to add water supply as a concurrency requirement and states the following: *Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water 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 or its functional equivalent. Prior to 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 the 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.*

Lee County currently ensures facility capacity through the County's concurrency management system. Facility capacity is reviewed and capacity determinations are made prior to a concurrency certificate being issued for local development order approvals and certificates are valid for 3 years. Building permits are verified for adequate facility capacity based on a valid concurrency certificate and single family permitting procedures require a letter from the utility company verifying availability.

The Lee Plan maintains several policies reproduced below requiring facility capacity. For example, Standard 11.1 sets the threshold for mandatory connection to a public water system as well as the requirement that the projected need of a development does not exceed the supply and facility capacity of the utility. Policy 53.1.5 specifies that no development order will be issued unless potable water service, at the minimum acceptable level of service, is available or surety is given that it will be installed prior to occupancy. Policy 95.1.3 specifies the minimum acceptable level of service for potable water facilities. These requirements are reproduced below.

In addition, as part of the subject review, staff has incorporated a proposed update to Policy 53.1.5 as shown below. The update proposes to delete the statement that "County development regulations will be amended." Potable water system requirements are incorporated into the County development regulations through Lee County Land Development Code Chapter 10, Division 4, Section 10-351 and 10-352 reflecting the standards and intent of Policy 53.1.5. The update also proposes to replace the reference to the Development Standards Ordinance with the reference to the Land Development Code. The updated reference replaces the old reference with the current code.

STANDARD 11.1: WATER.

1. *Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).*

2. *If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.*

3. *The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.*

4. *All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.*

5. *If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.*

6. *If a development lies outside any service area as described above, the developer may:*

   - *request that the service area of an adjacent water utility be extended to incorporate the property;*
   - *establish a community water system for the development; or*
   - *develop at an intensity that does not require a community water system.*

(Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.5: *~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)*

POLICY 70.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. *Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).*

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. *Potable Water Facilities:*

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

The additional statutory provisions require local governments to revise their comprehensive plans to address water supply concurrency. To maintain water supply concurrency the guidelines recommend policy revisions to local comprehensive plans and land development codes that suggest for example requiring a written statement from the water supplier regarding the availability of water to serve a proposed project. Determining the availability of water supply will involve determining the water use allocation through the consumptive use permit for the utility's service area based on the annual average daily withdrawal rate. An analysis of the current demand and the projected demand will identify the available water supply for all existing and proposed water demands.

The statutory requirements require assurance that adequate water supply and facilities are available to serve new development no later than issuance of a certificate of occupancy. Staff proposes new Objective 53.2 and Policy 53.2.1 as an addition to the Potable Water sub-element establishing concurrency management specifically for water supply planning. The Objective will ensure that water supply will be available concurrent with development in addition to facility capacity currently addressed through the Lee County Concurrency Management System. The Policy will ensure that new development meets concurrency standards for water supply prior to approval of a development order and the issuance of a concurrency certificate, similar to the facility requirement in Policy 53.1.5 noted above.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

Potable Water Sub-element

Statutory provisions also require revisions to the Potable Water sub-element directing local governments to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

The expansion of the comprehensive plan requirements strengthening the coordination of water supply and land use planning requires the adoption of a Water Supply Facilities Work Plan for a ten year planning period. The requirements also provide that the Potable Water sub-element should be revised to identify and incorporate alternative water supply projects identified by the regional water supply plan as well as identifying bulk sales agreements and conservation and reuse programs necessary to meet demands. Section 4 of Lee County's Work Plan addresses water supply facilities necessary to serve existing and projected development for which the local government is responsible through the year 2030. Section 5 of the Work Plan addresses alternative water resources. Bulk water service is provided to the Town of Fort Myers Beach through a bulk water service agreement. The Work Plan notes in the introduction section of the document that the Town of Fort Myers Beach and the Gateway Service District are included in the Lee County Utilities service area. Both service areas are accounted for in Lee County Utilities data analysis. Conservation and reuse are also discussed in Section 5 of the Work Plan.

In order to address the inclusion of the Water Supply Facilities Work Plan in the Potable Water sub-element staff proposes a new Table 6, titled Water Supply Development Plan, for adoption into the Lee Plan. Table 6 is based on the Work Plan and the Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff notes that while the proposed table shows estimated completion dates out to the year 2014, the projections assume the County's water supply needs for a ten year planning period. The proposed table can be found as Attachment 2.

Staff is also proposing new Policy 53.1.11 as an addition to the Potable Water sub-element. This policy refers to Table 6, outlining the facilities needed to meet the projections made in the Water Supply Facilities Work Plan while text changes to Policy 55.1.3 of the Potable Water sub-element implement the Water Supply Facilities Work Plan itself, fulfilling the Potable Water sub-element requirements.

> **POLICY 53.1.11:** The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

> **POLICY 55.1.3:** Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

Five Year Schedule of Capital Improvements

The statutory requirements call for any necessary revisions to the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

The Five Year Schedule of Capital Improvements will be updated to include projects and programs to be implemented during the five year period as part of the annual Capital Improvements Program review, per Florida Statute 163.3177(3)(b).

Conservation and Coastal Management Element

The statutory requirements require the local government to revise the Conservation Element to assess projected water needs and sources for a ten year planning period. Staff proposes the following text changes to Policy 117.1.2 as well as the addition of Policy 117.1.9 to the Conservation and Coastal Management Element. The additions to Policy 117.1.2 reflect the recommendations of the Lower West Coast Water Supply Plan, recognizing the regional water supply plan as well as implementing the Lee County Water Supply Facilities Work Plan. The addition of Policy 117.1.9 reflects the assessments made in the Water Supply Facilities Work Plan.

> **POLICY 117.1.2:** The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

Intergovernmental Coordination Element

Revisions to the Intergovernmental Coordination Element are also required to ensure coordination of the comprehensive plan with the regional water supply plan. The following new text, Objective 151.5 and Policy 151.5.1 are being proposed to insure such coordination. Objective 151.5 states that the county will coordinate with the SFWMD to insure Lee Plan consistency, while Policy 151.5.1 states that the county will continue to evaluate the District's water supply plans in order to maintain consistency.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

The Lee Plan

The Lee Plan contains an extensive amount of policies addressing water usage, conservation, protection, overlays, quality, quantity, surface water, and groundwater. Listed as Attachment 3 are those Goals, Objectives, and Policies of the Lee Plan that relate directly to the intent of the subject amendment. Included among those listed are the proposed changes in strike-through/underline format that address the additional changes required to be made to the Potable Water sub-element, the Conservation Element, and the Intergovernmental Coordination Element.

Additional Information

As part of the preparation of the Water Supply Facilities Work Plan amendment, local governments are required to coordinate with any water suppliers delivering water within the local government's jurisdiction. Planning data such as current consumptive use permits, projected demands, and planned resources for those components of the supply system that the local government does not have responsibility should be obtained from the suppliers and incorporated into the Work Plan confirming adequate sources.

The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Greater Pine Island Water Association, Florida Governmental Utility Authority, Gasparilla Island Water Association, Inc., and Island Water. Bonita Utilities provides water for the city of Bonita Springs and vicinity, Greater Pine Island Water Association provides water for Greater Pine Island and vicinity, Florida Governmental Utility Authority provides water for Lehigh Acres, Gasparilla Island Water Association, Inc. provides water for Gasparilla Island, and Island Water provides water for Sanibel and Captiva Islands.

Staff has coordinated with each of the suppliers to obtain information from their consumptive use permits as well as the suppliers projected demands and existing and planned water sources. The

collected data and analysis is reviewed under Section 7 of the Lee County Water Supply Facilities Work Plan.

B. CONCLUSIONS

The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning. These requirements direct local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans. In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. Staff is proposing new text and text changes to several elements of the Lee Plan as well as proposing a Water Supply Facilities Work Plan and a new Lee Plan Table based on the Work Plan in order to comply with the expanded requirements.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners transmit this proposed amendment. This recommendation is based upon the previously discussed issues and conclusions of this report. Planning staff recommends the Board of County Commissioners transmit the changes to the Lee Plan as proposed in Part I.B.1. of this report.

PART III - LOCAL PLANNING AGENCY REVIEW AND RECOMMENDATION

DATE OF PUBLIC HEARING: September 22, 2008

A. LOCAL PLANNING AGENCY REVIEW

Planning staff gave a brief presentation concerning the proposed amendment. One member of the LPA asked what is being planned for developing a desalinization plant. Lee County Utilities staff provided that desalinization is an option covered in the Water Supply Work Plan. Utilities staff provided that Lee County Utilities is currently in negotiations for a contract with a consultant to do an integrated water resource master plan which will look at desalinization. Staff has also been following the efforts of the water management district. The member of the LPA then asked if it is anticipated that Lee County will have sufficient water resources for urban use for the next 20 to 30 years. Utilities staff noted that the work plan addresses potable demands and the conclusions made in the work plan confirm that Lee County is planning enough capacity development to meet the projected demand out at least 10 years and depending on the demand projection you use, meeting the projected demand out to 2025. Another member of the LPA noted that utility staff will be attending the water conference and was interested in hearing an update when staff returned. Utilities staff noted that the water supply work plan must be updated every 5 years, 18 months after the Lower West Coast Water Supply Plan is revised.

B. LOCAL PLANNING AGENCY RECOMMENDATION AND FINDINGS OF FACT SUMMARY

1. **RECOMMENDATION:** The LPA recommends that the Board of County Commissioners transmit the proposed amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The LPA accepted the findings of fact as advanced by the staff.

C. VOTE:

NOEL ANDRESS	**AYE**
LES COCHRAN	**AYE**
RONALD INGE	**AYE**
JACQUE RIPPE	**AYE**
CARLETON RYFFEL	**AYE**
LELAND TAYLOR	**ABSENT**
RAE ANN WESSEL	**AYE**

PART IV - BOARD OF COUNTY COMMISSIONERS
HEARING FOR TRANSMITTAL OF PROPOSED AMENDMENT

DATE TRANSMITTAL HEARING: October 22, 2008

A. BOARD REVIEW: The Board of County Commissioners provided no discussion concerning the proposed plan amendment. No public input was provided concerning the proposed plan amendment. This item was approved on the consent agenda.

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. **BOARD ACTION:** The Board of County Commissioners voted to transmit the proposed plan amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The Board accepted the findings of fact as advanced by staff and the LPA.

C. VOTE:

A. BRIAN BIGELOW	**AYE**
TAMMARA HALL	**AYE**
ROBERT P. JANES	**AYE**
RAY JUDAH	**AYE**
FRANKLIN B. MANN	**AYE**

PART V - DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS, AND COMMENTS (ORC) REPORT

DATE OF ORC REPORT: _____

A. DCA OBJECTIONS, RECOMMENDATIONS AND COMMENTS

B. STAFF RECOMMENDATION

PART VI - BOARD OF COUNTY COMMISSIONERS HEARING FOR ADOPTION OF PROPOSED AMENDMENT

DATE OF ADOPTION HEARING: _____

A. BOARD REVIEW:

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

C. VOTE:

	_____
A. BRIAN BIGELOW	_____
TAMMARA HALL	_____
ROBERT P. JANES	_____
RAY JUDAH	_____
FRANKLIN B. MANN	_____

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 Pwky. 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

Potable Water Policy in the Lee Plan

Future Land Use Element

STANDARD 11.1: WATER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).

2. If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.

3. The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.

4. All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.

5. If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.

6. If a development lies outside any service area as described above, the developer may:

   - request that the service area of an adjacent water utility be extended to incorporate the property;
   - establish a community water system for the development; or
   - develop at an intensity that does not require a community water system.

(Amended by Ordinance No. 94-30, 00-22)

Community Facilities and Services Element

Potable Water Sub-Element

GOAL 53: POTABLE WATER INFRASTRUCTURE. To ensure the public health, welfare, and safety by the provision of high-quality central potable water service throughout the future urban areas of unincorporated Lee County, and to ensure that the costs of providing facilities for the supply of potable water are borne by those who benefit from them.

OBJECTIVE 53.1: The County will ensure the provision of acceptable levels of potable water service throughout the future urban areas of the unincorporated county, either directly by Lee County Utilities, or indirectly through franchised utility companies. (Amended by Ordinance No. 94-30, 00-22, 03-04)

POLICY 53.1.1: The Board of County Commissioners hereby establishes service areas for the Lee County Utilities water systems throughout which it will provide standard service as required by demand, and within which it will challenge applications by private water utilities to obtain a

Certificate of Operation from the Florida Public Service Commission and reject all applications for a county franchise therein. These service areas are illustrated in Map 6. Within the Fort Myers urban reserve area, the service areas shown on the map are subject to modifications in accordance with existing and future interlocal agreements. (Amended by Ordinance No. 93-25)

POLICY 53.1.2: The minimum acceptable level-of-service standards (see Policy 95.1.3) for potable water connections to Lee County Utilities will be:

- An available supply and treatment capacity of 250 gallons per day per equivalent residential connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.3: The Board of County Commissioners encourages all private utilities to set a minimum acceptable level of service to be adopted herein for use in the concurrency management system within their respective franchised or certificated areas. After the effective date of this plan or September l, l989, whichever is later, if the county has not adopted such standards into this plan, the standards adopted for the Lee County Utilities' water systems will apply in those certificated or franchised areas and will be used in enforcing concurrency regulations (see Policy 95.1.3).

After the deadline set above any private utility that cannot meet the Level-of- Service standards set forth for Lee County Utilities will have the opportunity to petition for a Plan Amendment for a revised Level-of-Service requirement for the specific private utility plant if it can be proved that such utility has sufficient plant and system capacity to properly service it's franchised or certificated area. The proof will be in the form of properly documented daily flow reports, occupancy rates or related statistical information, and any other necessary information that may be pertinent to the justification of the requested action, to establish a new individual Level-Of-Service standard. This data should be for a period covering at least the last two prior years. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.4: The Board of County Commissioners urges all utilities to construct and install sufficient treatment facilities and distribution systems that will meet or exceed the minimum acceptable service standards and with the capacity to deliver water at a pressure of 20 pounds per square inch (wp PSI static) at the meter anywhere on the individual system (excluding fire flow conditions). In addition, by September 30, 1994, all utilities are urged to deliver water pressure of 40 pounds per square inch (static pressure, excluding fire flow conditions). Each utility is encouraged to advise the planning and engineering staffs of the county regarding system expansions or modifications to ensure coordination with other utilities and with all other issues of public interest and to prevent duplication of facilities and services. (Amended by Ordinance No. 92-35)

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)

POLICY 53.1.6: No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised

area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required. (Amended by Ordinance No. 00-22)

POLICY 53.1.7: In allocating Industrial Development Revenue Bond capacity, the county will give priority to private water utility firms proposing to construct basic facilities and to provide or upgrade infrastructure serving developed areas and antiquated subdivisions undergoing redevelopment. (Amended by Ordinance No. 00-22)

POLICY 53.1.8: The costs of new or augmented potable water infrastructure that is developed by Lee County will be borne by those who benefit from the improved supply. (Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.9: New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard potable water for that development. (Amended by Ordinance No. 00-22)

POLICY 53.1.10: By 1999, county staff will formulate the study proposal to determine the appropriateness of requiring certain existing residential developments at a density equal to or in excess of 2.5 dwelling units per acre to connect to a potable water or sewer system, if available. The study will address the issue of health related problems and will include the collection and analysis of well samples to determine if there is an immediate health problem as well as a cost benefit analysis. This study proposal will include recommendations regarding which pre-platted communities and subdivisions should be required to connect to a potable water or sewer system, if available. (Added by Ordinance No. 98-09, Amended by Ordinance No. 00-22)

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

GOAL 54: CONSERVATION.

To ensure that future populations have access to potable water supplies and services at a reasonable price by using and encouraging conservation and resource management measures to reduce consumption of potable water.

OBJECTIVE 54.1: The county will continue its programs in education, technical advice, demonstration, rate revisions, and reuse to reduce potable water consumption and the consumption of large volumes of potentially potable water. Water consumption per Equivalent Residential Unit will be decreased by 2.5% annually through the year 2000. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.1: Using the personnel and resources of various county agencies, Lee County will continue to offer a program of public information and education. This program should include the

use of print media, advertising, and public service announcements on radio and television highlighting and advocating various strategies of water conservation, including, but not limited to:

- creating incentives for "gray water" systems or other recycling activities;
- adopting incentives for household and commercial use of appliances with low water consumption rates;
- advising householders to reduce water use;
- creating a demand for low water use appliances by publishing ratings of water use efficiency for appliances analogous to the energy efficiency ratings for electrical appliances;
- advocating the cost-effective use of appliances and water: i.e. run only full loads or use low water settings when appropriate;
- encouraging the building or grounds manager, including the individual householder, to maintain the water system, i.e. timely repair of dripping faucets, leaking water closets, broken or maladjusted sprinkler heads, etc.;
- installing alternatives to spray irrigation devices for lawns and grounds management such as drip or seep systems, or at least attending to the ambient humidity and evapo-transpiration rates in controlling sprinkler systems;
- encouraging the use of drought-tolerant ground covers and shrubbery according to the principles of "xeriscape" (see glossary and Objective 117.2) and demonstrating the uses of native vegetation in landscaping; and
- generally encouraging the thoughtful use of water in all necessary activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.2: In developing and implementing local landscape regulations including the preservation, reforestation, and wetlands restoration requirements, preference will be given to native species which are adapted to the region's climatic regime.

POLICY 54.1.3: Xeric landscaping, stressing the use of native vegetation, is to be emphasized through modifications to the county's development regulations and through direct action while landscaping county-owned projects.

POLICY 54.1.4: The Board of County Commissioners will periodically re-examine the "step rate" structure for the Lee County Utilities water systems which encourages water conservation by requiring that the commodity charge (basic monthly charge less readiness to serve fee and capital debt contribution) above a specified amount of water use increase continuously or by specified increments for that increased use of water. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.5: The Board of County Commissioners will encourage privately operated potable water utilities to adopt a "conservation" rate structure for users in their respective service areas. (Amended by Ordinance No. 00-22)

POLICY 54.1.6: Development regulations will continue to require that any development will pay the appropriate fees and connect to a re-use water system if such system is near or adjacent to the development and has sufficient surplus to supply the development. Development regulations will be amended further as follows:

- Where a significant modification is proposed to a major development subject to Chapter 10 of the Land Development Code, wastewater reuse systems will be required in the same manner as for new developments.

- The county will require by ordinance the connection of specified existing development to a utility wastewater distribution system when one is available near or adjacent to the property.

(Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.7: It is hereby declared that the conservation of potable water supply and facility capacity is of such importance to the orderly growth of the community that in order to further provide incentive for its use, reuse water may be provided at a price significantly lower than finished potable water (the residual costs of operation being charged to the sewer users as part of the cost of effluent disposal).

POLICY 54.1.8: Priority in the use of Industrial Development Revenue Bonds or other mechanisms of public finance will be given to regulated private utilities where not prohibited by the Florida constitution or statutes in order to achieve these public ends. (Amended by Ordinance No. 00-22)

POLICY 54.1.9: Lehigh Acres (as defined by outer boundaries of its Privately Funded Infrastructure overlay on the Future Land Use Map) is hereby declared a critical area for future potable water supply due to fluctuating water levels in the Sandstone aquifer. In response to this designation, the county will amend current regulations to provide that new wells in Lehigh Acres must be constructed to accommodate submersible pumps. (Also see Policy 1.7.10 for new permit requirements for irrigation wells in Bonita Springs, and Policy 2.4.2 for special requirements for amendments to the Future Land Use Map.) (Amended by Ordinance No. 94-30, 00-22, 02-02)

POLICY 54.1.10: The county will continue to implement and enforce regulations to reduce the amount of effluent being discharged into surface waters. (Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.11: Continue to encourage new and existing developments to utilize the Fort Myers Beach/Iona-McGregor sewer system's dual water system. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 98-09)

POLICY 54.1.12: Promote water conservation through the use of incentives and evaluate and apply a community based planning approach to water conservation, enabling more precision to be applied in achieving reduction targets. (Added by Ordinance No. 07-16)

GOAL 55: ORGANIZATION OF SERVICE AND FACILITY DELIVERY.

To provide greater local coordination of the activities of public and private utilities within the county.

OBJECTIVE 55.1: Ensure an adequate, reliable, and economical supply of potable water to meet the forecasted needs for all residents of Lee County through the year 2020 through regional planning and intergovernmental participation. (Amended by Ordinance No. 94-30)

POLICY 55.1.1: Lee County Utilities and Lee County Division of Natural Resources will plan and coordinate with other government agencies in the development of comprehensive plans as they relate to well field protection, aquifer recharge, water supply, and related capital facilities. (Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04).

POLICY 55.1.2: Lee County Division of Natural Resources in conjunction with Lee County Utilities will perform groundwater modeling and analysis for new development, as needed, to

assess the potential impact on the water resources of Lee County. The analysis will focus on the following issues:

- Adequacy of water supply, including groundwater level draw-down
- Avoidance of adverse impacts on natural systems from water supply withdrawals.

(Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04)

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~ (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22, Relocated by Ordinance No. 03-04)

POLICY 55.1.4: Lee County will continue to collect data from private suppliers of potable water, including reporting of water flows, storage capacity, pressures, number of customers, and committed future connections, and proposed expansion plans. This data will be updated on a yearly basis. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22)

Surface Water Management Sub-Element

GOAL 61: PROTECTION OF WATER RESOURCES. To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.

OBJECTIVE 61.1: WATER SUPPLY PLANNING. All county water supply planning will include the recognition of surface water runoff as a possible resource and will consider integrating the use of surface water runoff in any supply program or strategy that results. (Amended by Ordinance No. 00-22)

POLICY 61.1.1: Lee County recognizes that all fresh waters are a resource to be managed and allocated wisely, and will support allocations of the resource on the basis 1) of ensuring that sufficient water is available to maintain or restore valued natural systems, and 2) of assigning to any specified use or user the lowest quality fresh water compatible with that use, consistent with financial and technical constraints. (Amended by Ordinance No. 00-22)

POLICY 61.1.2: The county will explore, and implement where financially and technically feasible, all existing options for storing and utilizing excess surface water runoff for human consumption and other uses. Such options may include surface impoundments; back-pumping to reservoirs, to upland wetlands, or to ground storage; and ground storage by exfiltration systems or by aquifer storage and recovery systems. Maximum contaminant levels consistent with Florida DEP and USEPA regulations governing receiving waters will be met through treatment as required. Excess surface water runoff will be defined as that water not required to maintain or restore estuarine waters or other valued wetland systems. (Amended by Ordinance No. 94-30, 00-22)

POLICY 61.1.3: In the event that the timing and volume of freshwater discharges necessary to maintain the health and productivity of estuaries and other wetlands cannot be determined or supported by existing scientific data, the county will sponsor, in collaboration with other agencies,

institutions, and organizations, adequate research programs to make such data available. (Amended by Ordinance No. 00-22, 07-12)

POLICY 61.1.4: The county's Surface Water Management Master Plan will place particular emphasis on 1) routing surface water runoff from areas of excess to areas where additional subsurface storage is available; and 2) maintaining and increasing historic surface and groundwater levels in the Density Reduction/Groundwater Resource land use category. (Amended by Ordinance No. 00-22)

POLICY 61.1.5: Work with the appropriate agencies to pursue funding a "mixing model" (freshwater flow into saltwater) as a management tool that will benefit recreation, water quality, public health, etc. (Added by Ordinance No. 07-16)

Groundwater Recharge Sub-Element

OBJECTIVE 63.2: POTABLE GROUNDWATER. Base all future development and use of groundwater resources on determinations of the safe yield of the aquifer system(s) in order not to impair the native groundwater quality or create other environmental damage. Criteria for safe-yield determinations will be determined by the SFWMD, the agency charged with permitting these activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 63.2.1: For maximum protection of groundwater resources, identify future wellfields and/or relocation site(s) for existing wellfields well in advance of need. Coordinate with SFWMD, other water suppliers, and DEP to avoid duplication and to assist in data collection and interchange. (Amended by Ordinance No. 94-30)

POLICY 63.2.2: Institute a program to identify sources of groundwater pollutants in Lee County and to map these (point and non-point) on a county-wide basis.

POLICY 63.2.3: Identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater. (Amended by Ordinance No. 94-30)

POLICY 63.2.4: Expand current programs to identify and map the contamination potential of groundwater resources for those areas of Lee County not currently under public ownership.

POLICY 63.2.5: Lee County, in cooperation with other agencies and the municipalities, will budget to maintain its current program of plugging non-valved, abandoned, or improperly-cased artesian wells so that at least seventy-five of these wells are plugged each year until such wells are eliminated. (Amended by Ordinance No. 94-30, 00-22)

Capital Improvements Element

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth

herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. Potable Water Facilities:

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

Conservation and Coastal Management Element

OBJECTIVE 112.2: The county will continue to participate with other governments to prepare and implement water management plans, including the Estero Bay Agency on Bay Management, Charlotte Harbor National Estuary Program, the Charlotte Harbor Management Plan, the Water Management District Surface Water Improvement and Management (SWIM) plans, DEP aquatic preserve management plans, water supply plans, and other water resource management plans. (Amended by Ordinance No. 94-30, 98-09, 00-22)

GOAL 117: WATER RESOURCES. To conserve, manage, and protect the natural hydrologic system of Lee County to insure continued water resource availability. (Amended by Ordinance No. 94-30)

OBJECTIVE 117.1: WATER SUPPLIES. Insure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems.

POLICY 117.1.1: Natural water system features which are essential for retention, detention, purification, runoff, recharge, and maintenance of stream flows and groundwater levels shall be identified, protected, and managed.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.3: Freshwater resources will be managed in order to maintain adequate freshwater supplies during dry periods and to conserve water. (Amended by Ordinance No. 00-22)

POLICY 117.1.4: Development designs must provide for maintaining surface water flows, groundwater levels, and lake levels at or above existing conditions. (Amended by Ordinance No. 00-22)

POLICY 117.1.5: The county will cooperate with the United States Geological Survey, South Florida Water Management District, and state agencies to develop an area-wide water resources plan emphasizing planning and management of water resources on the basis of drainage basins; and addressing the needs of the existing and potential built environment, natural hydrologic system requirements, and freshwater flow impacts on estuarine systems. (Amended by Ordinance No. 00-22)

POLICY 117.1.6: The county will continue to support a monitoring program of existing baseline conditions of water resources. (Amended by Ordinance No. 00-22)

POLICY 117.1.7: The county will cooperate fully with emergency water conservation measures of the South Florida Water Management District. (Amended by Ordinance No. 00-22)

POLICY 117.1.8: The county will support the acquisition and protection of the Flint Pen Strand as a major water retention and aquifer recharge area. (See also Policy 107.11.4.) (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 117.2: XERISCAPE LANDSCAPE. The county will continue to promote xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.1: The county will continue to encourage xeriscape landscaping techniques for new development in the Land Development Code. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.2: The county will provide education on water conservation through creative landscaping, and promote the conservation and use of native plant species through xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.3: The county will establish local guidelines that will assist in efforts to reduce landscape irrigation water use to the lowest and most efficient, practical level. (Amended by Ordinance No. 00-22)

Intergovernmental Coordination Element

OBJECTIVE 151.3: COORDINATION OF ROADWAY AND UTILITY IMPROVEMENTS. Coordinate, where possible, between the Lee County Department of Transportation (DOT) and utility companies, including Lee County Utilities and the various privately operated water and wastewater companies, to insure that capital and maintenance projects are not adversely affected by subsequent utility construction. (Added by Ordinance No. 94-30)

POLICY 151.3.1: Lee County DOT will continue open communications with the various water and wastewater utility companies to coordinate expected utility construction projects with programmed roadway maintenance and capital projects. (Added by Ordinance No. 94-30, Amended by Ordinance No. 07-12)

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to insure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to insure consistency in the Lee Plan and the county's Water Supply Facilities Work Plan.

CPA 2006-20
WATER SUPPLY FACILITIES WORK PLAN
BoCC SPONSORED
AMENDMENT
TO THE

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

BoCC Public Hearing Document
for the
February 25th Adoption Hearing

Lee County Planning Division
1500 Monroe Street
P.O. Box 398
Fort Myers, FL 33902-0398
(239) 533-8585

January 16, 2009

LEE COUNTY
DIVISION OF PLANNING
STAFF REPORT FOR
COMPREHENSIVE PLAN AMENDMENT
CPA 2006-20

☑ Text Amendment ☐ Map Amendment

✓	**This Document Contains the Following Reviews:**
✓	**Staff Review**
✓	**Local Planning Agency Review and Recommendation**
✓	**Board of County Commissioners Hearing for Transmittal**
✓	**Staff Response to the DCA Objections, Recommendations, and Comments (ORC) Report**
	Board of County Commissioners Hearing for Adoption

STAFF REPORT PREPARATION DATE: September 12, 2008

PART I - BACKGROUND AND STAFF RECOMMENDATION

A. SUMMARY OF APPLICATION

1. **APPLICANT:**
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
REPRESENTED BY LEE COUNTY DIVISION OF PLANNING

2. **REQUEST:**
Amend the Community Facilities and Services, Potable Water sub-element, the Conservation and Coastal Management Element, and the Intergovernmental Coordination Element of the Lee Plan to coordinate appropriate aspects of the comprehensive plan with the South Florida Water Management District Water Supply Plan and to include a ten year Water Supply Facilities Work Plan as required by s. 163.3177 (6)(c), F.S.

B. REVISED STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners adopt this proposed amendment with the following text changes and proposed Table 7 as shown in Attachment 2:

> **POLICY 53.1.5:** ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more

than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 7, the 10 Year Water Supply Development Projects Table. Table 7 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no building permit under the Land Development Code will be issued in a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy does not exempt development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 7, the 10 Year Water Supply Development Projects Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

C. ORIGINAL STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners transmit this proposed amendment with the following text changes and proposed Table 6 as shown in Attachment 2:

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

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POLICY 55.1.3: Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

- The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning directing local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans.

- In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to facility capacity.

- In July of 2006 the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update).

- The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period.

- Staff is proposing new text and text changes to several elements of the Lee Plan, including the implementation of water supply concurrency requirements, and a new Table based on the Work Plan in order to comply with the expanded requirements.

C. BACKGROUND INFORMATION

This amendment was initiated by the Board of County Commissioners on October 3, 2006. The amendment addresses bills enacted by the Florida Legislature to improve the coordination between land use planning and water supply planning. In 2002 legislation added requirements to Chapter 163 F.S. requiring local governments to prepare a 10 year water supply facilities work plan and incorporate the work plan into the comprehensive plan. The work plan should describe the water supply facilities necessary to serve existing and future development for a 10 year planning period. The legislation focused on the need for comprehensive plans to coincide with the regional water supply plans prepared by each water management district.

In 2003 staff prepared a work plan and an update to the Lee Plan to incorporate the new requirements and the Board of County Commissioners transmitted the amendment to the Department of Community Affairs. In 2004 the Legislature increased the timeframe for local governments to adopt a water supply plan due to the fact that the water management districts were in the process of updating and receiving approval for regional water supply plans. At that time the 2003 work plan and plan amendment were placed on hold until the South Florida Water Management District's (SFWMD) regional water supply plan could be updated and approved.

In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water

supplies to serve future demand in addition to the facilities serving demands. In July of 2006, the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update). The subject amendment encompasses the changes enacted by the legislature through the incorporation of the Work Plan and policy changes into the Lee Plan, Lee County's Comprehensive Plan.

PART II - STAFF ANALYSIS

A. STAFF DISCUSSION

Introduction

In 2006 the SFWMD issued the most recent water supply plan, titled the *Lower West Coast Water Supply Plan*. The plan describes traditional water sources and alternative water sources to meet projected demands through 2025. Lee County Utilities participated in the SFWMD's planning during the preparation of the *Lower West Coast Water Supply Plan* and has made every effort to ensure Lee County Utilities water supply planning is consistent with the regional plan. The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period. The Work Plan addresses sources, consumptive use permitting, facilities, and alternative water resources, addressing water supply planning through the planning period. The proposed Water Supply Facilities Work Plan is attached to the back of this staff report and is discussed in further detail below. In addition to the adoption of the Work Plan each local government must coordinate their comprehensive plans and water supply planning as follows:

- Future Land Use - Ensure adequate water supply and facilities will be available to meet projected growth demands using data and analysis demonstrating availability for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review.

- Water Supply Concurrency - Ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy.

- Revise the Potable Water Sub-element to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

- Revise the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

- Revise the Conservation and Coastal Management Element to assess projected water needs and sources for a ten year planning period.

- Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the regional water supply plan.

Work Plan

The proposed Work Plan provides a planning horizon through the year 2030. The attached work plan has been prepared by Lee County Utilities and is a technical document covering existing and proposed facilities and water supply sources, the County's capital improvement plan for water supply and treatment, alternative water resources, as well as covering the County's water conservation plan.

Lee County utilities provides water supply to the areas of Lee County that are not served by incorporated cities, private utility companies, or member owned non-profit systems. Lee County Utilities currently operates (6) six water supply facilities under Water Use Permits from the SFWMD, (7) seven water treatment facilities under permits issued by the Lee County Health Department, and (4) four reclaimed water systems.

The population and flow projections calculated in the Lee County Water Supply Facilities Work Plan were based on various planning efforts. The Work Plan compares the methodology developed in the Lower West Coast Water Supply Plan, data analysis and projections by Lee County Utilities supporting modifications to a current water use permit, and population estimates and projections computed by the Lee County Division of Planning.

During the formulation of the Lower West Coast Water Supply Plan the University of Florida Bureau of Economic and Business Research medium projections were utilized and disaggregated the historic population and projected population into Traffic Analysis Zones (TAZ's) for the existing and future service area. The Lower West Coast Water Supply Plan projected annual average daily demand in 2018 is 31.08 million gallons per day (mgd).

Lee County population estimates and projections performed by the Lee County Division of Planning use assumptions based on a review of the 1980, 1990, and 2000 United States Census data. To calculate the estimated population of the area served by Lee County Utilities staff geographically selected the parcels served and joined the data with the parcel inventory to obtain unit counts and planning community information allowing population assumptions to be multiplied to unit counts. Planning staff computed the existing population for the area served by Lee County Utilities and the projected population for the future service area depicted in the Lee County comprehensive plan for 2030. The development assumptions are the same as those used to generate the 2030 land use allocation acreages adopted in Lee Plan Table 1(b). The 2018 maximum demand projection based on this analysis is 35.65 mgd.

In support of an application to modify a current consumptive use permit, Lee County Utilities available data from billing records were used to develop population and demand projections. An average annual growth rate was determined and actual system demands was used in conjunction with population data to determine the average per capita daily use rate and a peaking ratio. Population projections were then made based on annual average growth rate. The projected maximum month daily average demand is 50.70 mgd. The subject projection represents the highest projected demand in the future.

In order to ensure sufficient future capacity, Lee County Utilities is planning to meet the highest projected future demand calculated through the application to modify a current consumptive use permit. Utilities staff have concluded that the projection represents a conservative approach. This projection uses a high growth period from 2003 through 2007 to develop a growth rate for the projection representing the highest projected demand.

As noted above, the population and flow projections discussed were based on various planning efforts and are described and summarized in greater detail in Section 3 of the Lee County Water Supply Facilities Work Plan.

Under the Work Plan's assessment of needs it concludes that Lee County Utilities is in need of additional water treatment and water supply capacity in order to meet the demands of population growth to 2030. Lee County has developed and is in the process of implementing Capital Improvement Projects for water supply development as outlined in the proposed Water Supply Facilities Work Plan to expand water supply and treatment capacity to meet the anticipated growth demands for potable water. Implementation of the Capital Improvement Plan to increase production scheduled between now and 2014 will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 32 mgd to a combined capacity of 60 mgd. This combined capacity is in excess of the projected demand of 51 mgd anticipated in 2018.

Future Land Use

In 2005 Chapter 163.3177(6)(a) F.S. was revised requiring that the future land use plan to be based on the availability of water supplies and public facilities. The statutory requirements direct each local government to ensure adequate water supply and facilities for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review. Data and analysis should demonstrate that adequate water supply and associated facilities will be available to meet projected growth. The requirements focus on water supply planning and treatment/delivery facilities.

As part of the plan amendment review process for a Future Land Use Map amendment, staff currently evaluates existing and future conditions for facilities capable of serving the site. In response to the statutory requirements additional analysis for potable water will be evaluated pertaining to water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures applied to the site. This analysis will be undertaken in addition to the current facility analysis reviewed during the plan amendment process. The additional requirements have been added to the Lee County application for a comprehensive plan amendment and are shown in underline format as follows:

> *Provide an existing and future conditions analysis for (see Policy 95.1.3):*
> *a. Sanitary Sewer*
> *b. Potable Water*
> *c. Surface Water/Drainage Basins*
> *d. Parks, Recreation, and Open Space*
> *e. Public Schools.*
>
> *Analysis should include (but is not limited to) the following (see the Lee County Concurrency Management Report):*
> - *Franchise Area, Basin, or District in which the property is located;*
> - *Current LOS, and LOS standard of facilities serving the site;*
> - *Projected 2030 LOS under existing designation;*
> - *Projected 2030 LOS under proposed designation;*
> - *Existing infrastructure, if any, in the immediate area with the potential to serve the subject property.*
> - *Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and*
> - *Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).*
> - *Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water.*

In addition to the above analysis for Potable Water:

- *Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.*
- *Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.*
- *Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.*
- *Include any other water conservation measures that will be applied to the site (see Goal 54).*

Water Supply Concurrency

Statutory provisions have also been amended to ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy. In 2005 Chapter 163.3180(2)(a), F.S. was revised to add water supply as a concurrency requirement and states the following: *Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water 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 or its functional equivalent. Prior to 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 the 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.*

Lee County currently ensures facility capacity through the County's concurrency management system. Facility capacity is reviewed and capacity determinations are made prior to a concurrency certificate being issued for local development order approvals and certificates are valid for 3 years. Building permits are verified for adequate facility capacity based on a valid concurrency certificate and single family permitting procedures require a letter from the utility company verifying availability.

The Lee Plan maintains several policies reproduced below requiring facility capacity. For example, Standard 11.1 sets the threshold for mandatory connection to a public water system as well as the requirement that the projected need of a development does not exceed the supply and facility capacity of the utility. Policy 53.1.5 specifies that no development order will be issued unless potable water service, at the minimum acceptable level of service, is available or surety is given that it will be installed prior to occupancy. Policy 95.1.3 specifies the minimum acceptable level of service for potable water facilities. These requirements are reproduced below.

In addition, as part of the subject review, staff has incorporated a proposed update to Policy 53.1.5 as shown below. The update proposes to delete the statement that "County development regulations will be amended." Potable water system requirements are incorporated into the County development regulations through Lee County Land Development Code Chapter 10, Division 4, Section 10-351 and 10-352 reflecting the standards and intent of Policy 53.1.5. The update also proposes to replace the reference to the Development Standards Ordinance with the reference to the Land Development Code. The updated reference replaces the old reference with the current code.

STANDARD 11.1: WATER.

1. *Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).*

2. *If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.*

3. *The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.*

4. *All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.*

5. *If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.*

6. *If a development lies outside any service area as described above, the developer may:*

   - *request that the service area of an adjacent water utility be extended to incorporate the property;*
   - *establish a community water system for the development; or*
   - *develop at an intensity that does not require a community water system.*

(Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.5: *~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)*

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. *Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).*

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. *Potable Water Facilities:*

   Minimum Acceptable Level of Service:

Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

The additional statutory provisions require local governments to revise their comprehensive plans to address water supply concurrency. To maintain water supply concurrency the guidelines recommend policy revisions to local comprehensive plans and land development codes that suggest for example requiring a written statement from the water supplier regarding the availability of water to serve a proposed project. Determining the availability of water supply will involve determining the water use allocation through the consumptive use permit for the utility's service area based on the annual average daily withdrawal rate. An analysis of the current demand and the projected demand will identify the available water supply for all existing and proposed water demands.

The statutory requirements require assurance that adequate water supply and facilities are available to serve new development no later than issuance of a certificate of occupancy. Staff proposes new Objective 53.2 and Policy 53.2.1 as an addition to the Potable Water sub-element establishing concurrency management specifically for water supply planning. The Objective will ensure that water supply will be available concurrent with development in addition to facility capacity currently addressed through the Lee County Concurrency Management System. The Policy will ensure that new development meets concurrency standards for water supply prior to approval of a development order and the issuance of a concurrency certificate, similar to the facility requirement in Policy 53.1.5 noted above.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

Potable Water Sub-element

Statutory provisions also require revisions to the Potable Water sub-element directing local governments to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

The expansion of the comprehensive plan requirements strengthening the coordination of water supply and land use planning requires the adoption of a Water Supply Facilities Work Plan for a ten year planning period. The requirements also provide that the Potable Water sub-element should be revised to identify and incorporate alternative water supply projects identified by the regional water supply plan as well as identifying bulk sales agreements and conservation and reuse programs necessary to meet demands. Section 4 of Lee County's Work Plan addresses water supply facilities necessary to serve existing and projected development for which the local government is responsible through the

year 2030. Section 5 of the Work Plan addresses alternative water resources. Bulk water service is provided to the Town of Fort Myers Beach through a bulk water service agreement. The Work Plan notes in the introduction section of the document that the Town of Fort Myers Beach and the Gateway Service District are included in the Lee County Utilities service area. Both service areas are accounted for in Lee County Utilities data analysis. Conservation and reuse are also discussed in Section 5 of the Work Plan.

In order to address the inclusion of the Water Supply Facilities Work Plan in the Potable Water sub-element staff proposes a new Table 6, titled Water Supply Development Plan, for adoption into the Lee Plan. Table 6 is based on the Work Plan and the Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff notes that while the proposed table shows estimated completion dates out to the year 2014, the projections assume the County's water supply needs for a ten year planning period. The proposed table can be found as Attachment 2.

Staff is also proposing new Policy 53.1.11 as an addition to the Potable Water sub-element. This policy refers to Table 6, outlining the facilities needed to meet the projections made in the Water Supply Facilities Work Plan while text changes to Policy 55.1.3 of the Potable Water sub-element implement the Water Supply Facilities Work Plan itself, fulfilling the Potable Water sub-element requirements.

> **POLICY 53.1.11:** The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.
>
> **POLICY 55.1.3:** Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

Five Year Schedule of Capital Improvements

The statutory requirements call for any necessary revisions to the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

The Five Year Schedule of Capital Improvements will be updated to include projects and programs to be implemented during the five year period as part of the annual Capital Improvements Program review, per Florida Statute 163.3177(3)(b).

Conservation and Coastal Management Element

The statutory requirements require the local government to revise the Conservation Element to assess projected water needs and sources for a ten year planning period. Staff proposes the following text changes to Policy 117.1.2 as well as the addition of Policy 117.1.9 to the Conservation and Coastal Management Element. The additions to Policy 117.1.2 reflect the recommendations of the Lower West Coast Water Supply Plan, recognizing the regional water supply plan as well as implementing the Lee County Water Supply Facilities Work Plan. The addition of Policy 117.1.9 reflects the assessments made in the Water Supply Facilities Work Plan.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

Intergovernmental Coordination Element

Revisions to the Intergovernmental Coordination Element are also required to ensure coordination of the comprehensive plan with the regional water supply plan. The following new text, Objective 151.5 and Policy 151.5.1 are being proposed to ensure such coordination. Objective 151.5 states that the county will coordinate with the SFWMD to ensure Lee Plan consistency, while Policy 151.5.1 states that the county will continue to evaluate the District's water supply plans in order to maintain consistency.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

The Lee Plan

The Lee Plan contains an extensive amount of policies addressing water usage, conservation, protection, overlays, quality, quantity, surface water, and groundwater. Listed as Attachment 3 are those Goals, Objectives, and Policies of the Lee Plan that relate directly to the intent of the subject amendment. Included among those listed are the proposed changes in strike-through/underline format that address the additional changes required to be made to the Potable Water sub-element, the Conservation Element, and the Intergovernmental Coordination Element.

Additional Information

As part of the preparation of the Water Supply Facilities Work Plan amendment, local governments are required to coordinate with any water suppliers delivering water within the local government's jurisdiction. Planning data such as current consumptive use permits, projected demands, and planned resources for those components of the supply system that the local government does not have responsibility should be obtained from the suppliers and incorporated into the Work Plan confirming adequate sources.

The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Greater Pine Island Water Association, Florida Governmental Utility Authority, Gasparilla Island Water Association, Inc., and Island Water. Bonita Utilities provides water for the city of Bonita Springs and vicinity, Greater Pine Island Water Association provides water for Greater Pine Island and

vicinity, Florida Governmental Utility Authority provides water for Lehigh Acres, Gasparilla Island Water Association, Inc. provides water for Gasparilla Island, and Island Water provides water for Sanibel and Captiva Islands.

Staff has coordinated with each of the suppliers to obtain information from their consumptive use permits as well as the suppliers projected demands and existing and planned water sources. The collected data and analysis is reviewed under Section 7 of the Lee County Water Supply Facilities Work Plan.

B. CONCLUSIONS

The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning. These requirements direct local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans. In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. Staff is proposing new text and text changes to several elements of the Lee Plan as well as proposing a Water Supply Facilities Work Plan and a new Lee Plan Table based on the Work Plan in order to comply with the expanded requirements.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners transmit this proposed amendment. This recommendation is based upon the previously discussed issues and conclusions of this report. Planning staff recommends the Board of County Commissioners transmit the changes to the Lee Plan as proposed in Part I.C.1. of this report.

PART III - LOCAL PLANNING AGENCY REVIEW AND RECOMMENDATION

DATE OF PUBLIC HEARING: September 22, 2008

A. LOCAL PLANNING AGENCY REVIEW

Planning staff gave a brief presentation concerning the proposed amendment. One member of the LPA asked what is being planned for developing a desalinization plant. Lee County Utilities staff provided that desalinization is an option covered in the Water Supply Work Plan. Utilities staff provided that Lee County Utilities is currently in negotiations for a contract with a consultant to do an integrated water resource master plan which will look at desalinization. Staff has also been following the efforts of the water management district. The member of the LPA then asked if it is anticipated that Lee County will have sufficient water resources for urban use for the next 20 to 30 years. Utilities staff noted that the work plan addresses potable demands and the conclusions made in the work plan confirm that Lee County is planning enough capacity development to meet the projected demand out at least 10 years and depending on the demand projection you use, meeting the projected demand out to 2025. Another member of the LPA noted that utility staff will be attending the water conference and was interested in hearing an update when staff returned. Utilities staff noted that the water supply work plan must be updated every 5 years, 18 months after the Lower West Coast Water Supply Plan is revised.

B. LOCAL PLANNING AGENCY RECOMMENDATION AND FINDINGS OF FACT SUMMARY

1. **RECOMMENDATION:** The LPA recommends that the Board of County Commissioners transmit the proposed amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The LPA accepted the findings of fact as advanced by the staff.

C. VOTE:

NOEL ANDRESS	**AYE**
LES COCHRAN	**AYE**
RONALD INGE	**AYE**
JACQUE RIPPE	**AYE**
CARLETON RYFFEL	**AYE**
LELAND TAYLOR	**ABSENT**
RAE ANN WESSEL	**AYE**

PART IV - BOARD OF COUNTY COMMISSIONERS
HEARING FOR TRANSMITTAL OF PROPOSED AMENDMENT

DATE TRANSMITTAL HEARING: October 22, 2008

A. BOARD REVIEW: The Board of County Commissioners provided no discussion concerning the proposed plan amendment. No public input was provided concerning the proposed plan amendment. This item was approved on the consent agenda.

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. **BOARD ACTION:** The Board of County Commissioners voted to transmit the proposed plan amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The Board accepted the findings of fact as advanced by staff and the LPA.

C. VOTE:

A. BRIAN BIGELOW	**AYE**
TAMMARA HALL	**AYE**
ROBERT P. JANES	**AYE**
RAY JUDAH	**AYE**
FRANKLIN B. MANN	**AYE**

PART V - DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS, AND COMMENTS (ORC) REPORT

DATE OF ORC REPORT: January 16, 2009

A. DCA OBJECTIONS, RECOMMENDATIONS AND COMMENTS

The Department of Community Affairs has raised objections to proposed amendment CPA2006-20. The DCA objections are reproduced below:

Objection: *The proposed new Policies 53.1.11 and 117.1.9 adopt by reference Table 6 "Capital Improvement Projects" which is a list of water supply projects that the data and analysis recommends the County implement. The proposed Five-Year Schedule of Capital Improvements (Amendment 2008-11) does not include financially feasible projects consistent with the list of projects contained in Table 6 for projects that need to be completed within the time period of the Five-Year Schedule. Thus, the Water Supply Facilities Work Plan is not coordinated with the Capital Improvements Element.*

The proposed new Policy 53.2.1 addresses concurrency management for water supply; however, Policy 53.2.1 does not ensure that prior to issuance of a building permit or its functional equivalent, the County will consult with the applicable water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the County of a certificate of occupancy or its functional equivalent as required by Section 163.3180(2)(a), F.S. The proposed new Policy 151.5.1 addresses coordination of the County's Water Supply Facilities Work Plan with the South Florida Water Management District; however, Policy 151.5.1 does not specifically require the County to amen the Comprehensive Plan to update the Ten-Year Water Supply Facilities Work Plan within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan.

The Water Supply Facilities Work Plan includes several different population projections, and the Work Plan is not clear as to which population projections are the official projections that are to be used as the basis for projecting future demand for water. The population projections should be consistent with the population projections that are used for the other plan elements. The Water Supply Facilities Work Plan is not clear as to the number of people per Equivalent Residential Connection and how this was determined. The Water Supply Facilities Work Plan does not demonstrate that the County, City of Fort Myers, and the franchised utilities have consistent population and demand projections for those unincorporated areas not served by the County, or for those portions of municipalities that are served by the County. The Water Supply Facilities Work Plan does not: (1) identify areas of predominant current and future self supply by private individual single family wells and the total projected withdrawal amounts; and (2) Address the water supply needs for irrigation.

Policy 151.5 does not establish meaningful and predictable guidelines to address coordination between the County, the water suppliers, and local governments in Lee County that provide water to areas within unincorporated Lee County. The policy does not identify the specific programs for the regular sharing of information regarding changes in land-use, population projections, and level of service.

Rules 9J-5.005(2, 5 and 6); 9J-5.006(1 and 2); 9J-5.011(1 and 2); 9J-5.013(1); and 9J-5.016(1, 2 and 4), F.A.C.; and Sections 163.3167(13); 163.31777(1, 2, 3, 4 and 8); 163.3177(6)(a, c, and d); and 163.3177(6)(h)1 and 2, F.S.

Recommendation: *Revise the Capital Improvements Element Five-Year Schedule of Capital Improvements, to include financially feasible projects that have been identified by the Water Supply Facilities Work Plan as needed over the five-year planning period. Support the Five-Year Schedule of Capital Improvements with data and analysis of project yearly revenues demonstrating the financial feasibility of the projects. Review Policy 53.2.1 to ensure that prior to issuance of a building permit or its functional equivalent, the County will consult with the applicable water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the County of a certificate of occupancy or its functional equivalent as required by Section 163.318(2)(a), F.S. Revise Policy 151.5.1 to require the County to amend the Comprehensive Plan to update the Ten-Year Water Supply Facilities Work Plan with 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan.*

Revise the Water Supply Facilities Work Plan to: (1) identify the population projections that are the basis for the projection of water demand; (2) clarify the number of people per Equivalent Residential Connection and how this was determined; (3) demonstrate that the County, City of Fort Myers, and the franchised utilities have consistent population and demand projections for those unincorporated areas not served by the County, or for those portions of municipalities that are served by the County; (4) identify areas of predominant current and future self supply by private individual single family wells and the total projected withdrawal amounts; and (5) address the water supply needs for irrigation.

B. STAFF DISCUSSION

The DCA has objected to inconsistencies between Table 6, 10 Year Water Supply Development Projects, proposed for adoption into the Lee Plan as part of the subject amendment and the County's Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff has revised Table 6 and the Water Supply Facilities Work Plan to reflect the latest Schedule of Capital Improvements adopted through CPA2008-11 on December 9, 2008. Revised Table 6 can be found as Attachment 2 to this report. Please note that Policy 53.1.11 and Policy 117.1.9 have been revised to correct the numbering of the table from Table 6 to Table 7. The policies have also been updated to reflect the revised title, the 10 Year Water Supply Development Projects Table.

In addition, Section 4.4 *Capital Improvement Plan* in the Water Supply Facilities Work Plan has been revised based on the recently adopted Capital Improvement Plan. Capital Improvement Projects have been updated throughout the Work Plan as well. Section 4.4 describes that the components of the Work Plan to increase production of potable water are scheduled between now and 2018. The projects included in the Capital Improvement Plan will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 35 mgd to a combined capacity of 50.63 mgd. This combined capacity is sufficient to meet the projected demand of 38.40 mgd based on the population projections performed by the Lee County Division of Planning.

The DCA has also provided that proposed Policy 53.2.1 does not ensure that prior to the issuance of a building permit the County will consult with the water supplier to determine whether adequate water supplies will be available by the anticipated date of the issuance of a certificate of occupancy. Policy 53.2.1 has been revised to specify that County regulations will be amended to assure potable water supply will be available, or will be available prior to occupancy, at the time of building permit issuance. In order to ensure water supply as a concurrency requirement, as required by Section 163.3180(2)(a), F.S., the policy has been revised as follows:

POLICY 53.2.1: County development regulations will be amended to specify that no ~~county development order~~ building permit under the Land Development Code will be issued in ~~any~~ a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy ~~will in no way~~ does not exempt ~~any~~ development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

The DCA has also provided that proposed Policy 151.5.1 does not require the County to amend the comprehensive plan to update the Water Supply Facilities Work Plan within 18 months after the water management district updates the regional water supply plan. Policy 151.5.1 has been revised to specify the Water Supply Facilities Work Plan will be updated as follows:

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

The DCA has provided that the Work Plan includes several different population projections and that the population projections should be consistent with the projections used for the other comprehensive plan elements. In response to DCA's objection, Section 3.4 *Summary of Demand Projections* in the Water Supply Facilities Work Plan has been updated to specify the projection performed by the Lee County Division of Planning as the official projection used in the Work Plan.

In addition, Section 4.4 *Capital Improvement Plan* in the Water Supply Facilities Work Plan has been revised based on the recently adopted Capital Improvement Plan and the projected demand is based on the population projections performed by the Lee County Division of Planning.

The DCA has provided that the Work Plan is not clear as to the number of people per Equivalent Residential Connection (ERC) and how this was determined. Section 3.7 *Level of Service* has been added to the Work Plan providing an analysis of the level of service standard for potable water as described by Policy 95.1.3: Minimum Acceptable Level-of-Service Standards in the Lee Plan. The analysis provided in the Work Plan clarifies that utilizing the population served in 2007 the number of people per ERC was determined to be 1.44. The level of service analysis is further described in Section 3.7 of the Work Plan.

The DCA has provided that the Work Plan does not demonstrate that the County, City of Fort Myers, and franchised utilities have consistent population and demand projections for areas not served by the County. The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Florida Governmental Utility Authority, Gasparilla Island Water Association, Greater Pine Island Water Association, and Island Water Association. Section 7 of the Work Plan describes the service areas for each utility and has included the suppliers projected demands and existing and planned water sources as well as utilizing information from consumptive use permits. At this time staff has used the best available population and demand projections in the preparation of the Work Plan as requested and gathered from the private utilities as well as utilizing projections and information gathered from permitting applications filed by these entities.

The DCA has provided that the Work Plan does not identify areas of predominant current and future self supply by single family wells and the projected withdrawal amounts. Section 8 *Domestic Self-Supply* has been added to the Work Plan describing current and future self supply by single family wells. This Section also describes projected withdrawal amounts.

The DCA has provided that the Work Plan does not address water supply needs for irrigation. Section 6.3 *Irrigation Water Demands* has been added to the Work Plan describing that a comprehensive analysis of the demand for irrigation water will be completed as part of the Integrated Water Resource Master Plan referenced in Section 6.2 *Comprehensive Long Term Water Supply Planning* of the Work Plan.

In conclusion, the DCA has provided that Objective 151.5 does not establish guidelines to address coordination between the County, water suppliers, and local governments that provide water within unincorporated Lee County with regard to changes in land use, population projections, and level of service.

Staff notes that as it relates to changes in land use, all future land use amendments are required to provide an analysis of existing and future conditions for facilities capable of serving the site. Additional analysis evaluating water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures have been added as a requirement in the evaluation of comprehensive plan amendments as described in the Future Land Use section of this report.

Staff is proposing to add Policy 151.5.2 to Objective 151.5 specifying that the County will coordinate and share information as part of land use changes as well as coordinating and sharing information regarding population projections and level of service as part of water supply planning efforts.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

Staff has also made minor changes to Objective 53.2 changing the reference from "Statute" to "Section" and minor changes to Policy 53.2.1 revising grammar in the policy:

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of ~~Chapter~~ Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no ~~county development order~~ building permit under the Land Development Code will be issued in ~~any~~ a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy ~~will in no way~~ does not exempt ~~any~~ development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners adopt the proposed amendment as shown in Part I.B.1. of this report.

PART VI - BOARD OF COUNTY COMMISSIONERS
HEARING FOR ADOPTION OF PROPOSED AMENDMENT

DATE OF ADOPTION HEARING: February 25, 2009

A. BOARD REVIEW:

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

C. VOTE:

	_____
A. BRIAN BIGELOW	_____
TAMMARA HALL	_____
ROBERT P. JANES	_____
RAY JUDAH	_____
FRANKLIN B. MANN	_____

TABLE 7

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
7602	North Lee County R.O. Plant Wellfield Expansion / North Lee County Lower Hawthorn Wellfiled and Plant Expansion	Expansion of the Lower Hawthorn wellfield at the NLC WTP from 5.0 MGD to 10.0 MGD finished water	Design and land acquision underway	$15,390,000.00	2010	Enterprise Fund
7028	North Lee County WTP Expansion to 10 MGD / North Lee County Lower Hawthorn Wellfiled and Plant Expansion	Expansion of the NLC WTP from 5.0 MGD to produce 10.0 MGD finish water	Preliminary Design Underway	$15,000,000.00	2011	Enterprise Fund
None	Corkscrew WTP Expansion to 20 MGD / Not in LWCWSP	Expand the treatment capcity of the Corkscrew WTP to 20.0 MGD	Planning	$13,501,000.00	2015-2020	Debt Finance
None	Corkscrew WTP Wellfield Improvements / Not in LWCWSP	Expand the capacity of the Corkscrew Wellfield to provide a total of 20.0 MGD	Planning	$9,750,000.00	2015-2020	Debt Finance
None	Desalination Plant Transmission Mains / Not in LWCWSP	Construct finish water transmission mains to accomidate a Desalination Plant	Planning	$18,195,500.00	2015-2020	Enterprise Fund
None	Feasibilty Analysis / Design / Desalination Plant / Not in LWCWSP	Perform a feasibility analysis, design, and construct a desalination water plant	Planning	$70,000,000.00	2015-2020	Enterprise Fund

ALTERNATIVE WATER RESOURCE PROJECTS

None	Gateway WWTP ASR System / Not in LWCWSP	Develop an ASR system to provide seasonal storage of reclaimed water to serve the Gateway WWTP	Planning	$3,200,000.00	2012	Enterprise Fund
7284	Reclaimed Water ASR / Health Park Reclaimed Water ASR	Pilot and Construction of reclaimed water ASR for Wasteater Treatment Facilities	Planning	$600,000.00	2012	Enterprise Fund
7300	Reuse Valves Control, SCADA project	Construct Automated controls for reclaimed water sites	Underway	$100,000.00	2009	Enterprise Fund
None	Ben Hill Griffin Parallel Forcemain / FGCU/Miromar Lakes Reclaimed Water Main	Construct 900 L.F. of 12" reclaimed water line from 3 Oaks WWTP to FGCU / Combined with Parallel Force Main Project	Design underway	$6,000,000.00 for total project $100,000.00 for reclaimed water line portion	2011	Grant/Enterprise Fund

Potable Water Policy in the Lee Plan

Future Land Use Element

STANDARD 11.1: WATER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).

2. If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.

3. The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.

4. All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.

5. If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.

6. If a development lies outside any service area as described above, the developer may:

   - request that the service area of an adjacent water utility be extended to incorporate the property;

   - establish a community water system for the development; or

   - develop at an intensity that does not require a community water system.

(Amended by Ordinance No. 94-30, 00-22)

Community Facilities and Services Element

Potable Water Sub-Element

GOAL 53: POTABLE WATER INFRASTRUCTURE. To ensure the public health, welfare, and safety by the provision of high-quality central potable water service throughout the future urban areas of unincorporated Lee County, and to ensure that the costs of providing facilities for the supply of potable water are borne by those who benefit from them.

OBJECTIVE 53.1: The County will ensure the provision of acceptable levels of potable water service throughout the future urban areas of the unincorporated county, either directly

by Lee County Utilities, or indirectly through franchised utility companies. (Amended by Ordinance No. 94-30, 00-22, 03-04)

POLICY 53.1.1: The Board of County Commissioners hereby establishes service areas for the Lee County Utilities water systems throughout which it will provide standard service as required by demand, and within which it will challenge applications by private water utilities to obtain a Certificate of Operation from the Florida Public Service Commission and reject all applications for a county franchise therein. These service areas are illustrated in Map 6. Within the Fort Myers urban reserve area, the service areas shown on the map are subject to modifications in accordance with existing and future interlocal agreements. (Amended by Ordinance No. 93-25)

POLICY 53.1.2: The minimum acceptable level-of-service standards (see Policy 95.1.3) for potable water connections to Lee County Utilities will be:

- An available supply and treatment capacity of 250 gallons per day per equivalent residential connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.3: The Board of County Commissioners encourages all private utilities to set a minimum acceptable level of service to be adopted herein for use in the concurrency management system within their respective franchised or certificated areas. After the effective date of this plan or September 1, 1989, whichever is later, if the county has not adopted such standards into this plan, the standards adopted for the Lee County Utilities' water systems will apply in those certificated or franchised areas and will be used in enforcing concurrency regulations (see Policy 95.1.3).

After the deadline set above any private utility that cannot meet the Level-of- Service standards set forth for Lee County Utilities will have the opportunity to petition for a Plan Amendment for a revised Level-of-Service requirement for the specific private utility plant if it can be proved that such utility has sufficient plant and system capacity to properly service it's franchised or certificated area. The proof will be in the form of properly documented daily flow reports, occupancy rates or related statistical information, and any other necessary information that may be pertinent to the justification of the requested action, to establish a new individual Level-Of-Service standard. This data should be for a period covering at least the last two prior years. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.4: The Board of County Commissioners urges all utilities to construct and install sufficient treatment facilities and distribution systems that will meet or exceed the minimum acceptable service standards and with the capacity to deliver water at a pressure of 20 pounds per square inch (wp PSI static) at the meter anywhere on the individual system (excluding fire flow conditions). In addition, by September 30, 1994, all utilities are urged to deliver water pressure of 40 pounds per square inch (static pressure, excluding fire flow conditions). Each utility is encouraged to advise the planning and engineering staffs of the county regarding system expansions or modifications to ensure coordination with other utilities and with all other issues of public interest and to prevent duplication of facilities and services. (Amended by Ordinance No. 92-35)

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)

POLICY 53.1.6: No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required. (Amended by Ordinance No. 00-22)

POLICY 53.1.7: In allocating Industrial Development Revenue Bond capacity, the county will give priority to private water utility firms proposing to construct basic facilities and to provide or upgrade infrastructure serving developed areas and antiquated subdivisions undergoing redevelopment. (Amended by Ordinance No. 00-22)

POLICY 53.1.8: The costs of new or augmented potable water infrastructure that is developed by Lee County will be borne by those who benefit from the improved supply. (Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.9: New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard potable water for that development. (Amended by Ordinance No. 00-22)

POLICY 53.1.10: By 1999, county staff will formulate the study proposal to determine the appropriateness of requiring certain existing residential developments at a density equal to or in excess of 2.5 dwelling units per acre to connect to a potable water or sewer system, if available. The study will address the issue of health related problems and will include the collection and analysis of well samples to determine if there is an immediate health problem as well as a cost benefit analysis. This study proposal will include recommendations regarding which pre-platted communities and subdivisions should be required to connect to a potable water or sewer system, if available. (Added by Ordinance No. 98-09, Amended by Ordinance No. 00-22)

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 7, the 10 Year Water Supply Development Projects Table. Table 7 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no building permit under the Land Development Code will be issued in a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy does not exempt development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

GOAL 54: CONSERVATION. To ensure that future populations have access to potable water supplies and services at a reasonable price by using and encouraging conservation and resource management measures to reduce consumption of potable water.

OBJECTIVE 54.1: The county will continue its programs in education, technical advice, demonstration, rate revisions, and reuse to reduce potable water consumption and the consumption of large volumes of potentially potable water. Water consumption per Equivalent Residential Unit will be decreased by 2.5% annually through the year 2000. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.1: Using the personnel and resources of various county agencies, Lee County will continue to offer a program of public information and education. This program should include the use of print media, advertising, and public service announcements on radio and television highlighting and advocating various strategies of water conservation, including, but not limited to:

- creating incentives for "gray water" systems or other recycling activities;
- adopting incentives for household and commercial use of appliances with low water consumption rates;
- advising householders to reduce water use;
- creating a demand for low water use appliances by publishing ratings of water use efficiency for appliances analogous to the energy efficiency ratings for electrical appliances;
- advocating the cost-effective use of appliances and water: i.e. run only full loads or use low water settings when appropriate;
- encouraging the building or grounds manager, including the individual householder, to maintain the water system, i.e. timely repair of dripping faucets, leaking water closets, broken or maladjusted sprinkler heads, etc.;
- installing alternatives to spray irrigation devices for lawns and grounds management such as drip or seep systems, or at least attending to the ambient humidity and evapo-transpiration rates in controlling sprinkler systems;
- encouraging the use of drought-tolerant ground covers and shrubbery according to the principles of "xeriscape" (see glossary and Objective 117.2) and demonstrating the uses of native vegetation in landscaping; and

- generally encouraging the thoughtful use of water in all necessary activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.2: In developing and implementing local landscape regulations including the preservation, reforestation, and wetlands restoration requirements, preference will be given to native species which are adapted to the region's climatic regime.

POLICY 54.1.3: Xeric landscaping, stressing the use of native vegetation, is to be emphasized through modifications to the county's development regulations and through direct action while landscaping county-owned projects.

POLICY 54.1.4: The Board of County Commissioners will periodically re-examine the "step rate" structure for the Lee County Utilities water systems which encourages water conservation by requiring that the commodity charge (basic monthly charge less readiness to serve fee and capital debt contribution) above a specified amount of water use increase continuously or by specified increments for that increased use of water. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.5: The Board of County Commissioners will encourage privately operated potable water utilities to adopt a "conservation" rate structure for users in their respective service areas. (Amended by Ordinance No. 00-22)

POLICY 54.1.6: Development regulations will continue to require that any development will pay the appropriate fees and connect to a re-use water system if such system is near or adjacent to the development and has sufficient surplus to supply the development. Development regulations will be amended further as follows:

- Where a significant modification is proposed to a major development subject to Chapter 10 of the Land Development Code, wastewater reuse systems will be required in the same manner as for new developments.

- The county will require by ordinance the connection of specified existing development to a utility wastewater distribution system when one is available near or adjacent to the property.

(Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.7: It is hereby declared that the conservation of potable water supply and facility capacity is of such importance to the orderly growth of the community that in order to further provide incentive for its use, reuse water may be provided at a price significantly lower than finished potable water (the residual costs of operation being charged to the sewer users as part of the cost of effluent disposal).

POLICY 54.1.8: Priority in the use of Industrial Development Revenue Bonds or other mechanisms of public finance will be given to regulated private utilities where not prohibited by the Florida constitution or statutes in order to achieve these public ends. (Amended by Ordinance No. 00-22)

POLICY 54.1.9: Lehigh Acres (as defined by outer boundaries of its Privately Funded Infrastructure overlay on the Future Land Use Map) is hereby declared a critical area for future potable water supply due to fluctuating water levels in the Sandstone aquifer. In response to this designation, the county will amend current regulations to provide that

new wells in Lehigh Acres must be constructed to accommodate submersible pumps. (Also see Policy 1.7.10 for new permit requirements for irrigation wells in Bonita Springs, and Policy 2.4.2 for special requirements for amendments to the Future Land Use Map.) (Amended by Ordinance No. 94-30, 00-22, 02-02)

POLICY 54.1.10: The county will continue to implement and enforce regulations to reduce the amount of effluent being discharged into surface waters. (Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.11: Continue to encourage new and existing developments to utilize the Fort Myers Beach/Iona-McGregor sewer system's dual water system. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 98-09)

POLICY 54.1.12: Promote water conservation through the use of incentives and evaluate and apply a community based planning approach to water conservation, enabling more precision to be applied in achieving reduction targets. (Added by Ordinance No. 07-16)

GOAL 55: ORGANIZATION OF SERVICE AND FACILITY DELIVERY. To provide greater local coordination of the activities of public and private utilities within the county.

OBJECTIVE 55.1: Ensure an adequate, reliable, and economical supply of potable water to meet the forecasted needs for all residents of Lee County through the year 2020 through regional planning and intergovernmental participation. (Amended by Ordinance No. 94-30)

POLICY 55.1.1: Lee County Utilities and Lee County Division of Natural Resources will plan and coordinate with other government agencies in the development of comprehensive plans as they relate to well field protection, aquifer recharge, water supply, and related capital facilities. (Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04).

POLICY 55.1.2: Lee County Division of Natural Resources in conjunction with Lee County Utilities will perform groundwater modeling and analysis for new development, as needed, to assess the potential impact on the water resources of Lee County. The analysis will focus on the following issues:

- Adequacy of water supply, including groundwater level draw-down
- Avoidance of adverse impacts on natural systems from water supply withdrawals.

(Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04)

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~ (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22, Relocated by Ordinance No. 03-04)

POLICY 55.1.4: Lee County will continue to collect data from private suppliers of potable water, including reporting of water flows, storage capacity, pressures, number of customers, and committed future connections, and proposed expansion plans. This data will be updated on a yearly basis. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22)

Surface Water Management Sub-Element

GOAL 61: PROTECTION OF WATER RESOURCES. To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.

OBJECTIVE 61.1: WATER SUPPLY PLANNING. All county water supply planning will include the recognition of surface water runoff as a possible resource and will consider integrating the use of surface water runoff in any supply program or strategy that results. (Amended by Ordinance No. 00-22)

POLICY 61.1.1: Lee County recognizes that all fresh waters are a resource to be managed and allocated wisely, and will support allocations of the resource on the basis 1) of ensuring that sufficient water is available to maintain or restore valued natural systems, and 2) of assigning to any specified use or user the lowest quality fresh water compatible with that use, consistent with financial and technical constraints. (Amended by Ordinance No. 00-22)

POLICY 61.1.2: The county will explore, and implement where financially and technically feasible, all existing options for storing and utilizing excess surface water runoff for human consumption and other uses. Such options may include surface impoundments; back-pumping to reservoirs, to upland wetlands, or to ground storage; and ground storage by exfiltration systems or by aquifer storage and recovery systems. Maximum contaminant levels consistent with Florida DEP and USEPA regulations governing receiving waters will be met through treatment as required. Excess surface water runoff will be defined as that water not required to maintain or restore estuarine waters or other valued wetland systems. (Amended by Ordinance No. 94-30, 00-22)

POLICY 61.1.3: In the event that the timing and volume of freshwater discharges necessary to maintain the health and productivity of estuaries and other wetlands cannot be determined or supported by existing scientific data, the county will sponsor, in collaboration with other agencies, institutions, and organizations, adequate research programs to make such data available. (Amended by Ordinance No. 00-22, 07-12)

POLICY 61.1.4: The county's Surface Water Management Master Plan will place particular emphasis on 1) routing surface water runoff from areas of excess to areas where additional subsurface storage is available; and 2) maintaining and increasing historic surface and groundwater levels in the Density Reduction/Groundwater Resource land use category. (Amended by Ordinance No. 00-22)

POLICY 61.1.5: Work with the appropriate agencies to pursue funding a "mixing model" (freshwater flow into saltwater) as a management tool that will benefit recreation, water quality, public health, etc. (Added by Ordinance No. 07-16)

Groundwater Recharge Sub-Element

OBJECTIVE 63.2: POTABLE GROUNDWATER. Base all future development and use of groundwater resources on determinations of the safe yield of the aquifer system(s) in order not to impair the native groundwater quality or create other environmental damage. Criteria for safe-yield determinations will be determined by the SFWMD, the agency charged with permitting these activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 63.2.1: For maximum protection of groundwater resources, identify future wellfields and/or relocation site(s) for existing wellfields well in advance of need. Coordinate with SFWMD, other water suppliers, and DEP to avoid duplication and to assist in data collection and interchange. (Amended by Ordinance No. 94-30)

POLICY 63.2.2: Institute a program to identify sources of groundwater pollutants in Lee County and to map these (point and non-point) on a county-wide basis.

POLICY 63.2.3: Identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater. (Amended by Ordinance No. 94-30)

POLICY 63.2.4: Expand current programs to identify and map the contamination potential of groundwater resources for those areas of Lee County not currently under public ownership.

POLICY 63.2.5: Lee County, in cooperation with other agencies and the municipalities, will budget to maintain its current program of plugging non-valved, abandoned, or improperly-cased artesian wells so that at least seventy-five of these wells are plugged each year until such wells are eliminated. (Amended by Ordinance No. 94-30, 00-22)

Capital Improvements Element

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. Potable Water Facilities:

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

Conservation and Coastal Management Element

OBJECTIVE 112.2: The county will continue to participate with other governments to prepare and implement water management plans, including the Estero Bay Agency on Bay Management, Charlotte Harbor National Estuary Program, the Charlotte Harbor Management Plan, the Water Management District Surface Water Improvement and Management (SWIM) plans, DEP aquatic preserve management plans, water supply plans, and other water resource management plans. (Amended by Ordinance No. 94-30, 98-09, 00-22)

GOAL 117: WATER RESOURCES. To conserve, manage, and protect the natural hydrologic system of Lee County to insure continued water resource availability. (Amended by Ordinance No. 94-30)

OBJECTIVE 117.1: WATER SUPPLIES. Insure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems.

POLICY 117.1.1: Natural water system features which are essential for retention, detention, purification, runoff, recharge, and maintenance of stream flows and groundwater levels shall be identified, protected, and managed.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.3: Freshwater resources will be managed in order to maintain adequate freshwater supplies during dry periods and to conserve water. (Amended by Ordinance No. 00-22)

POLICY 117.1.4: Development designs must provide for maintaining surface water flows, groundwater levels, and lake levels at or above existing conditions. (Amended by Ordinance No. 00-22)

POLICY 117.1.5: The county will cooperate with the United States Geological Survey, South Florida Water Management District, and state agencies to develop an area-wide water resources plan emphasizing planning and management of water resources on the basis of drainage basins; and addressing the needs of the existing and potential built environment, natural hydrologic system requirements, and freshwater flow impacts on estuarine systems. (Amended by Ordinance No. 00-22)

POLICY 117.1.6: The county will continue to support a monitoring program of existing baseline conditions of water resources. (Amended by Ordinance No. 00-22)

POLICY 117.1.7: The county will cooperate fully with emergency water conservation measures of the South Florida Water Management District. (Amended by Ordinance No. 00-22)

POLICY 117.1.8: The county will support the acquisition and protection of the Flint Pen Strand as a major water retention and aquifer recharge area. (See also Policy 107.11.4.) (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 7, the 10 Year Water Supply Development Projects Table.

OBJECTIVE 117.2: XERISCAPE LANDSCAPE. The county will continue to promote xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.1: The county will continue to encourage xeriscape landscaping techniques for new development in the Land Development Code. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.2: The county will provide education on water conservation through creative landscaping, and promote the conservation and use of native plant species through xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.3: The county will establish local guidelines that will assist in efforts to reduce landscape irrigation water use to the lowest and most efficient, practical level. (Amended by Ordinance No. 00-22)

Intergovernmental Coordination Element

OBJECTIVE 151.3: COORDINATION OF ROADWAY AND UTILITY IMPROVEMENTS. Coordinate, where possible, between the Lee County Department of Transportation (DOT) and utility companies, including Lee County Utilities and the various privately operated water and wastewater companies, to insure that capital and maintenance projects are not adversely affected by subsequent utility construction. (Added by Ordinance No. 94-30)

POLICY 151.3.1: Lee County DOT will continue open communications with the various water and wastewater utility companies to coordinate expected utility construction projects with programmed roadway maintenance and capital projects. (Added by Ordinance No. 94-30, Amended by Ordinance No. 07-12)

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

CPA 2006-20
WATER SUPPLY FACILITIES WORK PLAN
BoCC SPONSORED
AMENDMENT
TO THE

LEE COUNTY COMPREHENSIVE PLAN

THE LEE PLAN

BoCC Adoption Document

Lee County Planning Division
1500 Monroe Street
P.O. Box 398
Fort Myers, FL 33902-0398
(239) 533-8585

February 25, 2009

LEE COUNTY
DIVISION OF PLANNING
STAFF REPORT FOR
COMPREHENSIVE PLAN AMENDMENT
CPA 2006-20

☑ Text Amendment ☐ Map Amendment

✓	**This Document Contains the Following Reviews:**
✓	**Staff Review**
✓	**Local Planning Agency Review and Recommendation**
✓	**Board of County Commissioners Hearing for Transmittal**
✓	**Staff Response to the DCA Objections, Recommendations, and Comments (ORC) Report**
✓	**Board of County Commissioners Hearing for Adoption**

STAFF REPORT PREPARATION DATE: September 12, 2008

PART I - BACKGROUND AND STAFF RECOMMENDATION

A. SUMMARY OF APPLICATION

1. **APPLICANT:**
LEE COUNTY BOARD OF COUNTY COMMISSIONERS
REPRESENTED BY LEE COUNTY DIVISION OF PLANNING

2. **REQUEST:**
Amend the Community Facilities and Services, Potable Water sub-element, the Conservation and Coastal Management Element, and the Intergovernmental Coordination Element of the Lee Plan to coordinate appropriate aspects of the comprehensive plan with the South Florida Water Management District Water Supply Plan and to include a ten year Water Supply Facilities Work Plan as required by s. 163.3177 (6)(c), F.S.

B. REVISED STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners adopt this proposed amendment with the following text changes and proposed Table 7 as shown in Attachment 2:

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more

than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 7, the 10 Year Water Supply Development Projects Table. Table 7 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no building permit under the Land Development Code will be issued in a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy does not exempt development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 7, the 10 Year Water Supply Development Projects Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

C. ORIGINAL STAFF RECOMMENDATION AND FINDINGS OF FACT SUMMARY:

1. **RECOMMENDATION:** Planning staff recommends that the Board of County Commissioners transmit this proposed amendment with the following text changes and proposed Table 6 as shown in Attachment 2:

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

- The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning directing local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans.

- In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to facility capacity.

- In July of 2006 the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update).

- The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period.

- Staff is proposing new text and text changes to several elements of the Lee Plan, including the implementation of water supply concurrency requirements, and a new Table based on the Work Plan in order to comply with the expanded requirements.

C. BACKGROUND INFORMATION

This amendment was initiated by the Board of County Commissioners on October 3, 2006. The amendment addresses bills enacted by the Florida Legislature to improve the coordination between land use planning and water supply planning. In 2002 legislation added requirements to Chapter 163 F.S. requiring local governments to prepare a 10 year water supply facilities work plan and incorporate the work plan into the comprehensive plan. The work plan should describe the water supply facilities necessary to serve existing and future development for a 10 year planning period. The legislation focused on the need for comprehensive plans to coincide with the regional water supply plans prepared by each water management district.

In 2003 staff prepared a work plan and an update to the Lee Plan to incorporate the new requirements and the Board of County Commissioners transmitted the amendment to the Department of Community Affairs. In 2004 the Legislature increased the timeframe for local governments to adopt a water supply plan due to the fact that the water management districts were in the process of updating and receiving approval for regional water supply plans. At that time the 2003 work plan and plan amendment were placed on hold until the South Florida Water Management District's (SFWMD) regional water supply plan could be updated and approved.

In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water

supplies to serve future demand in addition to the facilities serving demands. In July of 2006, the SFWMD Board approved the Lower West Coast Water Supply Plan (2005-2006 update). The subject amendment encompasses the changes enacted by the legislature through the incorporation of the Work Plan and policy changes into the Lee Plan, Lee County's Comprehensive Plan.

PART II - STAFF ANALYSIS

A. STAFF DISCUSSION

Introduction

In 2006 the SFWMD issued the most recent water supply plan, titled the *Lower West Coast Water Supply Plan*. The plan describes traditional water sources and alternative water sources to meet projected demands through 2025. Lee County Utilities participated in the SFWMD's planning during the preparation of the *Lower West Coast Water Supply Plan* and has made every effort to ensure Lee County Utilities water supply planning is consistent with the regional plan. The proposed Lee County Water Supply Facilities Work Plan incorporates a work plan for a planning period through the year 2030, the planning horizon for the Lee Plan. The Work Plan provides population projections and identifies the facilities necessary to serve demand through the planning period. The Work Plan addresses sources, consumptive use permitting, facilities, and alternative water resources, addressing water supply planning through the planning period. The proposed Water Supply Facilities Work Plan is attached to the back of this staff report and is discussed in further detail below. In addition to the adoption of the Work Plan each local government must coordinate their comprehensive plans and water supply planning as follows:

- Future Land Use - Ensure adequate water supply and facilities will be available to meet projected growth demands using data and analysis demonstrating availability for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review.

- Water Supply Concurrency - Ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy.

- Revise the Potable Water Sub-element to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

- Revise the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

- Revise the Conservation and Coastal Management Element to assess projected water needs and sources for a ten year planning period.

- Revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with the regional water supply plan.

Work Plan

The proposed Work Plan provides a planning horizon through the year 2030. The attached work plan has been prepared by Lee County Utilities and is a technical document covering existing and proposed facilities and water supply sources, the County's capital improvement plan for water supply and treatment, alternative water resources, as well as covering the County's water conservation plan.

Lee County utilities provides water supply to the areas of Lee County that are not served by incorporated cities, private utility companies, or member owned non-profit systems. Lee County Utilities currently operates (6) six water supply facilities under Water Use Permits from the SFWMD, (7) seven water treatment facilities under permits issued by the Lee County Health Department, and (4) four reclaimed water systems.

The population and flow projections calculated in the Lee County Water Supply Facilities Work Plan were based on various planning efforts. The Work Plan compares the methodology developed in the Lower West Coast Water Supply Plan, data analysis and projections by Lee County Utilities supporting modifications to a current water use permit, and population estimates and projections computed by the Lee County Division of Planning.

During the formulation of the Lower West Coast Water Supply Plan the University of Florida Bureau of Economic and Business Research medium projections were utilized and disaggregated the historic population and projected population into Traffic Analysis Zones (TAZ's) for the existing and future service area. The Lower West Coast Water Supply Plan projected annual average daily demand in 2018 is 31.08 million gallons per day (mgd).

Lee County population estimates and projections performed by the Lee County Division of Planning use assumptions based on a review of the 1980, 1990, and 2000 United States Census data. To calculate the estimated population of the area served by Lee County Utilities staff geographically selected the parcels served and joined the data with the parcel inventory to obtain unit counts and planning community information allowing population assumptions to be multiplied to unit counts. Planning staff computed the existing population for the area served by Lee County Utilities and the projected population for the future service area depicted in the Lee County comprehensive plan for 2030. The development assumptions are the same as those used to generate the 2030 land use allocation acreages adopted in Lee Plan Table 1(b). The 2018 maximum demand projection based on this analysis is 35.65 mgd.

In support of an application to modify a current consumptive use permit, Lee County Utilities available data from billing records were used to develop population and demand projections. An average annual growth rate was determined and actual system demands was used in conjunction with population data to determine the average per capita daily use rate and a peaking ratio. Population projections were then made based on annual average growth rate. The projected maximum month daily average demand is 50.70 mgd. The subject projection represents the highest projected demand in the future.

In order to ensure sufficient future capacity, Lee County Utilities is planning to meet the highest projected future demand calculated through the application to modify a current consumptive use permit. Utilities staff have concluded that the projection represents a conservative approach. This projection uses a high growth period from 2003 through 2007 to develop a growth rate for the projection representing the highest projected demand.

As noted above, the population and flow projections discussed were based on various planning efforts and are described and summarized in greater detail in Section 3 of the Lee County Water Supply Facilities Work Plan.

Under the Work Plan's assessment of needs it concludes that Lee County Utilities is in need of additional water treatment and water supply capacity in order to meet the demands of population growth to 2030. Lee County has developed and is in the process of implementing Capital Improvement Projects for water supply development as outlined in the proposed Water Supply Facilities Work Plan to expand water supply and treatment capacity to meet the anticipated growth demands for potable water. Implementation of the Capital Improvement Plan to increase production scheduled between now and 2014 will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 32 mgd to a combined capacity of 60 mgd. This combined capacity is in excess of the projected demand of 51 mgd anticipated in 2018.

Future Land Use

In 2005 Chapter 163.3177(6)(a) F.S. was revised requiring that the future land use plan to be based on the availability of water supplies and public facilities. The statutory requirements direct each local government to ensure adequate water supply and facilities for all proposed Future Land Use Map amendments submitted to the Department of Community Affairs for review. Data and analysis should demonstrate that adequate water supply and associated facilities will be available to meet projected growth. The requirements focus on water supply planning and treatment/delivery facilities.

As part of the plan amendment review process for a Future Land Use Map amendment, staff currently evaluates existing and future conditions for facilities capable of serving the site. In response to the statutory requirements additional analysis for potable water will be evaluated pertaining to water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures applied to the site. This analysis will be undertaken in addition to the current facility analysis reviewed during the plan amendment process. The additional requirements have been added to the Lee County application for a comprehensive plan amendment and are shown in underline format as follows:

> *Provide an existing and future conditions analysis for (see Policy 95.1.3):*
> *a. Sanitary Sewer*
> *b. Potable Water*
> *c. Surface Water/Drainage Basins*
> *d. Parks, Recreation, and Open Space*
> *e. Public Schools.*
>
> *Analysis should include (but is not limited to) the following (see the Lee County Concurrency Management Report):*
> - *Franchise Area, Basin, or District in which the property is located;*
> - *Current LOS, and LOS standard of facilities serving the site;*
> - *Projected 2030 LOS under existing designation;*
> - *Projected 2030 LOS under proposed designation;*
> - *Existing infrastructure, if any, in the immediate area with the potential to serve the subject property.*
> - *Improvements/expansions currently programmed in 5 year CIP, 6-10 year CIP, and long range improvements; and*
> - *Anticipated revisions to the Community Facilities and Services Element and/or Capital Improvements Element (state if these revisions are included in this amendment).*
> - *Provide a letter of service availability from the appropriate utility for sanitary sewer and potable water.*

In addition to the above analysis for Potable Water:

- *Determine the availability of water supply within the franchise area using the current water use allocation (Consumptive Use Permit) based on the annual average daily withdrawal rate.*
- *Include the current demand and the projected demand under the existing designation, and the projected demand under the proposed designation.*
- *Include the availability of treatment facilities and transmission lines for reclaimed water for irrigation.*
- *Include any other water conservation measures that will be applied to the site (see Goal 54).*

Water Supply Concurrency

Statutory provisions have also been amended to ensure adequate water supply and facilities are available to serve new development no later than the date of issuing a certificate of occupancy. In 2005 Chapter 163.3180(2)(a), F.S. was revised to add water supply as a concurrency requirement and states the following: *Consistent with public health and safety, sanitary sewer, solid waste, drainage, adequate water supplies, and potable water 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 or its functional equivalent. Prior to 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 the 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.*

Lee County currently ensures facility capacity through the County's concurrency management system. Facility capacity is reviewed and capacity determinations are made prior to a concurrency certificate being issued for local development order approvals and certificates are valid for 3 years. Building permits are verified for adequate facility capacity based on a valid concurrency certificate and single family permitting procedures require a letter from the utility company verifying availability.

The Lee Plan maintains several policies reproduced below requiring facility capacity. For example, Standard 11.1 sets the threshold for mandatory connection to a public water system as well as the requirement that the projected need of a development does not exceed the supply and facility capacity of the utility. Policy 53.1.5 specifies that no development order will be issued unless potable water service, at the minimum acceptable level of service, is available or surety is given that it will be installed prior to occupancy. Policy 95.1.3 specifies the minimum acceptable level of service for potable water facilities. These requirements are reproduced below.

In addition, as part of the subject review, staff has incorporated a proposed update to Policy 53.1.5 as shown below. The update proposes to delete the statement that "County development regulations will be amended." Potable water system requirements are incorporated into the County development regulations through Lee County Land Development Code Chapter 10, Division 4, Section 10-351 and 10-352 reflecting the standards and intent of Policy 53.1.5. The update also proposes to replace the reference to the Development Standards Ordinance with the reference to the Land Development Code. The updated reference replaces the old reference with the current code.

STANDARD 11.1: WATER.

1. *Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).*

2. *If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.*

3. *The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.*

4. *All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.*

5. *If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.*

6. *If a development lies outside any service area as described above, the developer may:*

   - *request that the service area of an adjacent water utility be extended to incorporate the property;*
   - *establish a community water system for the development; or*
   - *develop at an intensity that does not require a community water system.*

(Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.5: *~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)*

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. *Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).*

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. *Potable Water Facilities:*

   Minimum Acceptable Level of Service:

Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

The additional statutory provisions require local governments to revise their comprehensive plans to address water supply concurrency. To maintain water supply concurrency the guidelines recommend policy revisions to local comprehensive plans and land development codes that suggest for example requiring a written statement from the water supplier regarding the availability of water to serve a proposed project. Determining the availability of water supply will involve determining the water use allocation through the consumptive use permit for the utility's service area based on the annual average daily withdrawal rate. An analysis of the current demand and the projected demand will identify the available water supply for all existing and proposed water demands.

The statutory requirements require assurance that adequate water supply and facilities are available to serve new development no later than issuance of a certificate of occupancy. Staff proposes new Objective 53.2 and Policy 53.2.1 as an addition to the Potable Water sub-element establishing concurrency management specifically for water supply planning. The Objective will ensure that water supply will be available concurrent with development in addition to facility capacity currently addressed through the Lee County Concurrency Management System. The Policy will ensure that new development meets concurrency standards for water supply prior to approval of a development order and the issuance of a concurrency certificate, similar to the facility requirement in Policy 53.1.5 noted above.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Chapter 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no county development order under the Land Development Code will be issued in any franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

Potable Water Sub-element

Statutory provisions also require revisions to the Potable Water sub-element directing local governments to consider the water supply plans of the appropriate water management district, identify measures necessary to meet current and projected demands, and include a water supply work plan for constructing facilities necessary to meet current and projected demands.

The expansion of the comprehensive plan requirements strengthening the coordination of water supply and land use planning requires the adoption of a Water Supply Facilities Work Plan for a ten year planning period. The requirements also provide that the Potable Water sub-element should be revised to identify and incorporate alternative water supply projects identified by the regional water supply plan as well as identifying bulk sales agreements and conservation and reuse programs necessary to meet demands. Section 4 of Lee County's Work Plan addresses water supply facilities necessary to serve existing and projected development for which the local government is responsible through the

year 2030. Section 5 of the Work Plan addresses alternative water resources. Bulk water service is provided to the Town of Fort Myers Beach through a bulk water service agreement. The Work Plan notes in the introduction section of the document that the Town of Fort Myers Beach and the Gateway Service District are included in the Lee County Utilities service area. Both service areas are accounted for in Lee County Utilities data analysis. Conservation and reuse are also discussed in Section 5 of the Work Plan.

In order to address the inclusion of the Water Supply Facilities Work Plan in the Potable Water sub-element staff proposes a new Table 6, titled Water Supply Development Plan, for adoption into the Lee Plan. Table 6 is based on the Work Plan and the Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff notes that while the proposed table shows estimated completion dates out to the year 2014, the projections assume the County's water supply needs for a ten year planning period. The proposed table can be found as Attachment 2.

Staff is also proposing new Policy 53.1.11 as an addition to the Potable Water sub-element. This policy refers to Table 6, outlining the facilities needed to meet the projections made in the Water Supply Facilities Work Plan while text changes to Policy 55.1.3 of the Potable Water sub-element implement the Water Supply Facilities Work Plan itself, fulfilling the Potable Water sub-element requirements.

> **POLICY 53.1.11:** The County will expand potable water facilities consistent with those improvements identified in Table 6, the Water Supply Development Plan Table. Table 6 will be amended as projects are completed and technological advancements in water supply facilities are made.
>
> **POLICY 55.1.3:** Lee County will actively ~~participate in the~~ implementation ~~of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~

Five Year Schedule of Capital Improvements

The statutory requirements call for any necessary revisions to the Five Year Schedule of Capital Improvements to include projects and programs to be implemented during the five year period.

The Five Year Schedule of Capital Improvements will be updated to include projects and programs to be implemented during the five year period as part of the annual Capital Improvements Program review, per Florida Statute 163.3177(3)(b).

Conservation and Coastal Management Element

The statutory requirements require the local government to revise the Conservation Element to assess projected water needs and sources for a ten year planning period. Staff proposes the following text changes to Policy 117.1.2 as well as the addition of Policy 117.1.9 to the Conservation and Coastal Management Element. The additions to Policy 117.1.2 reflect the recommendations of the Lower West Coast Water Supply Plan, recognizing the regional water supply plan as well as implementing the Lee County Water Supply Facilities Work Plan. The addition of Policy 117.1.9 reflects the assessments made in the Water Supply Facilities Work Plan.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 6, the Water Supply Development Plan Table.

Intergovernmental Coordination Element

Revisions to the Intergovernmental Coordination Element are also required to ensure coordination of the comprehensive plan with the regional water supply plan. The following new text, Objective 151.5 and Policy 151.5.1 are being proposed to ensure such coordination. Objective 151.5 states that the county will coordinate with the SFWMD to ensure Lee Plan consistency, while Policy 151.5.1 states that the county will continue to evaluate the District's water supply plans in order to maintain consistency.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan.

The Lee Plan

The Lee Plan contains an extensive amount of policies addressing water usage, conservation, protection, overlays, quality, quantity, surface water, and groundwater. Listed as Attachment 3 are those Goals, Objectives, and Policies of the Lee Plan that relate directly to the intent of the subject amendment. Included among those listed are the proposed changes in strike-through/underline format that address the additional changes required to be made to the Potable Water sub-element, the Conservation Element, and the Intergovernmental Coordination Element.

Additional Information

As part of the preparation of the Water Supply Facilities Work Plan amendment, local governments are required to coordinate with any water suppliers delivering water within the local government's jurisdiction. Planning data such as current consumptive use permits, projected demands, and planned resources for those components of the supply system that the local government does not have responsibility should be obtained from the suppliers and incorporated into the Work Plan confirming adequate sources.

The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Greater Pine Island Water Association, Florida Governmental Utility Authority, Gasparilla Island Water Association, Inc., and Island Water. Bonita Utilities provides water for the city of Bonita Springs and vicinity, Greater Pine Island Water Association provides water for Greater Pine Island and

vicinity, Florida Governmental Utility Authority provides water for Lehigh Acres, Gasparilla Island Water Association, Inc. provides water for Gasparilla Island, and Island Water provides water for Sanibel and Captiva Islands.

Staff has coordinated with each of the suppliers to obtain information from their consumptive use permits as well as the suppliers projected demands and existing and planned water sources. The collected data and analysis is reviewed under Section 7 of the Lee County Water Supply Facilities Work Plan.

B. CONCLUSIONS

The 2002 Legislature expanded requirements to strengthen the coordination of water supply and land use planning. These requirements direct local governments to revise elements and sub-elements of their comprehensive plans to coordinate with the appropriate water management districts regional water supply plans. The requirements also direct local governments to adopt a Water Supply Facilities Work Plan for a 10 year planning period considering the water management districts regional water supply plans. In 2005 the Legislature further amended Chapter 163 F.S. and Senate Bill 360 implementing additional water supply concurrency requirements to ensure the availability of adequate water supplies to serve future demand in addition to the facilities serving demands. Staff is proposing new text and text changes to several elements of the Lee Plan as well as proposing a Water Supply Facilities Work Plan and a new Lee Plan Table based on the Work Plan in order to comply with the expanded requirements.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners transmit this proposed amendment. This recommendation is based upon the previously discussed issues and conclusions of this report. Planning staff recommends the Board of County Commissioners transmit the changes to the Lee Plan as proposed in Part I.C.1. of this report.

PART III - LOCAL PLANNING AGENCY REVIEW AND RECOMMENDATION

DATE OF PUBLIC HEARING: September 22, 2008

A. LOCAL PLANNING AGENCY REVIEW

Planning staff gave a brief presentation concerning the proposed amendment. One member of the LPA asked what is being planned for developing a desalinization plant. Lee County Utilities staff provided that desalinization is an option covered in the Water Supply Work Plan. Utilities staff provided that Lee County Utilities is currently in negotiations for a contract with a consultant to do an integrated water resource master plan which will look at desalinization. Staff has also been following the efforts of the water management district. The member of the LPA then asked if it is anticipated that Lee County will have sufficient water resources for urban use for the next 20 to 30 years. Utilities staff noted that the work plan addresses potable demands and the conclusions made in the work plan confirm that Lee County is planning enough capacity development to meet the projected demand out at least 10 years and depending on the demand projection you use, meeting the projected demand out to 2025. Another member of the LPA noted that utility staff will be attending the water conference and was interested in hearing an update when staff returned. Utilities staff noted that the water supply work plan must be updated every 5 years, 18 months after the Lower West Coast Water Supply Plan is revised.

B. LOCAL PLANNING AGENCY RECOMMENDATION AND FINDINGS OF FACT SUMMARY

1. **RECOMMENDATION:** The LPA recommends that the Board of County Commissioners transmit the proposed amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The LPA accepted the findings of fact as advanced by the staff.

C. VOTE:

NOEL ANDRESS	**AYE**
LES COCHRAN	**AYE**
RONALD INGE	**AYE**
JACQUE RIPPE	**AYE**
CARLETON RYFFEL	**AYE**
LELAND TAYLOR	**ABSENT**
RAE ANN WESSEL	**AYE**

PART IV - BOARD OF COUNTY COMMISSIONERS
HEARING FOR TRANSMITTAL OF PROPOSED AMENDMENT

DATE TRANSMITTAL HEARING: October 22, 2008

A. BOARD REVIEW: The Board of County Commissioners provided no discussion concerning the proposed plan amendment. No public input was provided concerning the proposed plan amendment. This item was approved on the consent agenda.

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. **BOARD ACTION:** The Board of County Commissioners voted to transmit the proposed plan amendment.

2. **BASIS AND RECOMMENDED FINDINGS OF FACT:** The Board accepted the findings of fact as advanced by staff and the LPA.

C. VOTE:

A. BRIAN BIGELOW	**AYE**
TAMMARA HALL	**AYE**
ROBERT P. JANES	**AYE**
RAY JUDAH	**AYE**
FRANKLIN B. MANN	**AYE**

PART V - DEPARTMENT OF COMMUNITY AFFAIRS OBJECTIONS, RECOMMENDATIONS, AND COMMENTS (ORC) REPORT

DATE OF ORC REPORT: January 16, 2009

A. DCA OBJECTIONS, RECOMMENDATIONS AND COMMENTS

The Department of Community Affairs has raised objections to proposed amendment CPA2006-20. The DCA objections are reproduced below:

Objection: *The proposed new Policies 53.1.11 and 117.1.9 adopt by reference Table 6 "Capital Improvement Projects" which is a list of water supply projects that the data and analysis recommends the County implement. The proposed Five-Year Schedule of Capital Improvements (Amendment 2008-11) does not include financially feasible projects consistent with the list of projects contained in Table 6 for projects that need to be completed within the time period of the Five-Year Schedule. Thus, the Water Supply Facilities Work Plan is not coordinated with the Capital Improvements Element.*

The proposed new Policy 53.2.1 addresses concurrency management for water supply; however, Policy 53.2.1 does not ensure that prior to issuance of a building permit or its functional equivalent, the County will consult with the applicable water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the County of a certificate of occupancy or its functional equivalent as required by Section 163.3180(2)(a), F.S. The proposed new Policy 151.5.1 addresses coordination of the County's Water Supply Facilities Work Plan with the South Florida Water Management District; however, Policy 151.5.1 does not specifically require the County to amen the Comprehensive Plan to update the Ten-Year Water Supply Facilities Work Plan within 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan.

The Water Supply Facilities Work Plan includes several different population projections, and the Work Plan is not clear as to which population projections are the official projections that are to be used as the basis for projecting future demand for water. The population projections should be consistent with the population projections that are used for the other plan elements. The Water Supply Facilities Work Plan is not clear as to the number of people per Equivalent Residential Connection and how this was determined. The Water Supply Facilities Work Plan does not demonstrate that the County, City of Fort Myers, and the franchised utilities have consistent population and demand projections for those unincorporated areas not served by the County, or for those portions of municipalities that are served by the County. The Water Supply Facilities Work Plan does not: (1) identify areas of predominant current and future self supply by private individual single family wells and the total projected withdrawal amounts; and (2) Address the water supply needs for irrigation.

Policy 151.5 does not establish meaningful and predictable guidelines to address coordination between the County, the water suppliers, and local governments in Lee County that provide water to areas within unincorporated Lee County. The policy does not identify the specific programs for the regular sharing of information regarding changes in land-use, population projections, and level of service.

Rules 9J-5.005(2, 5 and 6); 9J-5.006(1 and 2); 9J-5.011(1 and 2); 9J-5.013(1); and 9J-5.016(1, 2 and 4), F.A.C.; and Sections 163.3167(13); 163.31777(1, 2, 3, 4 and 8); 163.3177(6)(a, c, and d); and 163.3177(6)(h)1 and 2, F.S.

Recommendation: *Revise the Capital Improvements Element Five-Year Schedule of Capital Improvements, to include financially feasible projects that have been identified by the Water Supply Facilities Work Plan as needed over the five-year planning period. Support the Five-Year Schedule of Capital Improvements with data and analysis of project yearly revenues demonstrating the financial feasibility of the projects. Review Policy 53.2.1 to ensure that prior to issuance of a building permit or its functional equivalent, the County will consult with the applicable water supplier to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the County of a certificate of occupancy or its functional equivalent as required by Section 163.318(2)(a), F.S. Revise Policy 151.5.1 to require the County to amend the Comprehensive Plan to update the Ten-Year Water Supply Facilities Work Plan with 18 months after the governing board of the South Florida Water Management District approves an updated regional water supply plan.*

Revise the Water Supply Facilities Work Plan to: (1) identify the population projections that are the basis for the projection of water demand; (2) clarify the number of people per Equivalent Residential Connection and how this was determined; (3) demonstrate that the County, City of Fort Myers, and the franchised utilities have consistent population and demand projections for those unincorporated areas not served by the County, or for those portions of municipalities that are served by the County; (4) identify areas of predominant current and future self supply by private individual single family wells and the total projected withdrawal amounts; and (5) address the water supply needs for irrigation.

B. STAFF DISCUSSION

The DCA has objected to inconsistencies between Table 6, 10 Year Water Supply Development Projects, proposed for adoption into the Lee Plan as part of the subject amendment and the County's Capital Improvements Program currently adopted as Table 3 in the Lee Plan. Staff has revised Table 6 and the Water Supply Facilities Work Plan to reflect the latest Schedule of Capital Improvements adopted through CPA2008-11 on December 9, 2008. Revised Table 6 can be found as Attachment 2 to this report. Please note that Policy 53.1.11 and Policy 117.1.9 have been revised to correct the numbering of the table from Table 6 to Table 7. The policies have also been updated to reflect the revised title, the 10 Year Water Supply Development Projects Table.

In addition, Section 4.4 *Capital Improvement Plan* in the Water Supply Facilities Work Plan has been revised based on the recently adopted Capital Improvement Plan. Capital Improvement Projects have been updated throughout the Work Plan as well. Section 4.4 describes that the components of the Work Plan to increase production of potable water are scheduled between now and 2018. The projects included in the Capital Improvement Plan will increase the combined maximum day capacity of all Lee County Utilities production facilities from approximately 35 mgd to a combined capacity of 50.63 mgd. This combined capacity is sufficient to meet the projected demand of 38.40 mgd based on the population projections performed by the Lee County Division of Planning.

The DCA has also provided that proposed Policy 53.2.1 does not ensure that prior to the issuance of a building permit the County will consult with the water supplier to determine whether adequate water supplies will be available by the anticipated date of the issuance of a certificate of occupancy. Policy 53.2.1 has been revised to specify that County regulations will be amended to assure potable water supply will be available, or will be available prior to occupancy, at the time of building permit issuance. In order to ensure water supply as a concurrency requirement, as required by Section 163.3180(2)(a), F.S., the policy has been revised as follows:

POLICY 53.2.1: County development regulations will be amended to specify that no ~~county development order~~ building permit under the Land Development Code will be issued in ~~any~~ a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy ~~will in no way~~ does not exempt ~~any~~ development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

The DCA has also provided that proposed Policy 151.5.1 does not require the County to amend the comprehensive plan to update the Water Supply Facilities Work Plan within 18 months after the water management district updates the regional water supply plan. Policy 151.5.1 has been revised to specify the Water Supply Facilities Work Plan will be updated as follows:

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

The DCA has provided that the Work Plan includes several different population projections and that the population projections should be consistent with the projections used for the other comprehensive plan elements. In response to DCA's objection, Section 3.4 *Summary of Demand Projections* in the Water Supply Facilities Work Plan has been updated to specify the projection performed by the Lee County Division of Planning as the official projection used in the Work Plan.

In addition, Section 4.4 *Capital Improvement Plan* in the Water Supply Facilities Work Plan has been revised based on the recently adopted Capital Improvement Plan and the projected demand is based on the population projections performed by the Lee County Division of Planning.

The DCA has provided that the Work Plan is not clear as to the number of people per Equivalent Residential Connection (ERC) and how this was determined. Section 3.7 *Level of Service* has been added to the Work Plan providing an analysis of the level of service standard for potable water as described by Policy 95.1.3: Minimum Acceptable Level-of-Service Standards in the Lee Plan. The analysis provided in the Work Plan clarifies that utilizing the population served in 2007 the number of people per ERC was determined to be 1.44. The level of service analysis is further described in Section 3.7 of the Work Plan.

The DCA has provided that the Work Plan does not demonstrate that the County, City of Fort Myers, and franchised utilities have consistent population and demand projections for areas not served by the County. The following five utility providers supply water within unincorporated Lee County: Bonita Springs Utilities, Florida Governmental Utility Authority, Gasparilla Island Water Association, Greater Pine Island Water Association, and Island Water Association. Section 7 of the Work Plan describes the service areas for each utility and has included the suppliers projected demands and existing and planned water sources as well as utilizing information from consumptive use permits. At this time staff has used the best available population and demand projections in the preparation of the Work Plan as requested and gathered from the private utilities as well as utilizing projections and information gathered from permitting applications filed by these entities.

The DCA has provided that the Work Plan does not identify areas of predominant current and future self supply by single family wells and the projected withdrawal amounts. Section 8 *Domestic Self-Supply* has been added to the Work Plan describing current and future self supply by single family wells. This Section also describes projected withdrawal amounts.

The DCA has provided that the Work Plan does not address water supply needs for irrigation. Section 6.3 *Irrigation Water Demands* has been added to the Work Plan describing that a comprehensive analysis of the demand for irrigation water will be completed as part of the Integrated Water Resource Master Plan referenced in Section 6.2 *Comprehensive Long Term Water Supply Planning* of the Work Plan.

In conclusion, the DCA has provided that Objective 151.5 does not establish guidelines to address coordination between the County, water suppliers, and local governments that provide water within unincorporated Lee County with regard to changes in land use, population projections, and level of service.

Staff notes that as it relates to changes in land use, all future land use amendments are required to provide an analysis of existing and future conditions for facilities capable of serving the site. Additional analysis evaluating water supply, the availability of treatment facilities and transmission lines for reclaimed water, as well as any water conservation measures have been added as a requirement in the evaluation of comprehensive plan amendments as described in the Future Land Use section of this report.

Staff is proposing to add Policy 151.5.2 to Objective 151.5 specifying that the County will coordinate and share information as part of land use changes as well as coordinating and sharing information regarding population projections and level of service as part of water supply planning efforts.

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

Staff has also made minor changes to Objective 53.2 changing the reference from "Statute" to "Section" and minor changes to Policy 53.2.1 revising grammar in the policy:

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of ~~Chapter~~ Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no ~~county development order~~ building permit under the Land Development Code will be issued in ~~any~~ a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy ~~will in no way~~ does not exempt ~~any~~ development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

C. STAFF RECOMMENDATION

Planning staff recommends that the Board of County Commissioners adopt the proposed amendment as shown in Part I.B.1. of this report.

PART VI - BOARD OF COUNTY COMMISSIONERS HEARING FOR ADOPTION OF PROPOSED AMENDMENT

DATE OF ADOPTION HEARING: February 25, 2009

A. BOARD REVIEW:

The Board of County Commissioners provided no discussion concerning the proposed plan amendment. No public input was provided concerning the proposed plan amendment. This item was approved on the administrative agenda.

B. BOARD ACTION AND FINDINGS OF FACT SUMMARY:

1. BOARD ACTION:

The Board of County Commissioners adopted the proposed amendment.

2. BASIS AND RECOMMENDED FINDINGS OF FACT:

The Board of County Commissioners accepted the facts advanced by staff and the LPA.

C. VOTE:

A. BRIAN BIGELOW	**AYE**
TAMMARA HALL	**AYE**
ROBERT P. JANES	**AYE**
RAY JUDAH	**AYE**
FRANKLIN B. MANN	**AYE**

TABLE 7

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
7602	North Lee County R.O. Plant Wellfield Expansion / North Lee County Lower Hawthorn Wellfiled and Plant Expansion	Expansion of the Lower Hawthorn wellfield at the NLC WTP from 5.0 MGD to 10.0 MGD finished water	Design and land acquision underway	$15,390,000.00	2010	Enterprise Fund
7028	North Lee County WTP Expansion to 10 MGD / North Lee County Lower Hawthorn Wellfiled and Plant Expansion	Expansion of the NLC WTP from 5.0 MGD to produce 10.0 MGD finish water	Preliminary Design Underway	$15,000,000.00	2011	Enterprise Fund
None	Corkscrew WTP Expansion to 20 MGD / Not in LWCWSP	Expand the treatment capcity of the Corkscrew WTP to 20.0 MGD	Planning	$13,501,000.00	2015-2020	Debt Finance
None	Corkscrew WTP Wellfield Improvements / Not in LWCWSP	Expand the capacity of the Corkscrew Wellfield to provide a total of 20.0 MGD	Planning	$9,750,000.00	2015-2020	Debt Finance
None	Desalination Plant Transmission Mains / Not in LWCWSP	Construct finish water transmission mains to accomidate a Desalination Plant	Planning	$18,195,500.00	2015-2020	Enterprise Fund
None	Feasibilty Analysis / Design / Desalination Plant / Not in LWCWSP	Perform a feasibility analysis, design, and construct a desalination water plant	Planning	$70,000,000.00	2015-2020	Enterprise Fund

ALTERNATIVE WATER RESOURCE PROJECTS

None	Gateway WWTP ASR System / Not in LWCWSP	Develop an ASR system to provide seasonal storage of reclaimed water to serve the Gateway WWTP	Planning	$3,200,000.00	2012	Enterprise Fund
7284	Reclaimed Water ASR / Health Park Reclaimed Water ASR	Pilot and Construction of reclaimed water ASR for Wasteater Treatment Facilities	Planning	$600,000.00	2012	Enterprise Fund
7300	Reuse Valves Control, SCADA project	Construct Automated controls for reclaimed water sites	Underway	$100,000.00	2009	Enterprise Fund
None	Ben Hill Griffin Parallel Forcemain / FGCU/Miromar Lakes Reclaimed Water Main	Construct 900 L.F. of 12" reclaimed water line from 3 Oaks WWTP to FGCU / Combined with Parallel Force Main Project	Design underway	$6,000,000.00 for total project $100,000.00 for reclaimed water line portion	2011	Grant/Enterprise Fund

Potable Water Policy in the Lee Plan

Future Land Use Element

STANDARD 11.1: WATER.

1. Any new residential development that exceeds 2.5 dwelling units per gross acre, and any new single commercial or industrial development in excess of 30,000 square feet of gross leasable (floor) area per parcel, must connect to a public water system (or a "community" water system as that is defined by Chapter 17-22, F.A.C.).

2. If the proposed development lies within the boundaries of a water utility's certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), then the development must be connected to that utility.

3. The developer must provide proof that the prior commitments of the water utility, plus the projected need of the developer, do not exceed the supply and facility capacity of the utility.

4. All waterline extensions to new development will be designed to provide minimum fire flows, as well as adequate domestic services as required by Chapter 10D-4, F.A.C.

5. If a new development is located in a certificated or franchised service area, or Lee County Utilities' future potable water service area (see Map 6), and the utility cannot provide the service or cannot provide the service except at a clearly unreasonable cost to the developer, the developer is encouraged to petition the appropriate regulatory agency to contract the service area so that the development may establish its own community water system or invite another adjacent utility to expand its service area in order to provide the required service.

6. If a development lies outside any service area as described above, the developer may:

   - request that the service area of an adjacent water utility be extended to incorporate the property;
   - establish a community water system for the development; or
   - develop at an intensity that does not require a community water system.

(Amended by Ordinance No. 94-30, 00-22)

Community Facilities and Services Element

Potable Water Sub-Element

GOAL 53: POTABLE WATER INFRASTRUCTURE. To ensure the public health, welfare, and safety by the provision of high-quality central potable water service throughout the future urban areas of unincorporated Lee County, and to ensure that the costs of providing facilities for the supply of potable water are borne by those who benefit from them.

OBJECTIVE 53.1: The County will ensure the provision of acceptable levels of potable water service throughout the future urban areas of the unincorporated county, either directly

by Lee County Utilities, or indirectly through franchised utility companies. (Amended by Ordinance No. 94-30, 00-22, 03-04)

POLICY 53.1.1: The Board of County Commissioners hereby establishes service areas for the Lee County Utilities water systems throughout which it will provide standard service as required by demand, and within which it will challenge applications by private water utilities to obtain a Certificate of Operation from the Florida Public Service Commission and reject all applications for a county franchise therein. These service areas are illustrated in Map 6. Within the Fort Myers urban reserve area, the service areas shown on the map are subject to modifications in accordance with existing and future interlocal agreements. (Amended by Ordinance No. 93-25)

POLICY 53.1.2: The minimum acceptable level-of-service standards (see Policy 95.1.3) for potable water connections to Lee County Utilities will be:

- An available supply and treatment capacity of 250 gallons per day per equivalent residential connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.3: The Board of County Commissioners encourages all private utilities to set a minimum acceptable level of service to be adopted herein for use in the concurrency management system within their respective franchised or certificated areas. After the effective date of this plan or September 1, 1989, whichever is later, if the county has not adopted such standards into this plan, the standards adopted for the Lee County Utilities' water systems will apply in those certificated or franchised areas and will be used in enforcing concurrency regulations (see Policy 95.1.3).

After the deadline set above any private utility that cannot meet the Level-of- Service standards set forth for Lee County Utilities will have the opportunity to petition for a Plan Amendment for a revised Level-of-Service requirement for the specific private utility plant if it can be proved that such utility has sufficient plant and system capacity to properly service it's franchised or certificated area. The proof will be in the form of properly documented daily flow reports, occupancy rates or related statistical information, and any other necessary information that may be pertinent to the justification of the requested action, to establish a new individual Level-Of-Service standard. This data should be for a period covering at least the last two prior years. (Amended by Ordinance No. 92-35, 00-22)

POLICY 53.1.4: The Board of County Commissioners urges all utilities to construct and install sufficient treatment facilities and distribution systems that will meet or exceed the minimum acceptable service standards and with the capacity to deliver water at a pressure of 20 pounds per square inch (wp PSI static) at the meter anywhere on the individual system (excluding fire flow conditions). In addition, by September 30, 1994, all utilities are urged to deliver water pressure of 40 pounds per square inch (static pressure, excluding fire flow conditions). Each utility is encouraged to advise the planning and engineering staffs of the county regarding system expansions or modifications to ensure coordination with other utilities and with all other issues of public interest and to prevent duplication of facilities and services. (Amended by Ordinance No. 92-35)

POLICY 53.1.5: ~~County development regulations will be amended to specify that~~ ~~n~~No county development order under the ~~Development Standards Ordinance~~ Land Development Code for a residential development more intense than 2.5 dwelling units per gross acre, for a commercial development of more than 30,000 square feet of gross floor area, or for any industrial plant of more than 30,000 square feet of gross floor area, will be issued in any franchised or certificated water service area, or within Lee County Utilities' future service area, unless potable water service, at the minimum acceptable level of service, is available at the property line, or surety is given that it will be installed prior to occupancy. This policy will in no way exempt any development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3. (Amended by Ordinance No. 00-22)

POLICY 53.1.6: No permit will be issued allowing any utility to use a public right-of-way or to cut a pavement in a public right-of-way to extend service outside of its certificated or franchised area or to extend service into an area allocated to another utility, unless the other utility concurs in writing. This will be enforced along municipal and state rights-of-way by interlocal agreement and memoranda of agreement as required. (Amended by Ordinance No. 00-22)

POLICY 53.1.7: In allocating Industrial Development Revenue Bond capacity, the county will give priority to private water utility firms proposing to construct basic facilities and to provide or upgrade infrastructure serving developed areas and antiquated subdivisions undergoing redevelopment. (Amended by Ordinance No. 00-22)

POLICY 53.1.8: The costs of new or augmented potable water infrastructure that is developed by Lee County will be borne by those who benefit from the improved supply. (Amended by Ordinance No. 94-30, 00-22)

POLICY 53.1.9: New development will pay through appropriate financial mechanisms its fair share of the costs of providing standard potable water for that development. (Amended by Ordinance No. 00-22)

POLICY 53.1.10: By 1999, county staff will formulate the study proposal to determine the appropriateness of requiring certain existing residential developments at a density equal to or in excess of 2.5 dwelling units per acre to connect to a potable water or sewer system, if available. The study will address the issue of health related problems and will include the collection and analysis of well samples to determine if there is an immediate health problem as well as a cost benefit analysis. This study proposal will include recommendations regarding which pre-platted communities and subdivisions should be required to connect to a potable water or sewer system, if available. (Added by Ordinance No. 98-09, Amended by Ordinance No. 00-22)

POLICY 53.1.11: The County will expand potable water facilities consistent with those improvements identified in Table 7, the 10 Year Water Supply Development Projects Table. Table 7 will be amended as projects are completed and technological advancements in water supply facilities are made.

OBJECTIVE 53.2: WATER SUPPLY CONCURRENCY. Lee County will incorporate water supply into the concurrency management system consistent with the requirements of Section 163.3180(2)(a), F.S.

POLICY 53.2.1: County development regulations will be amended to specify that no building permit under the Land Development Code will be issued in a franchised or certificated water service area, or within Lee County Utilities future service area, unless potable water supply will be available to meet current and projected growth demands, or surety is given that it will be available prior to occupancy. This policy does not exempt development of any size from meeting the levels of service required for concurrency under Policies 53.1.2 and 95.1.3.

GOAL 54: CONSERVATION. To ensure that future populations have access to potable water supplies and services at a reasonable price by using and encouraging conservation and resource management measures to reduce consumption of potable water.

OBJECTIVE 54.1: The county will continue its programs in education, technical advice, demonstration, rate revisions, and reuse to reduce potable water consumption and the consumption of large volumes of potentially potable water. Water consumption per Equivalent Residential Unit will be decreased by 2.5% annually through the year 2000. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.1: Using the personnel and resources of various county agencies, Lee County will continue to offer a program of public information and education. This program should include the use of print media, advertising, and public service announcements on radio and television highlighting and advocating various strategies of water conservation, including, but not limited to:

- creating incentives for "gray water" systems or other recycling activities;
- adopting incentives for household and commercial use of appliances with low water consumption rates;
- advising householders to reduce water use;
- creating a demand for low water use appliances by publishing ratings of water use efficiency for appliances analogous to the energy efficiency ratings for electrical appliances;
- advocating the cost-effective use of appliances and water: i.e. run only full loads or use low water settings when appropriate;
- encouraging the building or grounds manager, including the individual householder, to maintain the water system, i.e. timely repair of dripping faucets, leaking water closets, broken or maladjusted sprinkler heads, etc.;
- installing alternatives to spray irrigation devices for lawns and grounds management such as drip or seep systems, or at least attending to the ambient humidity and evapo-transpiration rates in controlling sprinkler systems;
- encouraging the use of drought-tolerant ground covers and shrubbery according to the principles of "xeriscape" (see glossary and Objective 117.2) and demonstrating the uses of native vegetation in landscaping; and

- generally encouraging the thoughtful use of water in all necessary activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.2: In developing and implementing local landscape regulations including the preservation, reforestation, and wetlands restoration requirements, preference will be given to native species which are adapted to the region's climatic regime.

POLICY 54.1.3: Xeric landscaping, stressing the use of native vegetation, is to be emphasized through modifications to the county's development regulations and through direct action while landscaping county-owned projects.

POLICY 54.1.4: The Board of County Commissioners will periodically re-examine the "step rate" structure for the Lee County Utilities water systems which encourages water conservation by requiring that the commodity charge (basic monthly charge less readiness to serve fee and capital debt contribution) above a specified amount of water use increase continuously or by specified increments for that increased use of water. (Amended by Ordinance No. 94-30, 00-22)

POLICY 54.1.5: The Board of County Commissioners will encourage privately operated potable water utilities to adopt a "conservation" rate structure for users in their respective service areas. (Amended by Ordinance No. 00-22)

POLICY 54.1.6: Development regulations will continue to require that any development will pay the appropriate fees and connect to a re-use water system if such system is near or adjacent to the development and has sufficient surplus to supply the development. Development regulations will be amended further as follows:

- Where a significant modification is proposed to a major development subject to Chapter 10 of the Land Development Code, wastewater reuse systems will be required in the same manner as for new developments.

- The county will require by ordinance the connection of specified existing development to a utility wastewater distribution system when one is available near or adjacent to the property.

(Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.7: It is hereby declared that the conservation of potable water supply and facility capacity is of such importance to the orderly growth of the community that in order to further provide incentive for its use, reuse water may be provided at a price significantly lower than finished potable water (the residual costs of operation being charged to the sewer users as part of the cost of effluent disposal).

POLICY 54.1.8: Priority in the use of Industrial Development Revenue Bonds or other mechanisms of public finance will be given to regulated private utilities where not prohibited by the Florida constitution or statutes in order to achieve these public ends. (Amended by Ordinance No. 00-22)

POLICY 54.1.9: Lehigh Acres (as defined by outer boundaries of its Privately Funded Infrastructure overlay on the Future Land Use Map) is hereby declared a critical area for future potable water supply due to fluctuating water levels in the Sandstone aquifer. In response to this designation, the county will amend current regulations to provide that

new wells in Lehigh Acres must be constructed to accommodate submersible pumps. (Also see Policy 1.7.10 for new permit requirements for irrigation wells in Bonita Springs, and Policy 2.4.2 for special requirements for amendments to the Future Land Use Map.) (Amended by Ordinance No. 94-30, 00-22, 02-02)

POLICY 54.1.10: The county will continue to implement and enforce regulations to reduce the amount of effluent being discharged into surface waters. (Amended by Ordinance No. 91-19, 94-30, 00-22)

POLICY 54.1.11: Continue to encourage new and existing developments to utilize the Fort Myers Beach/Iona-McGregor sewer system's dual water system. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 98-09)

POLICY 54.1.12: Promote water conservation through the use of incentives and evaluate and apply a community based planning approach to water conservation, enabling more precision to be applied in achieving reduction targets. (Added by Ordinance No. 07-16)

GOAL 55: ORGANIZATION OF SERVICE AND FACILITY DELIVERY. To provide greater local coordination of the activities of public and private utilities within the county.

OBJECTIVE 55.1: Ensure an adequate, reliable, and economical supply of potable water to meet the forecasted needs for all residents of Lee County through the year 2020 through regional planning and intergovernmental participation. (Amended by Ordinance No. 94-30)

POLICY 55.1.1: Lee County Utilities and Lee County Division of Natural Resources will plan and coordinate with other government agencies in the development of comprehensive plans as they relate to well field protection, aquifer recharge, water supply, and related capital facilities. (Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04).

POLICY 55.1.2: Lee County Division of Natural Resources in conjunction with Lee County Utilities will perform groundwater modeling and analysis for new development, as needed, to assess the potential impact on the water resources of Lee County. The analysis will focus on the following issues:

- Adequacy of water supply, including groundwater level draw-down
- Avoidance of adverse impacts on natural systems from water supply withdrawals.

(Added by Ordinance No. 00-22, Amended and Relocated by Ordinance No. 03-04)

POLICY 55.1.3: Lee County will actively ~~participate in the~~ implement~~ation of~~ the ~~Regional~~ Water Supply Facilities ~~Master~~ Work Plan as adopted by the Board of County Commissioners on (insert date of policy adoption). Lee County will utilize the document as the County's guide to water supply facility planning with a planning horizon through the year 2030. A copy of the adopted ~~The Master~~ Water Supply Facilities Work Plan will be maintained and kept on file by Lee County Utilities. ~~consider the expansion of existing surface water sources and wellfields and the interconnection of the transmission systems of existing public and private utilities to obtain the most cost efficient and reliable water system.~~ (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22, Relocated by Ordinance No. 03-04)

POLICY 55.1.4: Lee County will continue to collect data from private suppliers of potable water, including reporting of water flows, storage capacity, pressures, number of customers, and committed future connections, and proposed expansion plans. This data will be updated on a yearly basis. (Amended by Ordinance No. 94-30, Amended and Relocated by Ordinance No. 00-22)

Surface Water Management Sub-Element

GOAL 61: PROTECTION OF WATER RESOURCES. To protect the county's water resources through the application of innovative and sound methods of surface water management and by ensuring that the public and private construction, operation, and maintenance of surface water management systems are consistent with the need to protect receiving waters.

OBJECTIVE 61.1: WATER SUPPLY PLANNING. All county water supply planning will include the recognition of surface water runoff as a possible resource and will consider integrating the use of surface water runoff in any supply program or strategy that results. (Amended by Ordinance No. 00-22)

POLICY 61.1.1: Lee County recognizes that all fresh waters are a resource to be managed and allocated wisely, and will support allocations of the resource on the basis 1) of ensuring that sufficient water is available to maintain or restore valued natural systems, and 2) of assigning to any specified use or user the lowest quality fresh water compatible with that use, consistent with financial and technical constraints. (Amended by Ordinance No. 00-22)

POLICY 61.1.2: The county will explore, and implement where financially and technically feasible, all existing options for storing and utilizing excess surface water runoff for human consumption and other uses. Such options may include surface impoundments; back-pumping to reservoirs, to upland wetlands, or to ground storage; and ground storage by exfiltration systems or by aquifer storage and recovery systems. Maximum contaminant levels consistent with Florida DEP and USEPA regulations governing receiving waters will be met through treatment as required. Excess surface water runoff will be defined as that water not required to maintain or restore estuarine waters or other valued wetland systems. (Amended by Ordinance No. 94-30, 00-22)

POLICY 61.1.3: In the event that the timing and volume of freshwater discharges necessary to maintain the health and productivity of estuaries and other wetlands cannot be determined or supported by existing scientific data, the county will sponsor, in collaboration with other agencies, institutions, and organizations, adequate research programs to make such data available. (Amended by Ordinance No. 00-22, 07-12)

POLICY 61.1.4: The county's Surface Water Management Master Plan will place particular emphasis on 1) routing surface water runoff from areas of excess to areas where additional subsurface storage is available; and 2) maintaining and increasing historic surface and groundwater levels in the Density Reduction/Groundwater Resource land use category. (Amended by Ordinance No. 00-22)

POLICY 61.1.5: Work with the appropriate agencies to pursue funding a "mixing model" (freshwater flow into saltwater) as a management tool that will benefit recreation, water quality, public health, etc. (Added by Ordinance No. 07-16)

Groundwater Recharge Sub-Element

OBJECTIVE 63.2: POTABLE GROUNDWATER. Base all future development and use of groundwater resources on determinations of the safe yield of the aquifer system(s) in order not to impair the native groundwater quality or create other environmental damage. Criteria for safe-yield determinations will be determined by the SFWMD, the agency charged with permitting these activities. (Amended by Ordinance No. 94-30, 00-22)

POLICY 63.2.1: For maximum protection of groundwater resources, identify future wellfields and/or relocation site(s) for existing wellfields well in advance of need. Coordinate with SFWMD, other water suppliers, and DEP to avoid duplication and to assist in data collection and interchange. (Amended by Ordinance No. 94-30)

POLICY 63.2.2: Institute a program to identify sources of groundwater pollutants in Lee County and to map these (point and non-point) on a county-wide basis.

POLICY 63.2.3: Identify water needs consistent with projections of human population and the needs of natural systems in order to determine the future demands for groundwater. (Amended by Ordinance No. 94-30)

POLICY 63.2.4: Expand current programs to identify and map the contamination potential of groundwater resources for those areas of Lee County not currently under public ownership.

POLICY 63.2.5: Lee County, in cooperation with other agencies and the municipalities, will budget to maintain its current program of plugging non-valved, abandoned, or improperly-cased artesian wells so that at least seventy-five of these wells are plugged each year until such wells are eliminated. (Amended by Ordinance No. 94-30, 00-22)

Capital Improvements Element

POLICY 95.1.3: MINIMUM ACCEPTABLE LEVEL-OF-SERVICE STANDARDS. Level-of-service (LOS) standards will be the basis for planning the provision of required public facilities within Lee County. Some of these standards will be the basis for determining the adequacy of public facilities for the purposes of permitting new development. The "Minimum Acceptable Level of Service" will be the basis for facility design, for setting impact fees, and (where applicable) for the operation of the Concurrency Management System (CMS).

Two classes of standards are established. "Regulatory" standards are those which apply to facilities identified in state law as being essential to support development. These consist of facilities for the provision of potable water, sanitary sewer, disposal of solid waste, stormwater management, community and regional parks, and transportation. (It is the intent of this element that these standards will be the same as those established in the various relevant plan elements. If there are discrepancies between standards contained in the elements and standards as set forth herein, the standards as set forth herein will govern.) The second class, "non-regulatory" standards, are those which apply to other facilities for which the county desires to set standards for its own use; compliance with these standards will not be a requirement for continued development permitting.

REGULATORY STANDARDS

1. Potable Water Facilities:

   Minimum Acceptable Level of Service:

   Within certificated, franchised, or designated service areas only: supply and treatment capacity of 250 gallons per day per Equivalent Residential Connection (ERC) for the peak month, except that facilities serving only mobile home residential structures must have a capacity of 187.5 gallons per day, and facilities serving only travel trailer residential structures must have a capacity of 150 gallons per day. Where a private water utility has provided an alternate standard for application within its certificated or franchised area, and that standard has been adopted into this comprehensive plan, that will be the standard to be used for concurrency management in the respective certificated or franchised area.

Conservation and Coastal Management Element

OBJECTIVE 112.2: The county will continue to participate with other governments to prepare and implement water management plans, including the Estero Bay Agency on Bay Management, Charlotte Harbor National Estuary Program, the Charlotte Harbor Management Plan, the Water Management District Surface Water Improvement and Management (SWIM) plans, DEP aquatic preserve management plans, water supply plans, and other water resource management plans. (Amended by Ordinance No. 94-30, 98-09, 00-22)

GOAL 117: WATER RESOURCES. To conserve, manage, and protect the natural hydrologic system of Lee County to insure continued water resource availability. (Amended by Ordinance No. 94-30)

OBJECTIVE 117.1: WATER SUPPLIES. Insure water supplies of sufficient quantity and quality to meet the present and projected demands of all consumers and the environment, based on the capacity of the natural systems.

POLICY 117.1.1: Natural water system features which are essential for retention, detention, purification, runoff, recharge, and maintenance of stream flows and groundwater levels shall be identified, protected, and managed.

POLICY 117.1.2: The county will recognize and encourage water and wastewater management, provided that such management does not exceed the natural assimilative capacity of the environment or applicable health standards. Appropriate water and wastewater management includes, but is not limited to, aquifer recharge, aquifer storage and recovery, reclaimed water, reverse osmosis, dual water systems, use of low volume irrigation systems, use of water-conserving vegetation, and other conservation and recycling techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.3: Freshwater resources will be managed in order to maintain adequate freshwater supplies during dry periods and to conserve water. (Amended by Ordinance No. 00-22)

POLICY 117.1.4: Development designs must provide for maintaining surface water flows, groundwater levels, and lake levels at or above existing conditions. (Amended by Ordinance No. 00-22)

POLICY 117.1.5: The county will cooperate with the United States Geological Survey, South Florida Water Management District, and state agencies to develop an area-wide water resources plan emphasizing planning and management of water resources on the basis of drainage basins; and addressing the needs of the existing and potential built environment, natural hydrologic system requirements, and freshwater flow impacts on estuarine systems. (Amended by Ordinance No. 00-22)

POLICY 117.1.6: The county will continue to support a monitoring program of existing baseline conditions of water resources. (Amended by Ordinance No. 00-22)

POLICY 117.1.7: The county will cooperate fully with emergency water conservation measures of the South Florida Water Management District. (Amended by Ordinance No. 00-22)

POLICY 117.1.8: The county will support the acquisition and protection of the Flint Pen Strand as a major water retention and aquifer recharge area. (See also Policy 107.11.4.) (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.1.9: The county will utilize the recommendations made in the Water Supply Facilities Work Plan (see Policy 55.1.3) as a guide to potable water facilities planning, potable water resources, and water conservation as well as expanding potable water facilities consistent with Table 7, the 10 Year Water Supply Development Projects Table.

OBJECTIVE 117.2: XERISCAPE LANDSCAPE. The county will continue to promote xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.1: The county will continue to encourage xeriscape landscaping techniques for new development in the Land Development Code. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.2: The county will provide education on water conservation through creative landscaping, and promote the conservation and use of native plant species through xeriscape landscaping techniques. (Amended by Ordinance No. 94-30, 00-22)

POLICY 117.2.3: The county will establish local guidelines that will assist in efforts to reduce landscape irrigation water use to the lowest and most efficient, practical level. (Amended by Ordinance No. 00-22)

Intergovernmental Coordination Element

OBJECTIVE 151.3: COORDINATION OF ROADWAY AND UTILITY IMPROVEMENTS. Coordinate, where possible, between the Lee County Department of Transportation (DOT) and utility companies, including Lee County Utilities and the various privately operated water and wastewater companies, to insure that capital and maintenance projects are not adversely affected by subsequent utility construction. (Added by Ordinance No. 94-30)

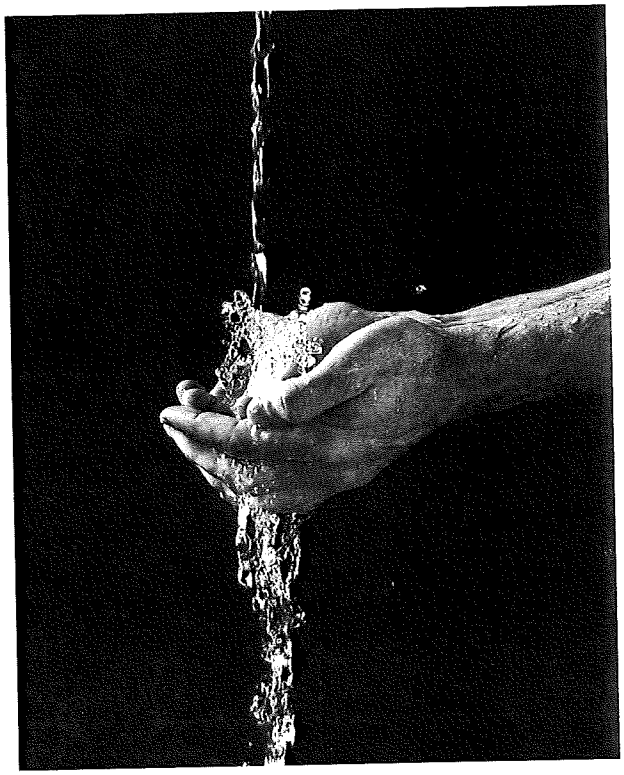
POLICY 151.3.1: Lee County DOT will continue open communications with the various water and wastewater utility companies to coordinate expected utility construction projects with programmed roadway maintenance and capital projects. (Added by Ordinance No. 94-30, Amended by Ordinance No. 07-12)

OBJECTIVE 151.5: COORDINATION OF WATER SUPPLY PLANS AND THE LEE PLAN. Coordinate between Lee County and the South Florida Water Management District to ensure that the Lee Plan remains consistent with the District's regional water supply plans.

POLICY 151.5.1: The county will continue to evaluate the latest water supply plans issued by the South Florida Water Management District to ensure consistency in the Lee Plan and the County's Water Supply Facilities Work Plan. The county will update the Water Supply Facilities Work Plan within 18 months after the South Florida Water Management District approves an update to the regional water supply plan.

POLICY 151.5.2: The county will coordinate with other government agencies and private suppliers of potable water during the water supply planning process to include the review of land use changes, addressing population projections, and acceptable level of service standards.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY, FLORIDA



Prepared by Lee County Utilities and Lee County Planning
February 2009

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WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
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Section 1
INTRODUCTION

1.1 PURPOSE

This Water Supply Facilities Work Plan has been prepared by Lee County Utilities (LCU) to meet the requirements of section 163.3177(6)(c), of the Florida Statutes regarding water supply planning.

1.2 PLAN OBJECTIVES

The objectives of this plan include:

- 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 LCU's efforts in developing alternative water supplies.

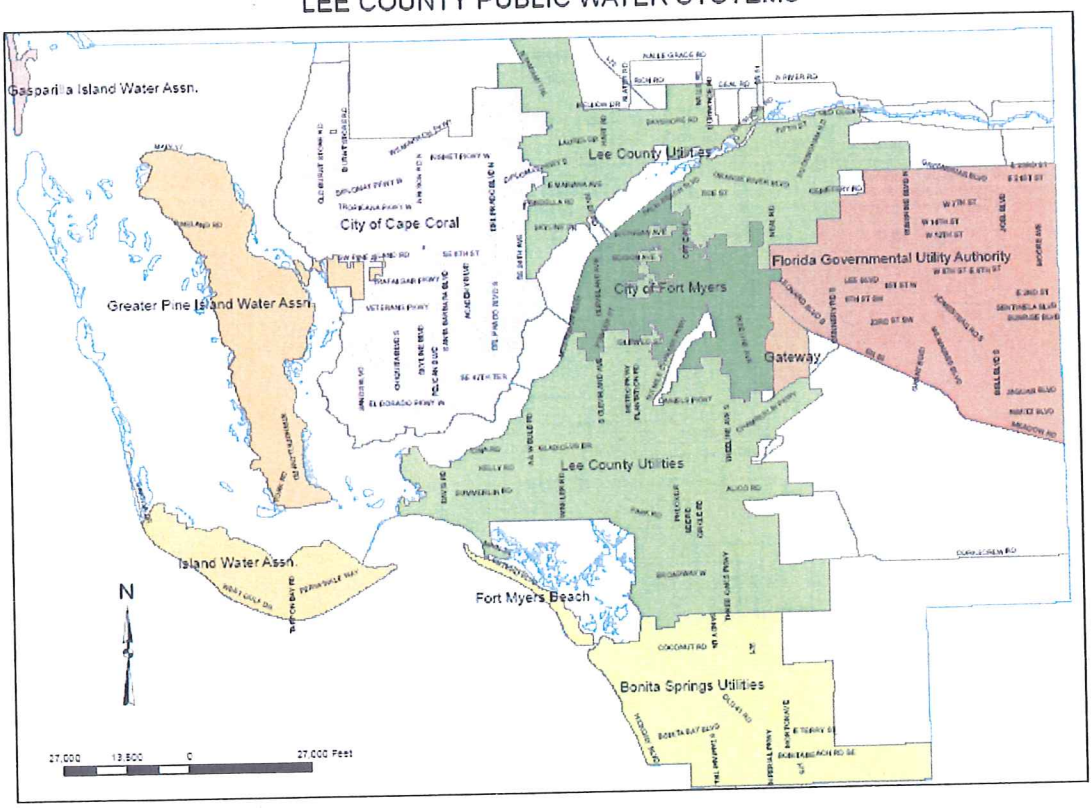
1.3 BACKGROUND

Lee County Utilities was a founding member of the former Lee County Regional Water Supply Authority (LCRWSA). The LCRSWA issued a Water Supply Master Plan in 1993 that was updated in 2000. This Water Supply Master Plan used a planning horizon through 2030. The information provided in this current Lee County Plan is an update to the work that was previously done by the LCRWSA as well as information that has been compiled and submitted to the South Florida Water Management District (SFWMD) in support of Water Use Permit applications as well as population projections performed by Lee County Planning Department.

Lee County Utilities provides water service to those portions of unincorporated Lee County that are not served by either a private utility company, member-owned non-profit systems operating under a franchise agreement from Lee County, or public utility formed through State legislation. These water utilities include; Florida Government Utility Authority (FGUA). Bonita Springs Utilities (BSU), Greater Pine Island Water Association (GPIWA), Gasparilla Island Water Association, and Island Water Association. Sections 1 through 6 of this Plan identify only the water supply needs for Lee County Utilities water system and service area. Section 7 of this Plan describes the water supply needs of the other utilities listed above. This Plan does not include water utilities serving incorporated cities within Lee County, including City of Fort Myers, City of Cape Coral, City of Bonita Springs, and City of Sanibel. Each of these entities is responsible for developing their own 10-Year Water Supply Facilities Work Plan to be

included in its City's comprehensive plan. The figure below depicts the service areas of the large water utilities throughout Lee County.

LEE COUNTY PUBLIC WATER SYSTEMS



It should be noted that LCU provides potable water service through a bulk water service agreement to the Town of Fort Myers Beach. Therefore, in this plan the Town of Fort Myers Beach is included in LCU service area and data presented in this portion of the Plan, include the areas within the Town of Fort Myers Beach. In addition the map above shows the Gateway Service District (GSD) as a water utility. LCU also provides water to GSD as a bulk customer and therefore demands in GSD service area are accounted for in LCU's demand data.

In addition to the public water supply utilities listed above, there are several small public water supply systems within Lee County that are serving developments such as mobile home parks and small developments. An inventory of these systems along with data related to permitted capacity and annual average daily flows is presented in the table below.

SMALL POTABLE WATER SELF SERVED DEVELOPMENTS IN LEE COUNTY

Facility	Design Capacity Avg Gal/Day	Max Day (GPD) Actual 2005	Max Day (GPD) Actual 2006	Max Day (GPD) Estimated 2007	Max Day (GPD) Projected 2008
Bayshore Utilities WTP	216,000	88,000	88,600	89,204	89,812
Citrus Park WTP	650,000	625,000	633,000	641,102	649,309
Lake Fairways WTP	300,000	219,000	263,000	270,000	275,000
Raintree WTP	230,000	53,000	41,200	45,000	48,000
Charleston Park WTP	20,000	24,000	21,700	19,000	19,000
Fountain View RV Park WTP	70,000	40,300	36,200	40,300	n/a
Oak Park MHV WTP	150,000	66,000	74,360	80,000	85,000
River Lawn Terrace WTP	7,800	7,405	8,610	7,000	7,000
Saldivar Migrant Camp WTP	160,000	151,000	120,700	125,000	130,000
Sunrich Mobile Home WTP	20,000	10,600	n/a	12,000	12,000
Useppa Island Club WTP	56,000	73,800	84,292	50,000	50,000

Source: Lee County Concurrance Report 2007 and Lee County Department of Health

1.4 LEE COUNTY UTILITIES SERVICE AREA

Lee County Utilities currently provides potable water throughout several areas in Unincorporated Lee County. Lee County Utilities has a large potential service area (see Figure 1). Essentially this area consists of all unincorporated areas of Lee County that are not served by private utilities through a franchise agreement with the County. The areas currently served within this potential service area are shown in Figure 2. The areas projected to be served by the year 2030 are depicted in Figure 3. It should be noted that the service area depicted in Figure 3 is also the Potable Water Future Service Area in the Lee County Comprehensive Plan.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
LEE COUNTY, FLORIDA

Section 2
EXISTING FACILITIES

2.1 EXISTING WATER SUPPLY RESOURCES

Lee County Utilities currently operates the following water supply facilities under Water Use Permits from the SFWMD. The general location of these facilities is depicted in Figure 4.

- The Olga surface water intake can withdraw up to 10.0 mgd from the Caloosahatchee River when flows in the river exceed 500 cfs at S-79 (Franklin Locks).
- The Corkscrew Wellfield can withdraw up to 10 mgd from 31 wells that withdraw water from the Surficial aquifer and the Sandstone aquifer.
- The Green Meadows Wellfield can withdraw up to 9 mgd from 27 wells that withdraw water from the Surficial aquifer and the Sandstone aquifer.
- The Waterway Estates Wellfield can withdraw up to 1.5 mgd from 18 wells that withdraw water from the Surficial aquifer, Mid-Hawthorn aquifer, and Lower Hawthorn aquifer.
- The Pinewoods Wellfield can withdraw up to 3.6 mgd from 27 wells that withdraw water from the Water Table, Sandstone, and Lower Hawthorn aquifers.
- The San Carlos Wellfield can withdraw up to 2.5 mgd from 5 wells that withdraw water from the Water Table aquifer.
- The North Lee County Wellfield can withdraw up to 6.25 mgd from 8 wells that withdraw brackish water from the Lower Hawthorn aquifer.

These water resources are described in more detail in the following sections.

2.1.1 Olga Surface Water Intake

The Olga WTP was constructed in 1967 and draws surface water from the Caloosahatchee River (SFWMD Canal C-43). The intake is located at the plant site in Section 23, T43S, R26E along the banks of the river approximately one mile East of the Franklin Locks (see Figure 4). The Olga WTP currently uses three raw water pumps to withdrawal water from the river. In 2000 an Aquifer Storage and Recovery (ASR) well was constructed at the Olga WTP. In 2007, a second ASR well was constructed at the facility. Three additional proposed ASR wells are included in the facilities water use permit.

2.1.2 Corkscrew Wellfield

The original Corkscrew Wellfield is 476 acres in size and is located in Section 22, T46S, R26E at the Northeast corner of Alico and Corkscrew Roads (See Figure 4 and 5). The original wellfield consists of a total of 23 wells. Six of these wells draw water from the Sandstone Aquifer and 17 wells draw water from the Surficial aquifer. In 1999 the wellfield was expanded and 8 wells were installed south of Corkscrew Road approximately one mile west of the existing wellfield. These wells were placed in four clusters, each cluster having one Sandstone aquifer well and one Surficial aquifer well. A description of the wells at Corkscrew is presented in Table 3.

Lee County Utilities has installed five Aquifer Storage and Recovery (ASR) wells at the Corkscrew facility (see Figure 14). These wells are currently fully operational and permitted for injection and recovery. Each well is 12 inch in diameter and has a capacity of 450 gallons per minute. The wells are used to store finished water seasonally in the Mid-Hawthorn aquifer. All of the wells have experienced close to 100% recovery rate. During periods of low demand, which coincides with the wet season, water is injected in the ASR wells. Water is withdrawn from the ASR wells during high demand periods, which coincides with the dry season. This allows for meeting peak demands and offset withdrawals from traditional sources during the dry season. A description of the ASR wells at Corkscrew is presented in Table 10.

2.1.3 Green Meadows Wellfield

The Green Meadows Wellfield is located in Sections 33, 34, 35 and 36 T45S, R26E and Section 31, T47S, R27E in South Lee County approximately 3 miles North of the Corkscrew Water Plant and 2 miles Southeast of the International Airport (See Figure 4). The wellfield has been in existence since 1974, with wells added as demand increased. Currently the wellfield consists of 27 wells. Fourteen of these wells draw water from the Surficial aquifer and thirteen of these wells draw water from the Sandstone aquifer. The linear configuration of this wellfield has minimized the effects of drawdown in the Surficial aquifer (see Figure 6). A description of the wells at Green Meadows is presented in Table 4.

2.1.4 Waterway Estates Wellfield

The Waterway Estates wellfield has been in operation since the late 1950's. Wells have gradually been added as the need arises. There are a total of 18 wells, 14 of which are in close proximity to the plant in Section 16, T44S, R24E (see Figure 4). One well is located in Section 9, T44S, R24E. In addition, there are three wells located in North Cape Coral in Section 6, T44S, R24E (see Figure 10). Six of the wells draw water from the Surficial Aquifer, 11 from the mid-Hawthorn and one from the Lower Hawthorn. LCU has experienced a reduced yield in the existing Waterway Estates Wellfield which has reduced the ability to withdrawal the entire permitted capacity for this facility. An additional Lower Hawthorn well is proposed and is permitted by the SFWMD. A description of the wells at Waterway Estates is presented in Table 7.

2.1.5 Pinewoods Wellfield

The Pinewoods wellfield was acquired by Lee County Utilities in 2003 from Gulf Environmental Services. The wellfield is located in Section 36, T456S, R25E in East Lee County south of Corkscrew Road (see Figure 4). The wellfield and treatment facility were expanded in 2007. Currently the wellfield consists of 19 wells. Eleven of these wells draw water from the Water Table aquifer, three draw water from the Sandstone aquifer and five new wells draw water from the Lower Hawthorn aquifer (see Figure 7). The wellfield is permitted by the SFWMD with a capacity of 3.60 MGD. A description of the wells at Pinewoods is presented in Table 5.

2.1.6 San Carlos Wellfield

The Bartow WTP is supplied by the San Carlos wellfield which was acquired by Lee County Utilities in 2003 from Gulf Environmental Services. The wellfield is located in Section 36, T456S, R25E, in South Lee County, south of Alico Road, North of Corkscrew Road and West of Interstate 75 (see Figure 4). Currently the wellfield consists of 5 wells (see Figure 8). Four of the five wells are active. The wellfield is permitted by the SFWMD with a capacity of 2.5 MGD. All four active wells are permitted to draw water from the Water Table aquifer. This treatment facility and related wellfield is currently off-line No expansion is planned for this wellfield. A description of the wells at San Carlos is presented in Table 5.

2.1.7 North Lee County Wellfield

The North Lee County Water Treatment Plant is located on Durrance Road in North Fort Myers (see Figure 4). The plant was placed into operation in August 2006 and was anticipated to produce 5.0 mgd of finished water through treatment of approximately 6.5 mgd of brackish water from the Lower Hawthorn aquifer. Eight wells were constructed to provide raw water to this first phase of the project (see Figure 11). A description of the existing wells is provided in Table 8. Early in 2007 LCU began to experience declining water quality in this wellfield. As a result one well was placed out of service and plugged and production from 3 wells was reduced, lowering the production capability of this facility to 3.5 mgd. To regain the full production capacity of this facility back to 5.0 mgd, LCU is developing a project to replace the one plugged well and add two additional wells. All three wells are proposed to be constructed off the existing wellfield site as a linear configuration has been recommended for a more sustainable yield from the wellfield. A description of the wells at the North Lee County Wellfield is presented in Table 8.

2.2 EXISTING CONSUMPTIVE USE PERMITS

LCU has three existing consumptive use permits issued by the SFWMD.
The following facilities are covered under Permit # 36-00003-W; Corkscrew wellfield, Olga surface water intake, Green Meadows wellfield and Cypress Lake wellfield (College Parkway).
The following facilities are covered under Permit # 36-00122-W; Pinewoods wellfield, and San Carlos wellfield (Bartow).
The following facilities are covered under Permit # 36-00152-W; Waterway Estates wellfield, and North Lee County wellfield.
The three permits have a combined annual allocation of 12,248 million gallons or 33.55 million gallons per day. Below is a table summarizing the existing consumptive use permits. The right side of this table shows the specific source limitations included in each permit. The difference between the total allocation and the combined daily source limits in each permit is fulfilled with sources that do not have specific limitations.

LEE COUNTY UTILITIES WATER USE PERMIT SUMMARY

Permit #	Facilities	Expiration Date	Annual Allocation (MGD)	Max Month Daily Allocation (MGD)	Max Day Allocation (MGD)	Source Limits	
						Source	Limit (MGD)
36-00003-W	Corkscrew Olga Green Meadows Cypress Lake	4/10/2008	21.23	31.38	30.37	Mid-Hawthorne (C.L.) Sandstone Surficial (Corskrew) Surficial (GM)	0.75 8.00 6.00 4.20
36-00122-W	Pinewoods San Carlos	9/9/2014	6.09	7.23	N/A	Surficial (San Carlos) Sandstone (Pinewoods) Surficial (Pinewoods)	2.50 0.75 2.30
36-00152-W	Waterway Estates North Lee County	1/15/2024	6.23	8.45	N/A	Surficial&Mid Hawthorne	1.55
TOTAL			33.55	47.06			

Notes
1. Annual Allocation (MGD) based on Perimtted Annual Total Allocation divided by 365
2. Max Month Daily Allocation (MGD) based on Permitted Max Month Total Allocation divided by 30
3. Max Day Allocation (MGD): Permits#'s 36-00122-W and 36-00152-W do not specify a Max Day

2.3 EXISTING WATER TREATMENT FACILITIES

Lee County Utilities currently operates the following water treatment facilities under permits issued by the Lee County Health Department as the local agency on behalf of the Florida Department of Environmental Protection (FDEP).

- The Olga Water Treatment Plant has a capacity of 5 mgd and treats water withdrawn from the Caloosahatchee River.
- The Corkscrew Water Treatment Plant has a capacity of 15 mgd and treats water withdrawn from the Corkscrew Wellfield.
- The Green Meadows Water Treatment Plant has a capacity of 9 mgd and treats water from the Green Meadows Wellfield.
- The Waterway Estates Water Treatment Plant has a capacity of 1.5 mgd and treats water from the Waterway Estates Wellfield.
- The Pinewoods Water Treatment Plant has a capacity of 5.14 mgd and treats water from the Pinewoods Wellfield.
- The Bartow Water Treatment Plant has a capacity of 2.4 mgd and treats water from the San Carlos Wellfield.

These water treatment plants are described in more detail in the following sections.

2.3.1 Olga Water Treatment Plant

The Olga plant is permitted as a Class "A", Category I potable water treatment facility by the Florida Department of Environmental Protection (FDEP) and is staffed 24 hours a day, 365 days a year. The current designed and permitted capacity of the Olga WTP is 5.0 MGD. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.2 Corkscrew Water Treatment Plant

The Corkscrew plant is permitted as a Class "A", Category I potable water treatment facility by the Florida Department of Environmental Protection (FDEP) and is staffed 24 hours a day, 365 days a year. The current designed and permitted capacity of the Corkscrew WTP is 15.0 MGD. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.3 Green Meadows Water Treatment Plant

The Green Meadows plant is permitted as a Class "A", Category I potable water treatment facility by the Florida Department of Environmental Protection (FDEP) and is staffed 24 hours a day, 365 days a year. The current designed and permitted capacity of the Green Meadows WTP is 9.0 MGD. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.4 Waterway Estates Water Treatment Plant

The Waterway Estates Water Treatment Plant is a 1.5 MGD plant, permitted with the FDEP as a Class "B", Category I potable water treatment facility and is staffed 16 hours per day 365 days per year. The plant processes water through lime softening, coagulation, filtration and disinfection.

2.3.5 Pinewoods Water Treatment Plant

The Pinewoods facility consists of two treatment plants. The original Water Treatment Plant is a 2.12 MGD plant, permitted with the FDEP as a Class "B", Category II, potable water treatment facility. The plant processes water through nano-filtration membrane treatment and disinfection and treats raw water from the water table and sandstone aquifers. The second plant, which was completed in 2007, treats water withdrawn from the Lower Hawthorn aquifer and produces 3.0 mgd through low pressure reverse osmosis.

2.3.6 Bartow Water Treatment Plant (San Carlos Wellfield)

The Bartow Water Treatment Plant was a 2.41 MGD plant, permitted with the FDEP as a Class "B", Category I, potable water treatment facility. This facility was decommissioned in 2008. LCU is currently examining the feasibility of reactivating this facility and exploring different treatment options for a new facility at this location.

2.3.7 North Lee County Water Treatment Plant

The North Lee County Water Treatment Plant is a 5.0 mgd plant, permitted with the FDEP as a Class "B", Category II, potable water treatment facility. The plant processes raw water from the Lower Hawthorn aquifer through low pressure reverse osmosis.

2.4 EXISTING WATER STORAGE FACILITIES

Lee County Utilities currently operates seven potable water storage facilities. These existing storage facilities have the capacity to store a total of 33.0 million gallons. Figure 13 identifies the location of these facilities that are listed in Table 2. Regarding design criteria for minimum storage capacity within a public water system, Florida Administrative Code 62-555.320 (19) (a) states the following; "the total useful finish-water storage capacity (excluding any storage capacity for fire protection) connected to a water system shall at least equal 25 percent of the system's maximum-day water demand, excluding any design fire flow demand".

Assuming a fire flow demand of 3 fires each with 2 fire trucks pumping at 1,500 gpm for 4 hours, the fire flow demand would be 2.16 mgd. LCU's maximum daily flow in 2007 was 32.253 million gallons. Therefore; (32.253 X 0.25) + 2.16 = 10.22 million gallons. As stated above, LCU's current storage capacity is 33.0 million gallons.

WATER SUPPLY FACILITIES WORK PLAN
LEE COUNTY UTILITIES
LEE COUNTY, FLORIDA

Section 3

PROJECTIONS

3.1 LOWER WEST COAST WATER SUPPLY PLAN 2005-2006

During the formulation of the 2005-2006 update to the Lower West Coast Water Supply Plan (LWCWSP) the SFWMD staff worked closely with LCU to refine the area currently served by LCU to develop a baseline for the plan's demand projections for LCU's service area. In addition, the methodology utilized for projecting population that was utilized by the District staff was very similar to those utilized in past planning efforts performed by LCU. That is, University of Florida Bureau of Economic and Business Research medium projections were utilized and this data was used to disaggregated the historic population and projected population into Traffic Analysis Zones (TAZs) for LCU's existing and future service area. The projected population and annual average finish water demand from the LWCWSP is shown below. From baseline years it was determined that LCU's per capita was 118 gallons of finished water per day per person. The demand is expressed in annual average daily flow.

Lower West Coast Water Supply Plan
Demand Projection for Lee County Utilities

Year	Population	Finish Water Demand (MGD)
2005	201,286	23.7
2015	250,687	29.6
2025	291,302	34.3

3.2 LCU WATER USE PERMIT APPLICATION – APRIL 2008

In support of an application to modify LCU's current consumptive use permit number 36-00003-W in April 2008, available data from LCU's billing records were utilized to develop a population and demand projection. The available data from LCU's billing records included equivalent residential unit (ERU) counts and estimated population from 2003-2007. The population at the end of the month of May in every year from 2003 through 2007 was determined using the records from the billing office. The population in 2007 was determined by utilizing the factors shown in the Table below.

Estimation of LCU Service Area Population from ERU Data - M

Residential Unit	Number of Units	Population Factor	Estimated Population
Single Family	74,922	2.3	172,321
Multi-Family	44,804	2.0	89,608
Mobile Homes	15,574	1.8	28,033
RV	7,991	1.5	11,948
Total	143,291		301,948

Utilizing this method, a population served for every year from 2003 to 2007 was determined. The analysis resulted in an annual average growth rate of 3.6%. Actual water system demand data for this time period was then used in conjunction with the population data to determine an average per capita daily use rate and a peaking ratio to determine a maximum month per capita. The average use rate was determined to be 87 gallons per capita per day (gpcd). The maximum month use rate was determined to be 102 gpcd, with a peaking ratio of 1.17.

Population projections were then made for the years 2008 through 2018 based on the annual average growth rate determined above. Future water demands were then determined by multiplying the per capita rates determined above by the projected population for each year. It should be noted that limitations in water supply and infrastructure during the base line years from 2003 to 2007 resulted in artificially low water pressure throughout LCU's water system. To account for the increases in demand as a result of returning the system to normal operation pressures, a factor of 1.10 was applied to the projected demands. The resulting demand projection is presented below.

LEE COUNTY UTILITIES DEMAND PROJECTION
FROM WUP APPLICATION APRIL 2008

Year	Projected Average Population	Projected Annual Average Demand (MGD)	Projected Max Month Average Daily Demand (MGD)
2008	312,945	29.92	35.46
2009	324,343	31.00	36.75
2010	336,156	32.13	38.09
2011	348,399	33.30	39.47
2012	361,088	34.52	40.91
2013	374,239	35.77	42.40
2014	387,869	37.08	43.94
2015	401,995	38.43	45.55
2016	416,636	39.82	47.20
2017	431,810	41.28	48.92
2018	447,537	42.78	50.70

For purposes of this plan, this growth rate was then projected out to the year 2025 and in shown in graphs that follow.

3.3 LEE COUNTY PLANNING DEPARTMENT – MAY 2008

In May of 2008 the Lee County Planning Department performed an analysis of current population served by LCU and the projected population served by LCU. The sections below describe the methodology utilized by the Lee County Planning Department.

3.3.1 Population Assumptions:

Lee County population estimates and projections have used assumptions based on the United States' Census data which are updated after each decennial census is released. The primary assumptions derived from each census are persons per household and the occupancy characteristics of dwelling units. Due to changes in census boundaries between the 1970 and 1980 censuses, the current assumptions are based on a review of the 1980, 1990, and 2000 censuses.

Originally, these assumptions were applied on a county-wide basis. However, over time, staff has refined these assumptions to reflect differences throughout the county. Historically, the coastal areas of the county have a larger percentage of seasonally occupied units and fewer residents per unit. Information is summarized for each of the 22 Lee Plan Planning Communities. This allows for estimates and projections to be customized for different areas of the county. Similarly, the persons per unit (PPU) assumptions were refined to reflect differences between unit types. It was determined that then number of occupants was significantly different between single family detached units and other types of units.

3.3.2 Existing Population:

The Planning Division estimates the current population of an area by multiplying the number of each type of dwelling unit (single family or non-single family) to the corresponding PPU and occupancy rate (OR) assumed for the corresponding planning community. The dwelling unit information is maintained by the Planning Division staff for the unincorporated areas of Lee County, Fort Myers Beach, and Bonita Springs (areas where building permits have been processed by Lee County) in a parcel specific land use inventory. This inventory is updated using certificate of occupancy and change of use information from building permit data.

To calculate the estimated population of the area served by Lee County Utilities, Planning Staff geographically selected the parcels served. This data was joined with the Planning Division inventory to obtain unit counts and planning community information. This allowed appropriate assumptions to be multiplied to the unit counts to estimate the population served. For those areas served by Lee County Utilities within the municipalities of Cape Coral and Fort Myers the unit information was obtained from the Lee County Property Appraiser's tax roll information.

3.3.3 Build out population:

Planning Staff has also projected the build out population for Lee County. In addition to the assumptions used to estimate the existing population, staff made assumptions for future development patterns in the undeveloped areas of the county. The underlying assumption made was that the no dramatic change in development patterns was anticipated. This is Lee County's "Status Quo" projection of population for the Future Land Use Map in effect in December 2006 when this study was initiated. The development assumptions included in the build out analysis are the same as those used to generate the 2030 land use allocation acreages adopted in the Lee Plan, Table 1(b).

First, using the Planning Division existing land use inventory, the amount of vacant and agricultural land remaining in each of the 22 Planning Communities was calculated. This data was also summarized by Future Land Use Map Designation. The population accommodation analysis for the Lee County Comprehensive Plan, the Lee Plan, anticipated the portion of each land use category that will be developed with residential uses. This percentage has been monitored over the years and adjusted to reflect emerging development trends when appropriate.

Second, for each Future Land Use Designation within each Planning Community the existing Dwelling Units per acre was calculated (DUPA). This calculation includes data from approved planned developments regardless of the development status of the project. This figure is compared to the Lee Plan Assumption for DUPA in each Future Land Use designation. Development patterns vary across the county and the DUPA for each designation is expected to be different for each Planning Community. Planning staff compared the historical DUPA to the assumed county wide DUPA for each designation and made the appropriate adjustments. In certain areas of the county, such as the Estero Planning Community, staff gave more consideration to the development patterns of more recent approvals that have been influenced by the adoption of the Estero Community Plan. In other areas, such as Lehigh Acres, staff found no compelling reason to anticipate that future development patters would be significantly different from the historical patterns.

The 4 assumptions used in formulating the build out population projections are:

- Persons per Unit (by planning community) - PPU
- Occupancy Rate (by planning community) - OR
- Percent of Residential Land (by future land use designation) - %RL
- Dwelling Units Per Acre (by future land use designation and planning community) – DUPA

Calculating build out population

1. Total Residential Land (TRL) = Total acreage of land in each future land use designation for each planning community is multiplied by the %RL assumption.
2. New Residential Land (NRL) = TRL – existing residential. (this acreage figure is compared to the available land supply (vacant land + agricultural land) and adjusted if required).
3. New Dwelling Units (NDU) = NRL multiplied by the appropriate DUPA.

4. Build out Dwelling Untis (BDU) = NDU + existing Dwelling Units.
5. Projected Occupied Build out Dwelling Units (OBDU) = BDU multiplied by the appropriate OR.
6. Build out Population = OBDU multiplied by the appropriate PPU.

3.3.4 Demand Projection

The Lee County Planning Department computed the population within the area of un-incorporated Lee County served by LCU in 2007.The computed permanent population for 2007 was 230,581. The Planning Department then computed the projected population for Lee County Utilities entire future service as depicted in the Lee County Comprehensive Plan for the year 2030. The 2030 projected population for LCU's service area was determined to be 296,256. The actual annual average demand for LCU in 2007 was 24.95 MGD and the maximum day demand was 31.72 MGD. Utilizing this data an annual average per-capita rate of 108.2 gallons per capita day (gpcd) and a maximum day per-capita rate of 137.58 gpcd was determined. Applying these per-capita rate to the population projection performed by the Lee County Planning Department yields a projected annual average demand of 30.51 MGD and a maximum day demand of 38.79 MGD in 2025 (see table below).

LCU DEMAND PROJECTION BASED ON LEE COUNTY PLANNING DEPARTMENT

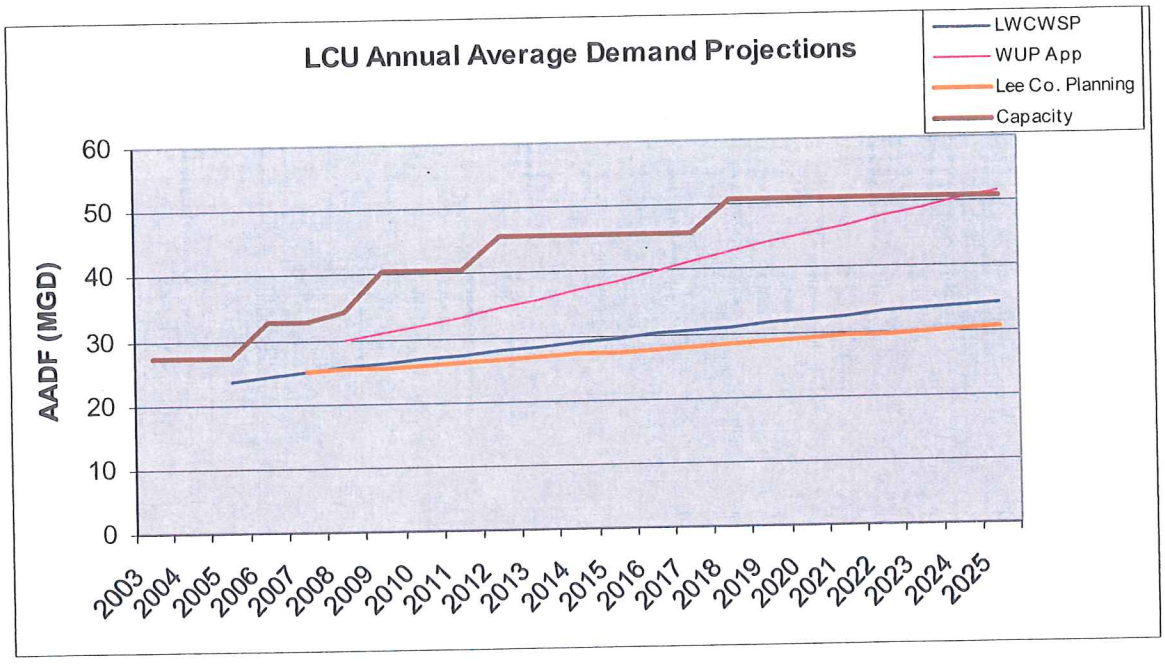
Year	Population	Demand AADF	Demand MDF
2007	230581	24.95	31.72
2008	233436	25.26	32.12
2009	236292	25.57	32.51
2010	239147	25.88	32.90
2011	242003	26.18	33.29
2012	244858	26.49	33.69
2013	247714	26.80	34.08
2014	250569	27.11	34.47
2015	253424	27.42	34.87
2016	256280	27.73	35.26
2017	259135	28.04	35.65
2018	261991	28.35	36.04
2019	264846	28.66	36.44
2020	267702	28.97	36.83
2021	270557	29.27	37.22
2022	273412	29.58	37.62
2023	276268	29.89	38.01
2024	279123	30.20	38.40
2025	281979	30.51	38.79
2026	284834	30.82	39.19
2027	287690	31.13	39.58
2028	290545	31.44	39.97
2029	293400	31.75	40.37
2030	296256	32.05	40.76

3.4 SUMMARY OF DEMAND PROJECTIONS

The table below summarizes the projections from the various Planning efforts described above. The following graph depicts the annual average daily demand projection for each and the actual annual average daily flows from 2003 through 2007.

Planning Effort	2025 AADF (MGD)	2025 MDF (MGD)	2025 MMADF (MGD)	Per Capita (gpcd)	2025 Population
2006 LWCWSP	34.30	N/A	N/A	118	290,677
2008 WUP Application	51.60	N/A	61.15	87	593,103
2008 Lee Co. Planning Dept.	30.51	38.79	N/A	108.2	281,979

The projections described above are shown in the graphs below.



In the graph above, the blue line represents the annual average daily demand projection as calculated for the SFWMD Lower West Coast Regional Water Supply Plan. The magenta line represents the annual average daily demand projection as calculated in support of the application for renewal of LCU water use permit. The thick orange line represents the annual average daily flow projection calculated utilizing the population projection performed by the Lee County Planning Department. The thick purple line represents capacity development planned by LCU. A summary of capacity development is summarized in the next section.