

# Community Facilities Element



City of  
**ALACHUA**

THE GOOD LIFE COMMUNITY

# COMMUNITY FACILITIES ELEMENT

## Goal 1: *Wastewater*

The City shall plan for and provide adequate and economical wastewater service while protecting the environment, especially groundwater resources.

## Objective 1.1: *Wastewater System Capital Improvements and Level of Service Standards*

The City shall examine capital improvements priorities as funded in the Five-Year Capital Improvements Program in order to prevent, or correct, deficiencies in the Community Wastewater System to meet projected demands within established service areas at adopted levels of service.

Policy 1.1.a: Capital improvement projects needed for replacement or correction of existing deficiencies shall be given priority over providing for future facility needs if they are imminently needed to protect the public health and safety and if existing facilities are not meeting maintenance or operation level of service standards adopted herein.

Policy 1.1.b: The City shall continue to implement a long-range wastewater plan which shall include, at a minimum, an updated database of all wastewater facility locations, line sizes, lift station locations, reuse lines, future facilities locations, and rate analysis.

Policy 1.1.c: Capital facilities fees shall be dedicated to the rehabilitation, replacement, maintenance, and expansion needs of the wastewater system, consistent with the City's long-range wastewater plan. The City may also use impact fees, if such fees are adopted by the City Commission, to further support the rehabilitation, replacement, maintenance and expansion needs of the wastewater system.

Policy 1.1.d: The City hereby establishes the following level of service standards for sanitary sewer facilities:

### *Wastewater System Levels of Service*

- a) *Quality*: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP).

- b) *Quantity*: System-wide wastewater collection and treatment will be sufficient to provide a minimum of 250 gallons per day per equivalent residential unit (ERU) on an average annual basis. Plant expansion shall be planned in accordance with Rule 62-600.405, Florida Administrative Code, or subsequent provision..
- c) *System capacity*: If the existing demand and reserved capacity of the committed use of the City's wastewater facility reaches 85% of the permitted capacity design, no further development orders for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

### Objective 1.2: *Wastewater Service*

New development may only occur within areas where wastewater service is available or shall be made available as a part of the proposed development. For purposes of this objective, development does not include an addition to an existing development of less than 33% of the existing floor area of the development or an addition of less than 33% of the existing impervious surface area within a five-year period.

Policy 1.2.a: The City shall establish a Community Wastewater Service Area, which shall include all areas where wastewater service is available. Wastewater service shall be deemed available if:

1. A gravity water main exists within 100 feet of the property line of any lot with a residential land use category or an existing single family residence and wastewater service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.
2. Gravity wastewater main exists with 500 feet of the property line of any proposed residential subdivision consisting of 5 units or less and the gravity wastewater system is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.
3. A gravity wastewater main, wastewater pumping station, or force main exists within 2,640 feet of the property line of any proposed residential subdivision comprised of more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and the gravity wastewater system, wastewater pumping station, or force main is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

- Policy 1.2.b: In such instances where the provisions of Policy 1.2.a.1 are not applicable, an isolated vacant lot with a residential land use category may be developed with a single family residence if wastewater service is not available along the frontage of the lot and if applicable permitting is obtained for an onsite sewage treatment and disposal system. Where no wastewater infrastructure exists along the frontage of the isolated vacant lot, and the owner of the lot requests service, wastewater infrastructure shall be constructed by the owner and at the owner's expense to extend service from an existing point to the point of the requested service connection.
- Policy 1.2.c: The City shall prohibit the installation of an onsite sewage treatment and disposal systems in locations with unsuitable soils, within wetland areas, or where wastewater service is available.
- Policy 1.2.d: The City shall permit onsite sewage treatment and disposal systems outside the Community Wastewater Service Area, provided that site and soil conditions are suitable for septic tank use as determined by the requirements of Rule 10D-6, Florida Administrative Code.
- Policy 1.2.e: Existing onsite sewage treatment and disposal systems shall be allowed to remain in service until such time as wastewater service is available, in accordance with State regulations.
- Policy 1.2.f: The City's Public Services Department shall coordinate wastewater service for new development with the City's Department of Planning and Community Development to ensure compliance with the elements of the Comprehensive Plan.
- Policy 1.2.g: To promote compact urban growth, the costs to extend all wastewater lines and service required to serve new development outside the Community Wastewater Service Area shall be the responsibility of the developer.

**Objective 1.3: *Wastewater By-Products***

Wastewater treatment by-products will be reclaimed or disposed of in an environmentally sustainable manner and shall maximize resource recovery.

- Policy 1.3a: Wastewater effluent may be treated and reused for irrigation and aesthetic water features, consistent with requirements of Rule 62- 610, Florida Administrative Code, or subsequent provision.
- Policy 1.3.b: Sludge from wastewater treatment facilities within the City shall be disposed of through such means as land application. Surface water runoff from land application shall comply with state water quality standards.
- Policy 1.3.c: The City shall require the land application of sludge and biosolids to comply with all applicable regulations established in Florida Statutes, Florida

Administrative Code, and by the Florida Department of Environmental Protection.

**Objective 1.4: *Preventing Additional Nutrients in High Aquifer Recharge Areas***

The City shall prevent additional nutrients from entering high aquifer recharge areas by encouraging and supporting the connection of existing developed areas to the wastewater system.

Policy 1.4.a: Within the high aquifer recharge areas, the City shall make it a priority to connect densely populated areas with onsite sewage treatment and disposal systems to the wastewater system, thereby minimizing the input of nutrients into the groundwater.

**Objective 1.5: *Minimizing the Impact of Septic Systems***

The City shall minimize the impact of onsite sewage treatment and disposal systems within high aquifer recharge areas.

Policy 1.5.a: The City shall require onsite sewage treatment and disposal systems to be inspected in accordance with the provisions established in Rule 64E-6, Florida Administrative Code, or subsequent provision.

Policy 1.5.b: Onsite sewage treatment and disposal systems in high aquifer recharge areas shall be either multi- compartment, multi-tank or aerobic design.

**Goal 2: *Solid Waste***

The City will provide for solid waste disposal service in a sanitary, economic, and environmentally safe manner.

**Objective 2.1: *Solid Waste Level of Service Standards and Implementation***

The City shall continue to ensure satisfactory and economical solid waste service for all City residents with an emphasis on reuse and recycling.

Policy 2.1.a: The City hereby establishes the following level of service standards for solid waste disposal facilities for residential uses:

Facility Type	Level of Service Standard
Solid Waste Landfill	0.73 tons per capita per year

Policy 2.1.b: To coordinate efforts between each jurisdiction, the City may provide to Alachua County an annual report delineating the City’s service area population and the anticipated annual tonnage of solid waste to be disposed of at the New River Solid Waste Landfill.

**Objective 2.2: *Reducing Solid Waste Disposal***

The City shall support and encourage a reduction in the amount of solid waste disposed per capita through waste reduction strategies that include waste prevention, source reduction, reuse, and recycling.

Policy 2.2.a: The City shall maximize the use of solid waste facilities through implementation of a recycling program.

Policy 2.2.b: The City shall maintain recycling and waste reduction programs in all City facilities.

**Objective 2.3: *Siting of Solid Waste and Hazardous Material Facilities***

The City shall discourage the siting of solid waste and hazardous waste facilities within high recharge areas to minimize the water quality impacts from such facilities within high aquifer recharge areas.

Policy 2.3.a: The City shall develop design criteria for the siting of solid or hazardous waste disposal, treatment, and transfer facilities within the City. The City may prohibit these facilities in areas known to be in the unconfined area of the Floridian Aquifer.

**Goal 3: *Stormwater***

The City shall develop and maintain a stormwater management system that minimizes flooding and protects, preserves, and enhances desirable water quality conditions, and, where possible, preserves and utilizes existing natural features.

**Objective 3.1: *Drainage and Stormwater Level of Service Standards and Implementation***

The City shall ensure the provision of drainage and stormwater retention through level of service standards and design requirements to minimize flooding and to protect and improve water quality.

Policy 3.1.a: The City hereby establishes the following water quantity and quality level of service standards for drainage facilities:

For all projects which are located completely within a stream or open lake watershed, detention systems must be designed such that the peak rate of post-development runoff will not exceed the peak-rate of pre-development runoff for storm events up through and including either:

1. A design storm with a 10-year, 24-hour rainfall depth with Soil Conservation Service Type II distribution falling on average antecedent moisture conditions for projects serving exclusively agricultural, silvicultural, conservation, or recreational uses; or

2. A design storm with 100-year critical duration rainfall depth for projects serving any land use other than agricultural, silvicultural, conservation, or recreational uses.
3. The level of service standard for water quality treatment shall be treatment for the “first one inch” of runoff, and shall be in compliance with the design and performance standards established in Rules 40C-42.025 and 40C-42.035, Florida Administrative Code to ensure that the receiving water quality standards of Rule 62.302.500, Florida Administrative Code are met to ensure their water quality is not degraded below the minimum conditions necessary to maintain their classifications as established in Rule 62-302, Florida Administrative Code. These standards shall apply to all new development and redevelopment. Infill residential development within improved residential areas or subdivisions existing prior to the adoption of this Comprehensive Plan, must ensure that its post-development stormwater runoff will not contribute pollutants which will cause the runoff from the entire improved area or subdivision to degrade receiving water bodies and their water quality as stated above.

Policy 3.1.b: The City shall require the construction of roads within new subdivisions to be arranged so that the grades of the streets conform as closely as possible to the original topography to prevent the interruption of natural drainage flows, including sheet flow and flow to isolated wetland systems.

Policy 3.1.c: The City shall require a certification by the preparer of the permit plans that all construction activity undertaken shall incorporate erosion and sediment controls during construction.

Policy 3.1.d: Priorities for upgrading existing stormwater management facilities shall be scheduled in the Capital Improvements Plan as needed.

Policy 3.1.e: The City shall provide incentives for the use of pervious surfaces in new development and redevelopment in order to reduce the size of retention basins and increase the area available to receive runoff.

Policy 3.1.f: The City shall permit the use of off-site retention and detention facilities when the off-site facilities are part of previously approved master stormwater retention or detention facility designed to accommodate the stormwater runoff generated by the development.

### **Objective 3.2: *Stormwater Facilities Monitoring and Maintenance***

The City shall maintain records of all existing and newly constructed stormwater systems in the City.

Policy 3.2.a: The City shall quantify and assess any deficiencies in its existing stormwater management system, by requesting funding from the

Florida Department of Environmental Protection and/or the Suwannee River Water Management District to prepare a City-wide stormwater master plan which will determine necessary design capacities and hydraulic demands for any needed stormwater management facilities and assess the performance of existing facilities with regard to flood control, water quality treatment and impact on the City's surface water and groundwater. As an alternative to a City-wide stormwater master plan, the City may fund stormwater planning needs through a comprehensive stormwater assessment program(s). If stormwater management facilities are determined by such plan to be needed, the City shall seek grant funding to fund and construct such needed facilities.

### Objective 3.3: *Stormwater Design Guidelines*

The City shall implement design guidelines for stormwater management facilities to promote dual use, protect natural features, and provide aesthetically pleasing facilities.

Policy 3.3.a: Stormwater facility design shall incorporate the following features, where practicable:

1. Joint use of retention and detention basins for passive recreation, habitat, and open space.
2. Use of vegetation and landscaping in and around retention and detention basin to enhance stormwater management objectives and improve aesthetics.
3. Integration of on-site retention and detention facilities with other elements of the proposed development through aesthetically sensitive design and the use of landscaping.
4. Maintain and enhance the existing hydrological and ecological function of stream or drainage corridors or wetlands.
5. Where retention and detention basins are located along arterial or collector roads, the basin design shall comply with the Gainesville Urbanized Area Metropolitan Transportation Planning Organization's Urban Design Policy Manual.

### Objective 3.4: *Erosion Control*

The City shall promote practices that minimize erosion, sedimentation, and stormwater runoff.

Policy 3.4.a: The City shall require development practices that minimize land disturbance, the clearing of vegetation, and the removal of topsoil. These practices shall be based on established construction best management practices such as the use of silt fences and sediment basins to retain sediment on-site.

**Objective 3.5: Stormwater System Design in High Aquifer Recharge Areas**

The City shall work with the Suwannee River Water Management District and the Florida Department of Environmental Protection criteria for karst stormwater management system design.

Policy 3.5.a: The following general requirements apply to stormwater management systems within high aquifer recharge areas:

1. Stormwater shall not be directly discharged to active sinkholes;
2. When soil and water table conditions allow, the use of offline retention systems for stormwater treatment shall be required;
3. Swale conveyances shall be used to the greatest extent possible and contextually appropriate;
4. Projects in areas zoned for industrial land uses shall not discharge industrial pollutants into the stormwater system or allow permit pollutants to come in contact with groundwater;
5. Natural depressions may be used for stormwater management only when hydrogeological evidence shows that the geologic structure and soils are stable and unlikely to form a direct connection to the groundwater. To verify geologic stability, the design professional shall provide soil boring information and/or supplemental data such as ground penetrating radar;
6. If the hydrogeological conditions are suitable and a natural depression is proposed for use as part of the stormwater management system, a spreader swale shall be employed at the inflow location;
7. Regular inspection shall be conducted by developer/ maintenance entity to visibly check for the indicators of or the existence of solution pipes; and,
8. Remedial plugging activities shall employ methodologies acceptable to the applicable regulatory agency (the Florida Department of Environmental Protection or the Suwannee River Water Management District.)

Policy 3.5.b: The following general requirements apply to stormwater management systems apply for Class C and Class D storage facilities:

1. More than five feet of material shall exist between the limestone bedrock surface and the bottom and sides of the stormwater basin;
2. Basin liners, such as clay or geotextile, shall be used;
3. Sediment sumps at stormwater inlets shall be provided;
4. Off-line treatment shall be provided;
5. Special stormwater system treatment train design shall be provided;
6. Ongoing groundwater monitoring shall occur; and,
7. Paint/solvent and water separators shall be provided.

Policy 3.5.c In addition to the requirements of Policy 3.5.a, stormwater systems in high aquifer recharge areas shall:

1. Use swales, preferably with cross block or raised driveway culverts, to promote retention/infiltration within swales; and,
2. Use shallow, vegetated, offline infiltration systems that are incorporated into a project's open space/landscaping areas.

**Goal 4: *Potable Water***

The City shall provide an adequate supply of potable water to customers throughout the water service area.

**Objective 4.1: *Water System Level of Service Standards***

The City shall achieve and maintain acceptable levels of service for potable water quantity and quality.

Policy 4.1.a: Capital improvement projects needed for replacement or correction of existing deficiencies in the community potable water service area shall be given priority over providing for future facility needs if they are imminently needed to protect the public health and safety and if existing facilities are not meeting maintenance or operation level of service standards adopted herein.

Policy 4.1.b: The City shall establish a Community Potable Water Service Area, which includes all areas where potable water service is available. Water service shall be deemed available if:

1. A water main exists within 100 feet of any lot within a residential land use category or an existing single family residence water service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.
2. A water main exists within 500 feet of any proposed residential subdivision consisting of 5 units or less and water service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.
3. A water main exists within 2,640 feet of any residential subdivision with more than 5 units, or any multi-family residential development, or any commercial development, or any industrial development and water service is accessible through public utility easements or right of ways. The distance shall be measured as required for construction of the infrastructure along public utility easements and right of ways.

Policy 4.1.c: The City establishes the following level of service standards for potable water:

1. *Quality*: Compliance with all applicable standards of the U.S. Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection.
2. *Quantity*: System-wide potable water distribution and treatment will be sufficient to provide a minimum of 275 gallons per day per equivalent residential unit (ERU) on an average annual basis.
3. *Capacity*: Plant expansion shall be planned in accordance with Florida Administrative Code. Additionally, if the existing demand and reserved capacity of the City's potable water facility reaches 85% of the permitted design capacity, no further development orders or permits for projects without reserved capacity will be issued until additional capacity becomes available or funds to increase facility capacity are committed in accordance with a development agreement.

Policy 4.1.d: A wellfield protection area shall be established as a minimum of 500' around a community potable water facility wellhead, as shown on the City of Alachua Existing and Planned Water Wells Map in the Future Land Use Map Series.

Policy 4.1.e: In such instances where the provisions of Policy 4.1.c.1. are not applicable, an isolated vacant lot with a residential land use category may be developed with a single family residence if potable water service is not available along the frontage of the lot and if applicable permitting is obtained for an onsite potable water well. Where no potable water infrastructure exists along the frontage of the isolated vacant lot and the owner of the lot requests service, potable water infrastructure shall be constructed by the owner and at the owner's expense to extend service from an existing point to the point of requested service connection.

#### **Objective 4.2: *Water System Capital Improvements***

The City shall prioritize and execute needed system improvements in a manner which protects existing investments, promotes orderly growth, and is consistent with the Capital Improvements Element, the Capital Improvements Program of this Plan, and Regional Water Supply Plans.

Policy 4.2.a: New development may only occur within areas where potable water services is available or shall be made available as part of the proposed development. For purposes of this policy, new development does not include an addition to an existing development of less than 33% of the existing floor area of the development or an addition of less than 33% of the existing impervious surface area within a five-year period.

Policy 4.2.b: The City will continue to require necessary on-site water system improvements to be completed at the expense of the property owner.

- Policy 4.2.c: The City shall extend water service in a pattern consistent with the policies of the Comprehensive Plan, particularly the Future Land Use Map and the Future Land Use Element, adhering to a compact urban growth area, promoting infill development and discouraging urban sprawl, as defined in Florida Administrative Code.
- Policy 4.2.d The City shall coordinate the applicable aspects of the Comprehensive Plan with the Suwannee River Water Management District and the North Florida Regional Water Supply Plan to address water supply planning efforts.
- Policy 4.2.e The City shall participate in the development of and updates to the North Florida Regional Water Supply Plan and water supply development-related initiatives.
- Policy 4.2.f If an amendment to the North Florida Regional Water Supply Plan identifies a potential traditional or alternative water supply project within the City's corporate limits, the City shall adopt a water supply facilities work plan which shall cover at least a 10-year planning period to meet existing and projected water demand. The work plan shall address those water supply facilities for which the City has responsibility and shall include the facilities needed to develop alternative water supplies. The work plan shall also identify conservation and reuse measures to meet future needs.

### Goal 5: *Natural Groundwater Aquifer Recharge*

#### Objective 5.1: *Protection of High Aquifer Recharge Areas and Water Bodies*

The City recognizes the importance of the protection of high aquifer recharge areas, wellfield protection areas, lakes, streams, drainage basins, wetlands and stream-to-sink features as vital to the protection of groundwater resources. The City shall, through partnerships and using the best available data, provide protection for groundwater resources.

- Policy 5.1.a: The City shall consider the best available hydrogeological information (e.g, Suwannee River Water Management District high aquifer recharge potential maps or site-specific data), and may require the collection of site-specific hydrogeological data, such as soil borings or electric resistivity tests, when assessing the impacts of proposed land use changes and developments in areas of high aquifer recharge potential. This information should be used in the determination of land use decisions on a case-by-case basis.
- Policy 5.1.b: The City shall prioritize the acquisition of high aquifer recharge areas for protection as conservation or open space areas and consider the use of bonds, lease agreements, property donations, private or public trusts and partnerships, and grants to achieve these acquisitions.

Policy 5.1.c: The City shall coordinate with the Suwannee River Water Management District to protect the functions of natural groundwater recharge areas and natural drainage features by requiring that all development proposals which have the potential to impact water resources to be reviewed by the Suwannee River Water Management District, in accordance with Chapter 373, Florida Statutes and Rules 40B-4 and 40B-400, Florida Administrative Code, or subsequent provisions.

**Objective 5.2: *Groundwater Quality and Quantity Protection***

The City shall establish groundwater water quality and quantity protection strategies to protect the quality of water and maintain the quantity of water entering the aquifer.

Policy 5.2.a: In an effort to protect groundwater quality, the City shall:

1. Adopt design criteria for stormwater management practices that minimize the leaching or discharge of nutrients.
2. Promote the Florida Yards and Neighborhoods program and Florida-Friendly landscaping practices to educate the public about proper lawn and landscaped area fertilization and irrigation;
3. Incorporate the principles of the Florida Yards and Neighborhoods and Florida-Friendly Landscaping practices program into local landscaping ordinances;
4. Adopt water conservation programs;
5. Educate the public about the proper operation and maintenance of onsite sewage treatment and disposal systems;
6. Implement a local onsite sewage treatment and disposal systems management program to assure that these systems are regularly inspected, pumped out, or brought up to current standards when required by Florida Administrative Code; and,
7. Participate in intergovernmental efforts which encourage the protection of groundwater quality.

Policy 5.2.b: The City shall require demonstration from engineering design and reports that post-development recharge volumes will equal pre-development recharge volumes to the Floridian aquifer.

Policy 5.2.c: Applicants for new development, expansions, or redevelopment shall employ one or more of the following techniques to address potential groundwater quality and quantity impacts:

1. Construction and maintenance of shallow, landscaped retention basins;
2. Decreasing the amount of stormwater runoff through the use of pervious surfaces or increased open space;
3. Development of a stormwater pollution prevention plan;
4. Development of a sinkhole remediation plan; and,

5. Development of a groundwater monitoring plan.

Policy 5.2.d: Best management practices and performance standards shall be utilized to maximize open space, limit impervious surfaces, minimize the use of fertilizers on turf grass areas, promote protection of natural vegetation, promote the use of pervious parking areas, and treat stormwater to protect water quality.

**Objective 5.3: *Implementation of Water Conservation Strategies***

The City shall assist the Suwannee River Water Management District with the implementation of its water conservation rules and programs. During water shortage events, the City shall encourage and promote water conservation measures to be implemented for the use and reuse of water. The City shall make educational materials regarding the conservation of water resources available to the prior to peak seasonal demand.

Policy 5.3.a: The City shall assist in the enforcement of water use restrictions during a declared water shortage and will assist the Suwannee River Water Management District with the distribution of educational materials regarding the conservation of water prior to peak seasonal demand.