

➤ Infrastructure Element





Infrastructure - Sanitary Sewer Sub-Element

GOAL: The goal of the sanitary sewer and lift station network is to protect the health of the residents and to preserve the environment by collecting, treating and disposing of wastewater in a fashion that is cost-effective and that encourages orderly growth.

OBJECTIVE1: The City shall correct existing deficiencies and increase the capacity of the sanitary sewer system to meet projected demands as they occur.

POLICY 1.1: The useful life of the current system shall be preserved and made more efficient through a preventive maintenance program.

STANDARD 1.1.1: Annual work program includes periodical inspection of lift stations and force mains, gravity sewer system and manholes, and replacement or repair of needed facilities.

POLICY 1.2: The City shall require that new facilities and improvements to existing facilities meet the projected demands.

STANDARD 1.2.1: Lift stations continue to pump peak flow with the largest pump out of service.

STANDARD 1.2.2: Maximum velocity in force mains shall be 5fps, flowing full. Gravity sanitary sewers flow approximately one-half full at peak flow.

STANDARD 1.2.3: Cleansing velocity in gravity sewers of approximately 2 fps.

STANDARD 1.2.4: Existing facilities to limit infiltration/inflow entering the City's wastewater collection system to less than 1000 gallons per day per inch mile (GPDIM). New facilities to limit infiltration/inflow entering the City's wastewater collection system to less than 600 gallons per day per inch mile (GPDIM).

POLICY 1.3: The City shall improve the existing sanitary sewer system.

STANDARD 1.3.1: Improvements recommended by Boyle Engineering Corporation in the City of Maitland Sewer System Master Plan Update 2005, are to be included in a capital improvements program, as appropriate.

STANDARD 1.3.2: Within the five-year capital improvement program, include completion of a backup power supply to ensure that all major lift stations can be operated simultaneously.

POLICY 1.4: If the capacity the City reserved at Iron Bridge wastewater treatment facility is not sufficient to serve the future service area assigned, then the City shall implement a flow reversal to the Altamonte Springs wastewater treatment facility, as approved by the Federal and State government.

STANDARD 1.4.1: Determine actual capacity allocation at Iron Bridge for the future service area by December, 2002.

STANDARD 1.4.2: If capacity at Iron Bridge is insufficient, then one of the Flow Reversal Alternatives recommended by Boyle Engineering in the updated study dated April 1997, shall be completed by the end of December, 2007.

POLICY 1.5: Monitor the sewer collection system to ensure efficient expansion and maintenance.

STANDARD 1.5.1: Every five years, the documentation on the condition of the sewer shall be updated.

STANDARD 1.5.2: Catalog sewer flow monthly to determine if capacity is being reached and to assess any problems.

STANDARD 1.5.3: Submit annual progress reports to City Council to evaluate work program for sewer system.

STANDARD 1.5.4: Within regulations for all new development and redevelopment, require certified "as built" drawings of underground utilities to be given to the Public Works Department by the developer to update the sewer system inventory.

STANDARD 1.5.5: Practice a drill annually to ensure adequate service during power failure.

POLICY 1.6: The City shall ensure that adequate treatment capacity is available to serve the present and future demands as they occur.

OBJECTIVE 2: The City shall protect the environment from wastewater pollution.

POLICY 2.1: The City shall require that all residents and owners of developed property connect to the sanitary sewer system when capacity becomes available for the respective area.

STANDARD 2.1.1: Maintain list of property owners using septic tanks in Maitland in office of the Public Works Director.

STANDARD 2.1.2: Maintain guidelines under which property owners currently using septic tanks connect to the City sewer where the sewer line is accessible and when capacity becomes available.

STANDARD 2.1.3: Waive the City connection fee for persons currently using septic tanks, whose infrastructure is in place and who elect to hook up to central sewer before December, 2003.

POLICY 2.2: The City shall give priority for sewer system expansion to neighborhoods currently serviced by septic tanks.

STANDARD 2.2.1: Within the capital improvements program, sewer system extensions to areas on septic tanks are given priority over extension to new development except in instances where developer or area residents fund extension in its entirety.

STANDARD 2.2.2: Improvements to eliminate septic tank use for the portion of the City's Western Service Area, west of Interstate-4, and within the Wekiva Study Area are to be included in a capital improvements program as appropriate.

POLICY 2.3: The City shall permit septic tanks only in areas where such installation would not be harmful or potentially harmful to lakes, canals or groundwater, and where sewer connection is not possible.

POLICY 2.4: No package plants will be allowed in the City.

OBJECTIVE 3: Revenues produced by rates shall cover expenditures for the sanitary sewer system.

POLICY 3.1: The City shall adjust rates for sewer service to pay for maintenance and general service costs.

POLICY 3.2: For capital costs, the City shall require new developments to fund needed improvements to service the respective project.

POLICY 3.3: For capital costs, the City shall use debt service, increased rates, or assessments to fund needed improvements to service the respective project beneficial to the area.

STANDARD 3.3.1: Debt service, increased rates or special assessments are implemented to fund improvements to the sewer system serving established residences or businesses.

POLICY 3.4: For annexed areas, where Public Works extension is preferred, the City shall extend services which meet City standards.

POLICY 3.5: For annexed areas where Public Works extension is either not viable or inefficient, the City shall consider use of franchise fees and regulations to guarantee service which meets City standards.

OBJECTIVE 4: Maintain coordination with jurisdictions responsible for sewage collection and treatment in all of Maitland and its entire Planning Area.

POLICY 4.1: The City shall maintain agreements with Orlando for use of Iron Bridge wastewater treatment facility.

POLICY 4.2: The City shall ensure that agreements with Altamonte Springs are renewed and updated to service the areas not serviced by Iron Bridge for the present and future users in the Planning Areas.

POLICY 4.3: The City shall research the feasibility to develop methods for reuse of treated wastewater.

POLICY 4.4: If feasible, the City shall begin implementation of reuse program.

STANDARD 4.4.1: Consider Maitland Center area, within the City of Maitland west of Interstate-4 currently equipped with reuse compatible lines for water reuse program should reuse water become available in the future.

STANDARD 4.4.2: Begin implementation by the end of December 2010 or document if still unavailable. If unavailable by the end of December 2010, review every 5 years until available.





Infrastructure - Solid Waste Sub-Element

GOAL: To provide solid waste collection and disposal service at the lowest possible cost to accommodate existing and future development in a manner that protects the health and safety of Maitland citizens and the business community.

OBJECTIVE 1: Maintain the level of service for solid waste collection at a range between 3.5 and 4 pounds/per person/per day.

POLICY 1.1: The City shall plan and implement an educational program to influence the citizens to reduce the amount of solid waste that is discarded.

POLICY 1.2: The City shall cooperate with Orange County or another appropriate jurisdiction in establishing and carrying out programs to recover resources from the garbage stream.

STANDARD 1.2.1: The City shall continue to fund and implement State-mandated recycling program in conjunction with Orange County or another appropriate jurisdiction.

STANDARD 1.2.2: Where possible, the City shall purchase recycled products and shall promote “buy recycled”.

POLICY 1.3 The City shall cooperate with Orange County by providing recycling volume data to enhance regional recycling efforts.

POLICY 1.4: The City shall continue to promote private sector participation in resource recovery to the extent feasible.

OBJECTIVE 2: Require all citizens and businesses participate in the garbage collection system and maintain an equitable rate structure.

POLICY 2.1: The City shall establish and maintain a rate structure that is fair to consumers and fully covers the cost of operating the solid waste management system.

STANDARD 2.1.1: Examine the rates annually.

STANDARD 2.1.2: Adjust rates as needed to cover the cost of operation.

POLICY 2.2: Rates shall be structured to reflect the relative cost of collection.

POLICY 2.3: The City shall require that all residents and businesses participate in the garbage collection and recycling systems.



Solid Waste



The City is currently served by Florida Recycling Services for solid waste collection, disposal and recycling services.





Infrastructure - Stormwater Sub-Element

GOAL: Ensure that every street in the City has safe and adequate stormwater drainage to minimize the hazardous and adverse effects of surface water and flooding while maintaining the physical and environmental integrity of the City.

OBJECTIVE 1: The drainage system shall be managed to minimize property damage, other hazards and maximize personal safety during flood conditions.

POLICY 1.1: The City shall upgrade existing drainage facilities to manage surface water quality as well as quantity where practical.

STANDARD 1.1.1: Stormwater/Lake Management Plan, 2006 (SLMP 2006) shall be updated by the City every ten years and used to review the entire stormwater drainage system including the effectiveness of Best Management Practices (BMP) installed and new technologies available and will make revisions as necessary. This includes pollution abatement.

STANDARD 1.1.2: Replace storm manholes and storm inlets where deteriorated and provide additional drainage structures where needed.

POLICY 1.2: The City shall require all new development to provide storm water management facilities which maintain or improve a safe and healthy environment.

STANDARD 1.2.1: Review and update the Maitland City Code as required by the end of December, 2007.

STANDARD 1.2.2: No standing water or excessive ponding occurs on any local collector with significant traffic.

STANDARD 1.2.3: In coordination with the Comprehensive Development Plan Conservation Element, water quality in lakes shall be maintained or improved, if feasible within financial resources of the City.

POLICY 1.3: The City shall monitor and maintain the storm sewer system.

STANDARD 1.3.1: The Public Works Department shall continue to maintain existing preventive maintenance program so that all City-maintained facilities including gutters, catch basins, swales, retention and detention ponds, outfalls, and underground piping, are periodically inspected and scheduled for service.

STANDARD 1.3.2: Train and assign sufficient manpower to maintain system in working condition, by inspecting, cleaning and repairing each outfall bimonthly.

STANDARD 1.3.3: Budget sufficient funds each year to maintain the storm water management system in working condition.

POLICY 1.4: The City shall continue to fund needed storm sewer improvements.

STANDARD 1.4.1: Maintain storm system capital improvements program.

STANDARD 1.4.2: Improvements recommended within the Stormwater/Lake Management Plan 2006 are to be included in the capital improvements program, as appropriate.

OBJECTIVE 2: Stormwater management for the Wekiva Study Area (WSA) located within the City of Maitland shall protect the quantity and quality of surface waters, groundwater recharge areas, springs and springsheds.

POLICY 2.1: For sub-basins in the WSA, located within the City of Maitland, identified with predicted percent increases in pollutant loads between existing and future conditions, the City

shall evaluate the use of controls in addition to what is already required for stormwater treatment by City regulations and permitting agencies, by October 2010. The types of controls to be evaluated will utilize the Best Management Practices (BMPs) and may include the following, at a minimum:

- Stormwater Reuse
- Reservoirs/Ponds
- No Net Floodplain Loss
- Buffers
- Retention
- Detention
- End-of-Pipe Treatments
- Drainage Well/Recharge Well and Treatment System
- Waterwise Landscaping and Reduced Turf Area
- Public Education for Proper Management and Use of Fertilizers
- Bio-Retention Areas and Landscape Islands
- Roadside Swales and Berms
- Perimeter Landscaping in Parking Lots

POLICY 2.2: By October 2016, the City of Maitland shall update and maintain its master stormwater management plan which shall include the following: data collection, identification of problem areas, hydraulic/hydrologic analysis of the primary stormwater management system, water quality, recommendations and estimated costs for capital improvements.

POLICY 2.3: The City of Maitland shall evaluate and identify Surface Water Conservation Treatment and Groundwater Protection, Flood Management Strategies and Reuse Management Strategies for subbasins, within the WSA in the City of Maitland, receiving a rank of one (1) or two (2) as depicted in *Section 5* of the “Wekiva Parkway and Protection Act, Master Stormwater Management Support Plan, Final Report, November 2005”, by 2010.

STANDARD 2.3.1: The City of Maitland shall implement financially feasible projects within the capital improvements program (CIP) by 2012.

POLICY 2.4: Within areas not already served by reclaimed water, the City of Maitland shall identify large potential users (i.e., golf courses, parks, recreational areas) by 2009 and implement stormwater reuse practices where feasible.

POLICY 2.5: The City’s land development regulations shall provide that no subdivision shall be platted nor shall construction commence for any multi-family, commercial, or institutional project until the drainage design for such project has been approved by City Engineer or Engineer authorized by the City of Maitland. The design shall meet or exceed design standards established by the SJRWMD, and Department of Environmental Protection and shall provide for retention and/or detention of stormwater runoff.

POLICY 2.6: The City of Maitland shall continue to implement pro-active stormwater maintenance and inspection activities, as defined by the National Pollution Discharge Elimination System (NPDES) MS4 permit or by established programs such as, street sweeping, inspections and maintenance of outfalls, maintenance of catch basins and grates, and maintenance of other roadside drainage structures.

POLICY 2.7: As part of the periodic updates to its master stormwater management plan, the City shall evaluate improvements to its maintenance programs based on the information presented in the SLMP 2006, as may be amended from time to time.

Policy 2.8: The City of Maitland shall establish a dedicated funding source, such as the stormwater utility fee, that can be used for planning, implementation, operations and maintenance for the SLMP 2006 to include the WSA within the City.

Policy 2.9: The City shall continue to coordinate with SJRWMD, Florida Department of Environmental Protection, and other public and private utilities to investigate, develop and implement use of stormwater and water reuse as alternatives to the use of groundwater for irrigation purposes.

STANDARD 2.9.1: In coordination with the Comprehensive Development Plan Conservation Element, continue to implement conservation initiatives through development of surface water and storm water irrigation.

STANDARD 2.9.2: Consistent with the Conservation Element, by December 2009, the City shall submit a report on feasible reuse and other non-potable supply programs to the St. Johns River Water Management District.

