
10 PUBLIC FACILITIES

The purpose of the Public Facilities Element is to ensure that public facilities are available to meet the needs of Lake County. The Public Facilities Element is broken down into five sub-elements: [sanitary sewer](#), [potable water](#), [stormwater](#), [solid waste](#), and [aquifer recharge](#).

Lake County does not own, operate, or maintain any potable water systems or wastewater systems, nor does Lake County have any water or sewer serviced areas. Municipal governments provide sanitary sewer and wastewater treatment within their jurisdictions and in adjacent areas that may be annexed as development in the county continues. Where public services are not available, private companies provide them. Septic systems and private wastewater treatment plants (package plants) treat waste in unincorporated Lake County. Potable water is provided by municipalities, private entities, or private wells.

Lake County's development and quality of life is dependent on this network of public facilities and services. Each type of service has a unique set of constraints and must adapt to growth and change differently. This element contains goals, objectives, and policies that establish the framework for the provision of public facilities in the County to meet the demand created by existing and future development.

The Florida Natural Areas Inventory has prioritized several conservation areas partially or wholly within Lake County, including, but not limited to: the Green Swamp Area of Critical State Concern, and the Wekiva/Ocala Greenway. Select ecosystems of Lake County are thus fragile and closely linked with the ecological sustainability of communities within and beyond the county's boundaries. Issues of plant and animal biodiversity and water supply are among the most important environmental considerations for the County.

The county is faced with the challenge of balancing development pressures with the preservation of the natural environment. To this end, Lake County will comply with all legislation (Federal, State, Regional and Local) as it pertains to Lake County's environmental sensitive areas.

11 AQUIFER RECHARGE SUB-ELEMENT

GOAL 1.0 AQU – AQUIFER RECHARGE

To maintain an adequate quality and quantity of aquifer recharge to protect potable water supplies, and ensure the protection of natural systems.

OBJECTIVE 1.1 METHODOLOGY

Lake County will coordinate with federal, state, and local agencies to study and describe aquifer recharge areas, and the vulnerability of ground water resources.

Policy 1.1.1 Aquifer Recharge Maps

Lake County shall utilize best available aquifer recharge maps created by local, regional, state, and federal agencies.

Policy 1.1.2 Floridan Aquifer Vulnerability Assessment (FAVA) Map

Lake County shall coordinate with the Florida Geological Survey, Water Management Districts and FDEP to prepare a Floridan Aquifer Vulnerability Assessment (FAVA) Map on a county-wide scale to determine areas within the county vulnerable to contamination of the Floridan aquifer, including primary, secondary and tertiary protection zones, karst features, springs and sinks.

Natural processes or human activities can introduce contaminants to ground water either through pollution of surface-water bodies or by infiltration through soils and sequences of sediments and rocks that overlay Florida's aquifer systems.

This map shall be prepared using technology developed by the Florida Geological Survey and designed to provide a detailed distribution of relative vulnerability based solely on natural properties of hydrogeology. The map shall not include anthropogenic factors such as land use and contaminant loading. An aquifer vulnerability model prepared using data specific to Lake County, will help determine which areas within the county are vulnerable and allow for establishment of appropriate development standards. The County will also utilize the report titled Florida Geological Survey Report on Investigation 104: Wekiva Aquifer Vulnerability Assessment (WAVA).

Some of the applications of the FAVA map include wellhead protection, source-water protection, recharge protection, vulnerability indices, contaminant-specific maps, land acquisition, total maximum daily loads (TMDLs), surface-water/ground-water interactions, water-quality management tool, resource planning strategies and policies, prioritization of areas of critical concern, design of monitoring plans, best management practices springshed protection, watershed and ecosystem comprehensive planning, land-use planning/zoning, land conservation and as a component of ground-water susceptibility models.

Policy 1.1.3 Springshed Maps

Lake County shall utilize best available springshed maps created by state, regional and federal agencies.

Lake County will contribute information and monitoring data to assist federal, state, and local agencies in studying the impacts of all land uses on hydrologic resources including but not limited to recharge areas, springs, wetlands and land surrounding Outstanding Florida Waters located in Lake County. The Lake County Comprehensive Plan shall be amended, and the Land Development Regulations updated, as necessary based on these studies and best available information from these agencies.

The position of the springshed boundary is time dependent. That is, the boundary is representative of a “snapshot” in time, rather than a permanent condition. Thus, the boundaries of springsheds are dynamic and vary as a result of a changing potentiometric surface. Should a site-specific study be performed to meet the Land Development Regulation requirements of the development within a springshed, the most conservative USGS potentiometric map available shall be used.

Policy 1.1.4 Aquifer Monitoring Programs

Lake County will cooperate with federal, state, regional water management, local agencies, local governments, and interest groups in the implementation of on-going aquifer-monitoring programs.

Policy 1.1.5 Development of Local Regulations

Lake County shall develop local regulations for inclusion into the Land Development Regulations, including a Lake County-specific scale version of the FGS FAVA map, to augment state and federal regulations pertaining to the protection of the surficial and Floridan aquifers.

Policy 1.1.6 Intergovernmental Coordination

Lake County shall collaborate with federal, state, regional, and local agencies, including the Water Management Districts and local agencies in studying the surficial and Floridan aquifers, springs, karst areas and surface waters as they apply, and in determining the most appropriate actions to take in order to protect these resources. Approaches and measures to accomplish this shall be developed consistent with the intergovernmental coordination element of the comprehensive plan.

OBJECTIVE 1.2 CONSERVATION OF THE AQUIFER RESOURCE

The County shall safeguard the quality and quantity of ground water in the surficial and Floridan aquifers, to protect and enhance the capabilities of Aquifer Protection Zones for the present and future water supply of Lake County and ensure protection of natural resources. The following policies shall apply generally within Lake County.

Policy 1.2.1 Water Conserving Plumbing Fixtures

The County shall require the use of water conserving plumbing fixtures in all new development.

Policy 1.2.2 Irrigation Rain Sensors or Soil Moisture Sensors

The County shall require irrigation rain sensors or soil moisture sensors with automatic cut-offs on all new irrigation systems in accordance with the Florida Standard Building Code and/or Water Management District rules.

Policy 1.2.3 Golf Course Ordinance

Lake County shall comply with the adopted golf course ordinance as it applies to, water conservation, reuse and drought management in order to limit the impact of golf courses on ground water resources.

Policy 1.2.4 Surface and Subsurface Hydrology

Lake County shall discourage any land use that would significantly alter surface and ground water levels, surface and ground water quality, recharge; or have an adverse effect on the environment.

Policy 1.2.5 Best Management Practices

Lake County shall require the use of best management practices and performance standards to maximize open space, limit impervious surfaces, promote protection of natural vegetation, buffer karst areas, maximize recharge volumes, minimize the use of potable water for non-potable uses, encourage reuse of water, and treat recharge stormwater to protect ground water quality. Such practices and standards shall be included in the Land Development Regulations.

Policy 1.2.6 Recharge Projects

Lake County will continue to work with federal, state, and regional agencies to evaluate potential projects that would allow for increased recharge to occur. The County shall seek to partner with federal, state, regional, and local agencies and jurisdictions for funding, technical assistance, and implementation of recharge projects. Based upon the results of analysis, the County may implement additional recharge projects in suitable locations. The County shall focus recharge enhancement projects in areas most susceptible to harm from insufficient groundwater volume, such as the Wekiva Study Area.

Policy 1.2.7 Minimizing Impact to Floodplains

The County shall maintain or improve the quality and function of drainage systems, ground and surface waterways, recharge areas and associated natural resources through an emphasis on non-structural approaches to floodplain management. Compensating storage shall be required for development in floodplains.

Policy 1.2.8 Educational Enhancement

Lake County, through the Public Outreach Program of Environmental Services, shall participate in enhancing the function and quality of the education of its citizens about: 1) the current water conservation policies, 2) fragility of the aquifer, 3) methods to reuse and conserve water, 4) well-abandonment problems and rules, 5) benefits of drought resistant plants, and 6) methods of reducing pollution and nutrient loads to waterways and aquifers through an education program that consists of, at a minimum, brochures, a speakers bureau, and slide show. The County shall also maintain, update, enhance and promote the Web-based "Lake County Water Resource Atlas."

OBJECTIVE 1.3 PROTECTION OF RECHARGE AREAS, AREAS OF AQUIFER VULNERABILITY, AND SPRINGSHEDS

Lake County recognizes the need to provide special protection of recharge areas defined as protected recharge areas, most effective recharge areas, areas vulnerable to aquifer contamination, and springsheds in order to safeguard natural systems and water supplies. The following policies pertain to these areas.

Policy 1.3.1 Protection Strategies

The County will actively pursue the following to enhance the protection of groundwater resources:

- Institute BMPs for stormwater management and use of low impact design options through design, retrofit and maintenance of stormwater management facilities;
- Heighten public education targeted to homeowners regarding proper lawn and landscaped area fertilization and irrigation and maintenance of stormwater systems;
- Emphasize use of “right plant-right place” and Florida Friendly landscaping approaches to lawn and landscape design;
- Encourage the collection of lawn and landscaping debris to reduce nutrient loading to the aquifer;
- Establish water conservation programs;
- Foster local stewardship "adopt a springs" type programs and other incentive and volunteer springshed awareness and protection programs;
- Adopt state criteria, best management practices or equivalent for the design and construction of stormwater management systems in Aquifer Protection Zones and karst areas; and
- Provide pre-treatment, in the form of swales, berms, ponds, or dry basins, to runoff that currently discharges directly into wetlands, and in Aquifer Protection Zones and karst areas.

Policy 1.3.2 Emphasis on Low Intensity Use

Within Aquifer Protection Zones and karst areas, existing low intensity land uses shall be maintained as the best option for protecting the quality and quantity and groundwater resources.

Policy 1.3.3 Protection of Recharge Volume

In addition to requiring minimum level of service standards established by the Comprehensive Plan [Stormwater Sub-Element](#), the County shall ensure that post-development recharge volume conditions approximate pre-development recharge volume conditions within Aquifer Protection Zones. This shall be accomplished through implementation of Land Development Regulations by requiring that the first three inches of stormwater be retained on site. As an alternative the applicant may conduct a hydrologic survey and site analysis to demonstrate that post-development recharge is equal to or greater than pre-development recharge. The County shall require compliance with all state and water management district rules pertaining to the design of stormwater management systems in most effective recharge areas located wholly or partially within the WSA.

Policy 1.3.4 Design Strategies for Aquifer Recharge Protection

Development within an Aquifer Protection Zones shall be required to maintain pre-development net retention in a manner that protects ground and surface water quality. Exemptions may be given for agricultural activities utilizing Best Management Practices adopted by federal, state, and regional that protect ground and surface water quality. The use of stormwater capture, swales, dry wells, grass parking, porous pavement, pervious concrete, turf blocks and other innovative technologies shall be encouraged as a method of protecting aquifer recharge. Porous pavement, pervious concrete and turf blocks however shall not be used to completely fulfill this requirement because these materials tend to become impervious over time.

Policy 1.3.5 Secure Lands for Aquifer Protection

Where feasible, Lake County shall purchase or secure conservation easements on lands that contains Aquifer Protection Zones and property that contains unique or sensitive karst features.

Policy 1.3.6 Site Specific Review

The Land Development Regulations shall include the requirement of a hydrogeologic report for all Aquifer Protection Zones as part of site evaluation prior to development.

In the event that the applicant disputes a determination by the county that a site is located within an Aquifer Protection Zone, the applicant may, at their expense, prepare a site-specific study performed by a qualified Florida Professional Geologist or Engineer to determine if the site lies within an Aquifer Protection Zone. This report will be provided to the appropriate agency for review and consideration. Should a site-specific study be performed within a springshed, the most conservative USGS potentiometric map available shall be used.

Policy 1.3.7 Land Development Regulations

The County shall adopt Land Development Regulations for protected recharge areas, most effective recharge areas, areas vulnerable to aquifer contamination, and springsheds. The County shall utilize the DEP/DCA publication “Protecting Florida Springs: Land Use Planning Strategies and Best Management Practices” to develop these land development regulations to the greatest extent possible. These land development regulations shall include but not be limited to the following:

- Requirements to minimize impervious surfaces (including foot pads) considering open space incentives, pervious parking areas, and maintenance of existing native vegetation and/or use of native or water wise plant materials suitable for onsite ecological and soil conditions;
 - Requirements to utilize onsite retention of rain and storm water for active and passive irrigation where feasible and effective;
 - Requirements to implement “right plant – right place” and water wise landscaping standards;
 - Minimum open space standards;
 - Design standards for natural water retention areas;
 - Standards to ensure water quality;
 - Protection of the aquifer from saltwater intrusion;
 - Regulations regarding the use of pesticides and fertilizers;
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- Regulations that protect karst features with an a aquifer connection such as springs and sinks as undeveloped open space with ample buffering and native vegetation; and
 - Regulations regarding the use and maintenance of onsite sewage treatment and disposal systems (OSTDS).

Policy 1.3.8 Sinkholes and Karst Features

The County shall require a site-specific scientific study to evaluate the risks of development in or adjacent to sinkholes and karst features. Additionally, the type, density and intensity of land uses established adjacent to a sinkhole or karst features shall be limited to activities that will not result in further expansion of the hole or that would negatively impact ground water quality. When development in the vicinity of a sinkhole is proposed, appropriate setbacks and buffering shall be required. Recommendations for development shall be based on a site specific study by a qualified licensed professional, either a State licensed professional engineer or professional geologist paid for by the developer. Specific setbacks and buffering proposed shall require approval by qualified county staff.

Stormwater management systems shall be designed to assure adequate treatment of the stormwater before it can enter a sinkhole or karst features, and to preclude the formation of solution pipe sinkholes or subsidence. Should a sinkhole or karst features be determined to have a aquifer connection,, any diversion of surface water or stormwater directly or indirectly to this karst feature shall be prohibited.

Policy 1.3.9 Protocol for Determining Suitability

The County shall develop protocols for review in determining the suitability of a site, with respect to Aquifer Protection Zones and karst features for a proposed change in future land use, zoning, or conditional use.

Policy 1.3.10 Homeowner Literature

As a condition of development approval, the County shall require that when development occurs within or adjacent to environmentally sensitive areas including aquifer protection zones, a best management practices document shall be developed for the education of homeowners or property owners. This document shall include guidelines that reduce the risk of contamination or harm to groundwater resources. The developer shall prepare and provide for distribution, brochures to enhance public awareness of these resources.

Policy 1.3.11 Evaluation of Future Land Use and Zoning

The County shall require that a report by a licensed professional geologist be submitted with a future land use amendment or rezoning application to provide an analysis of the site for the presence of protected recharge areas, most effective recharge areas, areas more vulnerable to contamination, springsheds, karst features, and sinkholes.

OBJECTIVE 1.4 PREVENTION OF CONTAMINATION OF AQUIFER SYSTEMS

The County shall evaluate commercial, industrial, business and residential land use, as well as proposed land use amendments and rezonings, to protect the County's ground water resources and prevent contamination of the aquifer.

Policy 1.4.1 Land Development Regulation Updates

Lake County shall amend its Comprehensive Plan and update its Land Development Regulations, using information collected by federal, state, regional water management, and local agencies during future ground water quality studies. These updates shall address but are not limited to:

- Public well field siting, per the adopted Wellhead Protection Ordinance;
- Siting of industrial land uses which use regulated substances or generate hazardous waste;
- Siting of additional household hazardous waste collection facilities for households and conditionally exempt small quantity generators of hazardous waste;
- Protection of the aquifer from saltwater intrusion;
- Activities regarding the use of regulated substances, including but not limited to pesticides and fertilizers.

Policy 1.4.2 Continued Enforcement of Regulations

Lake County shall cooperate with federal, state, and local agencies in enforcing regulations pertaining to the protection of the surficial and Floridan aquifers from regulated materials and wastes including those material governed by and/or equal but receiving special exemption under, the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and/or other Federal, State, regional water management, and Local codes requiring the management of materials that may be harmful or dangerous to the environment.

Policy 1.4.3 Regulated and/ or Hazardous Waste Disposal

Lake County shall cooperate with all state and federal authorities in the regulation and disposal of regulated and/or hazardous wastes as defined in 9J5.003 (38) F.A.C..

Policy 1.4.4 Regulation of Hazardous Wastes in Protected Aquifer Recharge Areas and in an Area More vulnerable to Contamination

Lake County shall coordinate with FDEP to regulate the disposal of hazardous wastes in all areas of the County. Small quantity generator (<1000 kg per month) businesses that use regulated materials or generate hazardous waste shall be regulated so as to ensure that proper handling and disposal practices are adhered to. The location of new businesses that use regulated materials or generate hazardous waste shall be restricted within Aquifer Protection Zones. Large quantity generators (>1000 kg per month) may be prohibited in Aquifer Protection Zones.

Policy 1.4.5 Coordinate Facilities producing, using, handling and storing regulated materials with Land Use

The County shall utilize the information provided by the inventory of facilities producing, using, handling and storing regulated materials in making land use decisions to avoid incompatible development in Aquifer Protection Zones.

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12 POTABLE WATER SUB-ELEMENT

GOAL 1.0 POT – POTABLE WATER

Coordinate for the adequate production, treatment and distribution of potable water in a cost effective manner balancing the needs of growth, environment and public health, safety and welfare.

OBJECTIVE 1.1 COORDINATE THE PROVISION OF POTABLE WATER SERVICE TO MEET THE ANTICIPATED DEMAND AND ESTABLISH REQUIRED LEVELS OF SERVICE

Lake County shall coordinate with central water providers under the Joint Planning Areas (JPAs) and with private utilities to meet the anticipated demand and to establish the required levels of service for the provision of potable water. Design and construction standards for potable water systems will be updated to standards consistent with the providers.

Policy 1.1.1 Level of Service Standards

Lake County shall require, at a minimum, all potable water to be produced, treated, stored and distributed in accordance with all federal, state, regional and local requirements.

Policy 1.1.2 Design and Construction Standards

Lake County shall update the current design and construction standards for the production of raw water supplies, treatment, storage and distribution.

Policy 1.1.3 Promote Innovative Methods

Lake County, through the Land Development Regulations, will allow innovative methods, such as dual water systems that demonstrate reduction and conservation of potable water.

Policy 1.1.4 Monitor the Impact of Reclaimed Water

Lake County shall monitor the impact of reclaimed water on potable water demand. Development containing irrigated open space shall be required to accept reclaimed water for irrigation when such reclaimed water is available.

Policy 1.1.5 Monitor Impacts to Private Individual Potable Water Supply

Lake County shall monitor Consumptive Use Permit allocations and capacities to coordinate with federal, state, regional and local agencies in the preservation of sufficient potable water supply capacity and to protect private self-supply wells.

Policy 1.1.6 Water Efficient Landscaping

Lake County will promote and as appropriate require water efficient landscaping techniques, water wise landscaping, and stormwater reuse to reduce the irrigation demand for potable water in developments and agriculture.

Policy 1.1.7 Water Shortages

Lake County shall, upon request, assist the Water Management Districts in the enforcement of Water Management District guidelines during declared water shortages to the extent possible.

Policy 1.1.8 Encouragement of Public-Private Partnerships

The County shall encourage the development of public-private partnerships in the provision of regional potable water services where such partnerships will result in the timely provision of services in a manner that is both cost-efficient and environmentally sound and is consistent with the Lake County Comprehensive Plan, Water Master Plan and County Codes.

Policy 1.1.9 Coordination with Other Agencies

Lake County shall work closely with the federal, state, regional and local agencies to ensure all possible alternatives are explored and implemented with respect to new development and water conservation. This can include:

- Define urban and rural expansion areas throughout undeveloped areas of Lake County;
- Require the use of reuse water where ever possible including instillation of dual lines in anticipation of reuse water becoming available;
- Promote and facilitate Joint Planning Agreements (JPAs) between cities, and with the county and cities;
- Consider exploring alternative water supply options;
- Look for opportunities to capitalize on economies of scale;
- Pursue or support grant matching funding, participation, subsidized loans, and low-cost loan programs for environmental, water resource, and public welfare projects in Lake County;
- Assist entities with “seed” money grants for beneficial projects or develop another cooperative approach;
- Facilitate regional programs for Lake County entities;
- Create Special Water Districts in cooperation with municipalities and regulatory agencies;
- Water Resource Cooperation and Support Agreement developed through the JPA process;
- Active participation in regional water supply planning with municipalities and regulatory agencies;
- Promote conservation through education, incentives, and regulation;
- Encourage phasing-out septic systems where possible; and
- Develop incentives to connect to central water and wastewater systems.

Policy 1.1.10 Well Field Protection

The County will cooperate with the State and water management districts in protecting well fields in accordance with all State and water management district requirements.

OBJECTIVE 1.2 PROVISION OF CENTRAL WATER FACILITIES

Lake County shall guide the orderly growth and development of the County by coordinating water service availability with the municipalities, private enterprise and individuals. The coordination of service delivery shall be in a manner that provides maximum use of existing facilities.

Policy 1.2.1 Coordination of Services with the Municipalities

Lake County shall execute Interlocal Agreements with the municipal utility suppliers within Lake County for establishing service areas so as not to duplicate services and to provide for conditions for the establishment of and the operation within the service area. Municipal service areas shall be based upon the available capacity reported, and the future service areas delineated in the Comprehensive Plans of each municipality that provides potable water service. Prior to the execution of Interlocal Agreements, the County shall allow municipalities to provide service in the unincorporated part of Lake County in accordance with the area set forth in the adopted Comprehensive Plans of each municipality that provides potable water service, and the criteria set forth in the Lake County Comprehensive Plan. Expansion of services, both water and sewer by the municipalities, should be consistent with their Capital Improvement Plan (CIP), [Capital Improvement Element \(CIE\)](#) and the Joint Planning Agreement (JPA).

Policy 1.2.2 Potable Water Service Criteria

At a minimum, all systems must meet the regulatory criteria of a Public Water Supply System (PWS) for the provision to the public of water for human consumption through pipes or other constructed conveyances, where such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least 60 days out of the year or otherwise as applicable to FDEP regulation and those systems that service less than 15 connections or a density greater than 1 dwelling unit per net acre must connect to a regional system.

Policy 1.2.3 Mandatory Connection Ordinance

Lake County shall prepare and adopt as appropriate a mandatory connection ordinance which, at a minimum shall require the following within the Urban Land Use Series: New development that exceeds 1500 GPD and is located within 1000 feet of a public potable water system, or new homes or developments with usage less than 1500 GPD and located within 300 feet of public potable water, shall be required to connect to public potable water. Existing homes and development shall be required to connect to public potable water within 5 years of meeting this criteria or within 5 years of the effective date of this ordinance.

Upon connection to public water supply, private wells completed in and or otherwise withdrawing water from the Floridan Aquifer must be abandoned in accordance with Water Management District rules. Where reuse water is not available, private wells with back flow prevention may be used for irrigation. Where reuse water is available for irrigation, private wells completed in the Surficial Aquifer must be abandoned in accordance with Water Management District Rules.

Policy 1.2.4 Connection of Community and Non-Community Systems

Lake County shall require the connection of community and non-community utility services when there is endangerment to the environment, public health, safety and welfare. Financial

assistance, to partially offset the cost of connecting to central utility services for individuals and non-profit utility service providers may be provided by Lake County through application for federal and state grants/loans or through the establishment of a construction fund funded by user charges and/or special benefit assessments.

Policy 1.2.5 Coordination of Services with Private Enterprises

Lake County shall identify, and exempt from mandatory connection, those privately owned facilities located within those portions of Lake County, where centralized water services are available or planned, which have the ability to meet regulations and individual permit criteria and where mandatory connection would not be required for the economic viability of a centralized system or necessary to protect public health, safety and/or welfare. Those privately-owned facilities not meeting the above criteria shall be required to connect to the centralized system when available. Lake County shall identify those areas within the County where centralized utilities are needed and can be better served by a privately owned utility, through an agreement with Lake County, for the provision of the service.

Policy 1.2.6 Provision of Potable Water Services Inside of Designated Urban Areas

The county shall require that property within the Urban Land Use Series connect to potable water services consistent with mandatory connection policy. Independent utility providers or public-private partnerships may be considered to provide regional potable water services within the Urban Land Use Series where connection to a municipal system is not feasible, and if such services are both cost efficient and environmentally sound.

Policy 1.2.7 Provision of Potable Water Services Outside of Designated Urban Areas

The County may allow for the provision of central potable water services outside of the Urban Land Use series on a case specific basis if compelling information exists to demonstrate that the lack of potable water services poses a significant health or environmental problem for which there is no other feasible solution. The County shall encourage property within the Rural Transition Future Land Use category adjacent to designated urban areas to connect to potable water services if economically feasible.

OBJECTIVE 1.3 COORDINATION AND URBAN SPRAWL

The County shall coordinate the extension of lines or increase of facility capacity with adjacent municipal and private facilities to discourage urban sprawl.

Policy 1.3.1 Extension of Service to New Development

Within the Urban Land Use Series, the County shall require new development to connect to and fund the connection of their potable water facilities to municipal or private utilities systems where possible.

Policy 1.3.2 Prohibit the Provision of Potable Water as Sole Justification for Land Use Amendments

Lake County shall prohibit the provision of potable water as sole justification for amendments to the Future Land Use Element where new or expanded development will adversely impact resource/ conservation areas or neighborhoods or will otherwise promote urban sprawl.

Policy 1.3.3 Coordination of Potable Water with Land Use

Lake County shall maximize the use of existing facilities and discourage urban sprawl by encouraging the provision of central potable water services within existing and planned service areas where possible and prohibiting the extension of potable water facilities outside of existing and planned service areas as depicted on the Future Land Use Map.

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13 SANITARY SEWER SUB-ELEMENT

GOAL 1.0 SANITARY SEWER

Provide for the Adequate Disposition of Wastewater and By-Products in a Cost Effective Manner Balancing the Needs of Growth, Environment and Public Health, Safety and Welfare.

OBJECTIVE 1.1 PROVISION OF CENTRAL SEWER FACILITIES

Lake County shall guide the orderly growth and development of the County by coordinating service delivery with the municipalities, private enterprise and individuals. The coordination of service delivery shall be in a manner that provides maximum use of existing facilities.

Policy 1.1.1 Coordination of Services with the Municipalities

Lake County shall execute Interlocal Agreements with the municipal utility suppliers within Lake County for establishing service areas so as not to duplicate services and to provide for conditions for the establishment of and the operation within the service areas. Municipal service areas shall be based upon the available capacity reported, and the future service areas delineated in the Comprehensive Plans of each municipality which provides sanitary sewer service. Prior to the execution of Interlocal Agreements, the County shall allow municipalities to provide service in the unincorporated part of Lake County in accordance with the area set forth in the adopted Comprehensive Plans of each municipality that provides sanitary sewer service, and with the criteria set forth in the Lake County Comprehensive Plan. Expansion of sanitary sewer service by the municipalities should be consistent with their Capital Improvement Plan (CIP), [Capital Improvement Element \(CIE\)](#) and the Joint Planning Agreement (JPA).

Policy 1.1.2 Regional Wastewater Service Criteria

Lake County shall prepare and adopt temporary wastewater service criteria for developments which are consistent with the Comprehensive Plan and approved by the Board of County Commissioners. Developments within the urban land use series with a capacity of 100,000 Gallons per Day (GPD) or a density greater than one (1) unit per net acre must be connected to a regional sewer system, defined as a central sewer system with a capacity of 500,000 Gallons per Day or greater. Any new development outside the urban land use series where development occurs at one unit per acre and wastewater discharge of the development is equal to or greater than 100,000 per day shall be required to connect to a regional sewer system. However, a central sewer system having a capacity of at least 100,000 GPD or more may be permitted on a temporary basis until such time as a regional system becomes available. The temporary system shall be staffed by a Florida licensed waste water treatment plant operator in accordance with State regulation and code. These temporary facilities shall be planned, designed, and constructed so they either serve as the nucleus of a future regional system, or can act with minimal modification as a lift station when connected to a regional system, or can be abandoned when merged into a regional sewer system constructed at another location.

Policy 1.1.3 Mandatory Connection Ordinance

Lake County shall review and revise, as appropriate, its existing Mandatory Connection Ordinance, which at a minimum, shall require the following within the Urban Land Use Series:

New development that exceeds 1,500 GPD, or new homes or developments with usage less than 1,500 GPD and located within 300 feet of public sanitary sewers, shall be required to connect to public sanitary sewer. Existing homes and development shall be required to connect to public sanitary sewer within five (5) years of meeting these criteria or within five (5) years of the effective date of this ordinance. Within the Urban Land Use Series, an existing home on a five (5) acre or larger tract shall not be required to connect to a public sanitary sewer system unless the property is e developed at a higher density.

Policy 1.1.4 Connection of Onsite Disposal and Privately Owned Collection/Treatment Systems Where Necessary

Lake County shall require the connection of onsite disposal systems and collection/treatment systems to centralized utility services when there is endangerment to the environment, public health, safety and welfare. Financial assistance, to partially offset the cost of connecting to centralized utility services for individuals and non-profit utility service providers may be provided by Lake County through application for federal and state grants/loans or through the establishment of a construction fund funded by user charges and/or special benefit assessments.

Policy 1.1.5 Coordination of Services with Private Enterprises

Lake County shall identify and exempt from mandatory connection, those privately owned facilities where centralized wastewater services are available or planned, which have the ability to meet regulations and individual permit criteria and where mandatory connection would not be required for the economic viability of a centralized system or necessary to protect public health, safety and/or welfare. Those privately owned facilities not meeting the above criteria shall be required to connect to the centralized system when available. Lake County shall identify those areas where centralized utilities are needed and cannot be provided by a public utility.

Policy 1.1.6 Provision of Central Sewer Services Inside of Designated Urban Areas

The County shall require that property within the Urban Land use series connect to central sewer services consistent with the mandatory connection policy. Independent utility providers or public-private partnerships may be considered to provide regional central sewer services within the Urban Land Use Series where connection to a municipal system is not feasible, and if such services are both cost efficient and environmentally sound.

Policy 1.1.7 Provision of Central Sewer Services Outside of Designated Urban Areas

The County may allow for the provision of central sewer services outside of the Urban Land Use series on a case specific basis if compelling information exists to demonstrate that the lack of central sewer services poses a significant health or environmental problem for which there is no other feasible solution. The County shall encourage property within the Rural Transitional Future Land Use category adjacent to designated urban areas to connect to central sewer services if economically feasible.

OBJECTIVE 1.2 LEVEL OF SERVICE STANDARDS

The County hereby adopts the following level of service standards, and shall adopt land development regulations that ensure that existing and projected needs are met that development orders are not issued which degrade the level of service standards. These levels of service standards shall be used unless the applicant can demonstrate that the proposed use utilizes less capacity through historic records or studies of similar uses.

Policy 1.2.1 Detailed Methodologies

The Land Development Regulations shall contain detailed methodologies for determining available capacity and the impact upon capacity of any proposed development.

Policy 1.2.2 Onsite Wastewater Treatment Systems

All septic systems installed on or after 2005 shall meet best industry standards for the reduction of nutrients and other potential groundwater contaminants or shall meet Federal or State standards and guidance for maximum continuation level discharge, whichever is more stringent

Policy 1.2.3 Industrial and Hazardous Waste

Central Sewer Systems shall be required for land uses proposing the generation or processing of industrial and/or hazardous waste (based upon DOH and FDEP rules). The installation of such facilities should only be permitted by the County subject to the receipt of all applicable DOH and FDEP permits.

Policy 1.2.4 Changes from Residential to Nonresidential Use

Any change from a residential use to a nonresidential use shall require an evaluation and may require upgrade or enhancement to the existing system or connection to a central system if it is determined necessary to protect public health and the environment.

Policy 1.2.5 Septic System Inspection Program

The County will establish a septic system inspection program that requires each existing system to be inspected and certified as properly functioning, and pumped out whenever a property is sold, system is modified, or at least every five (5) years.

OBJECTIVE 1.3 WASTEWATER TREATMENT AND DISPOSAL WITHIN ENVIRONMENTALLY SENSITIVE AREAS

Lake County shall coordinate with the Federal and State agencies regarding wastewater treatment and disposal within environmentally sensitive areas.

Policy 1.3.1 Advanced Wastewater Treatment

Policy 1.3.2 Coordination of Wastewater Treatment within the Wekiva Study Area

The County shall coordinate with agencies and providers of central sewer services and onsite wastewater treatment systems to jointly address ground and surface water nutrient loading from wastewater within the Wekiva Study Area. Such efforts should aim to leverage limited resources and take advantage of economies of scale. The County shall cooperate with the Department of Health regarding compliance with rules requiring onsite performance based treatment systems to minimize ground and surface water contamination.

Policy 1.3.3 Replacement of High Density Septic Systems

Areas with existing high septic tank density inside the Wekiva Springshed or other environmentally-sensitive areas more vulnerable to surface or groundwater contamination shall receive priority for central sewer.

Policy 1.3.4 Advanced and Enhanced Onsite Wastewater Treatment

The County will coordinate with federal and state agencies including the Department of Health to minimize the impact of onsite wastewater disposal systems within springsheds, areas of aquifer vulnerability and surface waters and wetlands. The County shall require new development outside of wastewater utility service areas, not on central sewer, to comply with onsite performance based treatment systems within environmentally sensitive areas, including but not limited to the Wekiva Study Area (WSA), consistent with the state requirements. The Florida Department of Health rule making will establish the treatment standards for onsite performance based treatment systems. The County will work with agencies to evaluate various onsite wastewater treatment and disposal systems to maximize nutrient removal and provide appropriate, cost effective solutions for new and retrofitted onsite systems. As appropriate, the County shall adopt Land Development Regulations that require advanced or enhanced onsite wastewater treatment and disposal systems within the WSA and other environmentally-sensitive areas to achieve discharge limits established by DOH. The County shall consider incentives to encourage the use of more efficient nutrient-removing technologies for onsite systems as they become available.

Policy 1.3.5 Onsite Sewage Disposal Maintenance.

At the time an existing onsite wastewater disposal system fails or requires repair based on a determination by the Department of Health (DOH) that a permit or permit modification is required, it shall be replaced with a performance based system pursuant to DOH rules provided that central sewer facilities are not available. The County shall seek to enter into an Interlocal Agreement with the DOH to establish and implement an inspection, maintenance, and pump-out program for onsite individual wastewater disposal systems within areas vulnerable to surface water or groundwater contamination, including but not limited to the WSA and Green Swamp.

Policy 1.3.6 Wastewater Sludge and Septage

Lake County shall prohibit the surface spreading or depositing of wastewater sludge or septage within environmentally sensitive areas, including but not limited to the Wekiva River Protection Area, Wekiva Study Area and Green Swamp Area of Critical State Concern.

OBJECTIVE 1.4 COORDINATION AND URBAN SPRAWL

The County shall coordinate the extension of service or increase of facility capacity with adjacent municipal and private facilities to discourage urban sprawl.

Policy 1.4.1 Extension of Service to New Development

In the Urban Land Use Series the County shall require new development to connect and to fund the connection of their wastewater facilities to municipal or private utility systems where possible.

Policy 1.4.2 Prohibit Provision of Sanitary Sewer as Sole Justification for Land Use Amendments

Lake County shall prohibit the provision of sanitary sewer as sole justification for amendments to the Future Land Use Element where new or expanded development will adversely impact resource/ conservation areas or neighborhoods or will otherwise promote urban sprawl.

Policy 1.4.3 Coordination of Sanitary Sewer with Land Use

Lake County shall maximize the use of existing facilities and discourage urban sprawl by eliminating the use of septic tanks and package plants within existing and planned service areas where possible, and prohibit the extension of sanitary sewer facilities outside of existing and planned service areas depicted on the Future Land Use Map.

14 SOLID WASTE SUB ELEMENT

GOAL 1.0 SOL – SOLID WASTE

Lake County shall provide for an integrated solid waste management system, which protects the public health, sanitation, and environment and provides for operational efficiency and beneficial land use and growth patterns.

OBJECTIVE 1.1 INTEGRATED SOLID WASTE MANAGEMENT SYSTEM

Lake County shall plan and implement an Integrated Solid Waste Management System to responsibly manage the volume of solid waste disposed in Lake County landfills. An Integrated Solid Waste Management System consists of a combination of Solid Waste Management Techniques to manage and dispose of specific components of the solid waste stream, which work together to meet the Counties and Municipalities needs for safe and effective Solid Waste Management.

Policy 1.1.1 Receipt of Materials at Landfills

Landfills shall be designated to receive only regulatory defined and acceptable items that cannot be reused, composted, recycled, incinerated, or processed for volume reduction in a technologically feasible and economically practical manner.

Policy 1.1.2 Focus on Proper Management, Conservation, and Optimization of Capacity

The integrated solid waste management program shall focus on the proper management of solid waste, conservation of resources, and responsible management of landfill capacity.

OBJECTIVE 1.2 ENVIRONMENTAL COMPLIANCE OF SOLID WASTE MANAGEMENT

The County shall operate solid waste management facilities in compliance with applicable air, groundwater, and surface water pollution standards established by Federal, State, and local laws, regulations, and guidelines.

Policy 1.2.1 Continuance of Universal Solid Waste Collection Service

The County will provide universal collection service. Universal collection of solid waste was adopted for residents in the unincorporated portions of the County. The ordinance requires residences to pay a fee for solid waste collection. The ordinance includes provisions for exemptions from fee payment when severe economic hardship can be demonstrated.

Policy 1.2.2 Facility Improvements

The County shall identify, plan, and implement solid waste management facility improvements that are necessary to meet environmental performance standards and other applicable regulations.

Policy 1.2.3 Closure and Monitoring of Former Landfills

The County shall close and monitor the County's former landfills in compliance with standards established by Federal, State, and local laws, regulations, and guidelines.

Policy 1.2.4 Opening of New Landfill Facility

The County maintains more than eighty acres of land at the existing County Solid Waste Facility on which additional permitted solid waste landfill cells may be built. New cell(s) shall be operational to replace the existing operating cell. The capacity of waste disposal represented by the additionally permitted land is in excess of 11 million cubic yards. This meets the disposal needs of the County for the duration of this Comprehensive Plan.

Policy 1.2.5 Location of New Transfer Stations

Lake County shall consider constructing or obtaining contractual services for the use of transfer stations within areas of the County as population densities increase and economics indicate support for such facilities.

Policy 1.2.6 Prohibition of Incompatible New Development Near Solid Waste Management Facilities

The County shall adopt land development regulations that prohibit new development that is incompatible with the operation of nearby solid waste management facilities based on land use types and specified distance buffers contained in the Future Land Use Element and Future Land Use Map. Landfill site set backs will comply with Florida Department of Environmental Protection regulation.

Policy 1.2.7 Minimizing the Impacts from Solid Waste Management Facilities

Peripheral buffers and landscaping shall be required at new or expanding solid waste facilities to minimize impacts to the surrounding area.

Policy 1.2.8 Landfill Monitoring

The County shall continue the present well monitoring program at the County's landfills to determine ground water and surface water pollutant levels and shall expand the number of monitoring wells concurrent with any expansion of the landfills and any future establishment of landfills/monofills.

Policy 1.2.9 State Regulation Compliance

Lake County shall follow applicable federal and state regulations at all County solid waste disposal facilities to protect the water quality of the Floridan and surficial aquifers.

OBJECTIVE 1.3 IMPLEMENTATION OF RECYCLING PROGRAMS

Lake County shall develop programs to reuse, reduce, and recycle the waste streams generated by the residential, commercial and industrial sectors.

Policy 1.3.1 Commercial and Industrial Recycling Emphasis

Lake County shall encourage and promote the commercial/industrial sectors to examine their individual waste streams to determine those materials that may be reused, recycled, or composted.

Policy 1.3.2 Promote the Use of Recycled Products in the Commercial, Industrial and Government Sectors

Lake County shall encourage and promote programs to assist the commercial/industrial/government sectors in examining their operations and processes to identify recycled products that may be used in place of virgin materials and to identify ways to reduce their waste generation.

Policy 1.3.3 Enhance Public Education

Lake County shall promote, expand, and enhance public education and awareness programs to encourage and inform both the residential and the commercial/industrial sectors of the need to reduce, recycle, reuse, and recover.

Policy 1.3.4 Composting and Mulching Program

Lake County shall continue the program for the mulching of green yard waste (i.e. grass clippings, garden waste, hedge clippings). Lake County shall encourage backyard composting through the public education and awareness programs. The County, during the development of the mulching program, shall evaluate the establishment of local composting areas.

Policy 1.3.5 Inclusion of Materials not Traditionally Targeted for Recycling, Reuse or Volume Reduction

Lake County shall develop, improve, and expand the waste reduction, reuse, and recycling programs to include additional materials, methods, or technologies.

OBJECTIVE 1.4 IMPLEMENTATION OF A WASTE-TO-ENERGY TECHNOLOGY TO REDUCE THE VOLUME OF SOLID WASTE REQUIRING LAND FILLING

Lake County shall maximize the use of its existing facilities. Further waste volume reduction may be accomplished by utilizing the Lake County Resource Recovery facility, a waste-to-energy facility, to reduce the volume of solid wastes entering the landfill.

Policy 1.4.1 Utilization of the Waste-to-Energy Facility

The Lake County Waste-to-Energy (resource recovery) facility maintains a contract with Lake County to process waste until 2014. Continued utilization of the facility in its present or an expanded configuration shall be determined prior to the expiration of the current Waste Disposal Agreement, but no later than 2010.

Policy 1.4.2 Reduction in the Size of Bulky Waste

The County shall investigate methods to reduce the size of bulky waste so it may be processed through the waste-to-energy facility, recycled or disposed in the County or other permitted facilities in the most effective manner.

Policy 1.4.3 Monitor the Potential for Ash Residue Reuse

The County shall monitor the research and development of ash residue reuse to reduce the quantity requiring ultimate disposal.

OBJECTIVE 1.5 ENVIRONMENTAL MONITORING OF PRIVATE SOLID WASTE MANAGEMENT FACILITIES

Lake County and the Florida Department of Environmental Protection (FDEP) shall monitor privately owned and operated solid waste management facilities including landfills, resource recovery facilities, and solid waste processing facilities. This monitoring is needed to ensure that solid waste facilities in Lake County remain in compliance with applicable air, groundwater, and surface water pollution standards established by Federal, State, and local laws, regulations, and guidelines.

Policy 1.5.1 Safe Operation of Privately-Owned Solid Waste Management Facilities

Upon adoption of its Comprehensive Plan, the County shall cooperate with the Florida Department of Environmental Protection in their regulation of privately-owned, as well as publicly-owned, solid waste management facilities to assure they are operated in a manner that will protect the public health, welfare, and safety.

Policy 1.5.2 Monitoring Impacts from Privately-Owned Solid Waste Management Facilities

The Department of Environmental Services shall cooperate with the Florida Department of Environmental Protection in their efforts to monitor the impacts to air, land, ground and surface water, and wildlife habitat from privately operated solid waste management facilities.

Policy 1.5.3 Acceptance of Imported Solid Waste

Lake County shall encourage the acceptance of only those imported solid wastes for disposal at the waste-to-energy facility that have, at the point of origin, a recycling program that eliminates to a practicable degree materials such as batteries from the waste stream.

OBJECTIVE 1.6 SOLID WASTE MANAGEMENT FACILITY PLANNING

Lake County shall plan new solid waste management facilities, additions, expansions, and improvements of existing facilities to meet the present needs and support the anticipated growth for a minimum of 25-years available disposal capacity. To assist in this planning process, a reasonable and effective level of service shall be established. The ultimate objective of the integrated solid waste management system shall be to reduce the solid waste generation rate and to increase solid waste disposal capacity.

Policy 1.6.1 Long-range Planning Program for Solid Waste Management

The County shall establish a long-range planning program to address the available capacity of solid waste management facilities for a minimum 25-year planning period.

Policy 1.6.2 Annual Evaluation of Generation Rates, Disposal Rates, and Facility Capacity

Lake County shall conduct an annual review of solid waste generation, disposal rates, and facility capacity to monitor existing programs and to evaluate future needs.

Policy 1.6.3 Evaluation of Funding Alternatives

Lake County shall identify and evaluate funding alternatives for the continued development and operation of the integrated solid waste management system.

Policy 1.6.4 Cost and Performance Efficiency

The County shall operate all of its solid waste management facilities in a manner that will protect the public health, welfare, and safety, and will control cost and performance.

Policy 1.6.5 Regulation of the Waste Stream

The County shall identify solid waste generated within and outside of Lake County, and adopt controls to direct components of the waste stream to processing facilities prior to final disposal. The County may opt not to accept for disposal waste generated outside the County. Such waste that is dedicated to agreements with adjacent counties pursuant to an interlocal agreement shall be accepted for disposal or processing at a rate to be established.

Policy 1.6.6 Solid Waste Level of Service

The County's adopted level of service (LOS) for its solid waste disposal facilities shall be:

- The base LOS is 2-1-1: 2 days per week garbage pickup, 1 day per week recycling pickup, and 1 day per week yard waste pickup.
- Exceptions are in the north and northeast part of the County, which are contracted for 1-1-1 due to road conditions and a less dense population.

OBJECTIVE 1.7 PROPER DISPOSAL OF SOLID WASTE

The County shall develop and implement programs to address the problems of illegal dumping of solid waste materials.

Policy 1.7.1 Enforcement of Regulation to Guard Against Illegal Dumping

Lake County shall assist in the enforcement of existing County ordinances, Florida Statutes, and Federal laws concerned with illegal dumping.

Policy 1.7.2 Emphasize the Problems Associated with Illegal Dumping

Lake County shall discourage illegal dumping, through education, public awareness, and cooperation with County and Departmental Code Enforcement staff in the issuance of enforcement penalties.

OBJECTIVE 1.8 HEALTH AND SAFETY

The County shall endeavor to protect County residents from diseases associated with solid waste, from nuisances caused by the improper management and/or disposal of waste materials and from adverse impact resulting from the improper management and/or disposal of regulated materials and hazardous waste.

Policy 1.8.1 Household Hazardous Waste Programs

Lake County shall maintain a Household Hazardous Waste Program and Conditionally Exempt Small Quantity Generators' (CESQG) Program, and operate a Household Hazardous Waste Collection facility at the Residential Drop-Offs and Landfill and provide for the pickup and disposal of household hazardous waste materials by appropriately licensed hazardous waste management firms.

Policy 1.8.2 Compliance with State Regulations – Pollutant Storage Tank Systems

The County shall comply with Florida Administrative Code (FAC) requirements for above ground facilities, below ground storage facilities, and for Florida Petroleum Liability Insurance requirements.

Policy 1.8.3 The Lake County FDEP Pollutant Storage Tank Monitoring Program

The County shall monitor the compliance of newly permitted storage tanks and retrofit existing tanks, the County shall utilize the information the Health Department already has to complete a geographic inventory of storage tank locations. This inventory should be developed in the same manner as a septic tank inventory. A coordinated inventory and inspection should occur between the two programs whenever possible. The County shall implement the state mandated program through a continuing contract.

Policy 1.8.4 Litter/Nuisance Control

The County shall enforce the Lake County nuisance provisions through available remedies and shall promote anti-litter practices through the adopt-a-road program. The County shall cooperate with other jurisdictions and agencies on the detection and correction of nuisances through a countywide litter committee comprised of Solid Waste, Potable Water, DOT, Library & Leisure Services and Administrative Services.

Policy 1.8.5 Enhanced Battery Collection and Disposal Program

Lake County shall encourage the recycling of batteries, and those collected shall be properly and safely stored for recycling. If the batteries are not recyclable than they should be disposed in a properly permitted landfill.

Policy 1.8.6 Battery and Used Oil Collection Program

Lake County shall maintain battery and used oil collection programs in order to eliminate these materials from the waste stream.

Policy 1.8.7 New Solid Waste Facilities and Expansions of Existing Facilities Within the Wekiva Study Area

The County will evaluate the hazards posed by new solid waste facilities and expansions of existing facilities within the Wekiva Study Area (WSA). The County will study appropriate siting criteria and other issues for solid waste transfer stations, hazardous and toxic materials treatment and disposal sites, and landfills. The County may adopt regulations, as needed, to limit or exclude such facilities within portions of the WSA.

OBJECTIVE 1.9 COORDINATION, MAXIMIZATION, AND DEFICIENCY CORRECTION

The County shall correct and future capacity deficiencies coordinate capacity increases and maximize the use of existing facilities.

Policy 1.9.1 Priority of Solid Waste Services

The County shall establish the priority of solid waste activities as follows in order of priority:

- Operation and maintenance of all facilities in accordance with applicable regulations.
- Provision of additional capacity to service new development.

Policy 1.9.2 Intergovernmental Coordination

The County shall support an intergovernmental approach to the problems and opportunities of waste management, both within and outside the County, through the monthly coordination meetings and any future interlocal agreements.

Policy 1.9.3 Annual Capital Improvement Element Update

The County shall annually update the [Capital Improvements Element](#) to adequately fund activities and programs enabling the correction of any deficiencies that might arise, the replacement of equipment, the maximizing of existing facilities and facility capacity increases needed to serve future needs.