

POTABLE WATER AND SANITARY SEWER ELEMENT



ALACHUA COUNTY COMPREHENSIVE PLAN 2019-2040



GOAL 1

TO PROVIDE AN ADEQUATE, SAFE, EFFICIENT, ECONOMICAL, RELIABLE AND ENVIRONMENTALLY SOUND SYSTEM OF POTABLE WATER SUPPLY AND SANITARY SEWER COLLECTION, TREATMENT AND DISPOSAL TO MEET THE NEEDS OF THE CURRENT AND PROJECTED ALACHUA COUNTY POPULATION.

OBJECTIVE 1.1

To coordinate with the providers of centralized potable water and sanitary sewer facilities to ensure that adequate facility capacity will be available to serve development concurrent with the demands for such facilities, and that adequate water supplies shall be in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy.

Policy 1.1.1 The following level of service standards for potable water and sanitary sewer service in the unincorporated portion of Alachua County are hereby adopted, and shall be used as the basis for determining the availability of facility capacity, adequate water supply, and the demand generated by a development within the appropriate service area for the providers listed below for purposes of issuing development orders or building permits.

GAINESVILLE REGIONAL UTILITIES (GRU)

Potable Water

Raw Water Supply:	Average Daily Flow
Treatment Capacity:	Peak Daily Flow
Pumping and Distribution Capacity:	Peak hourly flow
Storage Capacity:	One-half of peak day volume in gallons. This requirement may be met by a combination of storage and auxiliary power.
Minimum Pressure:	The system shall be designed for a minimum pressure of 40 psig under forecasted peak hourly demands to assure 20 psig under extreme and unforeseen conditions.
Fire Demand:	As determined using Insurance Services Organization guidelines
Potable Water:	
Average Day (gross)	124.5 gallons per capita per day (including residential and non-residential uses)
Peak Day (gross)	200 gallons per capita per day (including residential and non-residential uses)

Sanitary Sewerage

Collection System:	Peak Hourly Flow 2.5 times the average daily flow
Treatment and Disposal:	Annual average daily flow which allows for anticipated peak hour flow
Sanitary Sewerage:	
Average Day (gross)	106 gallons per capita per day

Private Systems

For private package treatment plants, community water systems, and non-community water systems, the level of service standards shall be the minimum design and operating standards as established by the authorized federal, state, regional, water management districts, and local regulatory agencies.

Policy 1.1.2 The Alachua County Office of Planning and Development, in conjunction with any provider of potable water or sanitary sewer service listed in Policy 1.1.1, will monitor the system's level of service status to determine the impact of any requested development order or building permit on available potable water supply, system capacity, and/or sanitary sewer capacity. Periodic reports from the provider detailing available capacity (taking into consideration and distinguishing existing plus committed demand) shall be used in conjunction with development monitoring reports prepared by the County for this purpose.

Policy 1.1.3 The LOS standards adopted in Policy 1.1.1 shall be used as the criteria to measure the available supply and capacity of the potable water and/or sanitary sewer system(s), and shall, in consultation with the applicable water supplier, be used to verify that adequate water supplies are in place and available to serve new development no later than the issuance by the local government of a certificate of occupancy. A development order will not be approved unless adequate supply and capacity will be available concurrent with the impacts of development based on the following standards:

Policy 1.1.3.1 The necessary facilities and services are in place at the time the final development order is issued; or

Policy 1.1.3.2 The final development order is issued subject to the condition that the necessary facilities and services will be in place when the impacts of development occur; or

Policy 1.1.3.3 The necessary facilities are under construction at the time the final development order is issued; or

Policy 1.1.3.4 The necessary facilities and services are guaranteed in an enforceable development agreement that includes provisions of subsections 1, 2, and 3 above, and that guarantees that the necessary facilities and services will be in place when the impacts of development occur.

Policy 1.1.4 Alachua County will encourage and provide relevant information to any provider of potable water and/or sanitary sewer service, in order to adequately project future development patterns and to program improvements necessary to maintain an

adequate buffer of supply and/or capacity for the future. Information such as future land use, population projections, and public service improvements or expansions will be provided on an annual basis to the potable water supplier and/or sanitary sewer collector in order to enable accurate forecasting.

Policy 1.1.5 No new public or private water or sanitary sewer system shall be permitted unless it is consistent with the policies established in all elements of the Comprehensive Plan.

OBJECTIVE 2.1

To maximize the use of existing facilities in order to discourage urban sprawl and provide an adequate, safe, and environmentally sound system of potable water supply and sanitary sewer collection, treatment, and disposal.

Policy 2.1.1 All new development in the urban cluster shall be timed to occur when both centralized potable water and sanitary sewer systems are available for connection. The timing and availability of municipal water and sewer to a property shall be one of the factors to be considered when deciding upon proposed changes in zoning to a higher density or intensity pursuant to Future Land Use Element Policy 7.1.2(b) Any new subdivision, expansion of an existing subdivision, multi-family, or any new or expansion of a non-residential use, development or redevelopment in the urban cluster, shall be required to connect to a centralized potable water and sanitary sewer system for service by FDEP permitted potable water and wastewater treatment plants. This connection requirement and any exception thereto, based on the factors noted below, shall be implemented at the stage of development review and approval. No exceptions may be granted for new residential development, except as provided below.

Exceptions to this requirement may be provided for certain non-residential uses, and for new residential development in areas designated as Estate Residential on the [Future Land Use Map](#), for which connection is infeasible because of engineering factors that would prevent operation and maintenance of the system connection within the range of standard procedures. The land development regulations shall specify the factors that will be the bases of such determinations including:

- (a) The minimum flow necessary for adequate pipe velocity; and
- (b) The maximum distance between the proposed development or connection point and the centralized system; and
- (c) The relationship between flow and distance; or
- (d) The inability to secure connection without adverse environmental effects or public health and safety; or
- (e) The inability to obtain rights through adjacent properties necessary for connection.
- (f) Number of units or intensity of the proposed development.

The Land Development Regulations shall provide criteria and a process for consideration of exceptions based on the above factors. The LDRs shall require that any application for an exception provide an analysis of the potential to overcome engineering impediments to connection through coordination with adjacent property owners within the collection basin and the utility. If it is determined that there is no current

opportunity for connection, an exception may be granted, provided there is a conceptual plan for connection when it becomes feasible, and there is assurance of future connection to a centralized system through enforceable conditions, such as provision for installation and connection to central water and sanitary sewer facilities when feasible, utility system retrofitting, and the abandonment of any on-site private wells and septic systems in accordance with Florida Statutes and Administrative Codes, as specified in the Unified Land Development Code.

To further mitigate the effects of granting the exception to the connection requirements, the use of low-flow or ultra-low flow plumbing fixtures in the development shall be required in order to minimize the amount of effluent that must be treated. Developments that are granted an exception to the connection requirements by the DRC shall use the Water StarSM standards by the St. Johns River Water Management District as the minimum standard for water use and are encouraged to exceed the conservation measures provided by this standard.

Nothing in this policy shall provide an exemption from any statutory requirement to connect to centralized potable water and sanitary sewer as established in Section 381.00655, Florida Statutes.

Policy 2.1.2 The use of new package wastewater treatment plants shall be considered in the Urban Cluster only in instances where the public health and/or groundwater quality is at risk from failed septic systems.

Policy 2.1.3 The following standards, relating to private wells and septic systems, shall govern any residential development:

- Pre-1991: Lots of record of ½-acre or greater that were approved for well and septic may use well and septic provided they meet state standards.
- Pre-1991: Lots of record of less than ½-acre that cannot be combined to meet the ½-acre size minimum, may use well and septic if hardship can be demonstrated and they meet state standards.
- Post-1991: Existing lots of record as of May 2, 2005 of ½-acre or greater, may be developed with well and septic, provided the lot is not part of a subdivision and meets state standards.
- Post-1991: Subdivided lots in the urban cluster of one acre or greater, that were approved for well and septic, may use well and septic provided they meet state standards.
- In the Rural/Agriculture areas, lots of record within a designated Rural Cluster of ½-acre or greater, may use well and septic provided they meet state standards.

Policy 2.1.3.1 Larger lot sizes or site specific improvements shall be required where soil and groundwater conditions do not result in proper treatment of wastewater, as determined by the County public health unit. In addition, the County public health unit shall be asked to assist in the development of the land development regulations that shall address the circumstances under which centralized (as opposed to individual) septic systems shall be required based on factors including the number

of septic tanks per unit of geographic area, soil conditions, and hydrologic conditions.

Policy 2.1.4 New community water systems, other than municipal systems, shall be prohibited, except in rural clusters, rural employment centers, or in instances where the public health is at risk.

Policy 2.1.5 New non-community water systems shall be prohibited, except in rural clusters, rural employment centers, or in instances where the public health is at risk.

Policy 2.1.6 The use of new package wastewater treatment plants may be considered outside of the Urban Cluster in areas not served by centralized wastewater treatment plants only in instances where the public health is at risk, or where rural employment centers or specialized uses, such as institutional, tourist/entertainment, material-oriented industrial development, or resource-based recreational uses are appropriate. For purposes of this policy, new package treatment plants for residential uses are specifically prohibited, except as a last resort to remedy a public health problem associated with existing septic tanks. A special use permit shall be required for any new package treatment plant and shall be considered only if:

- (a) Demonstration that:
 - (1) alternative systems of wastewater disposal are not feasible; and
 - (2) there will be no adverse impact on water quality; and
 - (3) there is assurance of proper long term operation and maintenance, including groundwater monitoring, by an entity that demonstrates financial and organizational capacity.
- (b) Provision for monitoring and inspection by the applicable federal, state, regional, water management districts, and local agencies to be assured that the plant is in compliance with provisions of the permit.
- (c) Provisions for corrective actions to be taken by the owner or operator in the event of failure including, but not limited to; changes in plant operation and maintenance, system repair or replacement, suspension or termination of a package treatment plant operation.
- (d) Provisions for posting bond or similar financial guarantee to ensure payment for corrective actions.
- (e) Provisions for connection to centralized wastewater service once the service becomes available.

Policy 2.1.7 Replacing existing individual wells or septic systems by connection to existing municipal systems shall be required within municipal service areas where there has been evidence of septic system failure or well water contamination, provided no alternative technological remedy will be undertaken that provides for correction of the problem.

Policy 2.1.8 Alachua County shall, in coordination with utility providers, consider the feasibility of providing sanitary sewer services to developments of more than 50 residential lots in the unincorporated area, whether built or unbuilt, with more than one onsite sewage treatment and disposal system per acre, within a 10-year planning horizon. By April 2026, and every ten (10) years thereafter, Alachua County will conduct a feasibility analysis identifying applicable developments and assessing the feasibility of providing

sanitary sewer service to those developments. The feasibility analysis will include consideration of the following:

- (a) The name and location of the wastewater facility that could receive sanitary sewer flows after connection; the current capacity of the facility and any associated transmission facilities; the projected wastewater flow at that facility for the next 20 years, including expected future new construction and connections of onsite sewage treatment and disposal systems to sanitary sewer; and an estimated timeline for the potential construction of any improvements necessary for connection to the sanitary sewer system.
- (b) Estimate of potential costs to the County and property owners.
- (c) Water quality risks associated with the continued use of septic systems.
- (d) Other applicable goals, objectives and policies of this Comprehensive Plan.

If the analysis determines that it is feasible to provide sanitary sewer services to an applicable development, this shall not obligate the County or utility provider to undertake or fund any improvements necessary to connect the development to the sanitary sewer system. Such improvements may be considered on a case-by-case basis by the utility provider in coordination with the County with input from the residents of the area that would potentially be served by sanitary sewer.

OBJECTIVE 3.1

To provide for the coordination of public potable water and sanitary sewerage facility extensions in the unincorporated area of Alachua County with the Alachua County [Future Land Use Element](#) and capital improvement planning and programming.

Policy 3.1.1 Alachua County shall designate an urban service area for future land uses with densities and intensities which will provide for efficient operation of central potable water and sanitary sewer service facilities, as well as the enabling of efficient line sizing by any potable water supplier or sanitary sewer collector.

Policy 3.1.2 Alachua County shall coordinate any expansions in municipal potable water systems, municipal sanitary sewer systems, the school system, the highway systems, the drainage system, and any other relevant publicly provided facility through intergovernmental coordination mechanisms consistent with the [Intergovernmental Coordination Element](#) policies.

Policy 3.1.3 Alachua County will establish a timing, staging, and capacity program in conjunction with the municipalities in the County for the expansion of potable water and sanitary sewer facilities into unincorporated service areas. This shall be coordinated in accordance with the [Intergovernmental Coordination Element](#), Policy 5.1.7. The [Capital Improvement Programs/Elements](#) of Alachua County and the municipalities shall specify such facility expansion programs.

Policy 3.1.4 Extension of potable water or sanitary sewer lines within areas designated on the [Future Land Use Map](#) as the Urban Cluster shall be allowed by Alachua County provided there are no adverse impacts on environmentally-sensitive lands.

Policy 3.1.5 Proposed extensions of potable water and sanitary sewer lines outside of the Urban Cluster designated by the [Future Land Use Element](#) shall be subject to approval by the Board of County Commissioners. Approval of such extensions shall be based on one or more of the following:

- (a) the Alachua County Board of County Commissioners finds that the absence of such facilities would result in a threat to the public health or safety; or
- (b) the Alachua County Board of County Commissioners finds that the extension of such facilities is necessary to enhance the safe, effective, and efficient delivery of central potable water or sanitary sewer service within an existing urban service area; or
- (c) the Alachua County Board of County Commissioners finds that the extension of such facilities would serve a purpose consistent with the Alachua County Comprehensive Plan, such as the retention and expansion of existing business and industry or the attraction of new business and industry in accordance with the [Economic Element](#) of this Plan, or the service of institutional or tourist/entertainment uses consistent with the [Future Land Use Element](#); or
- (d) the Alachua County Board of County Commissioners finds that the extensions of such facilities is needed as part of a comprehensive expansion of public services to encourage urban development in a new area as part of a comprehensive plan amendment. In this case, such a finding must be consistent with Policy 3.1.6 below.

Policy 3.1.6 Central potable water and sanitary sewer systems may be extended into new areas as part of a planned extension of urban services to that area based upon the following factors:

- (a) population growth rate;
- (b) maintenance of level of service standards for the potable water or sanitary sewer system;
- (c) adequacy of existing and planned supporting infrastructure;

Approval of such extensions would require the following:

- (a) Identification, scheduling, and designated funding for capital improvements to other public facilities needed to extend urban services. Such projects shall be incorporated into the five-year capital improvement program of the Alachua County [Capital Improvement Element](#).
- (b) Adoption of necessary amendments to the [Future Land Use map](#) extending the urban cluster boundary.

OBJECTIVE 4.1

All public water supply systems serving Alachua County residents shall be maintained at accepted water quality standards.

Policy 4.1.1 All providers of potable water shall meet or exceed applicable federal, state, regional, water management districts, and local water quality standards.

Policy 4.1.2 The County shall lead a coordinated effort to correct, where possible, or remove from service and properly close existing public water supply systems in Alachua County where there is a failure to consistently meet minimum primary and secondary drinking water standards or to properly maintain and operate the system. This effort shall include development and adoption of appropriate ordinances addressing issues such as availability of a centralized system and connection requirements, funding mechanisms, and intergovernmental coordination with centralized system providers to support their connection programs where consistent with the County’s objectives. Funding mechanisms may include, but are not limited to, grants from water management districts, special funds from centralized service providers, economic development funds, and establishment of a special taxing district over the affected customer base.

OBJECTIVE 5.1

To prevent the discharge of inadequately treated wastewater.

Policy 5.1.1 All wastewater treatment and disposal systems shall meet or exceed applicable federal, state, regional, water management districts, and local treatment requirements.

Policy 5.1.2 Wastewater effluent not meeting applicable water quality standards shall not be discharged.

Policy 5.1.3 The County shall lead a coordinated effort to improve, where possible, or remove from service and properly close existing package wastewater treatment plants in Alachua County to the extent authorized by law in recognition of their inferior treatment capabilities and/or history of water quality problems. This effort shall include development and adoption of appropriate ordinances addressing issues such as availability of a centralized system and connection requirements, funding mechanisms, and intergovernmental coordination with centralized system providers to support their connection programs where consistent with the County’s objectives. Funding mechanisms may include, but are not limited to, grants from water management districts, special funds from centralized service providers, economic development funds, and establishment of a special taxing district over the affected customer base.

OBJECTIVE 6.1

The County shall encourage wastewater effluent reuse, where appropriate. The best uses of reclaimed water are for industrial uses that offset potable demand and for recharging the aquifer following additional treatment, such as that provided by infiltrating wetlands. Reclaimed water may also be used for landscape irrigation purposes in place of potable water or well water in areas with high landscape irrigation demand. However, the County recognizes the need to minimize landscape irrigation demands regardless of the source of irrigation water.

Policy 6.1.1 Spray irrigation sites shall incorporate perennial vegetation as a primary crop.

Policy 6.1.2 Biosolids from wastewater treatment facilities shall be disposed of through means such as land application, consistent with revised Policy 6.1.3. For purposes of this policy, biosolids are prohibited from disposal in landfills.

Policy 6.1.3 All proposed sites for land application of biosolids shall be subject to prior approval by the Alachua County Board of County Commissioners, based on criteria in this policy section and applicable requirements contained in the unified land development code. Biosolids application sites shall include sufficient land area for direct application, buffers from adjacent land areas, and emergency sites for adverse weather conditions. Surface water runoff resulting from land application of biosolids that impacts groundwater or surface water shall not violate state water quality standards.

Policy 6.1.3.1 Runoff from a site shall not cause water quality violations as a result of land application of biosolids. Runoff of biosolids to on-site water bodies shall be prevented by not spreading during rainfall events or runoff periods.

Policy 6.1.3.2 All proposed sites for spray irrigation shall be subject to approval of a permit by the Alachua County Development Review Committee. The land development regulations shall be revised to include compliance with specified criteria. The criteria shall at a minimum address the provision of sufficient land area for direct application, the incorporation of perennial vegetation as a primary crop, buffers from adjacent land areas, and emergency sites for adverse weather conditions. Surface water runoff resulting from spray irrigation that impacts groundwater or surface water shall not violate applicable federal, state, regional, water management districts, and local water quality standards.

Policy 6.1.4 Alachua County shall coordinate with the municipalities in development of effluent handling systems (located within the unincorporated portion of the County) such as artificial wetland disposal sites, irrigations reuse for crops, or recreation open space and industrial reuse.

OBJECTIVE 7.1

Coordinate with relevant agencies and water suppliers to protect the potable water supplies and sources.

Policy 7.1.1 Alachua County shall regulate land use and development to protect the functions of natural drainage features and natural groundwater aquifer recharge as detailed in the [Conservation and Open Space Element](#).

Policy 7.1.2 Alachua County shall coordinate with GRU, the St. John's River Water Management District (SJRWMD) and/or the Suwannee River Water Management District (SRWMD) in determining and assessing impacts of proposed developments on the County's potable water supplies. These impacts shall be used by the County's Development Review Committee (DRC) in the evaluation of applications for site plan and development plan approval.

(a) Alachua County shall incorporate the results of any studies by the water management districts on projected demands on the sources of potable water for Alachua County, relative to potential supply, as a factor in determining the maximum population the water supply in Alachua County will be able to support.

Policy 7.1.3 Alachua County shall coordinate proposed amendments to future land use designations of this plan with GRU and incorporated towns and cities and surrounding counties, as appropriate, to ensure that sufficient water quantity is available and that its quality is

not degraded. In evaluating any proposed amendments to the [Future Land Use Element](#) that would provide for more intensive development adjacent to such jurisdictions, the County shall coordinate with GRU and municipal water suppliers, as appropriate, to address such impacts and the demand for and capacity of such potable water facilities to implement this policy.

Policy 7.1.4 Potable water supplies shall be protected from the operation of septic tanks and other wastewater treatment systems through control of the location of such facilities, type of treatment, method of discharge, and monitoring.

Policy 7.1.4.1 Septic tanks and drainfields shall be placed no closer to wells, surface water areas and conservation areas than the minimum distances provided for in applicable federal, state, regional, water management districts and local regulations. County development regulations shall provide for increased distances where soils or other environmental conditions are particularly unsuitable for on-site sewage systems.

Policy 7.1.5 The Joint Alachua County/City of Gainesville Water Supply Facilities Work Plan 2025-2025 is herein incorporated by reference.

OBJECTIVE 8.1

To promote the increased conservation and reuse of water.

Policy 8.1.1 Alachua County shall promote public information programs in an effort to increase public awareness and adoption of water conserving techniques and behaviors through newsletters, public service announcements, social media, workshops and forums, and displays at public events.

Policy 8.1.2 Land Development Regulations shall provide for the use of cluster development and attached dwelling units and zero lot line arrangements and smaller lot sizes. Such development patterns shall be encouraged during the County's Development Review Committee (DRC), until the land development regulations include provisions to implement this policy.

Policy 8.1.3 Development plans shall be reviewed for inclusion of native vegetation and other low water demand landscape material in order to reduce outdoor water consumption.

Policy 8.1.4 Restrictions established by applicable water management districts shall be adhered to. The County or other government organization shall enforce these restrictions.

Policy 8.1.5 The County will make information on reducing water use as part of the public awareness efforts of the County.

Policy 8.1.6 Low-volume plumbing devices shall continue to be required, consistent with local building codes.

Policy 8.1.7 The County shall encourage the use of stormwater runoff for irrigation, agricultural or industrial water needs in order to conserve potable water sources.

Policy 8.1.8 The County shall discourage the use of permanent landscape irrigation in new construction and in existing development through regulatory and/or voluntary measures. Strategies may include encouraging or requiring permeable hardscapes, limiting the amount of irrigated areas, and the use of organic matter to improve soil conditions.

POTABLE WATER AND SANITARY SEWER ELEMENT DEFINITIONS

Peak Day: Maximum volume of water processed in a day over a one year period.
(Source: GRU)

Public water supply system: A system of water treatment and distribution facilities from either a community water system or a non-community water system.
A Community water system serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. It provides potable water to residential uses such as municipalities, residential subdivisions, and mobile home parks.
A non-community water system is for provision to the public of piped water for human consumption that serves at least 25 individuals daily at least 60 days out of the year but that is not a community water system.
(Source: Alachua County Code, Ch. 363.24, taken from Florida Statutes)

Package Treatment Plant: Any wastewater treatment facility having a permitted capacity of less than 100,000 gallons per day. Essentially a small treatment system consisting of a treatment plant and disposal system.
(Source: Alachua County Code, Ch. 363.24, taken from Florida Statutes)