



CITY OF CLERMONT
COMPREHENSIVE PLAN

CHAPTER VII
POTABLE WATER ELEMENT

Adopted: June 23, 2009
Amended: January 12, 2010

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CHAPTER VII
POTABLE WATER

GOAL 1: To plan for and assure an adequate supply of excellent quality potable water to meet the needs of all residents and non-residential establishments within the City of Clermont and within the City's utility service area throughout the 2020 planning timeframe.

Objective 1.1: Maintain Level of Service. Based upon the adopted level of service standard, the City shall annually adopt programs and activities to correct existing deficiencies and maintain the public water system.

Policy 1.1.1: The City's level of service (LOS) standard for potable water supply shall be 185 gallons per capita per day (gpcd).

Policy 1.1.2: The City shall repair potable water supply facilities as required to maintain the adopted LOS standard.

Policy 1.1.3: The City shall review water fee methodology and user rates to ensure adequate funding for treatment, storage and distribution facilities.

Policy 1.1.4: All improvements and/or additions to potable water facilities to correct deficiencies shall comply, at a minimum, with standards recognized and approved by the Florida Department of Environmental Protection (FDEP) and shall be adequate to meet the adopted LOS standard.

Policy 1.1.5: User fees shall cover the full cost of operating and maintaining the City water system, including debt service.

Policy 1.1.6: The City shall maintain a Water Supply Facilities Work Plan that is consistent with the most recently adopted SJRWMD district water supply plan to address water supply sources and related facilities necessary to meet the existing and projected demand within the City's utility service area.

Policy 1.1.7: The City shall pursue the following water supply strategies consistent with its Water Supply Facilities Work Plan and with the goals, objectives and policies in this element and other elements of the comprehensive plan:

- Continue to safely maximize groundwater supplies consistent with the most recently approved SJRWMD consumptive use permit constraints.
- Explore the use of alternative water supply sources, particularly the St. Johns River near DeLand surface water project.
- Continue to implement the water conservation strategies in this element to reduce system-wide potable water demand through the 2020 planning timeframe.
- Continue to expand the City's reuse system to reduce potable water demand consistent with policies in the Sanitary Sewer Element.

Policy 1.1.8: All proposed land use amendments shall require an analysis of the impacts to the adopted LOS standard and the analysis of adequate planned water supply sources and facilities.

Objective 1.2: Future Potable Water Needs. Based on population projections and analysis in the City's Water Supply Facilities Work Plan (included as **Appendix A** of this element), the City shall ensure the supply and treatment of safe potable water through the 2020 planning timeframe to meet the adopted LOS standard as well as the requirements of the Water Supply Facilities Work Plan and the SJRWMD water supply plan as updated. *(Amended Jan. 12, 2010, Ord. 625-M)*

Policy 1.2.1: Based on the adopted LOS standard, the City will develop capacity to meet future demands concurrent with new development.

Policy 1.2.2: The City shall maintain a potable water utility master plan and shall update the plan every five years. The master plan will be used to implement the Five-Year Schedule of Capital Improvements to ensure potable water projects are prioritized based on maximum efficiency and cost-effectiveness to meet the demands of future growth.

Policy 1.2.3: The City's Engineering and Utilities departments shall continue to pursue alternative funding sources and participate with adjacent jurisdictions to plan and construct efficient potable water systems. Specifically, the City shall pursue funding from the St. Johns River Water Management District (SJRWMD) water protection and sustainability program and the FDEP clean water state revolving fund.

Policy 1.2.4: If economically and technically feasible, the City is considering using a stormwater pond with excess capacity in the range of 10-20 million gallons available to store reclaimed water during wet weather or low demand periods to store reclaimed water purchased in bulk quantities from other utility providers and reuse stormwater flows to supplement reclaimed water supplies. *(Amended Jan. 12, 2010, Ord. 625-M)*

Objective 1.3: Service Area Development. The City shall prioritize the extension of existing potable water facilities and the construction of new facilities within its utility service area in a manner that discourages leapfrog development and urban sprawl.

Policy 1.3.1: With the exception of those areas served by Lake Utility Services, Inc. and Florida Utility Group, the City shall be the sole supplier of potable water to residents and non-residential establishments within the City's utility service area, which is based on the boundaries established in its August 26, 2003 Joint Planning Area (JPA) agreement with Lake County. *(Amended Jan. 12, 2010, Ord. 625-M)*

Policy 1.3.2: The City shall encourage and require, as needed, the interconnection and looping of existing and proposed segments of the potable water distribution system.

Policy 1.3.3: The City shall rehabilitate and reuse existing public water facilities as an alternative to new construction when rehabilitation and reuse is cost-effective.

Policy 1.3.4: Before supplying potable water to developments located in the utility service area, the City may require that the development be annexed into the City.

Policy 1.3.5: The City may provide wholesale potable water service to other cities and the county by written agreement.

Policy 1.3.6: The City shall continue to maximize the use of the existing public water treatment facilities connected to the central water system.

Policy 1.3.7: The City shall require all new development to demonstrate concurrency with the adopted LOS standard.

Policy 1.3.8: The City shall require that new developments extend potable water distribution and reclaimed lines along the entire property boundary for future connection to adjacent properties.

Policy 1.3.9: The City shall discourage urban sprawl through the following activities:

- The City shall require all new developments within the City limits to connect to the City's central potable water system.
- The City will coordinate with the county to ensure that all new development within the City's utility service area shall connect to the City's water system where feasible.
- Where connection to the City's water system is not feasible within the unincorporated county portion of the utility service area, the City shall coordinate with the county to ensure that all new developments will install dry lines for future connection to the City's system.

Policy 1.3.10: The City shall only provide service to those areas included in the City's delineated utility service area. Throughout the 2020 planning timeframe, the following ranked criteria shall be used by the City to establish priorities for the provision of new potable water services:

- To existing developed areas within the service area that either present an immediate threat to public health or safety or produce serious pollution problems;
- To areas within the designated water service area as identified in the water master plan, capital improvements program, and the City's comprehensive plan;
- To areas contiguous to the City limits, but outside the designated water service area. This shall be after annexation and if capacity is available; and
- To existing developed and undeveloped areas not claimed as service areas by other utilities.

Objective 1.4: Potable Water Conservation. The City shall ensure that its potable water system conserves water and reduces the per capita demand to the minimum possible rate through the 2020 planning timeframe. This shall be accomplished through the implementation of water conservation techniques and programs and through the establishment and use of non-potable water supplies for uses other than drinking water.

Policy 1.4.1: The City shall encourage continuing education of its utilities operating staff to optimize the potable water utility's maintenance and operation processes.

Policy 1.4.2: The City shall implement a water-conserving rate structure.

Policy 1.4.3: The City shall require the use of water-conserving plumbing fixtures in all new development and shall consider the use of incentive programs to encourage retrofits for existing buildings.

Policy 1.4.4: The City shall comply with conservation efforts outlined in the most recently issued consumptive use permit from the SJRWMD.

Policy 1.4.5: The City shall require the installation of dual-water lines and meters in all new developments served by the City's water system to distribute potable and reclaimed water even if reclaimed water is not yet available.

Policy 1.4.6: All new developments that abut existing or planned routes of the City's reclaimed water distribution system will be required to either connect to the system prior to occupancy or provide dry lines for future connection.

Policy 1.4.7: The City shall implement an employee and customer water-conservation education program.

Policy 1.4.8: The City shall require the use of reclaimed water in place of potable water for irrigation and other nonpotable needs when such nonpotable supply is available. (Amended Jan. 12, 2010, Ord. 625-M)

Objective 1.5: Landscape Irrigation and Florida-Friendly Design Standards. The City shall encourage or require, depending on standards established in the Land Development Code, low-impact landscape and irrigation system design to conserve the City's potable water resources.

Policy 1.5.1: The City's land development regulations shall encourage, or in some cases require, the following landscape design criteria:

- Existing vegetated areas shall be preserved and incorporated into the design;
- Plants shall be appropriate for site conditions, taking into account that, in some cases, soil improvements can enhance water use efficiency;
- The percentage of landscaped areas in irrigated high-water-use zones should be minimized; however, these limits should not apply to landscaped areas requiring larger amounts of turf for their primary functions such as ball fields and playgrounds.

Policy 1.5.2: Irrigation systems shall be designed in a manner that considers soil, slope and other site characteristics in order to minimize water waste, including overspray, the watering of impervious surfaces and other non-vegetated areas, and off-site runoff, and they shall be designed to provide the following where feasible:

- Use of the lowest water quality feasible;
- Matching precipitation rates for sprinklers and all other emitters in the same water-use zone, except that the design may specify micro-irrigation emitters to meet the requirements of individual plants;
- Controller systems shall be required, when feasible, to provide the following minimum capabilities;
 - Ability to be programmed in minutes, by day of the week, season and time of day;
 - Ability to accommodate multiple start-times and programs;
 - Automatic shut-off after adequate rainfall;
 - Ability to maintain operations during power outages for a minimum of three days;
 - Operational flexibility to meet year-round water conservation requirements and temporary water shortages; and

- Ability to minimize free-flow conditions in case of damage or other mechanical failure.

Objective 1.6: Fire Protection Capabilities. The City shall provide adequate delivery and distribution of potable water to meet fire protection demand within the utility service area.

Policy 1.6.1: The City shall continue to monitor, evaluate, repair and replace the existing water delivery and distribution system to ensure the system can deliver needed gallon per minute flows to meet fire protection demands.

Policy 1.6.2: The City shall maintain an active water system and fire hydrant mapping and numbering program.

Policy 1.6.3: The City shall establish and maintain a hydraulic model of the City's water distribution network so that the water distribution system can be routinely analyzed with respect to fire flow capabilities.

Policy 1.6.4: The City shall extend water distribution mains to areas within the City's service area and provide adequate fire protection service to residents and non-residential establishments located within the service area, provided that residents/developers participate in the costs.

Policy 1.6.5: The City shall base fire flow levels of service upon delivery pressures of 20 pounds per square inch (psi) residual, minimum fire flows of 500 gallons per minute (gpm) for residential and 1,500 gpm for non-residential and multi-family developments.

Objective 1.7: Protection of Groundwater from Contamination. The City shall perform specific actions during the 2020 planning timeframe to protect water quality by preserving groundwater from contamination.

Policy 1.7.1: The City shall meet or exceed all federal and state water facility regulations that provide for the protection of the environment.

Policy 1.7.2: To protect the quality and quantity of the City's potable water supply, the City will continue to enforce the land development regulations established for the primary and secondary well field protection zones. The primary well field protection zone consists of the land immediately surrounding any potable water supply well a radial distance of 500 feet. The secondary well field protection zone consists of the land immediately surrounding any potable water supply well a radial distance of 1,000 feet.

Objective 1.8: Intergovernmental Coordination. The City shall coordinate with adjacent jurisdictions and applicable state and federal agencies to protect the quality and quantity of its water sources.

Policy 1.8.1: The City shall meet annually with adjacent governments, private utilities, and state and federal agencies to coordinate the provision of potable water services and service area boundaries.

Policy 1.8.2: The City shall coordinate with adjacent jurisdictions and applicable regional, state and federal agencies to educate the community about conservation, sustainable use and protection of the quality and quantity of its water sources.

Policy 1.8.3: The City shall review and update the Water Supply Facilities Work Plan and supporting data and analysis within one year of the update of the SJRWMD district water supply plan and will amend this element as necessary to incorporate any applicable policies.

Objective 1.9: Maximizing the Use of Existing Public Facilities. The City shall maximize the use of existing potable water facilities.

Policy 1.9.1: The City's Engineering and Utilities departments shall identify, develop and implement a sustainable potable water production, treatment and distribution system by using the highest and best-proven technology possible.

Policy 1.9.2: The City shall continually update a GIS map of the entire potable water system to maintain the potable water system and to anticipate and facilitate system repair.

Policy 1.9.3: The City's Utilities Department shall maintain accurate records of well-water production flows, maintenance, chemical usage and other items related to efficient ongoing water service operation.