Appendix B

CITY OF VENICE, FLORIDA

10 –YEAR WATER SUPPLY FACILITIES WORK PLAN

Prepared For:

Florida Department of Community Affairs

Prepared By:

City of Venice Utilities Department
&
Planning and Zoning Department

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1.0 INTRODUCTION

The purpose of the City of Venice Water Supply Facilities Work Plan (Work Plan) is to identify and plan for the water supply sources and facilities needed to serve existing and new development within the City's jurisdiction. Chapter 163, Part II, F.S., requires local governments to prepare and adopt Work Plans into their comprehensive plans within 18 months after the water management district approves a regional water supply plan or its update. At its December 1, 2006 meeting, the Southwest Florida Water Management District's (SWFWMD) Governing Board approved the 2006 Regional Water Supply Plan (RWSP) in accordance with Section 373.0361, Florida Statutes. Therefore, the deadline for local governments within SWFWMD's jurisdiction to amend their comprehensive plans to adopt a Work Plan was May 30, 2008. The City of Venice was unable to complete and amend the Work Plan in advance of this deadline resulting in Objections from the Department of Community Affairs (DCA) and corresponding comments from SWFWMD through the review of the City's Evaluation and Appraisal Report (EAR) based Comprehensive Plan Amendment, Envision Venice. As such, this Work Plan has been prepared to address DCA's Objections and to bring the City of Venice into compliance with State Statutes.

According to State guidelines, the Work Plan and the comprehensive plan amendment must address the development of traditional and alternative water supplies, bulk sales agreements and conservation and reuse programs that are necessary to serve existing and new development for at least a 10-year planning period.

There are three potential options available to the City for adopting the Work Plan: (1) incorporate the plan as a sub-element; (2) incorporate by reference in a policy; and (3) include as goals, objectives and policies throughout the comprehensive plan. The City has chosen to incorporate the Work Plan by reference in the Policies and have included the work plan into Volume II: Data & Analysis in the Public Services & Infrastructure Chapter. A complete list of Goals, Objectives and Policies related to public water supply and the Water Supply Work Plan are included in Section 10.

The City's Work Plan has been divided into ten (10) sections:

Section 1 – Introduction
Section 2 – Background Information
Section 3 – Potable Water Service Information
Section 4 – Water Use Permit Information
Section 5 – Existing Systems
Section 6 – Regional Issues
Section 7 – Data and Analysis
Section 8 – Water Conservation
Section 9 – Capital Improvements
Section 10 – Goals, Objectives, Policies

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1.0 INTRODUCTION

1.1 Statutory History

The Florida Legislature has enacted bills in the 2002, 2004, and 2005 sessions to address the state's water supply needs. These bills, especially Senate Bills 360 and 444 (2005 legislative session), significantly changed Chapter 163 and 373 Florida Statutes (F.S.) by strengthening the statutory links between the regional water supply plans prepared by the water management districts and the comprehensive plans prepared by local governments. In addition, these bills established the basis for improving coordination between the local land use planning and water supply planning.

1.2 Statutory Requirements

Each local government must comply with the following requirements:

1. Coordinate appropriate aspects of its comprehensive plan with the appropriate water management district's regional water supply plan, [163.3177(4)(a), F.S.]
2. Ensure that its future land use plan is based upon availability of adequate water supplies and public facilities and services [s.163.3177(6)(a), F.S., effective July 1, 2005]. Data and analysis demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Map amendments submitted to the Department for review. The submitted package must also include an amendment to the Capital Improvements Element, if necessary, to demonstrate that adequate public facilities will be available to serve the proposed Future Land Use Map modification.
3. Ensure that adequate water supplies and facilities area available to serve new development no later than the date on which the local government anticipates issuing a certificate of occupancy and consult with the applicable water supplier prior to approving building permit, to determine whether adequate water supplies will be available to serve the development by the anticipated issuance date of the certificate of occupancy [s.163.3180 (2)(a), F.S., effective July 1, 2005]. This "water supply concurrency" is now in effect, and local governments should be complying with the requirement for all new development proposals. In addition, local governments should update their comprehensive plans and land development regulations as soon as possible to address these statutory requirements. The latest point at which the comprehensive plan must be revised to reflect the concurrency requirements is at the time the local government adopts plan amendments to implement the recommendations of the Evaluation and Appraisal Report (EAR).
4. For local governments subject to a regional water supply plan, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge Element (the "Infrastructure Element"), within 18 months after the water management district approves an updated regional water supply plan, to:
    a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the updated regional water supply plan, or the alternative project proposed by the local government under s. 373.0361(7), F.S. [s. 163.3177(6)(c), F.S.];

b. Identify the traditional and alternative water supply projects, bulk sales agreements, and the conservation and reuse programs necessary to meet current and future water use demands within the local government's jurisdiction [s. 163.3177(6)(c), F.S.]; and

c. Include a water supply facilities work plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development. [s. 163.3177(6)(c), F.S.] Amendments to incorporate the water supply facilities work plan into the comprehensive plan are exempt from the twice-a-year amendment limitation. [s. 163.3177(6)(c), F.S.]

5. Revise the Five-Year Schedule of Capital Improvements to include any water supply, reuse, and conservation projects and programs to be implemented during the five-year period.

6. To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5 above, revise the Conservation Element to assess projected water needs and sources for at least a 10-year planning period, considering the appropriate regional water supply plan, the applicable District Water Management Plan, as well as applicable consumptive use permit(s). [s.163.3177 (6)(d), F.S.]

If the established planning period of a comprehensive plan is greater than ten years, the plan must address the water supply sources necessary to meet and achieve the existing and projected water use demand for established planning period, considering the appropriate regional water supply plan. [s.163.3167 (13), F.S.]

7. To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination Element to ensure coordination of the comprehensive plan with applicable regional water supply plans and regional water supply authorities' plans. [s.163.3177(6)(h)1., F.S.]

8. Address in the EAR, the extent to which the local government has implemented the 10-year water supply facilities work plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, bulk sales agreements, and conservation and reuse programs are meeting local water use demands. [s.163.3191 (2)(1), F.S.]

2.0 BACKGROUND INFORMATION

2.1 City of Venice Overview

The City of Venice is located in Southwest Florida on the Gulf of Mexico, midway between Tampa and Ft. Myers. The City is primarily surrounded by unincorporated Sarasota County to the north, south and east.

In 1925, the Brotherhood of Locomotive Engineers engaged famous city planner John Nolen and landscape architect Prentiss French to design a town reminiscent of its Italian namesake. Venice was incorporated as a town at that time.

Building began in earnest in 1926. The first town council was selected and police and fire departments were established. On May 9, 1927, Venice was incorporated as a city.

Venice became known as the City on the Gulf because it is one of the few cities on the west coast of Florida that occupies a coastal area with no barrier island.

What we now refer to as the "Island of Venice" was created in 1967 when the Army Corps of Engineers completed the Intracoastal Waterway through the city.

The City of Venice provides a range of municipal services, including potable water, sewer, reclaimed water, solid waste and recycling collections, road and parks maintenance, stormwater management, building inspections, planning, zoning, code enforcement, and emergency services including fire and police. The City also operates a municipal airport, mobile home park and related enterprise functions.

The City continues to emphasize its unique character and has adopted several regulatory mechanisms to ensure that the community standards and values are sustained in the future as redevelopment and new growth occurs in and around the formal municipal boundaries of the City. In addition to standard zoning provisions, specialized requirements relating to architectural control, historic preservation and protection of significant environmental resources have been adopted and enforced.

Today the City covers an area of approximately 16.69 square miles (10,681 acres) with a permanent resident population of approximately 22,146. Physical features and infrastructure associated with the City include: over 54 miles of paved streets, 38 miles of storm water management lines, three fire stations, one police station, one County library branch, over 305 acres of public parks, three miles of public beach, and several public boat launches.

On July 14, 2009 the City adopted the Envision Venice: Strategic Plan 2020 which identifies the City's mission, vision, goals and strategies that incorporate building upon the success of the community and its assets. The mission is simply stated as follows:

"To provide exceptional municipal services through a financially and environmentally sustainable city with engaged citizens."

The commencement of the City's water supply planning efforts in concert with the Florida Department of Community Affairs, Department of Environmental Regulation, and the Southwest Florida Water Management District represents another important element of local efforts to preserve the unique character and appeal of the Venice community.

2.2 Population and Land Use

Between 1990 and 2000, the City of Venice population grew from 16,922 to 17,764, an increase of five percent. Although the 1996 EAR predicted a decline in population, based on the projections prepared by the University of Florida Bureau of Economic and Business Research (BEBR), in 2005 it was estimated that the City's population had increased to 20,800 residents. This relatively minor population growth is reflective of the fact that the City is substantially built-out, with future development potential and population growth contingent on annexation and development of properties within the Joint Planning and Interlocal Service Boundary Agreement Areas (JPA/ILSBA). The potential expansion of the City's current boundaries through annexations within the JPA/ILSBA Planning Areas is the only factor which might result in significant population increase during the 2010-2020 planning period. The JPA/ILSBA is discussed in further detail below in Section 6.0 (Regional Issues) and population estimates and projections are further described in Section 7.0 (Data and Analysis).

The total area of the City is approximately 10,681 acres (16.69 square miles). Of that area, approximately 9,981 acres comprise the land mass of the City of Venice. In the City's Evaluation and Appraisal Based Large Scale Comprehensive Plan Amendment (aka Envision Venice), an evaluation of existing gross acreage by land uses revealed that 2,717 acres or 25% of the total gross acreage in the city is dedicated to residential use. The remaining gross acreages are allocated to non-residential such as commercial and office (3%); golf courses (10%); industrial (2%); institutional (2%); government (6%); transportation, communication, utilities (17%); agriculture (2%); undeveloped (26%) and; inland water (7%).

The City does not anticipate substantial increases in land area in the short- and long-term planning horizon beyond those identified within the JPA/ILSBA. In the meantime, the residential and non-residential growth rate is anticipated to be minimal for the next 10 to 20 years

3.0 POTABLE WATER SERVICE INFORMATION

The City of Venice owns and operates a full range of water supply facilities to meet the needs of a growing urban area. Included is potable water, wastewater treatment and reclaimed water facilities. The City also operates a related water resource program through its stormwater management enterprise program.

3.1 Utilities Overview

Residents of the City of Venice obtain their water directly from City of Venice Utilities, which is responsible for ensuring that enough capacity is available for existing and future customers.

3.2 Utilities Contact Information

Utility Name: City of Venice Utility Department

Project/Service Area Name: City of Venice

Water Use Permit No: 20005393.008

County: Sarasota

Utility Address: 200 N. Warfield Avenue
Venice, FL 34285

DEP PWSI No(s): 658 / 1901

Utility Contact Name: Stephen F. Park

Utility Contact Title: Chief Plant Operator

Contact Phone Number: 941.480.3333 (ext. 236)

Contact Email Address: spark@ci.venice.fl.us

3.3 Utilities Department and Divisions Overview

Under the management of the Utility Director, the department consists of four divisions: Administration, Water Production, Field Operations, and Water Reclamation.

While keeping in compliance with all federal, state and local regulations, the Administration Division is responsible for program implementation of quality control/assurance; utility planning and the coordination of the other Utility divisions as they relate to the overall production and distribution of drinking water; the collection and treatment of wastewater: and the delivery and use of reclaimed water. The department works regionally with Sarasota County, Peace River/Manasota Water Supply Authority, Southwest Florida Water

Management District, and other local municipalities to provide for the collective needs of the community and region.

The Water Production Division is responsible for the water treatment system and has a plant design capacity of 4.49 million gallons per day. At the present, an annual average of 2.3 million gallons of highly purified drinking water is delivered each day to customers. The plant is maintained and operated by a team of nine DEP licensed operators and maintenance crew of six and is operational 24 hours a day, 7 days a week.

The Field Operations Division is responsible for the repair and maintenance of approximately 180 miles of water distribution mains, 49 miles of reclaimed distribution mains, 16 miles of raw water mains, 107 miles of gravity collection lines, 41 miles of force main, over 1,000 fire hydrants, over 2,700 main line valves, 100 air release valves, 2,300 manholes, approximately 11,000 potable water meters, and 2,800 reclaimed water meters. Permits for development review and construction are coordinated and reviewed by this division as well as performing utility locates for all underground facilities. The City's Cross Connection Control Program is also a function of this division which consists of testing, maintaining, and repairing of all City-owned backflow assemblies.

The Water Reclamation Division processes all wastewater for the City using Advanced Wastewater Treatment (AWT) technology producing a final effluent that meets all regulatory requirements and worthy of being "reused" for irrigation. The maintenance operation maintains 83 lift stations throughout the City that transports the wastewater. This group is also responsible for maintaining equipment and improving the appearance of lift stations.

4.0 WATER USE PERMIT INFORMATION

A water use permit (WUP) allows withdrawal of a specified amount of water, either from the ground water or surface water source. The City of Venice received a renewal of their WUP from Southwest Florida Water Management District (SWFWMD) on December 16, 2008. A summary of information contained within the WUP is provided below and a complete copy is provided for reference as Appendix A.

4.1 WUP Permit Information (Individual)

PERMIT NUMBER: 20005393.008

TYPE OF APPLICATION: Renewal

PERMIT ISSUE DATE: December 16, 2008

EXPIRATION DATE: December 16, 2028

GRANTED TO: City of Venice
200 North Warfield Avenue
Venice, FL 34292

PROJECT NAME: City of Venice

WATER USE CAUTION AREA: Southern

PROPERTY LOCATION: 162 owned and 8,002 serviced acres in Sarasota County, located within the City of Venice.

ABSTRACT: This is a renewal of an existing public supply permit with no change in quantities. The sole source of water authorized for use by this permit is from brackish groundwater from the Intermediate Aquifer System, an Alternative Water Supply This renewal authorizes a standard annual average daily quantity of **6,864,000** gpd (6.8 MGD) and a peak month quantity of **8,240,000** gpd (8.2 MGD).

CHANGES FROM PRIOR PERMIT: The permit is renewed with a 20-year term, and the addition of Special Conditions requiring 5-year compliance reporting and improved treatment efficiency. There is no change in quantities.

PERMIT INFORMATION			
	Previous Permitted (1997-2007) gpd	Requested (2007) gpd	Authorized (2007-2027) gpd
ANNUAL AVERAGE[1]	6,864,000	6,864,000	6,864,000
Ground Water	6,864,000	6,864,000	6,864,000
Surface Water	0	0	0
PEAK MONTH[2]	8,240,000	8,240,000	8,240,000
Ground Water	8,240,000	8,240,000	8,240,000
Surface Water	0	0	0

[1] Annual Average is the total gallons in a year divided by 365 days per year.

[2] Peak Month is the total gallons in the highest water-use month divided by the number of days in that month.

5.0 EXISTING SYSTEMS

The City of Venice Utilities System currently consists of the following key features: a reverse osmosis water treatment plant, an extensive distribution and collection system, and a waste water treatment facility. In 2007 Malcolm Pirnie, Inc. was retained by the City of Venice Utilities Department to complete a Water Master Plan. A series of technical memorandums dated August 31, 2007 were prepared and compiled to create Sections of the Water Master Plan. Technical Memorandum No. 2 focused on providing an overview of the existing treatment system while Technical Memorandum No. 4 focused on providing an overview of the existing City of Venice interconnections, as well as future interconnection needs and options for future interconnections. The following excerpt regarding the existing treatment systems and interconnections is taken from these memorandums.

The following is a description of the different components of the City's existing Utility System.

5.1 City of Venice Water Supply Sources

The City utilizes a series of ground water wells to meet its potable water needs (see Map 1, Appendix). There are currently three primary well locations, including several wells along the Intracoastal waterway, at the City's Wellfield Park (Venice Avenue and Pinebrook Road area) and in the Sawgrass Community (Venice Avenue and Auburn Road area). The City has also received dedicated future potential well sites within the Venetian Golf & River Club Community.

The City derives its water from the Intermediate Aquifer. The water available from this source is characterized as brackish and requires special treatment through reverse osmosis to produce safe drinking water.

The following table (Table 5.1.1) lists the diameter, depth, casing depth, pump depth and pump capacity of the wells within the Intermediate Aquifer System.

Table 5.1.1: Intermediate Aquifer Brackish Supply Wells

Well No.	Diameter (Inches)	Depth (Total/Cased)	Use	Gallons Per Day (Avg./Peak Monthly)
RO2W/33	10	385/230	PS	604,800/604,800
RO3W/34	10	450/230	PS	633,600/633,600
RO4W/35	10	450/230	PS	648,000/648,000
RO2A/49	10	450/230	PS	604,800/604,800
RO8W/50	12	450/230	PS	936,000/936,000
RO7W/51	12	350/230	PS	792,000/792,000
RO1E/52	12	405/269	PS	720,000/720,000
RO2E/54	12	261/207	PS	936,000/936,000
RO3E/55	12	360/197	PS	936,000/936,000
RO4E/56	12	320/242	PS	936,000/936,000
RO5E/57	12	320/228	PS	936,000/936,000
RO1A/65	12	359/225	PS	792,000/792,000
RO6E/77	12	320/220	PS	936,000/936,000
RO7E/78	12	320/220	PS	936,000/936,000
RO8E/79	12	320/220	PS	936,000/936,000
IW-1/1*	12	500/250	R/A	201,300/321,400
IW-2/2*	12	500/250	R/A	201,300/321,400
IW-3/3*	12	500/250	R/A	201,300/321,400

* Note that the City is the joint permit holder with the Venice Golf Association, Inc. for the three identified irrigation wells. These three wells are located at the City owned airport but serve to meet some of the irrigation needs of the golf course. Venice Golf Association, Inc. operates the golf course as a lessee to the Venice Airport. All remaining wells are operated on a rotational basis to meet potable water demands of the community.

5.2 Raw Water Supply

The source water for the treatment plant is from brackish water wells that are approximately 450 feet deep. The current Southwest Florida Water Management District (SWFWMD) Water Use Permit allows an average daily withdrawal of 6.864 mgd and a peak monthly withdrawal of 8.24 mgd. As noted above in Section 4.0, the City renewed this permit (WUP No. 20005393.008) at these capacities through year 2027.

5.3 Treatment Facility

The Water Treatment Plant that supplies the City of Venice is located on North Warfield Avenue adjacent to the Intracoastal Wellfield (see Map 2, Appendix). In general, the plant provides reverse osmosis membrane treatment, dissolved gas removal and disinfection. The City of Venice utilizes brackish ground water wells to meet its supply needs. The existing reverse osmosis plant has a treatment capacity of 4.49 million gallons per day (mgd).

5.4 Treatment Process

The brackish ground water requires reverse osmosis treatment for removal of total dissolved solids (TDS), degasification to remove dissolved gases, pH adjustment and disinfection prior to distribution. Water from the wells is sent via raw water mains to the reverse osmosis plant located on North Warfield Avenue.

5.5 Treatment Capacity

The existing reverse osmosis plant has a treatment capacity of 4.49 mgd. The capacity can be expanded to 6.225 mgd with the addition of two more reverse osmosis (RO) trains. The total finished water plant capacity varies with the treatment efficiency of the limited-life membrane filters. Currently the plant has a recovery rate of approximately 50 percent; therefore half of the raw water that is withdrawn is processed and distributed through the potable water distribution system, while the rest is disposed as concentrate. The RO facility is limited to about 50 percent treatment recovery efficiency due to the allowable surface water discharge concentrations into the Intracoastal Waterway. Treatment efficiency could be increased to provide additional supply if an alternate disposal method such as a deep well injection is employed, or if additional raw water is used to blend concentrate down to acceptable levels.

The City completed a study of one option to increase the finished water recovery percentage for the RO treatment process in 1997. The City evaluated increasing pressure in a second stage of membranes for treating the concentrate from the existing membranes. Pressures in the second stage of membranes were tested from 50 psi to 245 psi, resulting in increased recovery of 0.7 to 12.5 percent, for a maximum improved plant efficiency of approximately 62.5 percent. This study did not evaluate different scale inhibitors, pre-treatment, modifying feed water pH, or changing the type of the existing membranes, all which have the potential to improve the finished water recovery.

5.6 Storage

After the water is treated, the finished water is stored in a 1 MG covered clear well prior to being pumped into the distribution system. A 300,000-gallon elevated storage tank is also located at the treatment plant (see Map 2, Appendix). These onsite storage facilities are routinely monitored for chlorine residual and/or pH and water levels.

There are two water storage tanks in the distribution system; a 300,000-gallon steel elevated storage tank at the Chuck Reiter ball field and a 1.5 MG concrete ground storage tank at the Pinebrook Booster Pump Facility. The Chuck Reiter ball field is located at the intersection of Field and Cooper Streets. This tank provides additional storage for peak demand and fire flow on the island in the western side of the distribution system. The Pinebrook Booster Pump Facility is located at Wellfield Park and includes a 1.5 MG concrete ground storage tank and booster pumping capacity (Figure 5.6.1). Table 5.6.1 lists the City of Venice storage volumes, which provide a total of 3.1 MG of finished storage.

Figure 5.6.1: Pinebrook Booster Facility Ground Storage Tank

Table 5.6.1: Finished Water Storage

Storage Location	Volume (Million Gallons)
Clear Well at Treatment Plant Ground Storage Tank	1.0
Elevated Tank at Treatment Plant	0.3
Elevated Tank at Chuck Reiter ball field	0.3
Booster Pump Station Ground Storage Tank	1.5
Total Storage Capacity	3.1

5.7 Distribution System

Maps 1-3, included in the Appendix, show the location of the supply wells, the water treatment plant, water storage locations and the extent of the City limits.

5.8 Distribution Pumping Capacity

Water is pumped from the on-site 1 MG clearwell to the distribution system using three 250-hp vertical turbine high service pumps that are fitted with VFDs. Typically, the distribution system pressure at the water treatment plant is 58 psi during the day and drops to between 54 and 56 psi at night.

The Pinebrook Booster Pump Facility utilizes a 100-hp booster pump and 50-hp backup booster pump. A 16-inch water main from the distribution system supplies the Pinebrook Booster Pump Facility. A 16-inch control valve regulates the flow into the Pinebrook storage tank at night, typically at a rate of 500 to 900 gpm. The 150-hp and 125-hp pumps can also be remotely operated from the Water Treatment Plant to pump water from the

Pinebrook Storage and Booster Pump Facility to the distribution system in order to boost pressure for peak demand and to maintain fire protection to the northeast service area.

5.9 Distribution Piping

The distribution system includes approximately 170 miles of potable water mains, 15 miles of raw water mains, 38 miles of reuse distribution mains, 12,900 water meters, over 900 fire hydrants and over 2,600 main line valves. The piping network supplies homes, businesses, irrigation meters and fire hydrants throughout the City. Map 3 (see Appendix) shows the City's potable distribution system.

As noted above four water storage tanks, two of which are elevated, are provided within the distribution system to provide fire storage volumes and to limit the effects of seasonal fluctuations and/or demands on the City's system.

5.10 Existing Interconnections

The City of Venice currently has two interconnections with Sarasota County: one located on the south side of Venice (Country Club Way Interconnection) and one on the north side (Colonia Lane Interconnection). The locations of both interconnections are shown in Map 4 (see Appendix). The Colonia Lane Interconnection is a 10-inch above-ground interconnection and the Country Club Way Interconnection is an 8-inch diameter below-ground connection.

5.11 Terms of Agreement

An agreement between the City of Venice and Sarasota County was signed on December 13, 1994, which allows the purchase and sale of bulk water when needed by either party. The ten-year agreement expired in 2004. Both parties have verbally agreed to honor the terms of the expired agreement in an emergency until a new agreement is put in place. Sarasota County is currently drafting an updated interlocal agreement, which will include water and wastewater contracts.

The agreement states that when an emergency occurs, the party with the water shortage may notify the other party to request a purchase of surplus water. The granting of the request is not mandatory and is at the full discretion of the party with the surplus, if a surplus exists. A limit of 0.5 million gallons per day (mgd), sold or purchased, is included in the agreement. Water supplied by Sarasota County costs the City of Venice $3.59 per 1,000 gallons in addition to a monthly charge of $2.44. When water is supplied by the City of Venice to Sarasota County, the County will be charged 125 percent of the City's current retail rate. A billing schedule and payment plan, as well as provisions for water flow measurement, are also included in the agreement.

5.12 Historical Interconnections Utilization

The existing interconnections are not used on a regular basis and are primarily in place for emergencies. The Colonia Lane interconnection was constructed in 1990 and has never been

used. The Country Club Way interconnection has been used once to supply Sarasota County during a shortage.

5.13 Outside / Bulk Sales of Potable Water

The City does not currently have any bulk sales agreements for potable water nor does the City purchase water from another utility.

6.0 REGIONAL ISSUES

6.1 Southern Water Use Caution Area

In response to growing demands for water and regionally declining water levels in both groundwater and surface water bodies, the Southwest Florida Water Management District has established the Southern Water Use Caution Area (SWUCA). The SWUCA includes all of DeSoto, Hardee, Manatee, and Sarasota counties, and parts of Charlotte, Highlands, Hillsborough, and Polk counties. The SWUCA was first established in 1992 and designated as a water use caution area (WUCA) to manage water resources in the Southern West-Central Florida Groundwater Basin (SWCFGWB). The SWCFGWB is one of three groundwater basins within SWFWMD that were delineated based on persistent groundwater flow lines in the Floridan Aquifer. Management practices for the SWUCA have been revised over the years and passed by the SWFWMD Board of Directors.

6.2 Southwest Florida Water Management District

The Southwest Florida Water Management District (SWFWMD) is charged with the management, protection, and enhancement of water and water-related natural resources in the region in accordance with the Water Resources Act (Chapter 373, Florida Statutes). SWFWMD is also responsible for developing a Regional Water Supply Plan, a requirement resulting from state laws that were adopted in 1997 which specifically amended Chapter 373, Florida Statutes. The regional water supply planning requirements were again amended as a result of the passage of Senate Bill 444 during the 2005 legislative session in order to encourage better communication between water planners, city planners, and local utilities. Included in this coordination and conservation is ongoing communication with SWFWMD.

The Regional Water Supply Plan provides a framework for future water management decisions regarding the health of the hydrologic system and the system's ability to meet long term water resource demands. SWFWMD's Regional Water Supply Plan addresses a ten-county planning area along the west coast of Florida from Pasco to Charlotte County.

The updated 2006 Regional Water Supply Plan was approved in December 2006. It projected the Planning Region's water demand would be approximately 409 million gallons per day (mgd) through 2025. The Plan determined that up to 703 mgd is potentially available to meet this demand.

Additionally, the City of Venice lies within the Southern Water Use Caution Area (SWUCA) designated by SWFWMD, an area impacted by increased groundwater withdrawal. The 2006 Regional Water Supply Plan determined that there is additional demand projected for this area. In the SWUCA, the additional demand through 2025 is projected to be approximately 211 mgd while potentially available sources will be approximately 414 mgd. As a result, the potential impacts to the SWUCA include saltwater intrusion, reduced stream flow, and lowered lake levels. The ultimate effect of the SWUCA on the City of Venice is that there will likely be pressure to seek alternative sources of potable water.

The Updated 2006 Regional Water Supply Plan states that:

"The rapidly urbanizing coastal counties in the SWUCA will be supplied principally by alternative sources, not the retired ground-water quantities. The 50 mgd reduction in ground-water withdrawals required to meet the saltwater intrusion minimum aquifer level in the SWUCA can therefore be offset by the projected 142 mgd decrease in ground-water withdrawals. Some of the remaining 92 mgd in ground-water reductions may be re-permitted under certain conditions to meet demand in the inland counties in the SWUCA where access to alternative supplies is limited."

6.3 Sarasota County

The City and County executed a Joint Planning and Interlocal Service Boundary Agreement (JPA/ILSBA) that addresses Potential Annexation Areas and the coordination of extra-jurisdictional planning in the County. Both governments agreed to future land use, utility service, transportation and environmental coordination decisions that encompass approximately 23,000 acres in the greater Venice/south county area (see Map 5, Appendix). Through the JPA/ILSBA, the City agrees not to annex any lands other than those designated as Potential Annexation Areas. These areas consist of land likely to be developed for urban uses within the next several decades. The rate of annexation in these areas is unknown. More information on the JPA/ILSBA areas is found in Sections 6.5, 7.10 and 7.11.

Coordination between SWFWMD, Sarasota County and the City of Venice is needed to ensure that future water demand is fulfilled.

6.4 Other Water Partners

The City of Venice has also been coordinating with the Peace River/Manasota Regional Water Supply Authority and the Water Planning Alliance. The Water Planning Alliance is governed by one elected official from each participating entity, including the counties of Charlotte, DeSoto, Manatee, and Sarasota; the cities of Arcadia, Bradenton, North Port, Palmetto, Punta Gorda, Sarasota, and Venice; the Town of Longboat Key; and the Englewood Water District. The goal of the Water Planning Alliance is to consider non-traditional options (such as desalinization) to meet long-term potable water demands in order to reduce ground and surface water withdrawals from existing resources.

6.5 Joint Planning / Interlocal Service Boundary Agreement Planning Areas (JPA/ILSBA)

In the past, the City has addressed its need to expand its boundaries through amendments to its comprehensive plan. In the 1988 Venice Comprehensive Plan, the City Council adopted a map depicting areas for potential annexation and designating these areas as comprising the municipal Potential Planning Service Area (PPSA). The PPSA area included all unincorporated enclaves as well as properties that are essentially vacant, or used for agricultural or very low density residential purposes lying east and northeast of the City. The problem with this method is that it did not promote communication and joint planning between the City and Sarasota County.

In order to address this problem and promote such communication, the City of Venice and Sarasota County sought to establish a Joint Planning and Interlocal Service Boundary Agreement. The State of Florida recognizes the use of interlocal service boundary and joint planning agreements as a means to coordinate future land use, public facilities and services, and protection of natural resources in advance of annexation.

When discussions began in 2006, Sarasota County was experiencing the greatest amount of annexation activity in its history with the City of Venice which was proposing that large land areas be either annexed or set aside for future annexation. In 2000, for example, the City annexed 1,100 acres for new residential development encompassing an area lying north of Laurel Road from Knights Trail Road east to the Myakka River. This activity was largely driven by the City seeking to expand its tax base and developers seeking more intensive land uses, less stringent regulations and greater surety of development approvals.

Because of a concern for the potential loss of regional growth management perspective, revenue shifts affecting committed and planned infrastructure and potential duplication of public facilities and services, Sarasota County approached the City of Venice to initiate dialog regarding how the City and the County could proactively address these issues, to make the best decisions for the long-term future of the region.

The Joint Planning and Interlocal Service Boundary Agreement (JPA/ILSBA) between the City of Venice and Sarasota County identifies lands that are logical candidates for future annexation into the City Limits over the long term planning period.

As a result of the discussions, the City and County executed the Joint Planning and Interlocal Service Boundary Agreement between the City of Venice and Sarasota County (JPA/ILSBA). The agreement identifies lands that are logical candidates for future annexation to the City over the long-term planning period and provides for the coordination of extra-jurisdictional planning in the County. Through the executed JPA/ILSBA, both governments agreed to future land use, utility service, transportation and environmental coordination decisions that encompass approximately 23,000 acres in the greater Venice/South County (see Map 5, Appendix).

Population, residential (housing) units, nonresidential square footage, and water supply within the JPA/ILSBA Planning Areas are discussed in Sections 7.10 and 7.11.

7.0 DATA AND ANALYSIS

The intent of the data and analysis section of this Work Plan is to describe the information that the City needs to provide to state planning and regulatory agencies as part of their proposed comprehensive plan amendments, particularly those that would change the Future Land Use Map (FLUM) to increase density and intensity. The City has provided the following data and analysis regarding population, housing units, and potable water for the Planning Areas and the JPA/ILSBA Areas.

The analysis below has been prepared consistent with Data and Analysis utilized in Volume II of the Comprehensive Plan. As such, the analysis has been organized into two distinct sections: (1) Citywide data and analysis, reflecting those land use designations, including planning areas, already within the City limits, and (2) JPA/ILSBA data analysis, reflecting only those lands outside the City limits with potential for voluntary annexation.

7.1 Population Methodology

A description of the methodology used to determine a population estimate for the City, as well as to determine the population projections through 2030, is provided below. This methodology is consistent with Rule 9J-5.005(2)(e), which requires that the Comprehensive Plan be based on resident and seasonal population estimates and medium-range projections as provided by the University of Florida Bureau of Economic and Business Research (BEBR).

7.2 Population Estimates & Projections

The City of Venice utilizes both resident and seasonal population estimates for planning. Estimates of resident population are used to determine the permanent population of the City that is not affected by seasonal trends. The City utilizes resident population for the majority of its calculations, particularly with regard to land use and housing provision. Estimates of seasonal population are used to determine the population of the City at peak season, taking into account Venice's brief influx of tourists and part-time residents during the winter months. The City utilizes seasonal population when necessary to calculate the additional demand on public services resulting from this influx. When the resident population and the seasonal population are combined, this value is referred to as "functional population".

7.3 Resident Population

For the purposes of this analysis, the estimated resident population of the City of Venice in the year 2008 was sourced from the University of Florida's Bureau of Economic and Business Research (BEBR). Population projections for years 2010 through 2030 are based on BEBR "medium" range projections for Sarasota County, Florida [*Projections of Florida Population by County, 2008-2035*, FPS Volume 42, Bulletin 153, March 2009]. A percentage of 5.6% was applied to the "medium" projections for Sarasota County to determine the projected population for the City of Venice for years 2010 through 2030. This percentage (5.6%) represents the City of Venice's estimated share of Sarasota County's population (total population inclusive of incorporated areas) for the year 2008 as determined by BEBR.

7.4 Seasonal and Functional Populations

The City of Venice Utilities Department's 2008 Public Supply Annual Report calculated a seasonal population of 3,876 and a functional population of 26,022 for that year. The Public Supply Annual Report uses the Southwest Florida Water Management District's (SWFWMD) formulas for calculating "Functional Seasonal Resident Population" sourced from SWFWMD's *Water Use Permit Information Manual, Part D Requirements for the Estimation of Permanent and Temporal Service Area Populations*). This methodology takes into account U.S. Census data, rather than BEBR medium range projections. In order to achieve short- and long-term projections of seasonal population, the resulting seasonal population factor was applied to BEBR medium range projections. See Table 7.4.1.

Based on the 2008 Public Supply Annual Report, the City's seasonal influx of population was estimated to be 3,876 in 2008, or 18% of the City's resident population. If this factor is applied to the City's projected population, the seasonal population is expected to increase to 4,170 by 2015, and 5,123 by 2030. If resident and seasonal populations are combined, the functional population of the City could reach 27,998 by 2015, and 34,394 by 2030.

Table 7.4.1: Population Projections

City of Venice Population Projections						
	2008	2010	2015	2020	2025	2030
Sarasota County Resident Population [1]	393,608	396,000	425,500	458,900	491,500	522,700
City of Venice Resident Population [2]	22,146	22,176	23,828	25,698	27,524	29,271
City of Venice Seasonal Population [3]	3,876	3,881	4,170	4,498	4,817	5,123
City of Venice Functional Population [4]	26,022	26,057	27,998	30,196	32,341	34,394
Share of County Population [2]	5.6%	*Short-Term*				*Long-Term*
Seasonal Percentage [5]	18%					

1. Based on BEBR Projections of Florida Population by County, 2008-2035, FPS Volume 42, Bulletin 153, March 2009.
2. BEBR estimate of City of Venice Population, 2008, which equates to 5.6% of the BEBR estimate for Sarasota County.
3. Based on 2008 Public Supply Annual Report, City of Venice Utilities Department, as prepared for SWFWMD.
4. Sum of Resident and Seasonal Population.
5. Seasonal Population / Resident Population; percentage applied to subsequent years to determine seasonal projection.

7.5 Historical Population Trends

Starting in the mid-1900s, the City of Venice has experienced steady growth as the City's population has grown 46% from 1980 to 2000 (12,153 to 17,764). The City's growth has mirrored Sarasota County, which grew 61% during the same period (202,251 to 325,957). Regional growth is expected to continue as another 126,700 people are expected to move to the County in the next 20 years, but this growth is expected to slow as BEBR projections show only 32% growth from 2010 to 2030.

The City of Venice has shared an average of 5.6% of the County's population since the year 2000. Prior to 2000, the City's share climbed from 2.5% in 1950 and peaked at 6.1% in 1990. See Table 7.5.2. It is anticipated that the City's share of Sarasota County's population will continue to be within range of 5.0% over the long-term, as indicated by historical population trends; however, more recent trends point to the variability of the

City's share over the short-term, as the City's share peaked at 5.7% for the three-year period from 2005 to 2007 but dropped to 5.6% in 2008.

Table 7.5.2: Historical Population Trends

Sarasota County / City of Venice Historical Population Trends			
Year	Sarasota County	City of Venice	City Share (3)
2008 (1)	393,608	22,146	5.6%
2007 (1)	387,461	22,149	5.7%
2006 (1)	379,386	21,584	5.7%
2005 (1)	367,867	20,800	5.7%
2004 (1)	358,307	20,035	5.6%
2003 (1)	348,761	19,290	5.5%
2002 (1)	339,684	18,628	5.5%
2001 (1)	334,023	18,151	5.4%
2000 (1)	325,957	17,764	5.4%
		Average %	5.6%
1990 (2)	277,776	16,922	6.1%
1980 (2)	202,251	12,153	6.0%
1970 (2)	120,413	6,648	5.5%
1960 (2)	76,895	3,444	4.5%
1950 (2)	28,827	727	2.5%
		Average %	4.9%

1. Based on *Florida City and County Population, 2000-2009* , University of Florida Bureau of Economic and Business Research (BEBR), November 1, 2009.
2. Based on historical decennial U.S. Census.
3. Percentage of Sarasota County population residing within the City of Venice.

7.6 Residential and Nonresidential Projections for the City of Venice (Incorporated Areas)

In order to analyze the impacts of Future Land Use Map (FLUM) designations on population, residential (housing) units, nonresidential square footage, and water supply, staff has applied the percentages of "build-out" represented by the long-term (i.e., 2030) and short-term (i.e., 2015) to achieve a 20-year and 5-year scenario.

For the City of Venice, these percentages were determined using BEBR medium range projections as cited in BEBR's *Florida Population Studies*, Volume 42, Bulletin 153, published in March 2009. The City share (5.6%)[1] was applied to the Sarasota County projection for years 2015 and 2030 to determine the anticipated City population for these years. While the maximum allowable densities could accommodate a population of 67,718 at build-out, BEBR medium range projections indicate a citywide resident population of only 29,271, or 43% of build-out, by 2030, meaning that build-out is unlikely to occur before 2030. Moreover, the BEBR medium range population projections show that only 35% of this population is expected by 2015. When functional (resident + seasonal) population is considered, these percentages increase to approximately 51% and 41% respectively, yet still do not approach the build-out scenario.

[1] City share was obtained by dividing the estimated City population (22,146) by the estimated Sarasota County population (393,608) for the year 2008, per BEBR's *Florida Population Studies*, Volume 42, Bulletin 153, March 2009.

Table 7.6.1 shows the maximum residential potential allowed by the proposed future land use designations as depicted on the Future Land Use Map (FLUM) of the City of Venice Comprehensive Plan, excluding those designations which prohibit residential use.

Population

Based on maximum allowable density, the City's population could reach 67,718 at build-out; however, a functional population of only 34,394 is expected by 2030 and only 27,998 is expected by 2015 if BEBR medium range projections are considered. Approximately 31% of the population is expected to reside in the planning areas, and the other 69% is expected to reside in other future land use designations. Nearly 66% of the population will reside in low density and medium density residential land use designations, which continue to occupy 53% of the City's land area predominately west of I-75. It is anticipated that twenty percent (20%) of the City's population will reside in planning areas east of I-75.

Residential (Housing) Units

Based on the maximum allowable density, a total of 37,005 housing units could be developed at build-out; however, only 18,795 are expected by 2030, and only 15,299 are expected by 2015. For comparison, the U.S. Census 2000 estimated that the City of Venice had approximately 13,638 units, of which only 9,766 were occupied. In contrast, the 2008 American Community Survey's estimates showed approximately 17,280 units, of which only 11,402 were occupied. Based on these estimates, the number of housing units in the short-term could be higher, depending on fluctuations in the housing market.

Table 7.6.1

Citywide Potential Residential Impact													
								Build-Out		Long-Term (2030)		Short-Term (2015)	
Future Land Use Designation (1)		Gross Acreage (2)	Subarea	Gross Acreage per Subarea	% of Gross Acreage Allowable for Residential	Acreage Allowable for Residential	Comprehensive Plan Maximum Allowable Density (3) (du/acre)	Total Housing Units @ Build-Out (4)	Total Population @ Build-Out (5)	Total Housing Units by 2030 (6)	Total Population by 2030 (6)	Total Housing Units by 2015 (7)	Total Population by 2015 (7)
-	Low Density Residential	2,378.98	-	2,378.98	100%	2,378.98	5	11,895	21,768	6,041	11,056	4,918	9,000
-	Medium Density Residential	951.69	-	951.69	100%	951.69	13	12,372	22,641	6,284	11,499	5,115	9,361
-	High Density Residential	33.52	-	33.52	85%	28.49	18	513	939	260	477	212	388
-	Mixed-Use Residential	0.6	-	0.60	65%	0.39	18	7	13	4	7	3	5
-	Commercial	127.77	-	127.77	25%	31.94	13	415	760	211	386	172	314
-	Institutional Professional	87.53	-	87.53	25%	21.88	9	197	360	100	183	81	149
	Subtotal	***3,580.09***		***3,580.09***		***3,413.38***		***25,399***	***46,480***	***12,900***	***23,607***	***10,501***	***19,217***
A	Tarpon Center/Esplanade	68.14	*Subarea 1*	56.56	90%	50.90	18	916	1,677	465	852	379	693
			Subarea 2	11.58	90%	10.43	18	188	343	95	174	78	142
B	Heritage Park	59.41	-	59.41	90%	53.47	18	962	1,761	489	895	398	728
C	Southern Gateway	76.88	-	76.88	25%	19.22	13	250	457	127	232	103	189
D	Island Professional	83.38	-	83.38	20%	16.68	18	300	549	152	279	124	227
E	City Center	75.65	-	75.65	20%	15.13	18	272	498	138	253	113	206
F	Northern Gateway	33.16	-	33.16	20%	6.63	18	119	218	61	111	49	90
G	Seaboard	262.92	-	262.92	20%	52.58	18	947	1,732	481	880	391	716
H	Eastern Gateway	163.73	-	163.73	25%	40.93	7	287	524	146	266	118	217
I	South Laurel	911.15	-	911.15	65%	592.25	6	3,553	6,503	1,805	3,303	1,469	2,689
J	Shakett Creek	39.78	-	39.78	40%	15.91	18	286	524	145	266	118	217
K	Knights Trail	617.65	*Subarea 1*	136.09	65%	88.46	13	1,150	2,104	584	1,069	475	870
			Subarea 2	406.61	65%	264.30	8	2,114	3,869	1,074	1,965	874	1,600
			Subarea 3	1.98	65%	1.29	18	23	42	12	22	10	18
			Subarea 4	72.97	25%	18.24	13	237	434	120	220	98	179
L	Gene Green	285.99	-	285.99	0%	-	-	-	-	-	-	-	-
	Subtotal	***2,677.84***		***2,677.84***		***1,246.41***		***11,606***	***21,238***	***5,894***	***10,787***	***4,798***	***8,781***
	Total	***6,257.93***		***6,257.93***		***4,659.79***		***37,005***	***67,718***	***18,795***	***34,394***	***15,299***	***27,998***

(1) Designations as identified on the Future Land Use Map (FLUM) and within the Objective 13 and Objective 15 policy series of the Comprehensive Plan; excludes those designations which prohibit residential use.

(2) Gross acreage of parcels.

(3) Comprehensive Plan maximum allowable density based on gross acreage per area, or sub-area where applicable.

(4) Based upon maximum allowable density; see (3).

(5) Anticipated population by multiplying anticipated dwelling units by 1.83 persons per household.

(6) Fifty-one percent (51%) of build-out scenario based on BEBR medium range projections, FPS, Volume 42, Bulletin 153, March 2009; 5.6% (City of Venice) share of Sarasota County 2030 population equivalent to 29,271; City of Venice functional population equivalent to 34,394.

(7) Eighy-one percent (81%) of 2030 scenario based on BEBR medium range projections, FPS, Volume 42, Bulletin 153, March 2009; 5.6% (City of Venice) share of Sarasota County 2015 population equivalent to 23,828; City of Venice functional population equivalent to 27,998.

Nonresidential Square Footage

Based on the maximum allowable density and the conversion factor, or floor area ratio where residential use is prohibited, a potential of 72,159,264 square feet of nonresidential use could be developed at build-out; however, only 36,649,553 are expected by 2030, and only 29,834,105 are expected by 2015. Approximately 71% of the potential square footage could be developed within the planning areas and the other 29% could be developed in other future land use designations. Over half (57%) of the potential is in the Seaboard planning area and Industrial and Industrial-Commercial future land use designations. Table 7.6.2 shows the maximum nonresidential potential allowed by the proposed future land use designations as depicted on the Future Land Use Map (FLUM), excluding those designations which prohibit nonresidential use.

Table 7.6.2

Citywide Potential Nonresidential Impact											
					Scenario/Standards [2]				Build-Out	Long-Term (2030)	Short-Term (2015)
Future Land Use Designation [1]		Gross Acreage	Subarea	Gross Acreage per Subarea	% of Gross Acreage Allowable Nonresidential Residential	Gross Acreage Allowable for Nonresidential	Maximum Allowable Density [2] (du/acre)	Conversion Factor [2] or *Floor Area Ratio (FAR)*	Total Square Footage	Total Square Footage [3]	Total Square Footage [4]
-	High Density Residential	33.52	-	33.52	15%	5.03	18	4,000	362,016	183,867	149,675
-	Mixed-Use Residential	0.6	-	0.60	35%	0.21	18	4,000	15,120	7,679	6,251
-	Commercial	127.77	-	127.77	75%	95.83	13	2,000	2,491,515	1,265,436	1,030,112
-	Institutional Professional	87.53	-	87.53	75%	65.65	9	2,000	1,181,655	600,160	488,553
-	Industrial	173.78	-	173.78	100%	173.78	0	*2.0*	15,139,444	7,689,295	6,259,373
-	Industrial-Commercial	124.42	-	124.42	100%	124.42	0	*2.0*	10,839,287	5,505,254	4,481,482
	Subtotal	***547.61***		***547.61***		***464.91***			***30,029,037***	***15,251,691***	***12,415,446***
A	Tarpon Center/Esplanade	68.14	*Subarea 1*	56.56	10%	5.66	18	4,000	407,205	206,818	168,358
			Subarea 2	11.58	10%	1.16	18	4,000	83,403	42,360	34,483
B	Heritage Park	59.41	-	59.41	10%	5.94	18	4,000	427,752	217,254	176,853
C	Southern Gateway	76.88	-	76.88	75%	57.66	13	2,000	1,499,160	761,421	619,825
D	Island Professional	83.38	-	83.38	80%	66.70	18	4,000	4,802,688	2,439,276	1,985,662
E	City Center	75.65	-	75.65	80%	60.52	18	4,000	4,357,440	2,213,136	1,801,575
F	Northern Gateway	33.16	-	33.16	80%	26.53	18	4,000	1,910,016	970,094	789,692
G	Seaboard	262.92	-	262.92	80%	210.34	18	4,000	15,144,192	7,691,706	6,261,336
H	Eastern Gateway	163.73	-	163.73	75%	122.80	7	2,000	1,719,165	873,161	710,785
I	South Laurel	911.15	-	911.15	35%	318.90	6	2,000	3,826,830	1,943,640	1,582,195
J	Shakett Creek	39.78	-	39.78	60%	23.87	18	4,000	1,718,388	872,766	710,464
K	Knights Trail	617.65	*Subarea 1*	136.09	35%	47.63	13	2,000	1,238,395	628,978	512,012
			Subarea 2	406.61	35%	142.31	8	2,000	2,277,034	1,156,501	941,435
			Subarea 3	1.98	35%	0.69	18	4,000	49,833	25,310	20,603
			Subarea 4	72.97	75%	54.73	13	2,000	1,422,954	722,716	588,318
L	Gene Green	285.99	-	285.99	100%	285.99	-	*0.1*	1,245,772	632,725	515,062
	Subtotal	***2,677.84***		***2,677.84***		***1,431.43***			***42,130,227***	***21,397,862***	***17,418,659***
	Total	***3,773.07***		***3,773.07***		***1,896.33***			***72,159,264***	***36,649,553***	***29,834,105***

(1) Designations as identified on the Future Land Use Map (FLUM) and within the Objective 13 and Objective 15 policy series of the Comprehensive Plan; excludes those designations which prohibit residential use.

(2) Comprehensive Plan maximum allowable percentage of nonresidential acreage and conversion factor for residential to nonresidential from Objective 13 and Objective 15 policy series. Conversion factor equivalent to nonresidential square feet per residential unit; floor area ratio (F.A.R.) applied where residential use prohibited.

(3) Fifty-one percent (51%) of build-out scenario based on BEBR medium range projections, FPS, Volume 42, Bulletin 153, March 2009.

(4) Eighy-one percent (81%) of 2030 scenario based on BEBR medium range projections, FPS, Volume 42, Bulletin 153, March 2009.

7.7 Potable Water Level of Service Standard

The City of Venice has available facilities, permitted resources, and capital funding to meet the existing and projected future demand for potable water through and beyond a 10-year planning horizon. This availability is unique as many communities in the State of Florida have water capacity concerns. The success of the City is partly the result of progressive water planning education program, a water reuse program, and an aggressive capital improvements program. As a result of these programs, the City has effectively maintained its level of service standard for potable water for the past several decades.

The current Level of Service (LOS) standard for potable water is 152 gpd/ERU based on average annual flow and a peak LOS of 227 gpd/ERU based on maximum daily flow. Actual usage per equivalent residential unit has declined since 1999, from 189 gpd/ERU to 106 gpd/ERU (in 2008), meaning that the City of Venice's LOS currently exceeds the actual demand for potable.

The current LOS standard for potable water was established in the 1999 Comprehensive Plan. The standard was based on a Capacity Analysis Report prepared by Boyle Engineering in 1994. The Capacity Analysis Report's methodology for determining available capacity (consumption per unit) was based on Equivalent Residential Units (ERUs) and three Water Use Permit withdrawal flow limitations: average annual flow, maximum monthly flow and maximum daily follow.

Average annual flow was determined to be the limiting factor for determining the LOS to be applied to calculating available capacity for future development. Moreover, ERUs were chosen as the measuring unit for the LOS instead of population, which was used in 1989. This change was made because ERUs provide a more accurate measure of the number of connections to the City's potable water system.

Table 7.7.1 shows the water demand projections prepared by Boyle Engineering in 1994 and the average demand (gpd/ERU) adopted by the City as the LOS standard for potable water in 1999.

Table 7.7.1:
1994 Average & Peak Demand Projections as
Level of Service (LOS) Standard for Potable Water

Year	Resident Population [1]	Functional Popualtion [1]	Number of ERUs [3]	Average Flow (MGD) [2]	Average Demand (gpd/ERU)	Peak Demand (MGD) [4]	Peak Demand (gpd/ERU)
1995	18,450	25,299	14,528	2.21	152	3.30	227
2000	21,246	29,144	16,729	2.54	152	3.80	227
2005	22,556	30,941	17,524	2.66	152	3.98	227
2010	23,056	31,579	18,152	2.76	152	4.12	227

Source: Boyle Engineering Corporation, 1994 - Capacity Analysis Report

1. University of Florida BEBR, 1994
2. Adjusted to account for water lost to Venice Gardens Utilities System (1994 Average Flow)
3. Total Equivalent Residential Units (ERUs) represents the number of connections to the City's potable water system expressed in terms of residential units. ERUs are independent of seasonal population variation (functional versus resident population).
4. Peak demand is based on maximum daily flow that occurred at the WTP for the referenced year.

Since actual usage has declined since 1999, the City is in a position to reevaluate the LOS standard to more accurately align the City's service provision with actual demand for potable water. Consequently, the City intends to reevaluate the LOS standard for potable water as part of the update to the City's Water Master Plan.

7.8 Potable Water Concurrency Management

The City has a Concurrency Management Ordinance (CMO) that requires development orders to be evaluated according to the City's ability to provide public services and infrastructure capacity to the site. The CMO ensures that there is adequate public supply and quality facilities available to address the development and its future needs. The City of Venice Code of Ordinances, Chapter 94, Article 2, Section 94-35, Minimum Requirements for Concurrency, requires that adequate capacity is available before development and the issuance of a certificate of occupancy. The Code of Ordinances states:

In order to obtain a certificate of concurrency, it must be established that level of service standards can be met for all public facilities and services according to one of the following conditions:

(1) Wastewater, solid waste, drainage, and potable water facilities.

a. A development order or permit is issued subject to the condition that, at the time of the issuance of a certificate of occupancy or its functional equivalent, the necessary facilities and services are in place and available to serve the new development; or

b. At the time the development order or permit is issued, the necessary facilities and services are guaranteed in an enforceable development agreement, pursuant to F.S. 163.3220, or an agreement or development order issued pursuant to F.S. ch. 380, to be in place and available to serve the new development at the time of the issuance of a certificate of occupancy or its functional equivalent.

7.9 Potable Water Projections for the Planning Areas (Incorporated Areas)

The City of Venice water production division has treatment capacity of 4.49 million gallons per day. This capacity is provided using a combination of 14 production wells. These wells pump brackish or slightly salty water from the intermediate aquifer located approximately 300 to 400 feet underground. The water is treated using the reverse osmosis process. The City delivers 2.8 million gallons of potable water each day during the peak season, which runs from December through March.

The methodology used to determine the impact on potable water capacity is established by multiplying the level of service (LOS) standard by the number of Equivalent Residential Units (ERUs) allowed in each planning area. The number of ERUs allowed in each planning area was calculated using the following conversion factors provided by the City of Venice Utilities Department:

1 unit of residential (e.g., dwelling unit)	=	1.00 ERU
1,000 square feet of nonresidential	=	0.45 ERU

The City of Venice Utilities Department maintains a LOS of 152 gpd/ERU for average annual flow and 227 gpd/ERU for maximum daily flow.

The projected potable water demand at build-out for each planning area was calculated based on the maximum allowable density for each planning area, and projected demand for the long term (i.e., 2030) and short-term (i.e., 2015) was calculated based on the percentages of build-out applied in Table 7.6.1 and Table 7.6.2. Table 7.9.1 shows these calculations.

The potable water demand of the planning areas will have an impact on the City's water distribution system and could compromise the City's LOS prior to 2030, the horizon of the Comprehensive Plan. If the planning areas reach build-out, the City will exceed its treatment capacity by 0.11 based on average annual flow and by 0.23 mgd based on maximum daily flow. Table 7.9.2 shows these calculations.

The City has a Water Use Permit (WUP) from the Southwest Florida Water Management District (SWFWMD) for an average supply of 6.8 mgd and peak supply of 8.2 mgd. The permitted supply is expected to be adequate through the short-term and long-term. If the planning areas reach build-out, the City could exceed its permitted average supply by 0.53 mgd.

Table 7.9.1

Planning Area Potential Potable Water Demand																						
			Build-Out						Long-Term (2030)						Short-Term (2015)					
Planning Area	Location	Subarea	Residential ERUs [1]	Nonres. Square Feet by Buildout [2]	Nonres. ERUs [3]	Total ERUs [4]	Potential Demand (Average Annual Flow) [5]	Potential Demand (Maximum Daily Flow) [5]	Residential ERUs	Nonres. Square Feet by 2030 [1]	Nonres. ERUs [2]	Total ERUs	Potential Demand (Average Annual Flow) [3]	Potential Demand (Maximum Daily Flow) [3]	Residential ERUs	Nonres. Square Feet by 2015 [1]	Nonres. ERUs [2]	Total ERUs	Potential Demand (Average Annual Flow) [3]	Potential Demand (Maximum Daily Flow) [3]
A	Tarpon Center/Esplanade	*Subarea 1*	916	407,205	183	1,099	0.17	0.25	465	206,818	93	558	0.08	0.13	379	168,358	76	455	0.07	0.10
		Subarea 2	188	83,403	38	225	0.03	0.05	95	42,360	19	114	0.02	0.03	78	34,483	16	93	0.01	0.02
B	Heritage Park	-	962	427,752	192	1,155	0.18	0.26	489	217,254	98	587	0.09	0.13	398	176,853	80	478	0.07	0.11
C	Southern Gateway	-	250	1,499,160	675	924	0.14	0.21	127	761,421	343	470	0.07	0.11	103	619,825	279	382	0.06	0.09
D	Island Professional	-	300	4,802,688	2,161	2,461	0.37	0.56	152	2,439,276	1,098	1,250	0.19	0.28	124	1,985,662	894	1,018	0.15	0.23
E	City Center	-	272	4,357,440	1,961	2,233	0.34	0.51	138	2,213,136	996	1,134	0.17	0.26	113	1,801,575	811	923	0.14	0.21
F	Northern Gateway	-	119	1,910,016	860	979	0.15	0.22	61	970,094	437	497	0.08	0.11	49	789,692	355	405	0.06	0.09
G	Seaboard	-	947	15,144,192	6,815	7,761	1.18	1.76	481	7,691,706	3,461	3,942	0.60	0.89	391	6,261,336	2,818	3,209	0.49	0.73
H	Eastern Gateway	-	287	1,719,165	774	1,060	0.16	0.24	146	873,161	393	538	0.08	0.12	118	710,785	320	438	0.07	0.10
I	South Laurel	-	3,553	3,826,830	1,722	5,276	0.80	1.20	1,805	1,943,640	875	2,679	0.41	0.61	1,469	1,582,195	712	2,181	0.33	0.50
J	Shakett Creek	-	286	1,718,388	773	1,060	0.16	0.24	145	872,766	393	538	0.08	0.12	118	710,464	320	438	0.07	0.10
K	Knights Trail	*Subarea 1*	1,150	1,238,395	557	1,707	0.26	0.39	584	628,978	283	867	0.13	0.20	475	512,012	230	706	0.11	0.16
		Subarea 2	2,114	2,277,034	1,025	3,139	0.48	0.71	1,074	1,156,501	520	1,594	0.24	0.36	874	941,435	424	1,298	0.20	0.29
		Subarea 3	23	49,833	22	46	0.01	0.01	12	25,310	11	23	0.00	0.01	10	20,603	9	19	0.00	0.00
		Subarea 4	237	1,422,954	640	877	0.13	0.20	120	722,716	325	446	0.07	0.10	98	588,318	265	363	0.06	0.08
L	Gene Green	-	-	1,245,772	561	561	0.09	0.13	-	632,725	285	285	0.04	0.06	-	515,062	232	232	0.04	0.05
Total			**11,606**	**42,130,227**	**18,959**	**30,564**	**4.65**	**6.94**	**5,894**	**21,397,862**	**9,629**	**15,523**	**2.36**	**3.52**	**4,798**	**17,418,659**	**7,838**	**12,637**	**1.92**	**2.87**
Notes:			*ERUs*	*sq. ft.*	*ERUs*	*ERUs*	*mgd*	*mgd*	*ERUs*	*sq. ft.*	*ERUs*	*ERUs*	*mgd*	*mgd*	*ERUs*	*sq. ft.*	*ERUs*	*ERUs*	*mgd*	*mgd*

1: Comprehensive Plan maximum allowable density based on gross acreage per area, or sub-area where applicable; adjusted for BEBR projections, FPS, Volume 42, Bulletin 153, March 2009.

2: Comprehensive Plan nonresidential square footage based on gross acreage per area, or sub-area where applicable; adjusted for BEBR projections, FPS, Volume 42, Bulletin 153, March 2009.

3: For nonresidential, an Equivalent Residential Unit (ERU) conversion factor of 0.45 ERUs per 1,000 square feet of nonresidential space was applied. This conversion factor is based on the City of Venice Utilities Department's average ERU value for office (0.60 ERU per 1,000 sq. ft.) and commercial/retail (0.30 ERU per 1,000) sq. ft.).

4: Total ERUs, residential and nonresidential combined.

5: The potential demand was based upon 152 gpd/ERU, the City's level of service (LOS) for potable water average annual flow, and 227 gpd/ERU, the City's LOS for potable water maximum daily flow.

Table 7.9.2

Planning Areas Potential Potable Water Impact								
Horizon	Total ERUs [1]	Potential Demand (Average Annual Flow) [2]	Average Treatment Capacity Used [3]	Average Remaining Treatment Capacity [5]	Potential Demand (Maximum Daily Flow) [2]	Peak Treatment Capacity Used [4]	Peak Remaining Treatment Capacity [5]	Average Remaining Permitted Supply [6]
Build-Out	30,564	4.65	7.33	(2.84)	6.94	9.74	(5.25)	(0.53)
Long-Term (2030)	15,523	2.36	5.04	(0.55)	3.52	5.16	(0.67)	1.76
Short-Term (2015)	12,637	1.92	4.60	(0.11)	2.87	4.72	(0.23)	2.20
Notes:	*ERUs*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*

1: Total ERUs, residential and nonresidential combined.

2: The potential demand was based upon 152 gpd/ERU, the City's level of service (LOS) for potable water average annual flow, and 227 gpd/ERU, the City's LOS for potable water maximum daily flow.

3: The yearly average usage is 2.68 mgd.

4: The yearly peak usage is 2.8 mgd. The peak months of usage are December - March.

5: The City of Venice Water Treatment Plant has a capacity of 4.49 mgd.

6: The City of Venice has a permitted average supply of 6,864,000 gpd or 6.8 mgd (Southwest Florida Water Management District, WUP No. 53596).

7.10 Residential and Nonresidential Projections for the JPA/ILSBA Planning Areas (Potential Voluntary Annexation Areas)

In order to analyze the impacts of the JPA/ILSBA areas on population, residential (housing) units, nonresidential square footage, and water supply, staff has applied the percentage of "build-out" represented by the long-term (i.e., 2030) and short-term (i.e., 2015) to achieve a 20-year and 5-year scenario.

For the JPA/ILSBA areas, this percentage was determined using BEBR medium range projections as cited in BEBR's *Florida Population Studies*, Volume 42, Bulletin 153, published in March 2009; however, because these areas are not yet annexed into the City of Venice and therefore cannot be based on the City share, projected growth rates were applied to existing housing units. Based on BEBR projections, Sarasota County is expected to grow 7% by 2015 and 32% by 2030.

Table 7.10.1 shows the maximum residential potential allowed in each JPA/ILSBA area as defined within the Objective 18 policy series of the City of Venice Comprehensive Plan.

Population

Based on maximum allowable density, the population of the JPA/ILSBA areas could reach 17,348 at build-out; however, based on the projected growth rate for Sarasota County, only 8% of that population is expected by 2030. Although the Border Road to Myakka Corridor can accommodate the most population at build-out (4,982), the South Venice Avenue Corridor is expected to accommodate the most population in the short-term (431), or 51% of the short-term potential population of the JPA/ILSBA areas combined.

Residential (Housing) Units

Based on maximum allowable density, a total of 9,480 housing units could be developed at build-out; however, only 565 are expected by 2030 and only 458 are expected by 2015 if BEBR medium range projections are taken into consideration.

Table 7.10.1

JPA / ILSBA Potential Residential Impact														
					Scenario/Standards			Build-Out		2010	Long-Term (2030)		Short-Term (2015)	
JPA Area	Location [1]	Gross Acreage [1]	Subarea	Gross Acreage per Subarea	% of Gross Acreage Allowable for Residential	Acreage Allowable for Residential	Comprehensive Plan Maximum Allowable Density [2] (du/acre)	Total Housing Units @ Build-Out [3]	Total Population @ Build-Out [4]	Existing Housing Units [5]	Total Housing Units by 2030 [6]	Total Population by 2030 [6]	Total Housing Units by 2015 [7]	Total Population by 2015 [7]
1	Rustic Road	488.50	*Subarea 1*	346.84	50%	173.42	9	1,561	2,856	1	1	2	1	2
			Subarea 2	141.66		70.83	5	354	648	15	20	36	16	29
2(a)	Auburn Road to I-75	176.10	*Subarea 1*	44.03	90%	39.63	3	119	218	-	-	-	-	-
			Subarea 2	73.97		66.57	3	200	365	5	7	12	5	10
			Subarea 3	58.10		52.29	3	157	287	9	12	22	10	18
2(b)	I-75 to Jacaranda Boulevard	175.40	*Subarea 1*	92.96	50%	46.48	9	418	766	1	1	2	1	2
			Subarea 2	33.33		16.67	13	217	396	5	7	12	5	10
			Subarea 3	49.11		24.56	18	442	809	5	7	12	5	10
3	Border Road to Myakka River	628.50	*Subarea 1*	490.23	95%	465.72	5	2,329	4,261	1	1	2	1	2
			Subarea 2	138.27		131.36	3	394	721	30	40	72	32	59
4	South Venice Avenue	238.70	-	238.70	67%	159.93	7	1,120	2,049	220	290	531	235	431
5	Laurel Road	295.70	*Subarea 1*	134.85	67%	90.35	8	723	1,323	11	15	27	12	22
			Subarea 2	127.68	50%	63.84	8	511	935	2	3	5	2	4
			Subarea 3	33.17	0%	-	8	-	-	-	-	-	-	-
6	Pinebrook Road	231.70	-	231.70	100%	231.70	3	695	1,272	30	40	72	32	59
7	Auburn Road	25.20	-	25.20	100%	25.20	5	126	231	2	3	5	2	4
8	Gulf Coast Boulevard	33.00	-	33.00	100%	33.00	3.5	116	211	91	120	220	97	178
		2,292.80		***2,292.80***		***1,691.53***		***9,480***	***17,348***	***428***	***565***	***1,034***	***458***	***838***

(1) Joint Planning and Interlocal Service Boundary Agreement between the City of Venice and Sarasota County, as amended and restated October 2010.
(2) Comprehensive Plan maximum allowable density based on gross acreage per area, or sub-area where applicable.
(3) Based upon maximum allowable density; see (2).
(4) Anticipated population by multiplying anticipated dwelling units by 1.83 persons per household.
(5) Approximate number of housing units based on aerial survey.
(6) Based on BEBR population projections, FPS, Volume 42, Bulletin 153, March 2009, indicating 32% growth from 2010 to 2030.
(7) Based on BEBR population projections, FPS, Volume 42, Bulletin 153, March 2009, indicating 7% growth from 2010 to 2015.

Nonresidential Square Footage

Based on the maximum allowable density and the nonresidential conversion factor, or floor area ratio where residential use is prohibited, a potential 10,135,244 square feet of nonresidential uses could be developed at build-out; however, only 3,243,278 square feet are expected by 2030, and only 709,467 square feet are expected by 2015. The majority (38%) of the potential nonresidential square footage is allowed in the Knights Trail Park Area (Rustic Road). Table 7.10.2 shows the maximum nonresidential potential allowed in each JPA/ILSBA area as defined within the Objective 18 policy series of the City of Venice Comprehensive Plan.

Table 7.10.2

JPA / ILSBA Potential Nonresidential Impact											
					Scenario/Standards [2]				Build-Out	Long-Term (2030)	Short-Term (2015)
JPA Area	Location [1]	Gross Acreage	Subarea	Gross Acreage per Subarea	% of Gross Acreage Allowable Nonresidential Residential	Gross Acreage Allowable for Nonresidential	Maximum Allowable Density [2] (du/acre)	Conversion Factor (nonres. sq. ft. per unit)	Total Square Footage	Total Square Footage [3]	Total Square Footage [4]
1	Rustic Road	488.50	*Subarea 1*	346.84	50%	173.42	9	2,000	3,121,560	998,899	218,509
			Subarea 2	141.66		70.83	5	2,000	708,300	226,656	49,581
2(a)	Auburn Road to I-75	176.10	*Subarea 1*	44.03	10%	4.40	3	4,000	52,836	16,908	3,699
			Subarea 2	73.97		7.40	3	4,000	88,764	28,404	6,213
			Subarea 3	58.10		5.81	3	4,000	69,720	22,310	4,880
2(b)	I-75 to Jacaranda Boulevard	175.40	*Subarea 1*	92.96	50%	46.48	9	2,000	836,640	267,725	58,565
			Subarea 2	33.33		16.67	13	2,000	433,290	138,653	30,330
			Subarea 3	49.11		24.56	18	2,000	883,980	282,874	61,879
3	Border Road to Myakka River	628.50	*Subarea 1*	490.23	5%	24.51	5	4,000	490,230	156,874	34,316
			Subarea 2	138.27		6.91	3	4,000	82,962	26,548	5,807
4	South Venice Avenue	238.70	-	238.70	33%	78.77	7	2,000	1,102,794	352,894	77,196
5	Laurel Road	295.70	*Subarea 1*	134.85	33%	44.50	8	2,000	712,019	227,846	49,841
			Subarea 2	127.68	50%	63.84	8	2,000	1,021,417	326,853	71,499
			Subarea 3	33.17	100%	33.17	8	2,000	530,732	169,834	37,151
6	Pinebrook Road	231.70	-	231.70	0%	-	3	-	-	-	-
7	Auburn Road	25.20	-	25.20	0%	-	5	-	-	-	-
8	Gulf Coast Boulevard	33.00	-	33.00	0%	-	3.5	-	-	-	-
		2,292.80		***2,292.80***		***601.27***			***10,135,244***	***3,243,278***	***709,467***

(1) Joint Planning and Interlocal Service Boundary Agreement between the City of Venice and Sarasota County, as amended and restated October 2010.
(2) Comprehensive Plan maximum allowable percentage of nonresidential acreage and conversion factor for residential to nonresidential from Objective 18 policy series.
(3) Based on BEBR population projections, FPS, Volume 42, Bulletin 153, March 2009, indicating 32% growth from 2010 to 2030.
(4) Based on BEBR population projections, FPS, Volume 42, Bulletin 153, March 2009, indicating 7% growth from 2010 to 2015.

7.11 Potable Water Projections for the JPA/ILSBA Planning Areas (Potential Voluntary Annexation Areas)

The methodology used to determine the impact on potable water capacity is established by multiplying the level of service (LOS) standard by the number of Equivalent Residential Units (ERUs) allowed in each JPA/ILSBA area. The number of ERUs allowed in each planning area was calculated using the following conversion factors provided by the City of Venice Utilities Department:

1 unit of residential (e.g., dwelling unit)	=	1.00 ERU
1,000 square feet of nonresidential	=	0.45 ERU

The City of Venice Utilities Department maintains a LOS of 152 gpd/ERU for average annual flow and 227 gpd/ERU for maximum daily flow.

The potable water demand at build-out for each JPA/ILSBA area was calculated based on the maximum allowable density for each JPA/ILSBA area, and projected demand for the long term (i.e., 2030) and short-term (i.e., 2015) was calculated based on the growth rates applied in Table 7.6.1 and Table 7.6.2. Table 7.11.1 shows these calculations.

The additional demands of the JPA/ILSBA areas will have an impact on the City's water distribution system; however, JPA/ILSBA Area No. 5 will not be served by the City's water distribution system and JPA/ILSBA Area No.8 is currently built-out and already served by the City. Sarasota County has concluded through their capital improvement assessment of the JPA/ILSBA Planning Areas that there are no issues or impacts related to potable water service and infrastructure.

Although the potable water demand of the JPA/ILSBA areas will have an impact on the City's potable water distribution system, this impact is not expected to compromise the City's LOS prior to 2030, the horizon of the Comprehensive Plan. See Table 7.11.2.

If the JPA/ILSBA areas are annexed into the City of Venice and subsequently reach build-out, the City will not have enough capacity to support these areas, as build-out demand could exceed average and peak treatment capacity by 0.32 mgd and 1.50 mgd, respectively. It is important to note that build-out demand should not be considered in isolation. If the incorporated City reaches build-out either prior to or simultaneous with annexation, the City will experience cumulative deficits of 4.97 mgd and 8.44 mgd in average and peak treatment capacity, respectively.

The City has a Water Use Permit (WUP) from the Southwest Florida Water Management District (SWFWMD) for an average supply of 6.8 mgd and peak supply of 8.2 mgd. The permitted supply is expected to be adequate for the build-out of the JPA/ILSBA areas; however, if the incorporated City reaches build-out either prior to or simultaneous with annexation, permitted supply would only be adequate for the short-term.

Table 7.11.3 shows the impacts assuming a build-out scenario occurs within the incorporated city either prior to or simultaneous with annexation of the JPA/ILSBA areas.

Coordination between SWFWMD, Sarasota County and the City of Venice is needed to ensure that future water demand is fulfilled. The Comprehensive Plan proposes a number of policies to ensure this coordination.

Table 7.11.1

JPA / ILSBA Potential Potable Water Demand																				
			Build-Out						Long-Term (2030)						Short-Term (2015)					
JPA Area	Location	Subarea	Residential ERUs [1]	Nonres. Square Feet by Buildout [2]	Nonres. ERUs [3]	Total ERUs [4]	Potential Demand (Average Annual Flow) [5]	Potential Demand (Maximum Daily Flow) [5]	Residential ERUs	Nonres. Square Feet by 2030 [1]	Nonres. ERUs [2]	Total ERUs	Potential Demand (Average Annual Flow) [3]	Potential Demand (Maximum Daily Flow) [3]	Residential ERUs	Nonres. Square Feet by 2015 [1]	Nonres. ERUs [2]	Total ERUs	Potential Demand (Average Annual Flow) [3]	Potential Demand (Maximum Daily Flow) [3]
1	Knights Trail Park Area (Rustic Road)	*Subarea 1*	1,561	3,121,560	1,405	2,965	0.45	0.67	1	998,899	450	451	0.07	0.10	1	218,509	98	99	0.02	0.02
		Subarea 2	354	708,300	319	673	0.10	0.15	20	226,656	102	122	0.02	0.03	16	49,581	22	38	0.01	0.01
2(a)	Auburn Road to I-75	*Subarea 1*	119	52,836	24	143	0.02	0.03	-	16,908	8	8	0.00	0.00	-	3,699	2	2	0.00	0.00
		Subarea 2	200	88,764	40	240	0.04	0.05	7	28,404	13	19	0.00	0.00	5	6,213	3	8	0.00	0.00
		Subarea 3	157	69,720	31	188	0.03	0.04	12	22,310	10	22	0.00	0.00	10	4,880	2	12	0.00	0.00
2(b)	I-75 to Jacaranda Boulevard	*Subarea 1*	418	836,640	376	795	0.12	0.18	1	267,725	120	122	0.02	0.03	1	58,565	26	27	0.00	0.01
		Subarea 2	217	433,290	195	412	0.06	0.09	7	138,653	62	69	0.01	0.02	5	30,330	14	19	0.00	0.00
		Subarea 3	442	883,980	398	840	0.13	0.19	7	282,874	127	134	0.02	0.03	5	61,879	28	33	0.01	0.01
3	Border Road to Myakka Corridor	*Subarea 1*	2,329	490,230	221	2,549	0.39	0.58	1	156,874	71	72	0.01	0.02	1	34,316	15	17	0.00	0.00
		Subarea 2	394	82,962	37	431	0.07	0.10	40	26,548	12	52	0.01	0.01	32	5,807	3	35	0.01	0.01
4	South Venice Avenue Corridor (South Venice Avenue Mixed Use Neighborhood)	-	1,120	1,102,794	496	1,616	0.25	0.37	290	352,894	159	449	0.07	0.10	235	77,196	35	270	0.04	0.06
5	Laurel Road	*Subarea 1*	723	712,019	320	1,043	0.16	0.24	15	227,846	103	117	0.02	0.03	12	49,841	22	34	0.01	0.01
		Subarea 2	511	1,021,417	460	970	0.15	0.22	3	326,853	147	150	0.02	0.03	2	71,499	32	34	0.01	0.01
		Subarea 3	-	530,732	239	239	0.04	0.05	-	169,834	76	76	0.01	0.02	-	37,151	17	17	0.00	0.00
6	Pinebrook Road Area	-	695	-	-	695	0.11	0.16	40	-	-	40	0.01	0.01	32	-	-	32	0.00	0.01
7	Auburn Road to Curry Creek	-	126	-	-	126	0.02	0.03	3	-	-	3	0.00	0.00	2	-	-	2	0.00	0.00
8	Gulf Coast Boulevard Enclave	-	116	-	-	116	0.02	0.03	120	-	-	120	0.02	0.03	97	-	-	97	0.01	0.02
Total			**9,480**	**10,135,244**	**4,561**	**14,040**	**2.13**	**3.19**	**565**	**3,243,278**	**1,459**	**2,024**	**0.31**	**0.46**	**458**	**709,467**	**319**	**777**	**0.12**	**0.18**
Notes:			*ERUs*	*sq. ft.*	*ERUs*	*ERUs*	*mgd*	*mgd*	*ERUs*	*sq. ft.*	*ERUs*	*ERUs*	*mgd*	*mgd*	*ERUs*	*sq. ft.*	*ERUs*	*ERUs*	*mgd*	*mgd*

1: Comprehensive Plan maximum allowable density based on gross acreage per area, or sub-area where applicable; adjusted for BEBR projections, FPS, Volume 42, Bulletin 153, March 2009.

2: Comprehensive Plan nonresidential square footage based on gross acreage per area, or sub-area where applicable; adjusted for BEBR projections, FPS, Volume 42, Bulletin 153, March 2009.

3: For nonresidential, an Equivalent Residential Unit (ERU) conversion factor of 0.45 ERUs per 1,000 square feet of nonresidential space was applied. This conversion factor is based on the City of Venice Utilities Department's average ERU value for office (0.60 ERU per 1,000 sq. ft.) and commercial/retail (0.30 ERU per 1,000) sq. ft.).

4: Total ERUs, residential and nonresidential combined.

5: The potential demand was based upon 152 gpd/ERU, the City's level of service (LOS) for potable water average annual flow, and 227 gpd/ERU, the City's LOS for potable water maximum daily flow.

Table 7.11.2

JPA / ILSBA Potential Potable Water Impact								
Horizon	Total ERUs [1]	Potential Demand (Average Annual Flow) [2]	Average Treatment Capacity Used [3]	Average Remaining Treatment Capacity [5]	Potential Demand (Maximum Daily Flow) [2]	Peak Treatment Capacity Used [4]	Peak Remaining Treatment Capacity [5]	Average Remaining Permitted Supply [6]
Build-Out	14,040	2.13	4.81	(0.32)	3.19	5.99	(1.50)	1.99
Long-Term (2030)	2,024	0.31	2.99	1.50	0.46	3.26	1.23	3.81
Short-Term (2015)	777	0.12	2.80	1.69	0.18	2.98	1.51	4.00
Notes:	*ERUs*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*

1: Total ERUs, residential and nonresidential combined.

2: The potential demand was based upon 152 gpd/ERU, the City's level of service (LOS) for potable water average annual flow, and 227 gpd/ERU, the City's LOS for potable water maximum daily flow.

3: The yearly average usage is 2.68 mgd.

4: The yearly peak usage is 2.8 mgd. The peak months of usage are December - March.

5: The City of Venice Water Treatment Plant has a capacity of 4.49 mgd.

6: The City of Venice has a permitted average supply of 6,864,000 gpd or 6.8 mgd (Southwest Florida Water Management District, WUP No. 53596).

Table 7.11.3

Citywide (Planning Areas) + JPA / ILSBA Potential Cumulative Impact								
Horizon	Total ERUs [1]	Potential Demand (Average Annual Flow) [2]	Average Treatment Capacity Used [3]	Average Remaining Treatment Capacity [5]	Potential Demand (Maximum Daily Flow) [2]	Peak Treatment Capacity Used [4]	Peak Remaining Treatment Capacity [5]	Average Remaining Permitted Supply [6]
Build-Out	44,605	6.78	9.46	(4.97)	10.13	12.93	(8.44)	(6.13)
Long-Term (2030)	17,548	2.67	5.35	(0.86)	3.98	6.78	(2.29)	0.02
Short-Term (2015)	13,414	2.04	4.72	(0.23)	3.04	5.84	(1.35)	0.96
Notes:	*ERUs*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*	*mgd*

1: Total ERUs, residential and nonresidential combined.

2: The potential demand was based upon 152 gpd/ERU, the City's level of service (LOS) for potable water average annual flow, and 227 gpd/ERU, the City's LOS for potable water maximum

3: The yearly average usage is 2.68 mgd.

4: The yearly peak usage is 2.8 mgd. The peak months of usage are December - March.

5: The City of Venice Water Treatment Plant has a capacity of 4.49 mgd.

6: The City of Venice has a permitted average supply of 6,864,000 gpd or 6.8 mgd (Southwest Florida Water Management District, WUP No. 53596).

WATER CONSERVATION

8.1 Regional Coordination

The City of Venice will continue to coordinate future water conservation efforts with Sarasota County and SWFWMD to ensure that proper techniques are applied. In addition, the City will continue to support and implement the goals, objectives and policies (GOPs) contained in the Envision Venice Comprehensive Plan that promote water conservation in a cost-effective and environmentally sensitive manner. The City will continue to actively support SWFWMD and Sarasota County in the implementation of new regulations or programs that are designed to conserve water during the dry season. Many of these coordination efforts are memorialized as a series of GOPs and identified in Section 10 (Goals, Objectives and Policies).

8.2 Specific Actions, Programs, Regulations, or Opportunities

The City of Venice has implemented a water conservation program that reflects the following major components:

1. Education

A series of informational materials are made available to the community through distribution at City offices, the public library and other non-profit agencies. These materials highlight the benefits of water conservation and provide tips for homeowners and businesses to conserve water. Leak detection kits and water conserving hardware are made available at the utility billing and utility service offices.

2. Rate System

The City has implemented a rate system that provides for escalating water charges as consumption increases for its potable system. A similar reuse water rate system is currently under review as required by the existing Comprehensive Plan as part of an on-going utility rate study.

3. Reuse Availability

The City initiated the development of a reclaimed water system in cooperation with the Southwest Florida Water Management District as a funding partner. As new areas are constructed, developments install reuse distribution lines for use by individual homeowners and for irrigation of any large open areas (common areas, golf course, etc.). A major system expansion to previously developed areas, particularly on the island of Venice, is currently under construction to create the transmission system for future distribution network and individual property owner connections.

4. Testing and Rehabilitation

A comprehensive meter testing and replacement program has been instituted to provide for

an accurate water use system. Meter replacements assist with leak detection and elimination, as well as to ensure consumer awareness of City efforts to conserve water use.

5. System Maintenance program

An on-going preventative maintenance program that includes line replacements, valve checks and plant facility inspections is in place to aide with conservation efforts. Included within this program is the City's effort to protect against cross connection to the potable water system in order to ensure that potentially hazardous substance do not contaminate a single supply, neighborhood or the distribution system itself.

In 2009 the City of Venice has continued to work on its' water conservation plan and has researched a formal Best Management Practices (BMP's) to ensure a per capita water use rate of 150 GPD per person or less. Currently the City maintains a per capita rate of 88.2 GPD. This number is slightly higher then the 2008 Per Capita rate (77.6 GPD). The City has seen a decline in its' population while its' distribution flushing requirement remain constant and could account for the sight increase in per capita usage.

The City was awarded co-operative funding from the Southwest Florida Water Management District to purchase water conservation kits and implement low flow toilet rebate program. In early fiscal year 2008-2009 it was determined that the City coffers could not support its' 50% obligation for the grant, so the funding was returned to SWFWMD with anticipation of applying again when economic conditions permit the follow through of this program.

The following is a summary of the City's water conservation efforts.

- The City Conservation Team has researched the implementation of a landscape ordinance that would effectively regulate the planning and installation of new landscaping to include native (Florida Friendly), drought resistant plants in an effort to reduce watering demands in commercial and residential applications. A draft version has been prepared and is currently under review by the City's Conservation Team.
- The City of Venice continues to utilize water conservation rates in its consumer billing structure.
- The City of Venice currently publishes conservation ideas and watering restrictions on its' website : www.venicegov.com/Files /Utilities/Cashiers_brochure.pdf
- The City has incorporated numerous conservation protocols in its recently issued WUP that will ensure the conservation effort continue into the future.
- The City once again held its' elementary school water conservation poster contest. This annual even continues to educate your about the importance of water conservation.
- Discussions have been held with the Peace River Manasota Regional Water Supply Authority and Sarasota County Utilities staff regarding the City's role in the drought relief.
- City has inspected and repairs have been made to the sub-aqueous RO concentrate discharge outfall diffuser system.

- The elevated tank at the City's Chuck Reiter Field and the plant site location was inspected and cleaned. Necessary repairs and painting are pending.
- The 1.5 million gallon Pinebrook Storage Tank and 1.0 mg plant were cleaned and inspected.

8.3 Reuse / Reclaimed Water

Reclaimed or reuse water is defined by FDEP as water that is beneficially reused after being treated to at least secondary wastewater treatment standards by a domestic wastewater treatment plant (WWTP). Reclaimed water can be used in a number of ways including decreasing reliance on potable water supplies, increasing ground-water recharge, and restoring natural systems.

For several decades, the City of Venice has implemented a water conservation program that includes education, an escalating rate system, reuse availability (reclaimed water), testing and rehabilitation, and preventative system maintenance.

The City of Venice has a reclaimed water program to reduce demand for potable water and withdrawals from water supply sources. The system is currently operating in conjunction with the Eastside Wastewater Treatment Plant and has a design capacity of 6.5 mgd for production.

The City has connected reclaimed water transmission lines from the Eastside Wastewater Treatment Plant to the island in an effort to provide reclaimed water to all residents of the City. The City is currently adding distribution lines to the reclaimed water system. It is estimated that the project will take 10 years to complete and the improvements are reflected in the City's 10-year capital improvement program beginning in 2003.

The City will continue to support SWFWMD and Sarasota County water reuse projects, and implementation of new regulations or programs designed to increase the volume of reclaimed water used and public acceptance of reclaimed water.

As noted in Section 5.13 above, the City currently provides bulk sales of reclaimed water.

8.4 Outside / Bulk Sales of Reclaimed Water

The City does provide bulk sales for reclaimed water. Per the City's 2009 Public Supply Annual Report the following bulk customer information is provided:

Customer (Account) Name	Waterford Golf Course	Capri Isle Golf Course	Bird Bay Golf Course	Lake Venice Golf Course	Venetian Golf & River Club
Contact Person	Roger Moore	Mike Simpson	Rich Robertson	Rod Perry	Mike Miles
WUP No.	011438	005517	011797	011871	012075
Use Category (R,C, RA, M or A)	RA	RA	RA	RA	RA
Month/Year First Served	10/1998	Prior to 2000	8/1991	Prior to 1989	4/2007
Line Size	6"	4"	4"	12"	10"

Meter Ownership	Utility	Utility	Utility	Utility	Customer
Pressurized (P) or Non Pressurized (NP)	NP	NP	NP	NP	NP

The monthly actual flow for each customer based on actual meter reading of quantities of reclaimed water delivered each month is provided below:

Customer (Account) Name	Waterford Golf Course	Capri Isle Golf Course	Bird Bay Golf Course	Lake Venice Golf Course	Venetian Golf & River Club
January	18,625,000	6,084,000	3,817,000	4,908,000	12,690,000
February	18,686,000	7,383,000	3,548,000	5,421,000	15,755,000
March	15,775,000	10,782,000	4,194,000	8,830,000	12,588,000
April	23,900,000	9,749,000	3,404,000	12,380,000	6,141,000
May	30,532,000	5,542,000	1,287,000	9,512,000	8,042,000
June	23,641,000	4,052,000	2,088,000	12,103,000	4,821,000
July	11,120,000	3,665,000	2,044,000	12,759,000	4,527,000
August	14,648,000	3,110,000	1,808,000	9,489,000	6,050,000
September	42,035,000	803,300	1,838,000	8,872,000	12,870,000
October	12,166,000	4,569,000	2,063,000	15,500,000	4,737,000
November	13,227,000	4,116,000	2,695,000	13,993,000	5,878,000
December	50,440,000	0	1,625,000	6,553,000	19,705,000
Total Gallons	274,795,000	59,855,000	30,411,000	120,320,000	113,774,000
Divide by 365 for gpd	752,863	163,986	83,318	329,644	311,710

The City will continue to provide to bulk sales of reclaimed water to customers as identified above.

8.5 Conservation Offset

The primary use of reclaimed water in Venice is irrigation, particularly with regard to residential and golf course uses, which are intensely landscaped. Based on the average gallons per day used for irrigation by residential and golf course uses, approximately 1.80 mgd is offset through the use of reclaimed water.

Table 8.5.1: Conservation Offset

Type of Reclaimed Use	Number of Meters	Amount of Irrigation per Meter* (gpd)	Total Water Use (gpd)	Offset** (%)	Offset** (gpd)
Residential	2,900	395	1,145,500	50%	527,750
Golf Course	*See previous table*	*See previous table*	1,641,521	75%	1,231,141
Total (mgd)	-	-	2.79	-	1.80

* Andrade, Anthony J. and Kathy F. Scott, "Effective Use of Reclaimed Water Demonstrated to Offset Water Demand", SWFMWD, October, 2002. http://www.swfwmd.state.fl.us/files/database/site_file_sets/118/reclaimed-offset-docs.pdf
**Percentage or amount of reclaimed water use that replaces potable water consumption.

With an ever-growing population and a finite supply of available drinking water, finding new water supply sources is critical. One way to conserve is to use reclaimed water for

irrigation purposes. The use of reclaimed water in-lieu of potable water for irrigation is expected to increase as availability of reclaimed water increases in conjunction with new development and facility enhancements. It will become increasingly important to link the City's reclaimed water plans more closely with regional water supply planning. Currently, the water management districts develop regional water supply plans to meet future needs, sometimes without adequate input from reclaimed water providers or DEP's wastewater program. This could become an issue when the City prepares to make a capital investment in distributing reclaimed water to an area not anticipated in the regional water supply plan. By coordinating with DEP and SWFWMD, the parties collaboratively can work out where it is best to utilize reclaimed water before the City invests capital in a specific project.

9.0 CAPITAL IMPROVEMENTS

The City's Capital Improvement System (CIS) provides for the public services, facilities, and infrastructure systems needed to implement the Envision Venice Comprehensive Plan, and maintain and achieve adopted level of service standards. It is comprised of four components: 1) Capital Improvement Element, 2) Capital Improvement Schedule, 3) Capital Improvement Program, and 4) Annual Budget. A summary of what each of these components is and how the system works together is as follows:

- Capital Improvement Element (CIE). The Capital Improvement Element prioritizes the capital improvements needed to implement the 2009 Comprehensive Plan planning framework and established LOS. The CIE coordinates the City's planning framework and LOS, with the City public services, facilities, and infrastructure systems; work plan schedules; and fiscal demands, costs, and funding sources. Included within the CIE is the City's Capital Improvement Schedule.
- Capital Improvement Schedule (CIS). The Capital Improvement Schedule provides the financial foundation necessary to implement capital improvements needed to implement the Comprehensive Plan and achieve and maintain adopted LOS. The CIS guides the development of public facilities and infrastructure systems over a 5-year period. The CIS is structured according to the City's planning priorities, estimated project costs, and availability of funding resources. Since the CIS includes only those items necessary to achieve and maintain the comprehensive plan planning framework and LOS, it does not include all items found within the City-wide CIP. The CIS is found in the 2009 Comprehensive Plan's Capital Improvement Element.
- Capital Improvement Program (CIP). The Capital Improvement Program plans for the provision of City-wide capital budgeting needs. The capital budget deals with projects for the construction, renovation, improvement, acquisition of any facilities, buildings, structures, land, or land rights. The plan identifies the development schedule for all capital projects, related expenditures, and financing needs proposed within the City.
- Annual Budget. Supports the day-to-day operations of the City for a single fiscal year. It includes all planned services and programs, their expenditure requirements and revenue estimates to support the stated level of activity. Additionally, the CIP is a city document that is referenced in the CIE but not adopted as part of the element.

The process of preparing the CIP component of the annual budget includes identifying and listing capital items, evaluation, scheduling, estimating costs, and anticipating revenue sources.

Evaluation for funding and scheduling within the CIP is generally in accordance with the following criteria:

a) Improvements which are necessary to protect the health, safety and environmental integrity of the City.
b) Improvements which are necessary to meet existing deficiencies in capacity, performance, or reliability, including potable water.
c) Improvements that will contribute to fulfill the goals, objectives and policies established within the Comprehensive Plan.

d) Improvements that are consistent with the Future Land Use Element of the Comprehensive Plan.
e) Improvements that target un-served areas within established service areas.
f) Cost-effective improvements to expand capacity, maximize operational efficiency, and increase productivity.
g) Improvements that are financially feasible.
h) Improvements to optimize use of existing facilities.

Some additional and specific criteria may be considered by each of the City's departments within the evaluation.

The City Council adopts the one year capital improvements budget as part of the annual budget, and the remainder of the program is updated each year. The current CIP document is a guide to determining and establishing priorities based upon the condition of each element of the comprehensive plan and the capital improvements needed to maintain adopted level of service standards.

9.1 Potable Water Supply Related Capital Improvements (2008 Annual Reporting Period)

The following capital improvements related to potable water supply were completed for the 2008 annual reporting period as defined as October 1, 2007 to September 30, 2008:

1. Variable Frequency Drives (VFD) were installed on User ID Nos. RO-4E & RO-6E, District ID Nos. 56 & 77 production wells to conserve electricity and allow the withdrawal rate to be adjusted to allow for better management of pumpage and water quality concentrations. This brings the total number of wells equipped with VFD's to four. Additionally, the City installed this equipment on two more wells in 2009.

2. The City installed a motor operated valve on the elevated water tank to gain more control over system pressures.

3. The City held preliminary discussions with its consultants regarding increased recovery efficiencies of the RO Plant. Further planning is underway.

9.2 Potable Water Supply Related Capital Improvements (Future)

The City has budgeted or is planning for the following capital improvements or programs related to improvements of the potable water supply system:

1. Installation of VFDs on the remaining production wells over the next several years.

2. Continue to explore the feasibility of relocating the City's RO water treatment plant.

3. Continue study of the potential for increased recovery of the RO treatment system.

4. Update to the Water Supply Master Plan

5. Replace the RO membranes, pressure vessels, and associated instruments.

6. Replace & Renew Existing Aging Infrastructure Assets

7. Interior & Exterior Refurbishing of Elevated Water Tanks

8. Update the 10-Year Water Supply Facilities Work Plan within eighteen months after an update to the Regional Water Supply Plan is approved by SWFWMD.

9.3 Five-Year Schedule of Capital Improvements FY09-FY15

Table 9.3 below summarizes the City's current CIP for the potable water system related improvements for the next five years. The City's CIP was adopted in October 2009 as a component of the City's Fiscal Year 2009-2010 Annual Budget.

City of Venice Potable Water Capital Improvements Program FY09-FY15							
Project Description	**Total Cost**	**FY 09/10**	**FY 10/11**	**FY 11/12**	**FY 12/13**	**FY 13/14**	**FY 14/15**
RO Plant PLC Replacement	$150,000	150,000	-	-	-	-	-
Additional Degassifier at RO Plant	$300,000	$300,000	-	-	-	-	-
Feasibility study for RO Plant Recovery Increase	$5,050,000	$300,000	$750,000	$4,000,000	-	-	-
Phase II Water Master Plan	$360,000	-	$360,000	-	-	-	-
RO Membrane & Associated Piping Renewal & Replacement	$5,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	-
Interior & Exterior Refurbishing of Elevated Water Tanks	$64,000/yr.		$64,000	$64,000	$64,000	$64,000	$64,000
Water Supply Work Plan							$25,000

9.4 Five-Year Schedule of Capital Improvements FY15-FY20

The 5-year work plan for the City of Venice for FY15-FY20 is presented below. The City will continue to adopt a Five-Year Capital Improvement Program (CIP) as part of the annual budgeting process. The CIP will be coordinated with the annual review of the capital improvements element.

City of Venice Potable Water Capital Improvements Program FY15-FY20						
Project Description	**Total Estimated Cost**	**FY 15/16**	**FY 16/17**	**FY 17/18**	**FY 18/19**	**FY 19/20**
Replace & Renew Existing Aging Infrastructure Assets	$1,750,000/yr.	$1,750,000	$1,750,000	$1,750,000	$1,750,000	$1,750,000
Interior & Exterior Refurbishing of Elevated Water Tanks	$64,000/yr.	$64,000	$64,000	$64,000	$64,000	$64,000
Water Supply Work Plan					$25,000	

10.0 GOALS, OBJECTIVES AND POLICIES

Consistent with the requirements of Chapter 9J-5, each element of Envision Venice establishes long-term direction of goals as well as short-term objectives and policies (Volume I) to guide implementation efforts, and provides data and analysis necessary for decision making (Volume II). Goals, objectives and policies are generally defined as follows:

- Goal: The long-term result toward which programs or activities are ultimately directed.
- Objective: A specific, measurable, intermediate result that is achievable and marks progress toward a goal.
- Policy: The way in which programs and activities are conducted to achieve an identified goal.

10.1 Goals, Objectives and Policies Addressing Potable Water Supply

The following provides a list of goals, objectives and policies (GOPs) that address potable water supply and facilities, conservation and reuse programs, and implementation of the required 10-year water supply work plan. In addition, a number of policies have been included to address coordination and ensure availability of public facilities, including potable water, in the JPA/ILSBA Planning Areas. These GOPs will be adopted as part of the City's Evaluation and Appraisal (EAR) based Comprehensive Plan Amendment commonly referred to as Envision Venice. The GOPs have been organized by the applicable Element.

FUTURE LAND USE & DESIGN ELEMENT

Policy 1.2 Sustainable Development Practices. Provide for the needs of present and future populations by:

A. Focusing future growth toward existing development and designated planning areas.
B. Promoting green building practices.
C. Promoting alternative transportation methods and pedestrian connectivity.
D. Minimizing impacts to the natural environment.

Policy 2.6 Landscape Design.

Definition: A landscape design is a plan that blends the built and natural environment together by incorporating landscape materials into the design and planning of the built environment.

Policy: Development projects shall promote community character and resource conservation by incorporating a landscape plan that addresses the development's visual appearance, neighborhood compatibility, and

maintenance needs of the development. Criteria to consider when developing landscape design plans include:

A. Overall visual appeal of landscape design.
B. Use of drought tolerant native species and plant materials, including low-maintenance groundcovers and perennials to offset carbon emissions and reduce irrigation demand.
C. Provision of shade and sitting areas.
D. Buffering of incompatible uses and structures with walls, fencing, and landscaping.
E. Use of reclaimed water and ability to minimize irrigation schedules.
F. Suitability of landscaping materials to the site based on the future health and maintenance of the plants, streetscape, and other structures.
G. Compatibility with abutting and/or adjacent properties.

Policy 3.5 Public Facility and Services Planning. Provide for the community's public service needs by coordinating future development projects with public service and facility planning by:

A. Coordinating land development practices with public facility and service planning and budgeting.
B. Implementing established level of service standards for parks, utilities, schools, and transportation systems.
C. Ensuring future development pays for its impacts.
D. Coordinating development practices with the Capital Improvement Schedule.

Objective 6 Block Level Standards for Service Facility and Infrastructure Systems. Provide for the community's public service and utility needs by coordinating the City's land use, public facility, and utility infrastructure planning efforts.

Policy 6.1 Public Service and Infrastructure Systems. Minimize impact on public services and infrastructure systems by supporting and encouraging the following energy and resource efficient building practices:

A. Green building and sustainable design practices.
B. Co-location of community service and infrastructure systems, facilities, and operations.
C. Renewable and alternative energy resources.
D. Green, recycled, or energy efficient products.
E. Waste reduction and recycling.
F. Water conservation and the use of native and Florida Friendly landscaping materials and planting techniques.
G. Integrated pest management practices.
H. Implementation of the U.S. Conference of Mayors Climate Protection Agreement.

Policy 8.1 Smart Growth and Sustainable Development Practices. Ensure that all development projects utilize best practices for smart growth and sustainability by implementing the following sustainable development standards:

A. Provide a balance of land use and infrastructure capacity in developed areas through a focus on infill and redevelopment projects consistent with the character of the City.
B. Foster compact forms of development within designated infill, redevelopment, and new growth corridors.
C. Protect natural habitats and environmental areas through conservation practices.
D. Minimize sprawl by discouraging growth and development in undeveloped areas where infrastructure does not exist and where inconsistent with the environmental character of the area.
E. Include transitioning and buffering between different heights, densities, and intensities.

Policy 11.1 Development Capacity and Resources. Coordinate the expansion of public services, infrastructure and facilities with the development of land to ensure:

A. Future development patterns are compatible with the City's historic and small town character, built and natural environment, physical infrastructure, and public services and facilities.
B. There are sufficient infrastructure and fiscal resources available to meet the demands of the City's Comprehensive Plan.
C. The capacity of existing facilities and infrastructure is utilized efficiently.

Policy 11.2 Development Pay As You Grow. Ensure that growth pays for its impacts to the City's public facilities and infrastructure systems by preventing development from taking place until the funding has been programmed through the adopted Capital Improvements Schedule, private financing, or independent special purpose units of government including Community Development Districts. Such public facilities, infrastructure, and services include:

A. Transportation (roads, bicycle lanes, and related infrastructure).
B. Utilities (potable water, wastewater, stormwater, reclaimed water and solid waste).
C. Emergency services (fire and police).
D. Parks and recreation.
E. Tree replacement, air quality mitigation, and other environmental measures.
F. Other city services.

Policy 11.7 Environmental Best Management Practices. Incorporate best management practices for environmental protection into the City's land development processes. These practices include:

A. Maximizing existing public facilities and infrastructure systems prior to expanding the system.
B. Preventing wastewater infiltration during a stormwater event.
C. Minimizing stormwater system overflow during storm events and reducing water quality impacts to receiving waters.
D. Protecting natural water sources and environmentally sensitive land areas from the impact of development.
E. Coordinating water quality monitoring, waste disposal, and stormwater management practices with partner entities.
F. Minimizing the impact of wastewater facilities on the environment.
G. Managing new development within the coastal planning areas as defined in the Coastal and Waterway Management Element.
H. Limiting fertilizer use to minimize the impact on environmental resources.

Policy 11.8 Green Design. Significantly reduce or eliminate the negative impact of buildings on the environment and on building occupants by utilizing the City's site and development processes to support and encourage the following site and green building design and construction practices:

A. Sustainable site planning.
B. Minimizing lawns and utilizing low maintenance ground covers.
C. Safeguarding water and water efficiency.
D. Energy efficiency.
E. Conservation of materials and resources.
F. Indoor environmental quality through nontoxic materials and adequate ventilation.
G. Florida Green Building Coalition (FGBC) or Leadership in Energy and Environmental Design (LEED) certification criteria.

Objective 12 Regional Development Coordination. Support a unified community character by coordinating land use and development practices with the other governments, non-profits, and development organizations.

Policy 12.1 Planning Coordination. Coordinate the planning and development of land, transportation, public facilities, and infrastructure systems with Sarasota County and other applicable local, regional, state, and federal private and public agencies. Development practices shall be sensitive to the City's design and architectural standards and environmental, historical, and cultural resources.

COMMUNITY LINKAGES & DESIGN ELEMENT

Policy 2.5 Street Landscaping and Buffering. Utilize the City's long-range planning practices and development review to ensure streets are appropriately landscaped and buffered by implementing standards for:

A. Use of native, low maintenance, and drought-tolerant species.
B. Shaded sidewalks, trails and sitting areas.
C. Incompatible uses and structures.
D. Traffic noise.
E. Water conservation and use of reclaimed water systems.
F. Suitability of landscaping materials based on the future health and maintenance of plants, streetscape, and other structures.

UTILITIES ELEMENT

Objective 1 Utility Services and Development Coordination. Ensure that infrastructure service expansion is coordinated with development.

Policy 1.1 Timing of Facilities. Ensure all existing infrastructure systems are maintained, improved, or expanded in coordination with the development of properties and capital improvements schedule.

Policy 1.5 Infrastructure Utilization. Maximize existing public utility infrastructure systems by encouraging infill development and redevelopment of established service areas.

Policy 1.10 Existing System Improvements. Utilize the site and development process to ensure new development addresses the impact and deficiencies of existing infrastructure systems by improving the systems':

A. Effectiveness through a more compact and better-utilized utility system.
B. Efficiency and safety by looping the system.
C. Economic sustainability by evaluating its financial feasibility and charging appropriate rates.
D. Operational effectiveness, system functionality, and cost expenditures in coastal high hazard areas.
E. Conservation of water resources.
F. Utilization, whenever possible, of alternative energy sources such as solar energy for the provision of electrical power to island sewage pumping facilities, toward eventually reducing water utility rates.

Policy 1.13 Utility Master Plans. Update the City's utility master plans based on an overall infrastructure prioritization schedule to ensure consistency with

partner agency plans and reflect best industry practices. The City's utility master plans include:

A. Water Master Plan.
B. Wastewater and Reclaimed Water Master Plan.
C. Stormwater Master Plan.

Policy 1.14 Utility Inventory. In conjunction with the development of the utility master plans, develop and maintain stormwater, reclaimed water, potable water, and wastewater service inventories to identify and address potential deficiencies in capacity. The inventory shall include:

A. Current plant capacity.
B. Existing use (number and types of hook-ups).
C. All future committed capacity based upon approved site and development plans (number and type of hook-ups).
D. All future committed capacity based upon maximum density allowed if no site and development plan has been approved.
E. Potential service area needs.

Policy 1.15 Infrastructure Replacement and Improvement Plan. The City shall target and prioritize the improvement and replacement of public infrastructure. As part of the mandatory annual update to the Capital Improvements Schedule, the City shall develop a list of the public facilities for which deficiencies have been projected in the Utility Master Plans referenced in Policy 1.13 for the long range planning time frame.

Policy 1.16 Fee and Cost Reviews. Annually, review all fees, costs, and expenditures to continually ensure infrastructure systems are properly funded and promote resource conservation. The following funds are used to pay for infrastructure system improvements:

A. Potable Water: Utilities Fund.
B. Reclaimed Water: Utilities Fund.
C. Wastewater: Utilities Fund.
D. Stormwater Management: Stormwater Fund.
E. Solid Waste Services: Solid Waste Fund.

Policy 2.3 Wellhead Protection Areas. All areas within a 500' radial setback from a surface or subsurface potable water well shall be designated as wellhead protection areas. The following uses will not be permitted within the wellhead protection areas:

A. Treatment, storage, disposal, and transfer facilities for hazardous wastes.
B. Chemical and hazardous material storage tanks.
C. Industrial wastewater.
D. Reuse water applications.
E. New class I and class III injection control wells.

Policy 2.4 Potable Water Supply Safety. The City shall protect the safety of its potable water supply by:

A. Visually inspecting every well site for damage and vandalism.
B. Utilizing a radio telemetry system to monitor pump failures, loss of flow and other indications of security problems.
C. Having a redundant, off site, manual shut down system for well operations.
D. Reporting any suspicious activities to the Florida State Warning Point.

Policy 2.5 Water Quality System Evaluation. The City shall continually evaluate and, if appropriate, enact alternative water quality standards for the design, construction, and maintenance of water infrastructure systems. This evaluation shall review the following:

A. Non-structural storm water management system designs.
B. Littoral zone vegetation requirements.
C. Vegetation removal and management standards.
D. System designs that conserve uplands and populations of listed species.

Policy 2.6 Water Resource Partnerships. Partner with the Southwest Florida Water Management District, Florida Department of Environmental Protection, and other local, regional, state, and federal water entities to protect the quality of natural ground water recharge areas, natural drainage features, and surface water bodies. Specific programs that require regional water coordination include, but are not limited to:

A. Wellhead Protection Program.
B. Location of potable wells.
C. 2006 Regional Water Supply Plan (RSWP).
D. Myakka River Comprehensive Watershed Management Plan.
E. Myakka Wild and Scenic River Management Plan.
F. Charlotte Harbor Surface Water Improvement and Management (SWIM) Plan.
G. Watershed Management Program (WMP) Plans.

Policy 2.7 Private Wells and Septic Systems. The City will not permit new private well and septic systems within environmentally sensitive areas or areas currently served by potable water, reclaimed water, and wastewater systems.

A. Existing or new private well and septic systems are required to connect to City utilities upon service availability.

Policy 2.8 Reclaimed Water Utilization. Utilize the site and development process to encourage the use of reclaimed water for irrigation where supplies are available. Areas that should be addressed include:

A. Golf courses.
B. Public and private common areas and greenspace.
C. Roadway medians.
D. Landscaped areas in parks and other public properties.
E. Residential irrigation in all new proposed development areas.

Policy 2.9 Reclaimed Water Infrastructure. Utilize the site and development process to ensure that development projects address the need for increased reclaimed water capacity for irrigation purposes throughout the City.

Objective 4: Regional Coordination. The City shall assume its local and regional responsibility and authority by coordinating with intergovernmental partners in the development, maintenance, and delivery of public utility services.

Policy 4.1 Public Facilities. The City will cooperate with Sarasota County to investigate the feasibility of possible system interconnections, co-location of facilities and joint financing and construction of regional infrastructure within the JPA/ILSBA Planning Areas.

Policy 4.2 Master Planning Consistency. Utilize the Joint Planning and Interlocal Service Boundary Agreement (JPA/ILSBA) between the City of Venice and Sarasota County to ensure the City's utility master plans are coordinated with applicable local, regional, state, and federal partner plans.

Policy 4.3 Joint Planning Area and Extrajurisdictional Planning Areas. Coordinate infrastructure and public services in the JPA/ILSBA Planning Areas and Extrajurisdictional Planning Areas with Sarasota County and private property owners as established in the JPA/ILSBA.

Policy 4.4 Infrastructure Coordination. Coordinate with partner entities including Sarasota County and SWFWMD on infrastructure planning in undeveloped parts of the City in order to ensure:

A. New infrastructure is sensitive to environmental resources.
B. Coordination of infrastructure capital improvement and impact fee expenditures within Extrajurisdictional Planning Areas with Sarasota County.
C. Execution of developer agreements through which private developers construct infrastructure enhancements that meet community needs while limiting public impact.
D. Alternative funding strategies, such as Community Development

Districts, are considered to limit the impact on public expenditures.

Policy 4.5 Ground Water Resource Coordination. Coordinate with SWFWMD, Peace River / Manasota Water Supply Authority, and other water related agencies and organizations on the identification and protection of artesian aquifers and natural ground water recharge areas.

Policy 4.6 Regional Water Supply System. Continue to cooperate with partner entities including Sarasota County, SWFWMD, and Peace River/Manasota Water Supply Authority regarding an interconnected potable water supply system, regional water planning, and coordination of supply system lines.

Objective 5 Potable Water Supply. To provide a reliable supply of potable water to meet the needs of existing and future development through the development and implementation of a 10-Year Water Supply Facilities Work Plan.

Policy 5.1 Potable Water Supply Inventory. Continue to maintain up to date inventories indicating the available capacity and present demand for potable water in the City of Venice potable water service area.

Policy 5.2 Potable Water Conservation. Maximize water efficiency by supporting FGBC and/or LEED criteria and SWFWMD programs such as the Water Conservation Hotel and Motel Program (Water CHAMP), the Water Program for Restaurant Outreach (Water Pro) and the Florida Star Gold (residential) program.

Policy 5.3 Potable Water Capital Improvements. Through updates to the Capital Improvement Plan, the City shall identify and give priority to projects that correct identified potable water system facility deficiencies.

Policy 5.4 Potable Water Availability. Evaluate proposed land use changes to ensure availability of potable water supplies and potable water supply facilities.

Policy 5.5 Development Orders. Prior to issuance of a development order the City shall utilize the Concurrency Management System to ensure development is served by adequate potable water services and facilities.

Policy 5.6 Water Shortage. The City will abide by Southwest Florida Water Management District's emergency water shortage plan, and when necessary, the City may implement more restrictive water conservation measures, as may be required to protect and maintain the potable water utility system.

Policy 5.7 10-Year Water Supply Facilities Work Plan. The City will coordinate with SWFWMD and amend the Comprehensive Plan to incorporate any required updates to the 10-Year Water Supply Facilities Work Plan within eighteen months after an update to the Regional Water Supply Plan is approved by SWFWMD. The update will include an evaluation of impacts from developments and plan amendments approved in the interim.

CONSERVATION & OPEN SPACE ELEMENT

Objective 1 Sustainable Environmental Practices. Implement sustainable environmental practices that minimize impacts to natural habitats caused by the development of land.

Policy 1.1 Sustainable Land Development Strategies. By 2012, evaluate the following sustainable land development strategies through the City's Land Development Regulations to protect natural habitats and conservation lands by making the best use of urbanized land areas. The strategies to be evaluated include:

A. Reduction of impermeable surface areas.
B. Infill and redevelopment practices that enhance Venice's unique character.
C. Removal of invasive non-native plant species and immediate replacement with native Florida plant species.
D. Utilize conservation easements, transfer of development rights, open space set-aside, wetland protection, and environmental lands programs to direct new growth from these areas.

Policy 1.7 Green Building Strategies. Support green building strategies that mitigate the environmental impacts that result from the construction of buildings and development of land, including:

A. Consider the site's location in relation to the sun and other sources of renewable energy, access to transportation alternatives, and availability of water and natural resources.
B. Reduce use of building materials by creating open floor plans, building smaller units, and more compact, efficient design.
C. Encourage "Florida Friendly" landscaping.
D. Maximize water efficiency by supporting SWFWMD water conservation programs such as the Water Conservation Hotel and Motel Program (Water CHAMP), the Water Program for Restaurant Outreach (Water Pro) and the Florida Water Star Gold (residential) Program.
E. Make smart use of materials and resources.
F. Reuse, recycle, and reduce amount of waste products.
G. Safeguard indoor environmental quality.
H. FGBC and/or LEED criteria.

Policy 1.8 Low-Impact Development Site Design Practices. Reduce the amount of stormwater runoff by utilizing Low-Impact Development (LID) Site Design Practices including:

A. Reduced impervious area through use of permeable pavement surfaces, reduced parking widths, shared parking resources, and compact development (e.g. clustered homes and mixed-use).
B. Reduced clearing of existing natural resources.
C. Use of natural drainage/hydrology as a design element
D. Landscaping of stormwater retention ponds to prevent erosion, encourage bioretention and biofiltration of pollutants, and enhance appearance
E. Use of "Florida Friendly" ground cover.
F. Use of green infrastructure for infill and redevelopment projects (e.g. green roofs, landscaped swales, etc.)
G. Reduction of fertilizer runoff.

Policy 1.10 Wetland and Aquifer Recharge Areas Protection. The City shall protect its groundwater sources, particularly in wetland and aquifer recharge areas, through its site and development review process by:

A. Directing development to first avoid impact to wetlands and aquifer recharge areas.
B. When impacts to wetlands and aquifer recharge areas are unavoidable, directing development to minimize impact and then mitigate for impacts to wetlands and aquifer recharge areas.
C. Limiting activities that are known to adversely impact such areas.
D. Requiring that site plans include an identification and analysis of natural drainage features, man-made drainage structures, and impact of the proposed development on drainage and topographic features.
E. Coordinating with federal and state review agencies on the designation of and permitting within such areas.
F. Wetlands shall be restored in connection with new development, where feasible.
G. The natural flow of water within and through contiguous wetlands shall not be impeded.
H. Buffers of existing upland vegetation that protect the function and values of the wetlands from the adverse impacts of adjacent development will be required.
I. The amount of wetland mitigation required will be based upon the most current state-approved methodology.

Policy 1.11 Water Resource Protection. The City will coordinate with other governmental and private entities to protect water resources.

Policy 1.12 Water Conservation. Utilize the "Florida Yards and Neighborhoods" program to promote water conservation and the maintenance of

surface water quality through of the use of native plant materials in landscaping.

Policy 3.18 Control and Monitoring of Water Pollutants. The City shall protect the water quality of its wetlands, rivers, streams, bays, and coastal areas by coordinating with Sarasota County on the monitoring and elimination of point and nonpoint sources of pollution to the City's waterways.

A. The City will continue to participate in an ambient water quality-monitoring program and to conduct baseline assessments of water quality in City water bodies.
B. The City will maintain a program of water quantity and quality data collection and analysis.

Policy 3.19 Runoff Filtration Processes. The City will continue to utilize appropriate stormwater filtration processes to purify stormwater runoff before the runoff filtrates into surface waters and natural water systems. Methods to be utilized include, but are not limited to:

A. Bio-retention strips or rain gardens (i.e., grass buffers, sand beds, and ponding areas).
B. Vegetative buffers, swales, and filter strips.
C. Disconnected impervious areas and separate localized water detention cells.
D. Cistern collection systems.
E. Regular sweeping of paved surfaces areas.
F. Planted littoral zones to provide water quality treatment for surface water and wildlife habitat.
G. Promote the use of pervious concrete or asphalt on beach parking lots, drives, accesses, etc.
H. Continue to pre-treat stormwater runoff from new development prior to its discharge so stormwater runoff does not violate applicable local, state or federal water quality standards or degrade the quality of the receiving water body.

Policy 3.20 Groundwater Resources. The City shall protect and conserve surface and groundwater resources and require that land use and development activities in important groundwater recharge areas be consistent with water resource protection criteria established by the Southwest Florida Water Management District.

Policy 4.5 Emergency Water Conservation. The City shall continue to implement emergency water conservation practices in accordance with the Southwest Florida Water Management District. Such directives include the implementation of water management plans and emergency conservation directives.

CAPITAL IMPROVEMENTS ELEMENT

Objective 7: JPA/ILSBA Planning Areas. Ensure the coordinated and efficient provision of infrastructure as set forth in the Joint Planning and Interlocal Service Boundary Agreement (JPA/ISLBA) between the City of Venice and Sarasota County.

Policy 7.1 JPA/ILSBA Planning Areas Service Delivery. The City shall work to ensure the efficient provision of public services and infrastructure in the areas established through the JPA/ILSBA. Prior to annexation, necessary public improvements and associated fiscal responsibility to meet adopted LOS standards shall be identified. Proposed annexation petitions must evaluate and address, at minimum, the list of potential deficiencies set forth in the Analysis of Cumulative Impacts found in the Supplemental Data and Analysis, Volume II, dated October 2010.

Policy 7.2 JPA/ILSBA Planning Area Concurrency Reviews. Within the JPA/ILSBA Planning Areas the City and County, will coordinate concurrency reviews based on the local comprehensive plans, land development regulations, and other methodologies to ensure impacts of mutual concern related to public facilities and financial feasibility.

Policy 7.3 JPA/ILSBA Facility Partnerships. Within the JPA/ILSBA Planning Areas, the City and Sarasota County will collaborate on the location and delivery of public facilities and services. Through this collaboration, the City and County will consider opportunities for infrastructure and public service partnerships including:

A. System interconnections.
B. Facility co-location.
C. Joint financing.
D. Project construction.

Policy 7.4 JPA/ILSBA Infrastructure Connections. As development projects are approved within the JPA/ILSBA Planning Areas, they shall connect to utilities as provided for in the JPA/ILSBA.

REGIONAL PARTNERSHIPS & COORDINATION ELEMENT

Policy 1.5 Infrastructure and Facility Improvements. Coordinate the development, expansion, maintenance, and financial feasibility of public services and infrastructure systems needs of the City of Venice and Sarasota County. Such efforts, as appropriate, shall include:

A. Parks and public spaces.
B. Library systems.
C. Utility systems (potable water, wastewater, stormwater, reclaimed water and solid waste).

D. Schools and educational services.
E. Emergency management services.
F. Transportation systems including roadways, urban trails, and transit resources.

Policy 1.8 Long Range Planning. The City shall coordinate its future development projects and long range planning efforts with its local, regional, and state partners including Sarasota County, Southwest Florida Regional Planning Council (SWFRPC), Southwest Florida Water Management District (SWFWMD), Sarasota-Manatee Metropolitan Planning Organization (MPO), Sarasota County School Board, and State of Florida. Such efforts, as appropriate, shall include:

A. Review of proposed comprehensive plan amendments.
B. Development of long range plans for public services and infrastructure systems such as: utilities, transportation, parks, and schools.
C. Execution of developer agreements through which private developers construct infrastructure enhancements that meet community needs while limiting public expenditures.
D. Planning of infrastructure capital improvement and impact fee expenditures within Extrajurisdictional planning areas and JPA/ILSBA Planning Areas.
E. Development of community housing opportunities.

Objective 2 Level of Service Coordination. Maintain an adequate level of service for each of the City's public service and infrastructure systems in coordination with the City's local, regional, and state partners.

Policy 2.1 Level of Service Standards. Ensure that the established level of service standards for parks and recreation, potable water, wastewater, stormwater, solid waste, schools, and transportation systems are maintained in coordination with the City's established intergovernmental partnerships and agreements.

Objective 3 Cooperative Work Efforts. The City shall coordinate work efforts with its local, regional, state, and federal partner agencies in order to ensure effective and efficient delivery of services and use of community resources. Coordinated work efforts shall address coordination of the following public services and infrastructure systems:

A. Parks and recreation.
B. Conservation and natural resource protection.
C. Coastal and waterway management.
D. Utility service delivery (potable water, wastewater, stormwater, reclaimed water and solid waste).
E. Public service delivery.
F. School facilities and education services.

G. Emergency management services.
H. Transportation services (multi-modal facilities, transit, roadways).
I. Historic preservation practices.
J. Housing opportunity development.
K. Land use development coordination.

Policy 3.4 Regional Water Supply System. Cooperate with partner entities including Sarasota County, SWFWMD, and Peace River / Manasota Water Supply Authority regarding an interconnected potable water supply system, regional water planning, and coordination of supply system lines.

Policy 3.5 Ground Water Resource Coordination. Coordinate with SWFWMD, Peace River / Manasota Water Supply Authority, and other water related agencies and organizations on the identification and protection of artesian aquifers and natural ground water recharge areas.

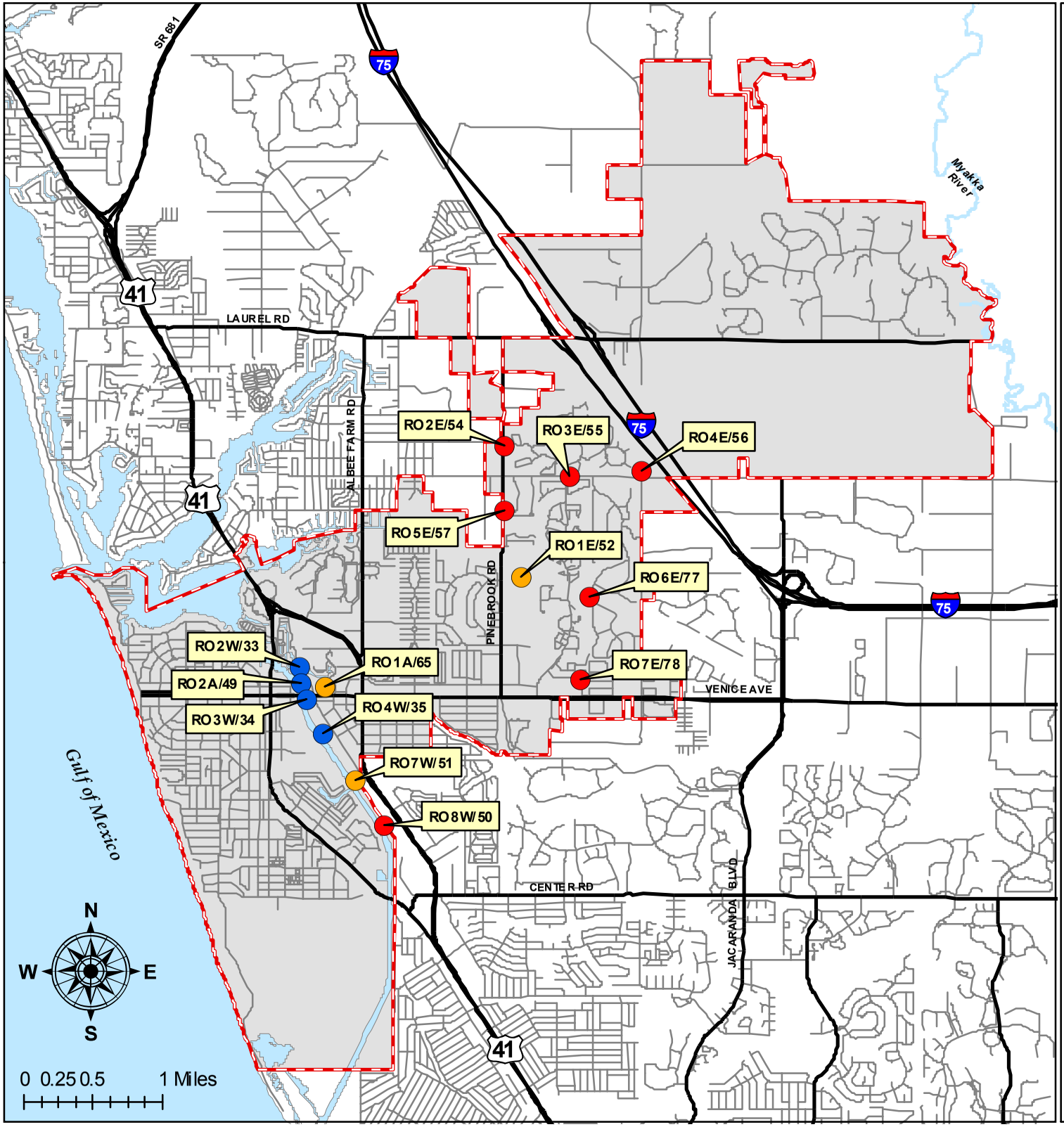
Policy 3.19 10-Year Water Supply Plan. The City will coordinate with SWFWMD and update its 10-Year Water Supply Facilities Work Plan within eighteen months after an update to the Regional Water Supply Plan is approved by SWFWMD. The update will include an evaluation of impacts from developments and plan amendments approved in the interim.

Objective 4 Regional Agencies. The City shall continue to utilize the services, expertise, and leadership of the designated regional agencies to assist in the review, administration, and execution of local services and development efforts.

Policy 4.2 Southwest Florida Water Management District. Continue to coordinate with the SWFWMD in the preservation of the regional water supply.

Policy 5.4 Extrajurisdictional Impact Areas. The impacts of certain development, referred to as Development of Extrajurisdictional Impacts in the JPA/ILSBA, in close proximity to the municipal boundaries of the City, whether within the City limits of the unincorporated area of the County, require close coordination between the City and Sarasota County in order to assure the orderly and efficient provision of public facilities and services and compatibility of land uses.

APPENDIX



City of Venice

Water Supply Facilities Work Plan

Map 1

Supply Wells

Max. Permitted Withdrawal (GPD)

- < 650,000
- 650,000 - 800,000
- > 800,000

Major Roads

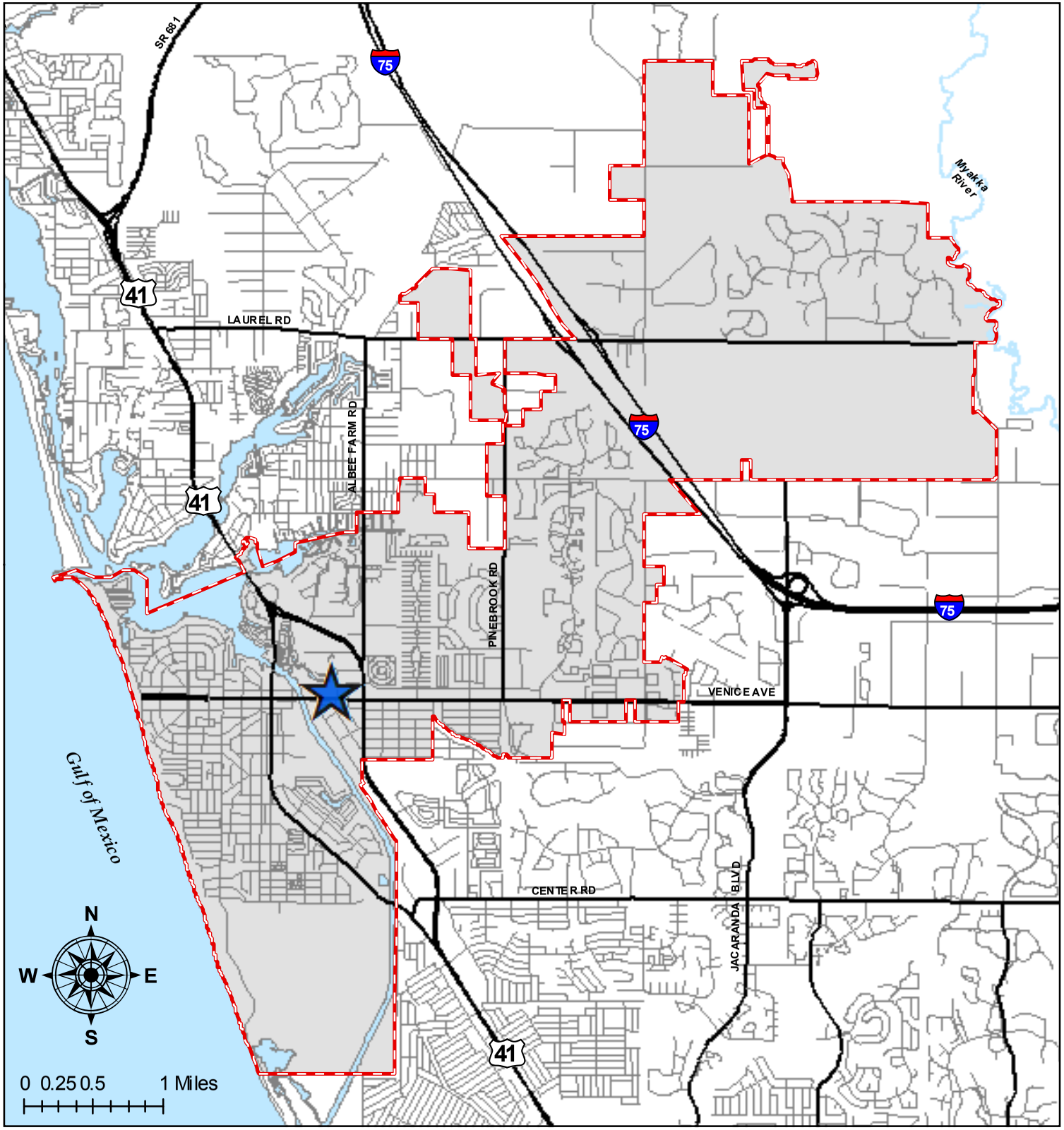
Minor Roads

City of Venice Limits

Sarasota County

Source: City of Venice GIS / Utilities Department, March 12, 2010.

Prepared March 2010
by
WADETRIM



City of Venice

Water Supply Facilities Work Plan

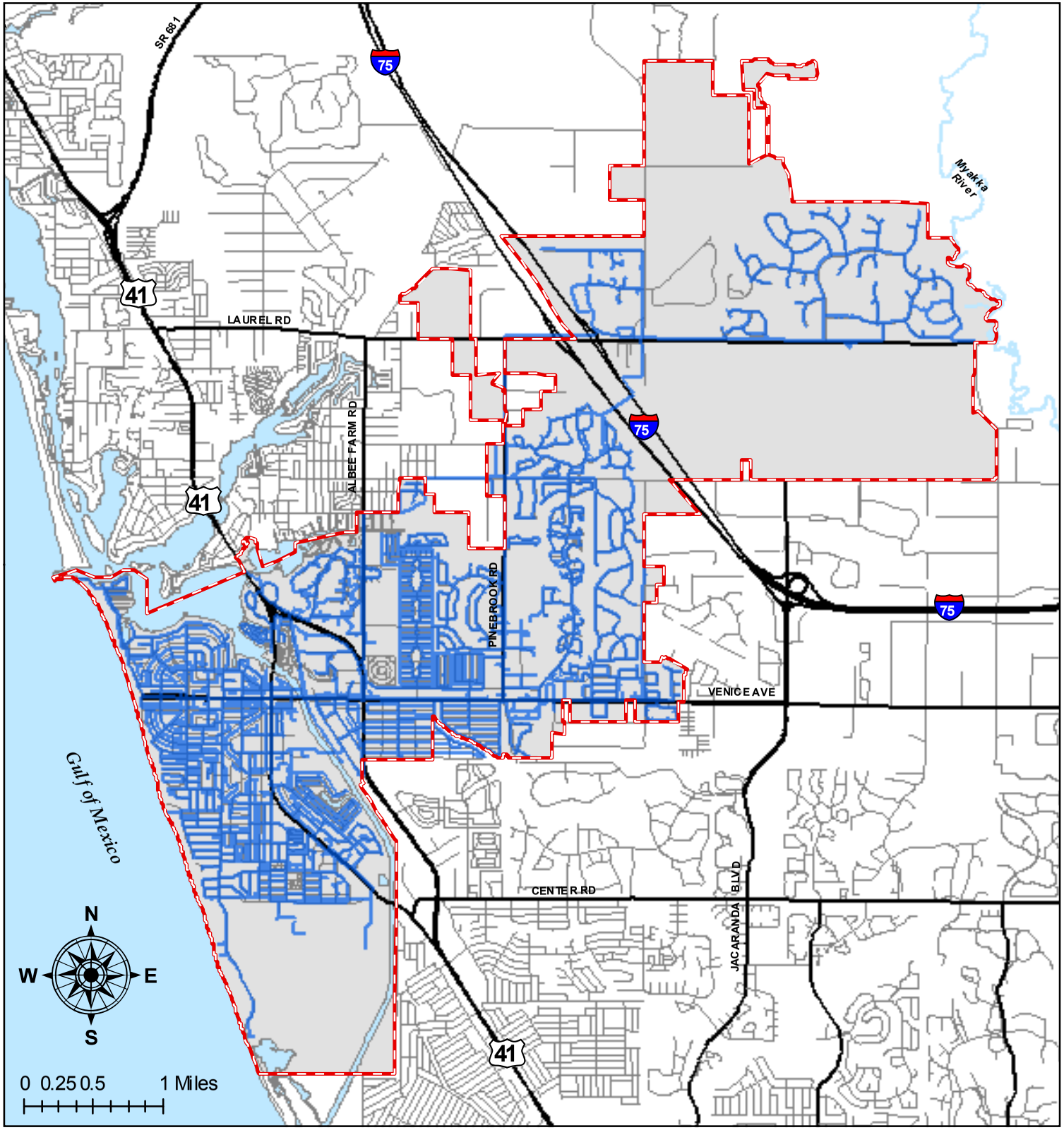
Map 2

Water Treatment Facilities

- RO Water Treatment Plant
- Major Roads
- Minor Roads
- City of Venice Limits
- Sarasota County

Source: City of Venice GIS / Utilities Department, March 12, 2010.

Prepared March 2010
by
WADE TRIM



City of Venice

Water Supply Facilities Work Plan

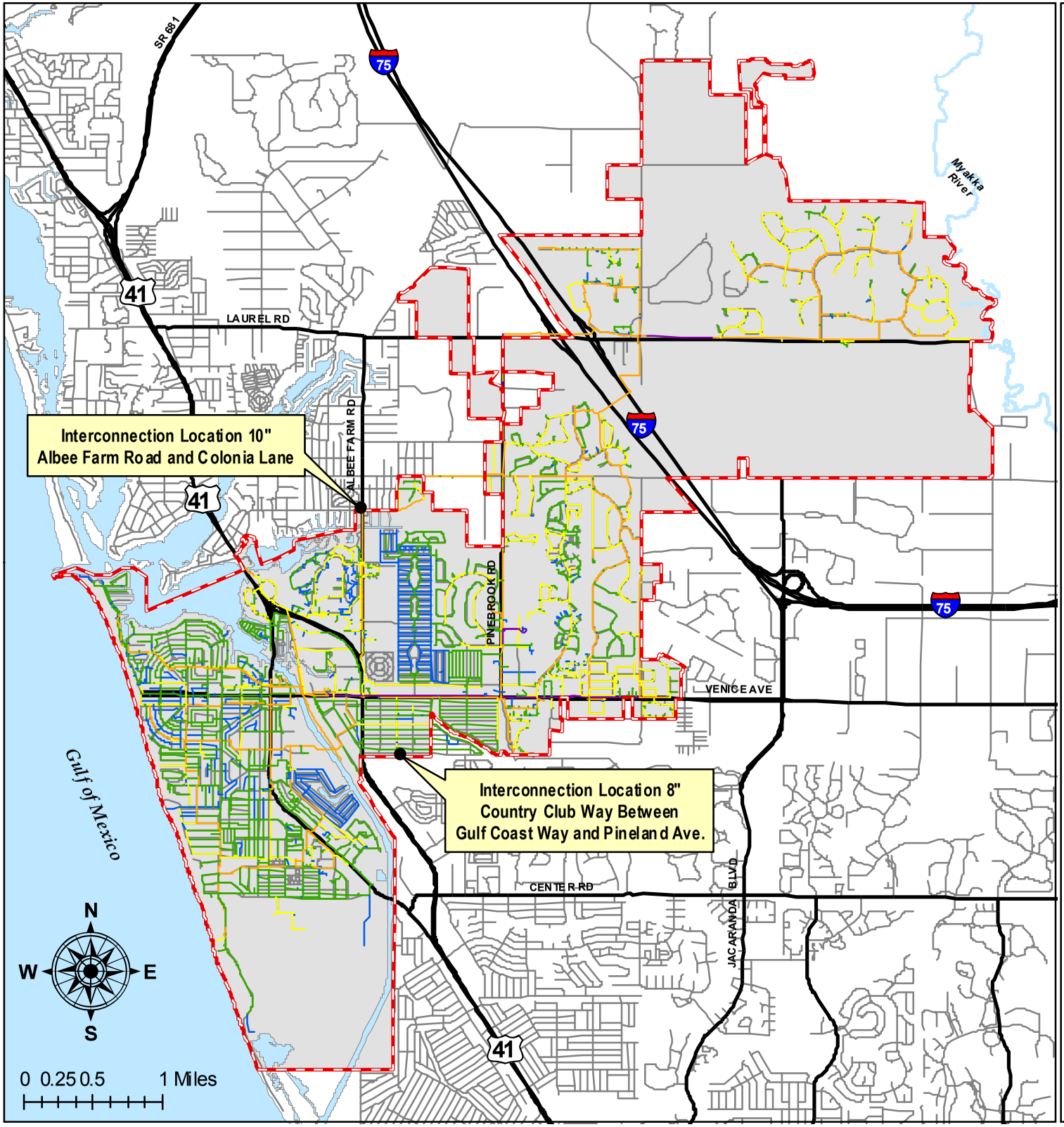
Map 3

Distribution Lines

- Water Lines
- Major Roads
- Minor Roads
- City of Venice Limits
- Sarasota County

Source: City of Venice GIS / Utilities Department, March 12, 2010.

Prepared March 2010
by
WADE TRIM



City of Venice

Water Supply Facilities Work Plan

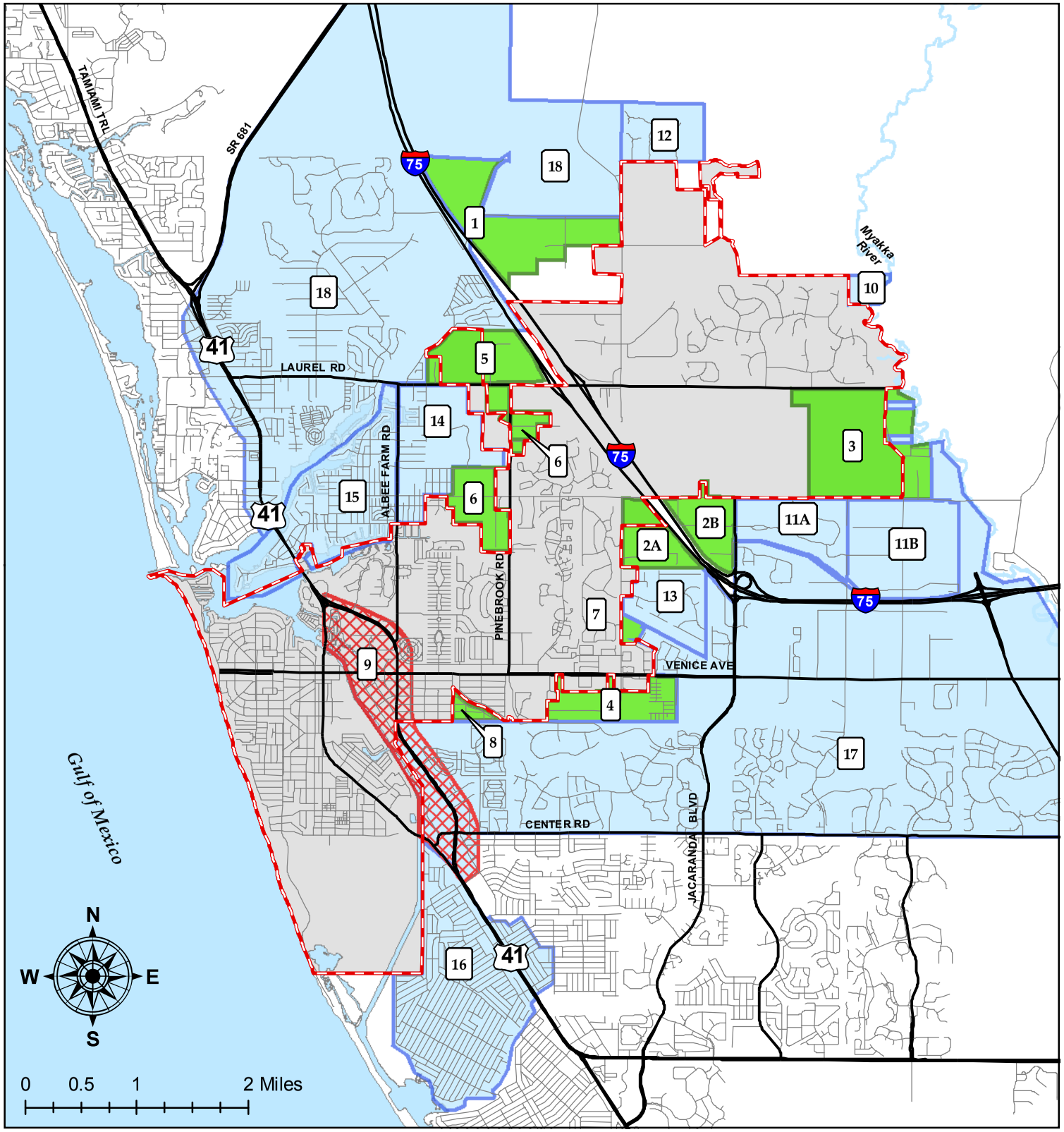
Map 4

Existing Interconnections w/Sarasota County

- Interconnections
- Water Lines
- Size (Inches)
  - 0 - 3
  - 4 - 6
  - 7 - 9
  - 10 - 12
  - 13 - 24
- Major Roads
- Minor Roads
- City of Venice Limits
- Sarasota County

Source: City of Venice GIS / Utilities Department, March 12, 2010.

Prepared March 2010
by
WADE TRIM



City of Venice

Water Supply Facilities Work Plan

Map 5

Joint Planning Area Agreement

- Existing Joint Planning Study
- Expected Voluntary Annexation
- Coordination Area (No Annexation)
- Major Roads
- Minor Roads
- City of Venice Limits
- Sarasota County

Source: City of Venice GIS / Planning & Zoning Department, September 2010.

Prepared September 2010
by
WADE TRIM