

COPY

DIRECT TESTIMONY

OF

JOHN THOMSON

TO

THE STATE OF FLORIDA

PUBLIC SERVICE COMMISSION

RE: APPLICATION OF FARMTON WATER RESOURCES, LLC

FOR ORIGINAL WATER CERTIFICATE

IN VOLUSIA AND BREVARD COUNTIES, FLORIDA

DOCKET NUMBER 021256-WU

AUGUST 2003

DOCUMENT NUMBER-DATE

07817 AUG 22 8

.FPSC-COMMISSION CLERK

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1 Q. State your name and employment address.

2 A. John Thomson, 123 West Indiana Avenue, DeLand, Florida 32720.

3 Q. What is your profession?

4 A. I am a Planner with the County of Volusia Growth Management  
5 Department. My current title is Planner III.

6 Q. Please describe your educational background.

7 A. I have a Bachelor of Arts in Political Science from Stetson  
8 University, a Masters in Public Administration from Florida Atlantic  
9 University in Growth Management Studies with a focus on Urban  
10 Planning. While attending college a was invited to join the Alpha  
11 Theta History Honor Society, and I was awarded the Noyes Fellowship  
12 in order to pursue my Masters degree through the Joint Center for  
13 Urban and Environmental Problems.

14 Q. What is your practical planning experience in either the  
15 public or private sectors?

16 A. I have been a planner for over 23 years. My public experience  
17 includes development review, zoning administration, and  
18 comprehensive planning for three local governments including my  
19 current position with County of Volusia. I have also worked for the  
20 St. John's River Water Management District, where my planning duties  
21 involved natural resource, strategic and financial issues. My  
22 private sector expertise includes planning and management of major  
23 commercial and industrial real estate projects with the Stiles  
24 Corporation, which is one of the major commercial and industrial  
25 developers in the nation.

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1 Q. In addition to your professional employment you just  
2 described, have you served on any governmental boards or committees?

3 A. I have served in various leadership roles within my planning  
4 career, including chairmanship of a Planning Advisory Committee and  
5 an Architectural Review Committee. I have also served as a member  
6 of the Planning and Zoning Board for the City of Boca Raton, and I  
7 was the corporate representative on the Broward County Economic  
8 Development Council.

9 Q. Do you hold any certifications within your profession?

10 A. I am certified as a professional planner by the American  
11 Institute of Certified Planners.

12 Q. You were asked to review the Farnton Water Resources  
13 Application to the PSC in order to determine whether it was  
14 consistent or not with the County of Volusia's Comprehensive Plan.  
15 Having done so, what is your conclusion?

16 A. The proposed Application to the Public Service Commission to  
17 establish a water utility is inconsistent with the Comprehensive  
18 Plan for Volusia County. The Future Land Use Plan Categories that  
19 encompass the land area included within this application do not  
20 include any urban land use categories. Policies in the Plan limit  
21 the provision of water and sewer service to urban future land use  
22 designations except for limited circumstances. (These circumstances  
23 are limited to providing service to existing populations where a  
24 bonafide threat to the health, safety, and welfare can be  
25 established). These policies are also intended to coordinate urban

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1 growth and to protect the County's agricultural and natural  
2 resources. This is in concert with a central guiding principal of  
3 the plan that is to maintain and extend appropriate levels of urban  
4 service necessary to support existing and projected populations  
5 within the 20-year time horizon of the Comprehensive Plan. To date,  
6 the County has not considered any changes to its Plan to establish  
7 urban land uses within this area to justify the creation of a  
8 utility. Furthermore, the Application does not address a need that  
9 could be considered consistent with the Plan.

10 Q. Do you have any opinion regarding how the Application's  
11 impacts the regional water planning procedures?

12 A. This Application is inconsistent with the Plan Goals,  
13 Objective, and Policies related to coordination with the Regional  
14 Water Supply Planning process that has been underway for many years.  
15 Much of Volusia County, including the land area within this  
16 Application, are located within a "Priority Water Resource Caution  
17 Area" which indicates that, given current plans for use, water  
18 supplies will be inadequate by the year 2020. To date, the Farnton  
19 proposal to establish a utility has not been included within the  
20 Water Supply Planning efforts, which have involved the analysis and  
21 modeling of existing sources to meet the projected needs within the  
22 region.

23 Q. Which specific portions of the County's Comprehensive Plan  
24 support your opinions?

25 A. Chapter 1, "Future Land Use Element", Section A, Overview,

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1 provides a general guide to the County's intent, and clearly points  
2 to the inconsistencies in the Application with such intent.

3 Q. We will attach this portion of the Comprehensive Plan as  
4 Exhibit JT-1.

5 Q. Under the County's Plan, what are the Future Land Use  
6 Categories for the Miami Corporation property within which Farmton  
7 has requested to provide water service?

8 A. The Volusia County portion of the application is located  
9 wholly within the County's Natural Resource Management Area (NRMA)  
10 which is characterized by large expanses of relatively uninterrupted  
11 environmentally sensitive areas. This category serves as an overlay  
12 allowing several future land use categories that are appropriate for  
13 the protection and management of the NRMA as a system. These  
14 categories are not considered urban land use categories. The land  
15 use designations within the area proposed for the utility are  
16 Environmental Systems Corridor (ESC), Forestry Resource (FR), and  
17 Agricultural Resource (AR). These land use designations are not  
18 intended to support uses which will require an extensive, central  
19 water service system as proposed by Farmton. I have a Future Land  
20 Use Map for this area of the County which identifies these  
21 categories on the subject property.

22 Q. We will have that "Future Land Use, Farmton Water Resources  
23 LLC" map marked as Exhibit JT-2 to your testimony. Are there other  
24 exhibits to support your testimony regarding the future land uses of  
25 this area?

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1 A. Yes, I have the relevant excerpts of the Comprehensive Plan  
2 which list and describe these categories. I will submit them as  
3 Exhibit JT-3.

4 Q. Does the Comprehensive Plan address specifically, the  
5 extension of water service systems into these designated future land  
6 uses?

7 A. Yes. I have Exhibit JT-4, the Future Land Use Element  
8 policies which address limiting water and sewer extension into rural  
9 areas and directing urban growth into areas where public facilities  
10 are currently available. Again, the intent is to maintain and  
11 extend appropriate levels of urban service necessary to support  
12 existing and projected populations within the 20-year time horizon  
13 of the Comprehensive Plan. The Future Land uses shown on the Future  
14 Land Use Plan provide adequate amounts of land appropriate for urban  
15 development. Policies limiting extension of urban services, such  
16 as potable water facilities, within rural areas such as the subject  
17 area, limit the negative impacts associated with sprawl and  
18 protection of agricultural and natural resources by directing growth  
19 into existing urban areas. The extension of potable water and sewer  
20 service into these areas is also in limited circumstances, as noted  
21 earlier, to protect the health, safety and welfare of existing  
22 development. I have not read anything within the Farmton  
23 Application which falls under this exception.

24 Q. Does the Comprehensive Plan provide directives for the  
25 extension of potable water within County of Volusia?

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1 A. Exhibit JT-5 contains the overviews, goals, objectives and  
2 policies excerpts from within the County's Potable Water, Natural  
3 Groundwater and Aquifer Recharge, Intergovernmental Coordination and  
4 Capital Improvements Elements. These policies reinforce the central  
5 guideline of the plan to limit growth to established urban areas to  
6 maximize the use of existing facilities in the existing water  
7 service areas so as to discourage urban sprawl. Again, the  
8 provision of water facilities to rural areas is precluded except in  
9 limited circumstances intended to protect the health, safety, and  
10 welfare for existing residents. Additionally, other policies in  
11 these elements recognize that much of the County, including the land  
12 within this Application, is located within a "Priority Water  
13 Resource Caution Area". This designation indicates that, given  
14 current plans for use, that water supplies will be inadequate by the  
15 year 2020. The Plan recognizes the importance of coordinating with  
16 the Water Supply Planning process currently underway that has  
17 involved extensive analysis and modeling of ground and surface water  
18 resources to determine reliable sources for future projected needs.  
19 To date, this has not included any projected potable water for  
20 public supply from the area within the Farmton Application area  
21 (Miami Corporation property).

22 Q. Do you have other opinions regarding the Application, from a  
23 planning standpoint?

24 A. Yes, this testimony is simply a brief summary of my opinions.  
25 I will be prepared to answer any additional questions depending on

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1 what information or issues become relevant during these proceedings.



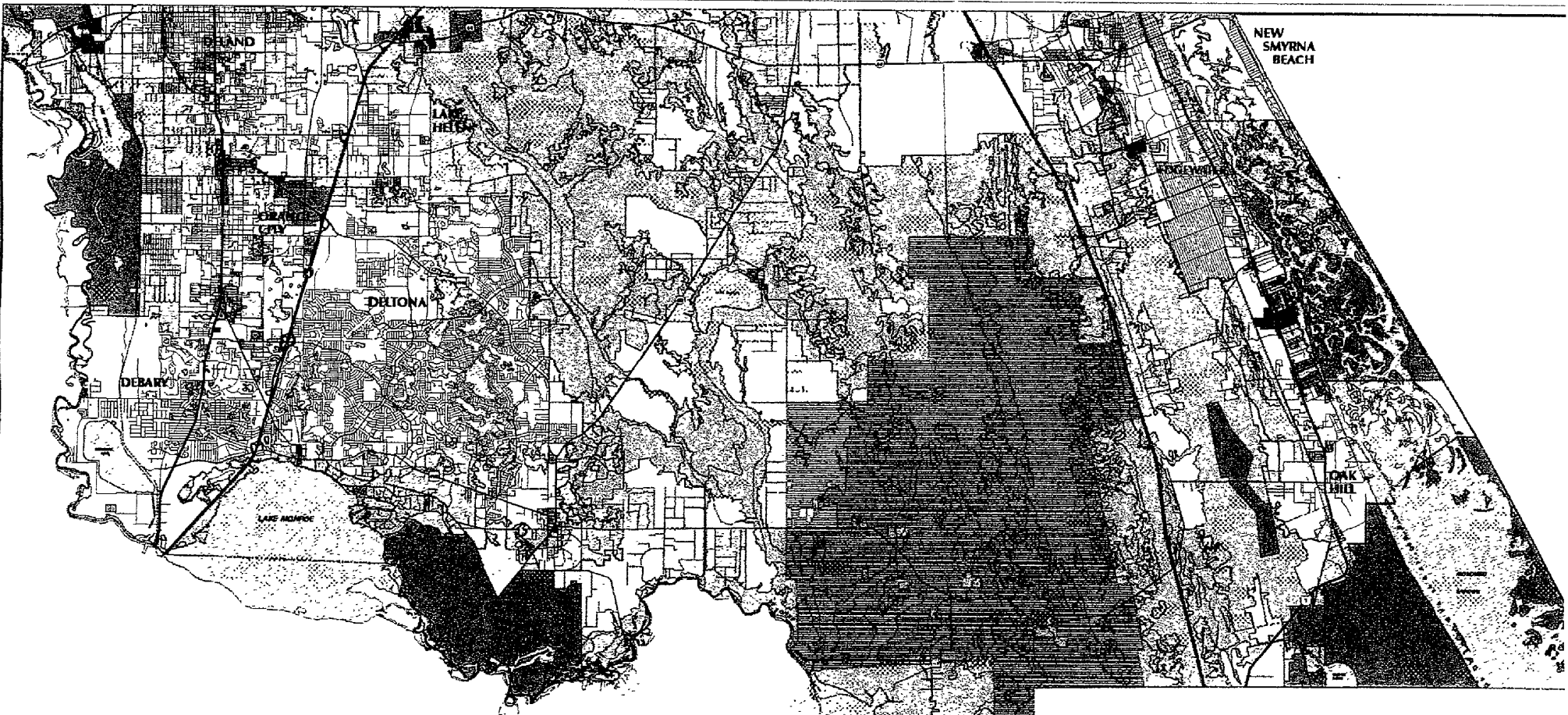
**CHAPTER 1**

**FUTURE LAND USE ELEMENT**

A. **OVERVIEW:**

The Future Land Use Element establishes the pattern of land uses and location of urban growth for Volusia County through 2020. This Element represents the growth policy from which Volusia County ensures that physical expansion of the urban areas are managed (1) at a rate to accommodate projected population and economic growth; (2) in a contiguous pattern centered around existing urban areas; and (3) in locations which optimize efficiency in public service delivery and conservation of valuable natural resources.

The Future Land Use Element identifies locations in Volusia County where various land uses and intensities of use will be permitted to occur in the future. It establishes and articulates broad policy in keeping with the traditional role of the comprehensive plan as a framework for future development.



**FUTURE LAND USE**  
**FARMTON WATER RESOURCES LLC**  
**VOLUSIA COUNTY, FLORIDA**  
 PREPARED BY: VOLUSIA COUNTY GROWTH & RESOURCE MANAGEMENT DEPT.



57-2

- INCORPORATED AREA
- WATER
- CONSERVATION
- NRMA BOUNDARY
- ENVIRONMENTAL SYSTEMS CORRIDOR
- FORESTRY RESOURCE
- AGRICULTURAL RESOURCE
- PUBLIC/SEMI-PUBLIC
- RECREATION
- RURAL
- SPECIAL RURAL AREA BOUNDARY
- LOW IMPACT URBAN
- URBAN LOW INTENSITY
- URBAN MEDIUM INTENSITY
- URBAN HIGH INTENSITY
- MIXED USE
- COMMERCIAL
- INDUSTRIAL
- PLANNED COMMUNITY
- EXPANDED AREA
- LOCAL PLAN BOUNDARY (EXCLUDES INCORPORATED AREA)
- GENERALIZED ACTIVITY CENTER
- TOURIST COMMERCIAL
- COMMERCIAL / OFFICE
- OFFICE
- ACTIVITY CENTER RESIDENTIAL
- COORDINATED DEVELOPMENT DISTRICT

**B. FUTURE LAND USE CATEGORIES:**

The Future Land Use categories are declared to be a part of the adopted Future Land Use Policies.

General categories have been developed to help in the determination of where development should occur in the next 20 years. These categories are described below:

2. Natural Resource Management Areas (NRMA) - Volusia County contains expanses of relatively uninterrupted environmentally sensitive areas which need to be managed as part of a system. Among the functions these areas support are a wide range of wildlife species; continually help recharge the County's groundwater supply; ensure high quality surface waters; and provide recreation, aesthetic and open space areas that have become an integral part of the quality of life for Volusia County residents. It is the intent of the Natural Resource Management Area land use category to ensure that the development that does occur within its boundaries does not adversely impact the quality and quantity of existing resources. Development standards established for land use activities within the NRMA are more restrictive for the same uses falling outside the NRMA; such standards are set forth in the Conservation Element. In effect, the NRMA provides a mechanism to protect environmental site features without depriving a landowner the use of his property. The areas targeted for the NRMA include: the Talbot and Pamilico Terraces; Turnbull Hammock (particularly from S.R. 442 south); the headwaters of Tomoka River and Spruce Creek; Rima Ridge; immediate drainage basins of the Tomoka Basin, Mosquito Lagoon/Indian River and Strickland Bay, and the St. Johns River Valley.

The NRMA, consists of three subcategories. The environmental standards and safeguards are presented in the Conservation Element. The three subcategories are: Environmental System Corridor, Forestry Resources and Low Impact Urban. Each is described in more detail below. The NRMA may also contain the future land use categories of Conservation, Agriculture Resource, and Rural. These categories may be applied inside the NRMA where existing site characteristics indicate they would be appropriate. In those instances, development within the above three future land use categories must also meet the requirements of the NRMA.

- a. Environmental System Corridor (ESC) - These consist of important ecological corridors consisting of environmentally sensitive and ecologically significant lands. Land use activities occurring within these corridors shall not degrade these natural functions and connections. The intention is to provide protected, natural pathways which connect to other protected areas such as parks, conservation lands and water bodies. This inter-connection helps maintain the ecological integrity and ecodiversity of the County's vast natural resources.

ESC's shall include significant interconnected natural systems of environmentally sensitive lands, connecting to and including conservation areas where possible. The ESC's are not intended to include pre-existing improved, cultivated, or developed lands unless such lands contain unique or exceptional ecological value. Conservation and silviculture, utilizing Best Management Practices (BMP's), will be the preferred use, however, other compatible passive agricultural activities may also be permitted such as, unimproved pasture. The primary consideration of compatible agriculture should be potential adverse impacts to the short and long term ecological stability of the system, as well as adjacent lands and waterways. The residential density after the effective date of the Comprehensive Plan shall not exceed 1 dwelling unit per 25 acres.

The Environmental System Corridor configuration displayed on the Future land Use Map is intended to show a generalized location for the corridor. The actual boundaries will be established after the corridor has been reviewed to determine the boundary in relation to a proposed development based upon site specific information and features. Any adjustments will be included in the next amendment cycle.

- b. Forestry Resource (FR) - Land that is primarily suited for silviculture (the cultivation and harvesting of timber for commercial purposes), however, other limited agricultural activities may be appropriate. Forest lands are a multiple-use resource which yields valuable agricultural products while providing wildlife habitat and recreational opportunities. In addition to being a multiple-use resource, the forests in Volusia may provide important environmental functions that may also be components of the land's value for silviculture, limited agriculture, wildlife habitat, protection of watershed lands, the prevention of soil erosion, reduction of stormwater runoff, and provision of high quality groundwater recharge. The Forestry Resource category was developed to help provide protection to the silviculture business in Volusia County, in recognition of the need for adequate timber resources and to protect the value of the land for forest purposes and significant environmental purposes as well. Over the years, the conversion of timber lands to other agricultural uses has occurred. Due to the various soil types occupied by forested lands, many areas can be incorporated into agricultural management activities other than silviculture. Expansion of the fern industry and pasture land have been the major cause for the timberland conversion, but many other agricultural uses have been established as well. In addition to protecting the timber industry, the Forestry Resource category is also intended to permit limited agricultural activities. This category is intended to preserve and protect farms for personal and limited agricultural production or to provide a transition to valuable natural resources. To ensure protection of natural resources, agricultural uses

occurring within the Forestry Resource category should be consistent with the Natural Resource Conservation Service and other agricultural best management programs.

The residential density after the effective date of the Comprehensive Plan shall not exceed 1 dwelling unit per 20 acres. In order to protect residential development from normal silviculture activities, clustering of residential dwelling units may be appropriate (refer to Policy 1.2.3.3). The clustering of units will provide opportunities to:

- retain open space;
- provide buffers to the ESC or as a secondary corridor connection;
- preserve the rural character; and
- maintain significant areas for silviculture and agriculture production

The manner in which a site is developed shall be consistent with the policies contained in the Conservation and Future Land Use Elements and with the County's land development regulations. Increased densities in the range of 1 du/20 acres to 1 du/5 acres may be allowed if part of an existing development or project is developed as a cluster subdivision under Policy 1.2.3.3. In other instances, densities of 1 du/10 acres may be permitted if consistent with Policy 1.2.1.6 or 1.4.1.8.

3. Agricultural Resource (AR) - Areas representing land that is suited for intensive cultivation, ranching, aquaculture, and timber farming. The criteria used to identify these areas include the soil quality, existing or potential value of production, existing agricultural uses, parcel size, ownership patterns, and investment in farming. In order to protect the agricultural industry, it is important that uses incompatible with agriculture, and uses and facilities that support or encourage urban development are not allowed. The residential density after the effective date of the Comprehensive Plan shall not exceed 1 dwelling unit per 10 acres.

C. GOALS, OBJECTIVES & POLICIES:

GOAL:

- 1.2 Future development shall be designed and located in a manner that protects the County's natural resources, particularly environmentally sensitive areas.

OBJECTIVE:

- 1.2.1 Future Land Use designations will reflect the inherent capabilities and limitations of the existing natural features of the land.

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OBJECTIVE:

- 1.2.2 Volusia County shall protect natural, and historic resources from the adverse impact of development as outlined in the Conservation and Historic Preservation elements.

OBJECTIVE:

- 1.3.1 Volusia County shall provide for adequate and appropriate lands for the location of all land use types (residential, commercial, industrial, agricultural, recreational, conservation and public facility) to support the anticipated population and maximize compatibility with existing uses.

EXHIBIT JT-4

GOAL:

- 12.2 Protect, conserve, and enhance the ecological resources of the County, maintaining their quality and contribution to the quality of life and economic well-being of Volusia County.

OBJECTIVE:

- 12.2.1 To provide for the protection of areas determined to be environmentally sensitive, and direct growth away from such areas.

POLICIES:

- 12.2.1.1 Existing, relatively uninterrupted expanses of natural resources contained within the County shall be managed as an individual unit, providing natural resources the highest degree of protection in land development decisions and planning. These lands shall comprise the Natural Resource Management Area (NRMA) established in the Future Land Use Element.

Criteria: Areas to be included in the NRMA shall consist of, in whole or a portion of at minimum: the St. John's River Valley; Talbot Terrace; Pamlico Terrace; Rima Ridge; and Turnbull Hammock. Site specific boundaries shall be based on soils, topographic, and vegetative data, particularly that which is outlined in Policy 12.2.2.1.

- 12.2.1.2 The County shall promote land use activities compatible with the intentions of the NRMA through the establishment of special use areas, the boundaries of which to be determined by resource data including: ecological community mapping as stated in Policy 12.2.2.1, USGS Topographic maps; National Wetland Inventory maps; Florida Natural Area Inventory records; available wildlife data; and site specific field information if available. At minimum, the following special use areas shall be established:

- a. Environmental System Corridor (ESC) - These consist of important ecological corridors consisting of environmentally sensitive and ecologically significant lands. Land use activities occurring within these corridors shall not degrade their natural functions and connections. The intention is to provide protected, natural pathways which connect to other protected areas such as parks, conservation lands and water bodies. ESC's shall include significant interconnected natural systems of environmentally sensitive lands, connecting to and including conservation areas where possible. The ESC's are not intended to include pre-existing improved, cultivated, or developed lands unless such lands contain unique or exceptional ecological value. Conservation and silviculture, UTILIZING BEST MANAGEMENT PRACTICES, will be the preferred use, however, other compatible passive agricultural activities may also be permitted such as, unimproved pasture. The primary consideration of compatible agriculture should be potential adverse impacts to the short and long term ecological stability of the system, as well as

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adjacent lands and waterways. All land parcels or lots created for single family dwellings after the effective date of the Comprehensive Plan shall contain no more than 1 dwelling unit per 25 acres.

The Environmental System Corridor configuration displayed on the Future land Use Map is intended to show a generalized location for the corridor. Actual boundaries will be established utilizing the County's vegetative mapping program. Each corridor will be reviewed to determine the boundary in relation to a proposed development based upon site specific information and features and other planning related data. Any adjustments will be included in the next amendment cycle.

- b. Forestry Resource - The Forestry Resource category is designated on lands that are primarily suited for silvicultural uses. However, other limited agricultural activities may be appropriate. Silvicultural uses consistent with State prescribed Best Management Practices will be encouraged by the Forestry Resource category.



**CHAPTER 7**

**POTABLE WATER SUB-ELEMENT**

**A. OVERVIEW**

The following Future Land Use categories are considered to be urban and require the provision of Potable Water facilities and services consistent with the Level of Service standards set out in this Sub-element and the Capital Improvements Element, unless specifically noted elsewhere in the Plan; Urban Low Intensity, Urban Medium Intensity, Urban High Intensity, Commercial, Industrial, Mixed Use, Activity Center, Planned Community, and Low Impact Urban. Each of these categories are described in the Future Land Use Element and are geographically depicted by the Future Land Use Map. Additional requirements regarding potable water service are found in the Future Land Use (Chapter 1), Conservation (Chapter 12), Coastal Management (Chapter 11), and Capital Improvements (Chapter 15) Elements of the Comprehensive Plan.

Proper planning and water resource management require that rainfall conditions and peak demands be monitored to minimize temporary water shortages. The St. Johns River Water Management District (SJRWMD) has designated most of Volusia County as being within a "Priority Water Resource Caution Area". This designation indicates that, given current plans for use, that water supplies will be inadequate by the year 2020. The SJRWMD, in cooperation with local representatives, has undertaken a comprehensive water supply planning process. For these reasons, the conservation and protection of water resources are issues in Volusia County. In addition to the supply of raw water, equal consideration must be given to the quality of water being supplied. Care must be taken to guard against contamination in high volume aquifer recharge areas, in coastal recharge areas, and in wellfield areas.

Potable water service within the unincorporated area represents the complete spectrum of facilities/systems, consisting of individual wells, package plants, and area-wide systems. The majority of these package plants are privately-owned. The area-wide systems serving portions of the unincorporated region include both privately-held and publicly-owned facilities. The publicly-owned systems are either operated by municipalities or the County. In accordance with the provisions of the Comprehensive Plan, the County has, and continues to, negotiate water service area agreements with municipalities. Maps depicting these municipal service areas are included in the supporting documents for this Sub-element. Within these agreed upon areas, the appropriate utility will be the primary provider of water services. Unless provisions are required to recognize any existing water lines in non-urban areas which are within municipal service areas, the County's requirements for connection to potable water service shall remain in full force and effect within these agreed upon service areas.

Throughout the planning period, potable water service issues will likely be raised with respect to:

1. improving existing facilities to County approved service standards;
2. expansion of the water service area to developing areas;
3. maintaining adequate supply and pressure for fire protection;
4. quantity and quality of water treatment; and

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- 5. planning and funding the maintenance, repair, replacement and extension of the system.

These issues will be addressed in conjunction with standards for level of service, concurrency and capital budgeting improvements.

The areas to be accorded potable water service by the County are depicted by the maps found in the supporting documentation accompanying this Sub-element:

The provision of potable water is intended to adequately accommodate the projected population.

**B. GOALS, OBJECTIVES AND POLICIES**

**GOAL:**

- 7.1 Provide an adequate public supply, treatment, and distribution of potable water for unincorporated Volusia County.

**OBJECTIVE:**

- 7.1.1 Volusia County shall require that the following policies which establish minimum level of service standards are met when planning capital improvements and reviewing applications for development approval.

**POLICIES:**

- 7.1.1.7 Except as may be otherwise permitted by this Sub-element, the extension of water lines or establishment of central systems of potable water outside of the water service areas (County, municipal, or other established by an adopted service area agreement) shall be prohibited unless said extension or facility construction will mitigate existing or potential problems of public health, safety, or welfare or other exceptions under the guidelines delineated in the Future Land Use Element.
- 7.1.1.9 Existing privately-owned potable water systems that are not located in an area encompassed by an adopted water service area agreement, a County water service area, Rural Community, Rural Village, or Rural Recreational area, may expand only so long as said expansion is for the purpose of correcting existing or potential conditions which have been determined to be a hazard to the public health, safety or welfare. Expansion of said systems will require that the facility comply with the appropriate level of service standards and other applicable County rules and regulations.
- 7.1.1.11 Central water is not required for non-urban areas. Lines should only be extended if the absence of such facilities would result in a threat to the public health or safety or a designated rural area is inside an approved water service area with an agreement that describes the method and timing of when these services would be provided, or the Comprehensive Plan is amended to change rural areas to urban areas.
- 7.1.1.12 Individual potable water wells are only allowed under any one of the following applicable circumstances provided that the well has been approved by the Volusia

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County Environmental Management Services Group or other agencies, as appropriate;

- a. the lot is not designated for urban land uses by the Future Land Use Map, or
- b. the lot is two and a half (2-1/2) acres in size or larger and is designated as either Low Impact Urban or Urban Low Intensity by the Future Land Use Map and the lot is within a single family subdivision (new or previously approved under Volusia County Ordinance 72-2 or 88-3, as amended), or
- c. The potable water well is installed in conjunction with the construction of a single family residence on an existing single family lot or a new subdivision of six (6) lots or less in size, (exempt or approved under Volusia County Ordinance 72-2 or 88-3, as amended) which is designated for urban land uses by the Future Land Use Map and which the lots are less than two and a half (2-1/2) acre in size provided that;
  - i) that central service is currently not available to the lot. Connection to central water service is required when said service becomes available, and
  - ii) the lot is not located within a Special Assessment District which has been established for the purpose of installing a potable water system.

or

- d. The potable water well is installed in conjunction with non-residential construction on an existing lot (exempt or approved under Volusia County Ordinance 72-2 or 83-3, as amended) which is designated for urban land uses by the Future Land Use Map, provided that central potable water service is not currently available and said well complies with applicable provisions as specified in Chapter 10D-4, Florida Administrative Code. When a central system becomes available, connection to said system is required.

7.1.1.14 The establishment of package treatment plants outside of water service areas is prohibited except for Rural Communities and Rural Recreational Areas may otherwise be permitted by this Sub-element or where the Florida Department of Environmental Protection, or other appropriate agency, has determined that such a facility is necessary to correct existing or potential problems of public health, safety, or welfare.

OBJECTIVE:

7.1.3 Volusia County shall provide adequate (meeting the level of service standard) public potable water sources commensurate with growth to service the needs of Volusia County, as consistent with the carrying/producing capacity of the aquifer.

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POLICIES:

- 7.1.3.1 Volusia County shall participate in the Water 2020 Planning Process in conjunction with the St. Johns River Water Management District and the Volusian Water Alliance, in the development of a regional water supply plan that will provide the quantity and quality needed to meet the needs until the year 2020, without creating water use conflicts or unacceptable impact to natural resources.
- 7.1.3.2 Prior to 2020, Volusia County shall provide facilities having the capability to access groundwater supplies of sufficient yield to provide the required potable water in the County water service areas.
- 7.1.3.3 Volusia County shall evaluate additional potential water supply sources and recovery technologies (e.g., reverse osmosis, membrane softening, desalinization) for the County water service areas when considering new or expanded facilities.

OBJECTIVE:

- 7.1.4 Provide water facility extensions and/or expand the treatment capacity of Volusia County water supply systems to meet the demands of future growth within the respective service areas.

POLICIES:

- 7.1.4.1 Volusia County shall develop water treatment capacity to process sufficient quantities of potable water to meet the projected long-range (2020) needs described in this Sub-element.
- 7.1.4.3 Volusia County shall develop a potable water treatment and distribution facilities Master Plan for the County water service areas in Volusia County that is based on year 2020 demand projections and the level of service standards contained in this Sub-element.
- 7.1.4.4 County water service areas may include undeveloped land inside existing unincorporated urban areas where the developer agrees to provide necessary urban services. In this instance the necessary facilities and services are to be guaranteed by an enforceable development agreement. An enforceable development agreement may include, but is not limited to, development agreements pursuant to County land development/utility regulations or an agreement or development order issued pursuant to Chapter 380, Florida Statutes (F.S.).

OBJECTIVE:

- 7.1.6 Throughout the planning period Volusia County shall maximize the use of existing facilities in the water service areas, so as to discourage urban sprawl.

POLICIES:

- 7.1.6.4 The "infilling" of urban areas shall be directed to locations where an existing central system of potable water is available and where capacity is adequate to service the intended development or to those areas where funds have been committed for the

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provision of adequate capacity, unless otherwise vested under the County's Concurrency Management Ordinance, Vested Rights Ordinance, or Land Development Regulations as may be determined by the County Council.

### OBJECTIVE:

- 7.1.8 Throughout the planning period, Volusia County shall coordinate the provision of potable water service to the unincorporated area so as to ensure the efficient and economical delivery of this service.

## CHAPTER 10

### NATURAL GROUNDWATER AND AQUIFER RECHARGE ELEMENT

#### A. OVERVIEW

This Element combines those Chapter 9J-5, F.A.C. requirements for natural groundwater and aquifer recharge.

The overall purpose of this Element is to protect both the quantity and quality of the natural groundwater. This includes both the surficial and Floridan (particularly the Upper Floridan) aquifers. Groundwater levels and water quality are affected by many activities. Solid waste and hazardous waste facilities, underground storage tanks, and septic tanks all have the potential to contaminate groundwater quality, these issues are affected by the Land Use Element which regulates potential contaminate sources and wellfield locations; Transportation Element which determines need (gas stations) and affects location particularly of large public facilities; Intergovernmental Coordination determines effectiveness of a groundwater protection program; and the Capital Improvements Element determines funding. In addition, the Sanitary Sewer Sub-element (reuse or recharge of treated effluent), Potable Water Sub-element (mining of the groundwater to meet demand), Solid Waste Sub-element (potential contaminant sources, including hazardous and biological waste) and Drainage Sub-element (affects how much stormwater is available for recharge) impact groundwater. Those elements should be reviewed for additional restrictions as they relate to recharge and groundwater quality. Deficiencies in federal, state, regional and local rules meant to protect the aquifer from the above potential contaminant sources are addressed and additional aquifer protection measures are proposed. All of these issues are addressed more fully in the supporting documents. The goals, objectives and policies contained herein, provide guidelines and limitations regarding the above issues in order to protect the County's only water supply for the next twenty years and beyond.

#### B. GOALS, OBJECTIVES AND POLICIES

##### GOAL:

- 10.1 Protect the quality and quantity of the surficial and Floridan aquifers, including the Volusia-Floridan sole source aquifer, and protect and enhance the capabilities of the groundwater recharge areas for the present and future water supply of the County.

EXHIBIT JT-5  
OBJECTIVE:

- 10.1.3 Volusia County shall develop a program for its potable water facilities to protect future sources and minimize detrimental environmental effects which may be caused by developing excessive groundwater supplies.

POLICIES:

- 10.1.3.2 Volusia County, working with the SJRWMD and the Volusian Water Alliance, shall:
- a. Restrict additional groundwater development within those portions of coastal Volusia County which are known to contain groundwater of subpotable quality at a depth of less than 100 feet.
  - b. Permit regional wellfields under their jurisdiction to serve a multipurpose function, such as conservation and passive public recreational facilities.
  - c. Monitor that the natural aquifer levels are maintained.
  - d. Encourage water use efficiency through low flow plumbing, water efficient landscaping, etc.
  - e. If necessary, explore alternative sources of potable water.

**CHAPTER 14**

**INTERGOVERNMENTAL COORDINATION ELEMENT**

A. OVERVIEW

The purpose of the Intergovernmental Coordination Element is to coordinate the Volusia County Comprehensive Plan with the comprehensive plans of adjacent local governments and regional and state agencies. This Element also strives to determine and respond to the needs for coordination mechanisms between Volusia County and adjacent local governments and regional and state agencies.

B. GOAL, OBJECTIVES AND POLICIES

GOAL:

- 14.1 Volusia County shall initiate and/or participate in the intergovernmental coordination mechanisms necessary to ensure consistency among local, county and regional government plans and policies and to resolve any conflicts that may arise.

EXHIBIT JT-5

OBJECTIVE:

- 14.1.1 Volusia County shall continue communication with adjacent cities and counties and federal, state and regional agencies, among others, via effective formal and informal coordination mechanisms to ensure consistency in planning related matters and to coordinate the impacts of development. The formal and informal mechanisms shall include membership in areawide organizations and multi-level staff communication.

POLICIES:

- 14.1.1.7 Volusia County shall continue to support and cooperate with the East Central Florida Regional Planning Council and the St. Johns River Water Management District and other appropriate agencies.

**CHAPTER 15**

**CAPITAL IMPROVEMENTS ELEMENT**

A. OVERVIEW

The Capital Improvements Element is essentially the facility and financial part of the Comprehensive Plan. This is a mandated element by Chapter 163, Florida Statutes and Rule 9J-5.016. It prescribes what new facilities will be needed to correct existing deficiencies, accommodate new growth plus plan for repair and renovation needs of existing facilities. It also outlines the financing needed to pay for the various capital facilities.

LINKAGES TO THE FUTURE LAND USE ELEMENT AND LAND DEVELOPMENT

B. GOALS, OBJECTIVES AND POLICIES

GOAL:

- 15.1 Public facilities shall be provided to promote orderly compact urban growth, which is compatible with existing and designated land uses, and with the natural environment.

[URBAN SERVICE AREAS/NEW GROWTH]

OBJECTIVE:

- 15.1.1 Volusia County shall concentrate public facilities and services to areas that are delineated on the Future Land Use Map with land use categories defined as urban in the Land Use Element.
- 15.1.1.4 Public facilities and services intended to serve proposed development that are inconsistent with the adopted Future Land Use Element shall not be permitted (unless the Future Land Use Element has been amended in accordance with Florida Statutes and the Florida Administrative Code). A minimum threshold of one dwelling unit per acre and the facility impact of its nonresidential equivalent in terms of either

EXHIBIT JT-5

trips generated or water consumption, wastewater, solid waste generation shall be used as the definition of an urban service area for this policy and element.

- 15.1.1.5 Central water is not required for non-urban areas. Lines should only be extended if the absence of such facilities would result in a threat to the public health or safety, or a designated rural area is inside an approved water service area with an agreement that describes the method and timing of when these services would be provided, or the Comprehensive Plan is amended to change rural areas to urban areas.
- 15.1.1.8 Public facilities shall be planned and constructed in a manner that encourages compact urban growth based on proximity to existing central water and sewer systems, accessibility to the major road network (arterials, collectors) at the designated service levels, existing land use patterns and the carrying capacity of the natural environment. The extension of water and sewer lines outside of urban service areas shall be prohibited unless there is a threat to health and safety or other exceptions under the guidelines delineated in the Future Land Use Element.