



PUTNAM COUNTY COMPREHENSIVE PLAN

EXHIBIT DD

INFRASTRUCTURE ELEMENT

D. Infrastructure Element

(Sanitary Sewer, Potable Water, Solid Waste, Drainage and Natural Groundwater Aquifer Recharge) Goals, Objectives and Policies

GOAL D.1: Putnam County shall ensure that Sanitary Sewer, Potable Water, Solid Waste and Drainage facilities shall meet existing and projected demands at the Level of Service identified in this Element. Also, the County, containing land areas of high aquifer recharge capacity, shall protect and preserve this resource for the long-term benefit of its residents and all populations which draw water from this shared resource.

Objective D.1.1: To correct existing deficiencies as well as to coordinate the extension of facilities to meet future needs, the County shall implement the following policies.

Policy D.1.1.1: The County shall maintain a five-year schedule of capital improvement needs for public facilities, to be reviewed annually and updated as needed in conformance with 163.3177(3)(b) Florida Statutes.

Policy D.1.1.2: The County Commission or its designated representative will coordinate, evaluate, and rank capital improvement projects proposed for inclusion in the schedule of capital improvement needs, according to the following priority level guidelines:

Level One - Whether the project is needed to protect public health and safety, and to provide the County's legal commitment to provide services.

Level Two - Whether the project eliminates existing capacity deficits to developed service areas shown for such facilities in the Future Land Use element of this plan.

Level Three - Whether the project represents a logical extension of facilities and services within a designated service area thereby controlling urban sprawl.

Policy D.1.1.3: The County shall maintain up-to-date inventories of all public facilities and identify locations required to support future development needs.

Objective D.1.2: The County shall regulate land use and control urban sprawl by requiring and implementing through its Land Development Code maximum use of current available and planned infrastructure facilities.

Policy D.1.2.1: The County shall implement the spatial distribution of land use as adopted on the Future Land Use Map. Proposed amendments shall include requisite consideration of the availability of existing and proposed infrastructure items to address the maximum development potential of the amendment and the resulting demand.

Policy D.1.2.2: The County shall continue to implement Land Development Code regulations that specify density bonuses for development which includes the construction of central water/sewer systems which serve that development, and address additional bonuses for the construction of water/sewer systems with excess capacity that is made available to new construction that may occur beyond the limits of the planned subdivision.

Potable Water

Objective D.1.3: The County shall maximize the use of existing infrastructure, coordinate the extension of, or increase the capacity of, potable water facilities to meet future needs.

Policy D.1.3.1: The County shall ensure that the continuation of current service and the extension of service into the future meets the needs of the residents of Putnam County through the endorsement of state regulations pertaining to permitting, construction and quality standards of potable water, specifically:

A. Private water wells shall be permitted and constructed in accordance with the requirements of Putnam County Ordinance 87-2. Public supply water wells shall be permitted and constructed in accordance with the requirements of the St. Johns River Water Management District or the Suwannee River Water Management District, as jurisdictionally appropriate.

B. Water systems serving the public shall be permitted and constructed in accordance with the requirements of the St. Johns River Water Management District, the Florida Department of Environmental Protection, and the Putnam County Department of Health. Water systems serving private homes shall be permitted and constructed in accordance with the requirements of Putnam County Ordinance 87-2.

C. Drinking water shall meet the quality standards established in by the Florida Department of Environmental Protection and the Putnam County Department of Health.

D. The minimum gallons per day requirement of new potable water systems serving the public shall be established at a level of service based upon requirements of the Florida Department of Environmental Protection and the Putnam County Department of Health.

E. Water supply systems designed to serve the public in Putnam County shall provide storage for the number of gallons of potable water at a rate consistent with the standards of the Florida Department of Environmental Protection (FDEP) and the Putnam County Department of Health.

F. A public water system in Putnam County shall provide a minimum pressure of 20 pounds per square inch at all service connections during peak water demands.

G. The County will not issue construction permits unless the design and location of water supply system (including private wells) has been approved by the Putnam County Department of Health and/or FDEP.

Policy D.1.3.2: Prior to the approval of a building permit or its functional equivalent, Putnam County shall consult with the applicable potable water supplier to determine whether adequate water supplies exist to serve the development no later than the anticipated date of issuance of a certificate of occupancy or its functional equivalent. The County shall ensure that adequate water supplies and potable water facilities shall be in place and available to serve the new development no later than the issuance of a certificate of occupancy or its functional equivalent by the County.

Objective D.1.4: The County shall conserve potable water resources by implementing specific measures in the policies listed below.

Policy D.1.4.1: The County shall request the assistance of the Suwannee River Water Management District (SRWMD), St. Johns River Water Management District (SJRWMD) and other agencies to facilitate and conduct a public information program alerting residents of wasteful water practices, and encouraging responsible and practical use of potable and water resources. Through this program the County shall maintain a public awareness of the diminishing supply of potable water in the State of Florida and be prepared to explore alternative sources of water if the situation becomes exacerbated. The Planning and Development Services Department shall continue to display brochures provided by SJRWMD and SRWMD concerning water conservation techniques and where the county has control of public utilities supplying water, public information brochures shall be distributed with residents' water bills.

Policy D.1.4.2: The County shall enforce regulations that implement the requirements of the Florida Building Code, and continue to require low water consumption plumbing devices and other water conservation measures, such as xeriscaping.

Policy D.1.4.3: To protect the long-term life of the Floridan Aquifer the County shall request the assistance of the SJRWMD and SRWMD to identify and utilize alternative sources of water for commercial, agricultural and industrial operations

Objective D.1.5: The County will adopt and maintain a water supply facilities work plan (WSFWP) when required by Florida Statutes. The WSFWP shall address the water supply facilities that are necessary to serve the existing and future development that occurs within the County's jurisdictional potable water supply area.

Policy D.1.5.1: The WSFWP shall be consistent with the potable water level of service standards established in the comprehensive plan.

Policy D.1.5.2: The WSFWP shall be coordinated with the St. Johns River Water Management District's Water Supply Plan and updated within 18 months of an update of the District Water Supply Plan.

Policy D.1.5.3: The WSFWP shall be used to coordinate and prioritize the expansion and update of the facilities needed to meet current and future water needs. The WSFWP shall also identify the sources of water, water conservation measures, water supply projects, and agreements necessary to meet the current and projected increases in demand.

Sanitary Sewer

Objective D.1.6: The County shall maximize the use of existing infrastructure, coordinate the extension of, or increase the capacity of sanitary sewer facilities to meet future needs.

Policy D.1.6.1: The County shall establish the following level of service standards to ensure that the continuation of current service and the extension of service into the future meet the needs of the residents of Putnam County. The permitting, construction and standards for sanitary sewer treatment and disposal shall comply with the following:

A. No septic tank or other domestic on-site sewage treatment and disposal system shall be installed until an application form DH-H Form 4015 is submitted and an "Onsite Sewage Treatment and Disposal System Construction Permit" has been obtained from the Department of Health.

B. The sizing and location of sanitary sewer disposal systems (including septic tanks) shall be in accordance with Putnam County Department of Health standards for Onsite Sewage Treatment and Disposal Systems, and Putnam County Ordinance Numbers 87-5 and 80-1, as amended by Ordinances 87-8 and 91-03. Putnam County Department of Health standards for Onsite Sewage Treatment and Disposal provides minimum design flows based on estimated daily sewage which will be used for level of service standards.

C. Treatment and disposal of the sewage flow from a building or establishment shall be in compliance with Florida Department of Environmental Protection (FDEP) standards and rules when:

1. The volume of domestic sewage from an establishment exceeds 10,000 gallons per day. Putnam County Department of Health standards for Onsite Sewage Treatment and Disposal Systems shall be used for determining the total daily establishment sewage flow from all sources located on one or more parcels of land.
2. Sewage or wastewater contains industrial or toxic or hazardous chemical waste.
3. An area is zoned for industrial or manufacturing use, or its equivalent, and where system use may be for disposing of other than domestic wastes.

D. Site evaluation for the location of septic tanks shall meet the site evaluation criteria specified in Putnam County Department of Health standards for Onsite Sewage Treatment and Disposal Systems.

E. Discharge water quality of wastewater treatment plants shall meet the criteria specified by the Florida Department of Environmental Protection.

F. Mandatory connections to municipally owned or investor-owned public sewerage systems shall be required as provided in Chapter 381, Florida Statutes, and any related provisions of the Florida Administrative Code.

G. The County will not issue construction permits unless the design and location of the sewage treatment system has been approved by the Putnam County Department of Health and/or FDEP.

Policy 1.6.2: In accordance with State law, the County shall allow sanitary sewer concurrency to be met by onsite sewage treatment and disposal systems approved by the Department of Health.

Drainage

Objective D.1.7: The County shall maximize the use of existing infrastructure, coordinate the extension of, or increase the capacity of stormwater management facilities to meet future needs.

Policy D.1.7.1: The following level of service standards for stormwater management facilities shall be used as the basis for determining the availability of facility capacity and the demand generated by a development.

Stormwater management facilities shall be designed to accommodate the 25-year frequency, 24-hour duration design storm to meet the standards that follow:

Water Quantity - Peak post-development run-off rates shall not exceed peak pre-development run-off rates.

Water Quality - Stormwater treatment shall be required for all new development and redevelopment to provide a level of treatment which meets the standards of Chapter 40C-42.025, FAC. Ambient water quality standards will be maintained in accordance with the requirements of Rule 62-302, FAC.

Wetland Stormwater Discharge - Permits for wetland stormwater discharge shall follow Rule 62-25, FAC.

Stormwater Discharge Facilities - Permits for construction of new stormwater discharge facilities shall follow Rule 62-25, FAC.

Closed Conduits - 10 year frequency, 24-hour duration; IDF curve Zone 5, FDOT Drainage Manual, as amended from time to time.

Open Channels - 25 year frequency, 24-hour duration; IDF curve Zone 5, FDOT Drainage Manual, as amended from time to time.

Level of Service - Shall meet FDEP Stormwater Rule 62-25 (retain the first inch of stormwater for drainage basins over 100 acres; the first one-half inch of stormwater for drainage basins under 100 acres).

The standards stated above shall pertain to all new development and redevelopment without exception. The exemption regarding project size thresholds provided in Rule 62-25, FAC, does not apply for concurrency determination.

Note: The Florida Administrative Code (FAC) citations refer to these regulations as they exist at the time of adoption of this comprehensive plan.

Solid Waste

Objective D.1.8: The County shall maximize the use of existing infrastructure, coordinate the extension of, or increase the capacity of solid waste facilities to meet future needs.

Policy D.1.8.1: The level of service standards for the County's solid waste facilities of 6.4 pounds per capita per day shall be adopted and utilized to assess adequacy of service and project the expected lifetime of the County landfill.

Policy D.1.8.2: The County shall maintain and annually update its interlocal agreements with the municipalities (of the County) whereby the County and municipalities commit themselves to negotiate a solid waste disposal capacity which the County will provide at its landfill to meet reasonable solid waste generation projections of local communities.

Policy D.1.8.4: The County shall continue its recycling effort to meet the requirements of Florida Statutes 403.706(2) and (4), and 187.201(13)(b)1 which requires each county and municipality to undertake recycling efforts and to reduce the volume of solid waste requiring disposal. The County shall continue to provide an annual progress report to the State, pursuant to Chapter 403.706(7), Florida Statutes, regarding its recycling efforts. The County shall continue interlocal agreements with each municipality which stipulate how each municipality shall assist in meeting the requirements of the County's recycling efforts.

Policy D.1.8.5: All improvements for replacement, expansion, or increase in capacity of facilities shall be compatible with the level of service standards for the facilities stated in this Element.

Natural Groundwater Aquifer Recharge

Objective D.1.9: The County shall implement adopted regulations that protect the functions of natural groundwater recharge areas and natural drainage features.

Policy D.1.9.1: The County shall coordinate with Florida Department of Environmental Protection to establish schedules for routine inspection of all County-owned wastewater treatment plants.

Policy D.1.9.2: The County shall continue to enforce Section 1A of County Ordinance 80-1, and Article 6 of the Land Development Code, which regulates wastewater effluent discharges into water bodies and their tributaries.

Policy D.1.9.3: The County shall endorse FDEP programs to determine all known point and nonpoint sources of pollution within the County. All discharges requiring permits shall be required to meet State Water Quality Standards. Any discharges not requiring permits shall be required to meet any existing Best Management Practices (BMPs).

Policy D.1.9.4: Groundwater quality within Areas of High Recharge Potential (8 inches or more per year) to the Floridan Aquifer as identified on Map D-7 of the Putnam County Comprehensive Plan Infrastructure Element shall be protected through prohibition of landfills, underground storage of toxic materials and locating of hazardous waste sites within such areas, except as may be permitted by other jurisdictional agencies.

Policy D.1.9.5: The County shall maintain the Land Development Code article that protects Areas of High Aquifer Recharge Potential. Areas of high aquifer recharge include areas where recharge is 8 inches or more per year, as identified on Map D-7 of the Putnam County Comprehensive Plan Infrastructure Element. That portion of the County that falls within the Suwannee River Water Management District is in a high aquifer recharge area. Development in these areas must provide a method of capturing storm water run-off on site in a facility that will treat it and recharge the aquifer, except that a site may be developed without addressing additional stormwater management standards particular to aquifer recharge if it has an impervious surface area of less than 35% of the total area of the site. Site specific information may be substituted for the identified map for the purpose of determining whether or not a particular site is in an area of high recharge. Approval of a required stormwater management facility by the Director of Public Works shall occur by the time of building permit application. Building permits shall not be issued unless this policy is met.

Objective D.1.10: The County shall take specific flood protection measures, which will protect all surface water bodies from pollutants.

Policy D.1.10.1: The County shall maintain the level of service standards for stormwater management adopted in this element, the Capital Improvement Element and the Land Development Code. One year after the adoption of the stormwater master plan by the Board of County Commissioners, relevant provisions of the stormwater master plan shall be incorporated into this element and the Capital Improvements Element.

The stormwater master plan shall delineate strategies for:

- 1) Determining the volume, rate, timing, and pollutant load of runoffs where improvements have been made;
- 2) Identifying areas which have recurring drainage problems and evaluating the extent to which water bodies are being impacted by the stormwater discharges;
- 3) Determining where additional improvements are needed;
- 4) A priority listing of stormwater management facilities projects based upon the criteria in Policy D.1.1.2, and costs and time associated with the completion of each project required to correct current deficiencies and meet future needs.

Policy D.1.10.2: The County shall implement a routine maintenance program of County-maintained drainage ditches, the costs of which are incorporated into the County's operating budget.

Policy D.1.10.3: The County shall continue to coordinate with the Department of Transportation (FDOT), on a routine basis, for FDOT's fulfillment of its responsibility to implement a maintenance program for drainage ditches along state maintained roads.

Policy D.1.10.4: The County shall require new development to establish a minimum 25 foot buffer of native vegetation adjacent to wetlands and a minimum 50-foot buffer adjacent to water bodies.

Policy D.1.10.5: The County shall require and implement through its Land Development Code that new construction be engineered to reduce erosion due to stormwater runoff both during and after construction. Erosion controls shall include and consist of the recommended best management practices found in Chapter 4: "Best Management Practices for Erosion and Sedimentation Control" of the Florida Erosion and Sediment Control Inspector's Manual published by FDEP.

Policy D.1.10.6: The County shall require and implement through its Land Development Code that surface water runoff from new construction sites not be greater than the runoff from the site prior to construction activities. Exempted from this policy are subdivisions with an approved stormwater master plan and construction associated with a DRI.

Policy D.1.10.7: The County shall reinforce FDEP regulations which states that all surface waters of the state shall at all places and at all times be free from domestic, industrial, agricultural or other man-induced non-thermal components of discharge which contribute to surface water pollution.

Policy D.1.10.8: The County shall ask the St. Johns River Water Management District and Florida Department of Environmental Protection to identify the storm water drainage from County maintained roads and facilities that is causing degradation of the St. Johns River and its tributaries. Upon identification, the County shall apply for state and federal funds to improve storm water management and restore degraded aquatic ecosystems.

Objective D.1.11: The County shall implement the following policy to reduce the potential of groundwater contamination through wellhead intrusion into the aquifer.

Policy D.1.11.1: Public water wellheads shall be protected from adverse impacts of new development by requiring a minimum 500-foot radial setback (well field protection zone) around each wellhead and by limiting or prohibiting certain uses within this zone consistent with the requirements of Chapter 62-521, FAC.