

CHAPTER 7
POTABLE WATER SUB-ELEMENT

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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 2025. 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

4. protection;
quantity and quality of water treatment; and
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.

The County presently operates potable water systems in the majority of the County water service areas addressed in this Sub-element. They consist of area-wide and small, independent systems constructed by and subsequently acquired from private developers. The County, through its' Capital Improvements Program proposes to fund improvements to existing facilities and the development of new facilities.

The adopted components of the Potable Water Sub-element include the Overview, the Goals, Objectives and Policies. A report containing the support documents for this Sub-element has been printed separately.

B. GOALS, OBJECTIVES AND POLICIES

GOAL:

- 7.1 Ensure that an adequate public supply, treatment, and distribution of potable water to areas appropriate for service within the unincorporated area of 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:

- 7.1.1.1 Volusia County adopts level of service standards providing for an annual average daily volume applicable for each of the unincorporated service areas as depicted in the following table:

	Potable Water		
	Residential Connection (ERU/GPD*)	Non-Residential	
		Office	Retail, Institutional, & Industrial
Deltona North	300	0.15 GPD per sq. ft. of Building Area	0.10 GPD per sq. ft. of Building Area
Southwest	300		
Northeast	200		
Spruce Creek	200		
Southeast	200		

*ERU – Equivalent Residential Unit/GPD - Gallons per Day

Within unincorporated areas encompassed by an adopted service area agreement with a municipality, the municipal level of service standards shall be applicable.

- 7.1.1.2 Except as may be allowed by this Sub-element, Volusia County shall require the installation of both a central potable water system and potable water treatment plant in accordance with County land development regulations where connection to a central potable water system is not available and connection to a central potable water system when said system is available within areas designated for urban uses by the Future Land Use Map.
- 7.1.1.3 Volusia County shall require the construction of facilities for providing a minimum fire flow as a condition of development approval. Applicable fire flow rates for individual land uses shall be required as provided for by the Land Development Code.
- 7.1.1.4 Volusia County may require the developer to provide and dedicate to the County the potable water distribution system and treatment facilities within any new development as provided for in the County's land development regulations. The design criteria and construction standards for any addition to the water system shall be in conformance with County design and construction standards.
- 7.1.1.5 Volusia County shall treat its water supply at a minimum, in accordance with State and Federal water quality standards.
- 7.1.1.6 Volusia County shall require that all new development which is located within an area encompassed by an adopted municipal water service area agreement shall comply with the Potable Water Sub-element and the level of service standards adopted by said municipality.
- 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.

- 7.1.1.8 Volusia County may negotiate agreements with developers for the County to provide potable water facilities for the affected service area and the County's design and construction standards.
- 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.
- 7.1.1.10 Central potable water systems may be installed in Rural Communities, Rural Village, and Rural Recreational areas that are established in the Comprehensive Plan provided that said systems are designed to serve only the development within the geographic area encompassed by the Rural Community or Rural Recreational area.
- 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 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 62-532, Florida Administrative Code. When a central system becomes available, connection to said system is required.

- 7.1.1.13 An existing potable water well may be upgraded, provided that a central potable water system is not available. However, connection to a central potable water system is required where said system is available in lieu of upgrading an existing potable water well.
- 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.
- 7.1.1.15 Within the County water service areas, package water treatment plants may be permitted as an interim measure, provided that said plants are constructed and designed to County standards including provisions to allow the interim system to be connected to a central water system when said connection is available. Interim water package treatment plants serving residential developments shall be dedicated to the County. When the interim facility is located within an area encompassed by an adopted water service area agreement, the plant may be dedicated to the entity providing water service to the region.
- 7.1.1.16 When an existing privately-owned package treatment facility is phased out and connected to a central public potable water system, the owner of said private plant shall be required to assume the cost of the connection.
- 7.1.1.17 The County shall not approve interim package treatment facilities within the boundaries of an adopted service area agreement unless the facilities are approved by both the County and the appropriate entity responsible for providing the service. As a result of the policy, the Interlocal Agreements shall also require that the County and a municipality shall develop a set of criteria to address the following items for interim treatment facilities: system design operation, construction standards, future dedication/acquisition and payment of capital charges.

OBJECTIVE:

- 7.1.2 Throughout the planning period, Volusia County shall correct or provide for the correction of, through the County's land development regulations, specific locations where the County water systems have unacceptable supply, storage, treatment, and/or distribution facilities.

POLICIES:

- 7.1.2.1 Volusia County shall designate a portion of its annual budget to be used for the correction of existing deficiencies in its potable water systems.
- 7.1.2.2 The County may create Special Assessment districts encompassing existing lots or subdivisions in the manner prescribed by County rules and regulations for the purposes of installing central potable water systems.

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.

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.
- 7.1.4.2 Volusia County shall collect and use impact fees to offset the cost of the capacity necessitated by the impact of new users.
- 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.).
- 7.1.4.5 The County may seek alternative sources of funding, (i.e., grants and loans) to finance potable water system construction and/or expansion.

OBJECTIVE:

- 7.1.5 Volusia County shall maintain its program of water conservation.

POLICIES:

- 7.1.5.1 Volusia County shall permit the installation of individual shallow wells on residential and commercial lots for landscape irrigation, subject to specific County regulations in effect. This policy shall not apply to those areas where wastewater reuse facilities are available or can become readily available by identifying the customer demand.
- 7.1.5.2 Volusia County shall maintain the customer rate structure, such that the unit cost of water will not decrease with increased usage, subject to County regulations in effect.
- 7.1.5.3 Volusia County shall continue to require the use of water-conserving plumbing fixtures in all new development, subject to County regulations in effect.
- 7.1.5.4 Volusia County shall continue to require the use of recovered wastewater, where County or other utility owners supply it.
- 7.1.5.5 Volusia County shall, to the extent feasible, provide facilities to allow the use of recovered wastewater for agricultural and other purposes, where County or other utility owners supply it.
- 7.1.5.6 Volusia County shall continue to implement the water conservation ordinance.
- 7.1.5.7 Volusia County shall maintain its leak detection program for County-owned potable water facilities and distribution systems.

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:

- 7.1.6.1 Acquire and upgrade available water systems and consolidate them by interconnecting service area water systems (where feasible) to eliminate water service voids in water service areas.
- 7.1.6.2 Provide the major water facilities supplying water to a new development in accordance with the adopted Capital Improvements Program and Budget, as amended on an annual basis.
- 7.1.6.3 Volusia County shall develop strategies, as needed, to balance fluctuation in water demand, safeguard continuance of supply in case of plant or water main breakdown, and to provide required fire flow.
- 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 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.
- 7.1.6.5 Volusia County shall continue to implement its established programs and schedules (i.e., continuing education for plant operators and schedules of routine maintenance) that are intended to promote facility longevity and optimum operating levels.
- 7.1.6.6 Volusia County shall require connection to a central water system where available. The use of existing wells serving land uses within the water service areas may continue in the manner consistent with the County's Comprehensive Plan and applicable local and state regulations.

OBJECTIVE:

- 7.1.7 Plan and budget on an annual basis the necessary funds to maintain, repair and replace water system components owned and operated by Volusia County.

POLICIES:

- 7.1.7.1 The Volusia County Water & Utilities Services Group shall maintain records and procedures for identifying needed repairs, their cost and subsequent implementation.
- 7.1.7.2 The Volusia County Water & Utilities Services Group shall meter all water customers for billing purposes.
- 7.1.7.3 The Volusia County Water & Utilities Services Group shall maintain a water conserving rate schedule based upon the cost of providing service and adjust rates and fees periodically to produce sufficient water revenues to finance existing operations, repair and replacement and future expansion that also encourages a reduction in demand.
- 7.1.7.4 Volusia County shall begin planning for expanded or replacement treatment facilities on or before the annual average water flow meets 80% of the permitted capacity.

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.

POLICIES:

- 7.1.8.1 Negotiate necessary interlocal agreements with adjacent cities for the purpose of establishing interconnections with the municipalities' water systems to achieve:
- a. Improvement of system reliability in the event of diminished water supplies, line breaks, or excessively high localized, water demand conditions.
 - b. The option of purchasing water by "wholesale agreement" from adjacent water systems or regional water supply authorities, should this alternative prove to be more economically desirable than developing additional County water supply wells and transmission lines, for developing areas.
- 7.1.8.2 Volusia County shall negotiate water service area agreements with adjacent municipalities to better coordinate the orderly, efficient, and economical distribution of water throughout the County.
- 7.1.8.3 Volusia County shall coordinate the utility and transportation planning efforts to take advantage of the most economical construction and maintenance costs possible when installing utility lines and roads.
- 7.1.8.4 All affected utility providers, having established interlocal agreements, in cooperation with Volusia County, will develop conceptual potable water facility plans for areas at the periphery of the utility provider's jurisdiction consistent with the County's Future Land Use Element. As long as such services can be provided by extension of existing central systems, the County shall not propose to construct any new interim facilities without completing an analysis documenting that such construction is more cost-effective than extension of existing central systems.
- 7.1.8.5 If the County is unable to establish an agreement with a municipality for the provision of potable water, the County will be responsible for providing water service within the service area through enforceable development agreements. Said agreements may include, but are not necessarily 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.)
- 7.1.8.6 Notwithstanding the provisions of Policy 7.1.1.16, the County may provide, or allow the provision of, potable water service within agreed upon municipal or private utility service areas in a manner which is consistent with the adopted interlocal agreement. Should any existing interlocal agreement be amended or any new interlocal agreement be structured, the provisions of Policy 7.1.1.16 shall be included in the provisions of said interlocal agreement.

- 7.1.8.7 The duties and responsibilities which flow from an interlocal agreement previously entered into between the County and a municipality shall prevail over subsequent amendments to the Comprehensive Plan until and unless such interlocal agreement is renegotiated as deemed appropriate by the County and a municipality.
- 7.1.8.8 The County shall initiate a program with the owners of the various privately-held potable water systems (especially the area-wide systems) serving portions of the unincorporated region. The purpose of this program will be to foster coordination and may include the submission of periodic reports by the utility to the Growth Management Services Group.
- 7.1.8.9 The County shall seek to establish and strengthen ties to the Florida Public Service Commission and other appropriate regulatory agencies.