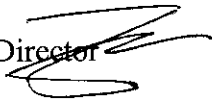


MEMORANDUM

TO: Honorable Mayor Erwin and City Council Members

FROM: Chester Murray, Development Services Director 

DATE: June 18, 2008

SUBJECT: **ORANGE CITY AMENDMENT 07-01 - ORDINANCE NO. 315
AMENDMENT TO THE COMPREHENSIVE LAND USE PLAN**

PURPOSE

Adopt Comprehensive Plan Amendment 07-01, Ordinance Number 315.

BACKGROUND

This large scale amendment consists of revisions to the City's Comprehensive Plan that comply with new Florida Laws related to water supply planning. In 2005, the Florida Legislature enacted Senate Bills 360 and 444. The legislation significantly changed Chapters 163 and 373, F. S., to improve and strengthen the link between land use and water supply planning. The changes require Florida's local governments to update their comprehensive plans by adopting a water supply plan and revising and/or adding related objectives and policies. Therefore, the attached proposed amendments consists of adding a water supply plan section to the Comprehensive Plan's Sanitary Sewer, Solid Waste, Storm Water Management, Potable Water and Natural Ground Water Recharge Element; adding policies to the Future Land Use, Conservation, Intergovernmental Elements and adding water supply related projects to the Capital Improvements Element's CIP.

On September 25, 2007, the City Council held a public hearing (the first reading of Ordinance No. 315), and the amendment was immediately transmitted to the Florida Department of Community Affairs (DCA). The DCA reviewed the City's amendment and thereafter forwarded an ORC Report (Objections, Recommendations and Comments) to the City in December of 2007, which said Report is available for viewing at the City Clerk's office. The Report expressed certain concerns of the DCA and the St. Johns River Water Management District (St Johns). The City then modified the amendment and sent a draft to the DCA in January of 2008. The DCA and St. Johns have since indicated that all their concerns were satisfied. Staff is now forwarding the amendment to the City Council for adoption.

RECOMMENDATION

Staff recommends the City Council approve and adopt Comprehensive Plan Amendment 07-01 (Ordinance No. 315).

ORDINANCE NO. 315

AN ORDINANCE OF THE CITY OF ORANGE CITY, FLORIDA TRANSMITTING AN ADMINISTRATIVE AMENDMENT TO THE CITY OF ORANGE CITY COMPREHENSIVE PLAN FOR THE PURPOSE OF IMPROVING THE COORDINATION OF WATER SUPPLY AND LAND USE PLANNING AS REQUIRED BY CHAPTER 163, F. S. THE AMENDMENT CONSISTS OF REVISIONS TO THE FUTURE LAND USE ELEMENT; SANITARY SEWER, SOLID WASTE, STORM WATER MANAGEMENT, POTABLE WATER AND NATURAL GROUND WATER RECHARGE ELEMENT; CONSERVATION ELEMENT INTERGOVERNMENTAL COORDINATION ELEMENT AND THE CAPITAL IMPROVEMENTS ELEMENT; PROVIDING FOR CONFLICT AND SEVERABILITY AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, In 2005, the Florida Legislature enacted Senate Bills 360 and 444. The legislation significantly changed Chapters 163 and 373, F. S., to improve and strengthen the link between land use and water supply planning, and

WHEREAS, The legislative changes require Florida's local governments to update their comprehensive plans by adopting a water supply plan and revising and/or adding related objectives and policies, and

WHEREAS, the Planning Commission has reviewed the proposed amendment and provided recommendations to the City Council; and

WHEREAS, the City Council of the City of Orange City held a duly noticed public hearing on the proposed amendment set forth hereunder and considered findings and advice of staff, citizens, and all interested parties submitting written and oral comments; and

WHEREAS, the City Council hereby finds that this Ordinance serves a legitimate government purpose and is in the best interests of the public health, safety, and welfare of the citizens of Orange City, Florida.

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF ORANGE CITY, FLORIDA:

SECTION 1. That the City of Orange City Comprehensive Plan Future Land Use Element; Sanitary Sewer, Solid Waste, Storm Water Management, Potable Water and Natural Ground Water Recharge Element; Conservation Element, Intergovernmental Coordination Element and Capital Improvements Element are amended as attached hereto in Exhibit A.

SECTION 2. Repealer: That all ordinances or parts of ordinances and all resolutions in conflict herewith be and the same are hereby repealed, as well as any portion in conflict herewith.

SECTION 3. Severability: If any section, part of a section, paragraph, clause, phrase or word of this ordinance is declared invalid, the remaining provisions of this ordinance shall not be affected.

SECTION 4. Effective Date: This Ordinance shall take effect immediately upon its adoption by the City Council of the City of Orange City, Florida.

ROLL CALL VOTE AS FOLLOWS (Ordinance No. 315):

First Reading this 25th day of September, 2007.

Jim Mahoney	<u>yes</u>	Donald C. Sherrill	<u>yes</u>
Robert Storke	<u>yes</u>	Joelle R. DeVane	<u>Absent</u>
Jeff H. Allebach	<u>yes</u>	Anthony R. Yebba, Vice Mayor	<u>yes</u>
Albert T. Erwin, Mayor	<u>yes</u>		

ROLL CALL VOTE AS FOLLOWS (Ordinance No. 315):

Second Reading this _____ day of _____, 2008.

Jim Mahoney	_____	Donald C. Sherrill	_____
Tom Laputka	_____	Tom Abraham	_____
Donald Sandford	_____	Jeff H. Allebach, Vice Mayor	_____
Harley Strickland, Mayor	_____		

PASSED and ADOPTED this _____ day of _____, 2008.

ATTEST:

AUTHENTICATED:

Deborah J. Renner, CMC, City Clerk

Harley Strickland, Mayor

Approved as to form and legal sufficiency:

William E. Reischmann, Jr., City Attorney

Exhibit A

Ordinance No. 315

ATTACHMENT

PROPOSED COMPREHENSIVE PLAN AMENDMENTS

(Underlined represents additions added to address DCA's ORC Report)

Amend Section 2 Future Land Use Element by adding the following policy.

Policy 2.1.6: The City shall review land use and development proposals to ensure that there is an adequate water supply and water supply facilities to meet the water demands required by said proposals.

Amend Section 6 Conservation Element by adding the following policy.

Policy 1.3.5: The City shall continue to implement its two water conservation plans that were provided to the Saint Johns River Water Management District with its Consumptive Use Permit application. Those practices include, but are not limited to:

- Maintain a public education and outreach program to encourage responsible use of water.
- Maintain incentive programs to replace inefficient plumbing devices.
- Require water-efficient landscapes in new development.
- Require low-volume plumbing devices in new construction.
- Require rain-sensor devices on automatic irrigation systems.
- Maintain individual in-line flow meters for production wells
- Use a water conservation-promoting rate structure
- Meter each service connection
- Maintain a leak detection program
- Conduct periodic water audits
- Enforce water conservation standards ordinance that includes water use and irrigation restrictions
- For Saxon Medical Center
 - Utilize xeriscape landscaping principles
 - Install submeters
 - Implement use of reclaimed
 - Use ultra-low volume plumbing fixtures

Provide an employee education program

Amend Section 8 Intergovernmental Element by adding the following policy.

Policy 1.1.12: The City shall continue to cooperate and coordinate water supply planning with the Water Authority of Volusia and the St. Johns River Water Management District.

Policy 1.2.12: The City shall coordinate its water supply planning and provide future water supply as needed and enter into intergovernmental agreements and/or amend existing agreements as deemed appropriate by the City and other governmental entities.

Policy 1.2.13: The City shall update its Water Supply Plan as required by Chapter 163.3177(6(c))F.S.

Policy 1.2.14: The City shall participate in the development of updates to the St. Johns Water Management District's Water Supply Assessment, District Water Supply Plan and in other water supply development-related initiatives facilitated by the District that affect the City.

Amend Section 9 Capital Improvements Element Five Year CIP by adding the following projects:

PROJECT NAME	TYPE	COST	YEAR	FUNDING SOURCE
Rhode Island Master Lift Station	Lift Station	\$75,000.00	2007/08	Impact Fees/Developer
Oakhurst Master Lift Station	Lift Station	\$75,000.00	2007/08	Developer
Alternative Water Supply	Planning and Design	\$260,000.00	2007/08	Impact Fees
Storm water to Reuse	Engineering Design	\$50,000.00	2007/08	General Fund
Stormwater to Reuse	Construction	\$1,000,000.00	2008/09	General Fund
Storage Tank Upgrade	Additional Storage Tank and 2 High Service Pumps	\$900,000.00	2008/09	Impact Fees
Veterans Memorial Pkwy Master Lift Station	Lift Station	\$75,000.00	2008/09	Impact Fees/Developer
Kentucky Ave Master Lift Station	Lift Station	\$75,000.00	2008/09	Impact Fees/Developer
VMP 12 inch Force Main	Force Main	\$792,000.00	2008/09	Impact Fees/Developer
Harley Strickland 12 inch Force	Force Main	\$315,000.00	2008/09	Impact Fees
SR 472 Force Main	Force Main	\$540,000.00	2008/09	Impact Fees/Developer
Kentucky Ave Force Main	Force Main	\$600,000.00	2008/09	Impact Fees/Developer
Town Center Master Lift Station	Lift Station	\$75,000.00	2009/10	Developer
Carpenter Ave Master Lift Station	Lift Station	\$75,000.00	2012/13	Impact Fees
Force Main East of VMP	Force Main	\$1,020,000.00	2012/13	Impact Fees/Developer

Amend Section 5 Sanitary Sewer, Solid Waste, Stormwater Management, Potable Water and Natural Ground Water Recharge Element by adding the following Policy.

Policy 2.1.2: The City shall issue no development orders or development permits without first consulting with the appropriate utility to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the City of a certificate of occupancy or its functional equivalent. The City will also ensure that adequate water supplies and facilities are available and in place prior to issuing a certificate of occupancy or its functional equivalent.

Amend Section 5 Sanitary Sewer, Solid Waste, Stormwater Management, Potable Water and Natural Ground Water Recharge Element by adding the following Water Supply Plan Section.

TEN YEAR WATER SUPPLY PLAN SECTION

Existing Water Supply System

The City of Orange City is located in western Volusia County and, for the most part, has developed along both sides of Highway U.S. 17/92, Saxon Boulevard and Veterans Memorial Parkway.. The City's potable water utility serves an area that encompasses approximately 11 square miles and extends beyond the city limits. Portions of the City's water service area are located within Volusia County's wastewater service area. The City has an interlocal water supply agreement with the Volusia County and interlocal agreements for water interconnection service with the cities of DeLand and Deltona. The City shall maintain agreements for service to and from Volusia County, and interlocal agreements for water interconnections with the cities of DeLand and Deltona. Additionally, the City shall enhance existing or enact any other relevant agreements for water supply service as deemed appropriate by the City other local governments. (¹INFE Policy 2.6.3 and ²ICE Policies 1.2.6 and 1.2.11).

The City's water supply is provided from six wells. Four wells are located at the Main Water Treatment Plant (WTP) and two wells located at the Saxon WTP. Combined the WTP's currently have a maximum capacity of 5.28 million gallons per day (mgd). The City's current consumptive use permit allocation is 2.42 mgd.

Water at the Main WTP is pumped into two prestressed concrete ground storage tanks located on site. The capacities of the tanks are 160,000 gallons and 300,000 gallons for a combined storage volume of 0.46 million gallons. Water at the Saxon WTP is pumped into one prestressed concrete ground storage tank located on site which has a storage capacity of 0.5 million gallons. All tanks represent a combined storage capacity of 0.96 million gallons. The distribution system consists of 16 inch and smaller distribution lines. The City's distribution system is equipped with seven high service pumps located at the two WTP sites.

¹ Section 5 Sanitary Sewer, Solid Waste, Stormwater Management, Potable Water and Natural Groundwater Recharge Element.

² Intergovernmental Coordination Element

Water Use Trends and Projections

The City's 2017 water service area projected water demand in Table 1 is based on population and projected water use figures from unpublished data provided by SJRWMD's Division of Water Supply Management. The data was used in the development of the 2025 projected water use figures provided in Table 5 of District's 2003 Water Supply Assessment. The water use figures include a share of the I-4/SR472 Activity Center. Based on this estimate, the water demand for the year 2017 is projected to be approximately 2.59 mgd. The City's current Consumptive Use Permit provides for 2.42 mgd. Therefore, based on the District's estimates this represents a 170,000 gallon per day deficit in the next ten years. However, based on the Florida Shimberg Center for Affordable Housing population estimate in Table 2, Orange City's water demand for the year 2017 is projected to be approximately 2.53 mgd. This demand represents a 110,000 gallon per day deficit in the next ten years.

The City will make up the deficit and help meet its long-term future demands through a combination of implementing an alternative water supply project, the reuse projects and the water conservation and reuse measures described in this work plan.

Table 1

<u>Year</u>	<u>Population</u>	<u>Projected water use in million gallons per day (mgd)</u>	<u>Capacity on million gallon per day (mgd)**</u>
<u>2017*</u>	<u>13,492</u>	<u>2.53</u>	<u>5.84</u>

*Interpreted from Table 5 of SJRWMD's 2003 Water Supply Assessment
** Source: Orange City Public Water System Source/Treatment/Storage Capacity Analysis Report, June, 2005

Table 2

<u>Year</u>	<u>Population</u>	<u>Projected water use in million gallons per day (mgd)</u>	<u>Capacity in million gallons per day(mgd)**</u>
<u>2005</u>	<u>11,916</u>	<u>1.81</u>	<u>3.12</u>
<u>2010</u>	<u>12,771</u>	<u>2.17</u>	<u>5.84</u>
<u>2015</u>	<u>13,603</u>	<u>2.53</u>	<u>5.84</u>
<u>2017*</u>	<u>13,797</u>	<u>2.59</u>	<u>5.84</u>

Interpreted from Shimberg population estimates and SJRWMD's 2003 Water Supply Assessment for Year 2017 mgd to population ratio.
** Source: Orange City Public Water System Source/Treatment/Storage Capacity Analysis Report, June, 2005

Also, the City will ensure water supply concurrency by implementing CIE Policy 1.5.4. and not issuing development orders or development permits without first consulting with the appropriate utility to determine whether adequate water supplies to serve the new development will be available no later than the anticipated date of issuance by the City of a certificate of occupancy or its functional equivalent. The City will also ensure that adequate water supplies and facilities are available and in place prior to issuing a certificate of occupancy or its functional equivalent.

Water Conservation

The City has taken specific measures to conserve potable water throughout the City's service area and will continue to implement these measures. These measures are described below:

The City has two water conservation plans in effect. These are the Orange City Utility Water Conservation Plan and the Saxon Medical Center Water Conservation Plan. Under the Utility Plan each production well is equipped with a totalizing flow meter and total water production for the plant is also metered. All service connections are metered and water audits are conducted annually. The City has an ongoing leak detection and repair program in place. A computerized billing and accounting system with a standardized meter reading is in place. The City has adopted a conserving rate structure and imposed mandatory water conservation standards including year-round restrictions on water use and permitting irrigation hours. Orange City Utilities includes copies of these standards and suggested water conservation goals with the first billing of each new customer and both documents are sent out bi-annually as a reminder of water conservation requirements and goals.

Under the Saxon Plan ultra-low volume plumbing fixtures are installed throughout the medical facility. Saxon Medical Center is actively seeking reclaimed water from Volusia County and as soon as it is available, it will be used to replace potable water that is being used for non-potable purposes. Xeriscaping principles are used in the design and maintenance of the landscaping. The sprinkler system uses high-efficiency components and is designed to minimize the wetting of impervious surfaces. Additionally, an employee education program has been implemented including water conservation signs, water conservation tips in the newsletter, and an appointment of an employee water conservation coordinator.

The City has also implemented the following conservation measures and programs to reduce water consumption within its service area.

A) Water is conserved at the water treatment plant by minimizing plants and grass that require irrigation. (³CONE Policy 1.3.5)

B) Vehicle/equipment washing is undertaken off-site to a commercial wash rack with recycled water. (CONE Policy 1.3.5)

C) New construction must comply with the Florida Building Code for low flow water fixtures. (INFE Policy 2.5.3 and CON Policies 1.3.4 and 1.3.5)

D) Water audit customer assistance program which addresses both indoor and outdoor water use. Due to the lack of staff availability and possible liability concerns, an indoor program could not be provided to all the City's customers; however, the "Your Water Meter" flyer distributed by the City gives instructions for the customers to audit their own indoor water use. (CONE Policy 1.3.5).

³ Section 6 Conservation Element

E) Water education programs, which included distribution of water conservation videos and flyers to local schools, community organizations, and the media. Also, workshops on Waterwise Landscaping offered by Volusia County are advertised. (CONE Policy 1.3.5)

F) Rain sensor programs which have required the installation of rain sensor devices on any new automatic irrigation system since May 1, 1991. (CONE Policy 1.3.5)

G) Xeriscaping and landscape design standards that are part of the City's land development regulations. (CONE Policies 1.1.3 and 1.3.5)

H) Toilet retrofit programs. (CONE Policy 1.3.5)

I) Showerhead exchange programs, which started in April 2001. (CONE Policy 1.3.5)

J) The City has also constructed, maintained, and publicized a water efficiency landscape demonstration project in the Orange City Rotary Park. This project was constructed in 2001. (CONE Policy 1.3.5)

K) In 2001, the City adopted a Water Conservation Ordinance (Ord. No. 90-11-1 and 1, 12-11-90), as amended, to protect and help to ensure an adequate future supply of water and includes the following: (CONE Policy 1.3.5)

1) Irrigation Schedule - Existing domestic and commercial landscape installations (lawn and garden) irrigating and/or watering hours that are consistent with the St. Johns River Water Management District's lawn and landscape irrigation rule. (INFE policy 2.5.1) In this regard the City will coordinate with Volusia County and the District to cooperate in achieving uniformity in the rules.

2) Noncommercial or private washing of motor vehicles, boats, and trailers shall utilize an automatic shutoff/self-canceling spray nozzle or low-volume pressure cleaner. Washing shall be on pervious surfaces whenever feasible during permitted watering periods, and in addition between the hours of 12:00 noon to 4 p.m. on permitted weekend water days, or at a commercial water recycling automobile facility.

3) Filling or refilling of swimming pools is prohibited, except as necessary during the construction process, and except as necessary to raise the level of water one inch above the pool's skimmer.

4) Washing of all impervious surfaces such as houses, mobile homes, buildings, sidewalks, driveways, parking lots, patios, and swimming pool decks shall utilize an automatic shutoff/self-canceling spray nozzle or low-pressure cleaner. Excessive use of water for cleaning impervious surfaces is discouraged and run-off shall be directed as much as possible towards pervious areas.

5) Excessive, wasteful, or unnecessary water use is strongly discouraged under any circumstances and is specifically prohibited by Volusia County under its minimum standards for water conservation.

Alternative Water Supply Projects

The District's 2005 Water Supply Plan contains the St. Johns River near Lake Monroe and the St. Johns River near DeLand alternative water supply projects that reference Orange City. The City intends to participate in implementing an alternative water supply project within the next ten years. The City, together with Volusia County and the cities of DeLand and Deltona, are considering partnering with Seminole County in the St. Johns River at Yankee Lake Project and are considering building a treatment plant near DeLand. The City Council will consider a memorandum of agreement regarding a scope of work for a design report and up to 35% design of the selected project. In addition, the City is implementing a stormwater reuse plan to augment the reuse supply of Volusia County Utilities. That project is described in the Reuse section of this work plan.

For FY 2007/2008 the City has budgeted \$260,000 for planning and design of an alternative water supply project. The City will continue to partner with the District and other jurisdictions for the future construction an alternative water supply project (ICE Policies 1.1.2, 1.2.11, and 1.2.12). Also the City has added the alternative water supply project's planning and design phase to its Capital Improvements Program. The construction phase will be added when the District provides estimated construction costs.

Wastewater

Currently the City's effluent is treated at the Volusia County wastewater treatment plant (WWTP). The City provides reclaimed water from Volusia County to the Monastery Golf Course. A total of 61.8 MGY are supplied to the 80 acre golf course and the City does not predict an increase in reclaimed water demand for the golf course. If available, future quantities of reclaimed water will go to large water users first, such as Saxon Medical Center, park sites and large commercial retail centers.

The use of stormwater stored in wet detention treatment ponds is encouraged through compliance with 40C-2.042 of the F.A.C which is contained in Orange City Ordinance No. 90-11-1, and has been incorporated in the Orange City Code as Section 18-61 of Article IV Water Conservation Standards (CONE Policy 1.2.2). The City's goal is to build a reclaimed water system which is effective and meets the needs of customers while complying with the Florida Department of Environmental Protection and the St. Johns River Water Management District as reclaimed water is available. The reclaimed water system is currently in its engineering phase and construction is proposed for next year. The City will maintain and revise as necessary it agreements with Volusia County for wastewater treatment and the provision of reclaimed water (INFE Objective 1.3 and Policy 2.6.3), and enforcing its Ordinance that requires use of reclaimed water for irrigation and nonpotable uses for new development, if feasible (INFE Policy 1.3.1).

Stormwater to Reuse Project

The stormwater to reuse project involves pumping water from Mill Lake and Marshall Park Lakes to a water reuse facility operated by Volusia County. Currently, Mill Lake discharges to the middle St. Johns River. Pumping to the water reuse facility would eliminate pumping to the St. Johns, which the St. Johns River Water Management District and Florida Department of Environmental Protection endorse. Once engineering phase is complete the City will apply for applicable state and District permits. Pumping from Mill and Marshall Lakes to a reuse facility in Volusia County would produce an average of 300 million gallons of reuse water each year. The planning and design and engineering design phases of the project are scheduled to be completed in FY 2007/2008 and the construction phase of the project are scheduled to be completed in FY 2008/2009 of the City's Capital Improvements Element's CIP.

Proposed Facilities

The City proposes to develop six new lift stations and add new force mains to its system over the next five years. The description, timing, costs and funding sources for these improvements during the next five years are included in the Capital Improvements Element's CIP. Any improvements beyond the five year schedule that are not identified in the current facility plan will be identified in a scheduled update to Capital Improvement's Element's updated CIP.

**Attachment
WELL INFORMATION**

Well No.	Casing Diameter (inches)	Well Depth (feet)	Status	Source
OC-1	10	88	Existing	Floridan Aquifer
OC-3	10	260	Existing	Floridan Aquifer
OC-4	10	295	Existing	Floridan Aquifer
OC-5	12	325	Existing	Floridan Aquifer
SMC-6	10	180	Existing	Floridan Aquifer
SMC-7	10	335	Existing	Floridan Aquifer
8	12	300	Proposed	Floridan Aquifer
9	12	300	Proposed	Floridan Aquifer