

## CHAPTER 4: PUBLIC FACILITIES ELEMENT

**§4.1: PUBLIC FACILITY GOALS, OBJECTIVES, AND IMPLEMENTING POLICIES.** This section stipulates goals, objectives, and implementing policies for the Public Facilities Element pursuant to §163.3177, F.S.

**GOAL 4-1: NEEDED PUBLIC FACILITIES.** Ensure availability of needed public facilities in a manner which protects investments in existing facilities and promotes orderly, compact growth.

**OBJECTIVE 4-1.1: ENSURE THAT INFRASTRUCTURE IMPROVEMENT NEEDS SHALL BE MET AND THAT USE OF EXISTING PUBLIC FACILITIES IS MAXIMIZED.** The City of Key West shall continue to enforce performance standards requiring that requisite public facilities be provided concurrent with the impacts of new development.

**Monitoring Measure: Achievement of Level of Service standards.**

**Policy 4-1.1.1 Capital Facilities and Infrastructure Implications of Land Use and Development Permits.** The City of Key West shall continue to analyze the capital facilities and infrastructure implications of land use and development permits with attention to the following:

1. Safety improvements and hazard mitigation
2. Elimination of sub-standard conditions
3. Balance between supporting new development or redevelopment
4. Financial feasibility, including long term operating costs
5. Coordination among agencies of capital programs
6. Contractual and/or mandatory obligations

**Policy 4-1.1.2: Level of Service Standards.** The following are the minimum acceptable Level of Service standards to be utilized in planning for capital improvement needs:

**A. Sanitary Sewerage System Level of Service:**

1. **Residential Uses:** 100 gallons per capita per day for permanent residents and 90 gallons per capita per day for seasonal residents
2. **Non-Residential Uses:** 660 gallons per acre per day
3. **Treatment Standard:**

The effluent concentrations for the City's Richard Heyman Environmental Protection Facility shall comply with Florida Administrative Code Rule 62.600.420(1)(a). Effluent shall meet high level disinfectant requirements as per Florida Administrative Code Rule 62.600.540.

The City's Richard Heyman Environmental Protection Facility shall meet all State water quality requirements, including the chlorine residual standard. Dechlorination may be necessary should the chlorine residual in the effluent exceed the maximum limits. The wastewater treatment facility contains dechlorination facilities.

**B. Level of Service for Wastewater Treatment Plant Effluent.**

To help minimize the eutrophication of ocean waters by ocean outfall which contain nutrients, the wastewater treatment plant effluent shall not exceed the following nutrient levels on an

average annual basis:

Total Nitrogen Concentration: 6 mg/l; and  
Total Phosphorus Concentration: 4 mg/l.

Private sewage treatment facilities shall provide no less than tertiary level of treatment defined as nutrient stripping meeting a standard of no more than 1.5 parts per million of total phosphorus as the average over two (2) consecutive quarters and no more than five parts per million (5 ppm) of total nitrogen content. The permit-holder shall monitor and test effluent and submit reports to the City Commission documenting that these nutrient stripping standards are being met. If these treatment standards are not met for two (2) consecutive quarters, the subject permit shall come before the City Commission for review and possible revocation. Monitoring and testing standards shall be conducted as required by the State.

**C. Potable Water Level of Service:**

100 gal/capita/day

**D. Solid Waste Disposal Level of Service:**

**Level of Service (lb/capita/day)**

<u>Land Use</u>	<u>Total Waste Generation</u>	<u>Recyclable Waste Generation</u>
Residential	2.66	0.5
Non-Residential	6.37	0.25

The City shall not approve development applications unless the City demonstrates that sufficient capacity is available to accommodate projected solid waste disposal needs for all existing and approved development for a period of three (3) years.

**E. Drainage:**

The Drainage level of service standard below will be applicable to all types of development. Where two or more standards impact a specific development, the most restrictive standard shall apply:

1. Post development runoff shall not exceed the pre-development runoff rate for a 25-year storm event, up to and including an event with a 24 hour duration.
2. Stormwater treatment and disposal facilities shall be designed to meet the design and performance standards established in Chapter 62-25 Section 25.025, Florida Administrative Code, with treatment of the runoff from the first one inch of rainfall on-site to meet the water quality standards required by Chapter 62-302, Florida Administrative Code. Stormwater facilities which directly discharge into "Outstanding Florida Waters" (OFW) shall provide an additional treatment pursuant to Section 62-25.025 (9), Florida Administrative Code.
3. Stormwater facilities must be designed so as to not degrade the receiving water body below the minimum conditions necessary to assure the suitability of water for the designated use of its classification as established in Chapter 62-302 Florida Administrative Code.

**Policy 4-1.1.3: Compliance with Level of Service Standards.** As a condition of the issuance of development orders and permits, all public improvements including new facilities or replacements,

expansions, or other alterations to public facilities shall be compatible with the adopted level of service standards for the facilities. Issuance of development orders or permits shall be conditioned upon demonstrated compliance with applicable federal, state, and local permit requirements for potable water, wastewater, drainage, and solid waste facilities.

**Policy 4-1.1.4: Demand and Supply Information System.** The City shall develop procedures for updating facility demand and capacity information and shall prepare annual summaries of capacity and demand information for respective facilities and/or service areas.

**Policy 4-1.1.5: Coordination between Future Land Use and Potable Water/ Wastewater System Needs.** The City's adopted Land Development Regulations shall be enforced to ensure that incremental decisions by the City concerning potable water and wastewater system needs, plans and the location and timing of improvements shall be consistent with land use and conservation resource management policies stipulated in the Comprehensive Plan.

**Policy 4-1.1.6: Area Wide Planning for Potable Water and Wastewater Systems and Solid/Hazardous Waste Disposal.** The City shall meet no less frequently than annually to coordinate with the Florida Keys Aqueduct Authority (FKAA) to review and refine areawide management strategies for delivery of potable water and wastewater services. Finally, the City shall continue to enforce Land Development Regulations which shall not permit proliferation of small fragmented water or wastewater systems except in unique cases where the City Commission determines that the public health and safety is served by such a system and area wide service systems are not available. Furthermore, the applicant shall provide an environmental assessment which ensures that water quality shall not be adversely impacted. Where a package plant is permitted, the City shall provide for mandatory connection to the central system as the system becomes available.

**Objective 4-1.2: Adoption of the Key West Water Supply Facilities Work Plan.** The City shall comply with its Water Supply Facilities Work Plan 2012-2025 (Work Plan), as required by section 163.3177(6)(c), F.S. The Work Plan will be updated, at a minimum, every 5 years. The City's Work Plan is designed to: assess current and projected potable water demands; evaluate the sources and capacities of available water supplies; and identify those water supply projects, using all available technologies, necessary to meet the City's water demands for the planning period.

**Monitoring Measure:** The Work Plan shall remain consistent with the Florida Keys Aqueduct Authority 20-Year Water System Capital Improvement Master Plan, which is compatible with the FKAA Water Use Permit renewals and with the projects listed in the South Florida Water Management District's Lower East Coast Regional Water Supply Plan. The Work Plan will be updated, at a minimum, every 5 years and within 18 months after the South Florida Water Management District's approval of an updated Lower East Coast Regional Water Supply Plan.

**Policy 4-1.2.1: Compliance with the Adopted Water Supply Facilities Work Plan.** The City of Key West shall comply with its Water Supply Facilities Work Plan (2012–2025) which is incorporated by reference into the Comprehensive Plan.

**Policy 4-1.2.2: Intergovernmental Coordination with Water Supply Planning.** Coordinate appropriate aspects of its Comprehensive Plan with the South Florida Water Management District's regional Water Supply Plan adopted February 15, 2007, with the Florida Keys Aqueduct Authority (FKAA) 20-Year Water System Capital Improvement Master Plan adopted December 2006 and with the Monroe County Water Supply Plan adopted November 25, 2008. The City shall amend its

Comprehensive Plan and Work Plan as required to provide consistency with the District, County and FKAA plans.

**OBJECTIVE 4-1.3: MAINTAINING A SCHEDULE OF PUBLIC FACILITY CAPITAL IMPROVEMENT NEEDS TO ENSURE THAT CITY INFRASTRUCTURE RESPONSIBILITIES ARE MET.** The City shall develop and maintain a five-year schedule of capital improvement needs for public facilities and shall annually update the schedule as stipulated in the Capital Improvements Element. During the process of programming and budgeting for capital outlays, the City shall investigate new ways to finance public facilities and services, including impact fees.

**Monitoring Measure: Annual update and adoption of a Capital Improvements Schedule and Budget.**

**Policy 4-1.3.1: Capital Improvement Schedule.** The City Commission shall annually evaluate and rank capital improvement projects proposed for inclusion in the five-year schedule of capital improvement needs.

**Policy 4-1.3.2: Public Facility Evaluation Criteria.** Proposed capital improvement projects shall be evaluated and ranked according to the following priority level guidelines:

**"Level 1":** Whether the project is needed to:

- A. Protect public health and safety.
- B. Fulfill the City's legal commitment to provide facilities and services.
- C. Preserve or achieve full use of existing facilities.

**"Level 2":** Whether the project accomplishes the following:

- A. Increases efficiency of existing facilities.
- B. Prevents or reduces future improvement costs.
- C. Provides service to developed areas lacking full service or promotes in-fill development.

**"Level 3":** Whether the project:

Represents a logical extension of facilities and services in a manner consistent with Future Land Use Element goals, objectives and policies, including the Future Land Use Map.

**GOAL 4-2: PROVIDING FACILITIES TO MEET EXISTING AND PROJECTED DEMANDS.** Ensure that wastewater systems, solid waste disposal, drainage and potable water facilities and services are available to meet existing and projected demands identified in the comprehensive plan.

**OBJECTIVE 4-2.1: WASTEWATER SYSTEM.** The City will continue to meet its Level of Service Standard for Wastewater through the inclusion of necessary projects in its Capital Improvements Schedule.

**Monitoring Measure: Achievement of Wastewater Level of Service Standard.**

**Policy 4-2.1.1: Improvements to Key West Wastewater System.** For the Key West system, there are continuing ongoing improvements of the collection and conveyance system taking place. Based on the wastewater demand projections presented in the 2012 Updated Data Inventory and Analysis, the City does not anticipate a deficit in capacity throughout the planning period.

**Policy 4-2.1.2: Use of Graywater for Irrigation.** By the end of 2016, the City shall develop a program for investigating the feasibility of providing reclaimed water to the City and its residents for irrigation purposes. The City will monitor innovative concepts in wastewater collection and disposal, including wastewater reuse through such programs as use of "graywater" for spray irrigation and use of cisterns for collecting rainwater for use in spray irrigation or other related purposes.

**OBJECTIVE 4-2.2: COORDINATE RELATED ISSUES NECESSARY TO MEET EXISTING AND FUTURE SOLID WASTE NEEDS.** The City shall pursue and enforce an effective system for monitoring solid waste collection capabilities of private companies having a franchise agreement with the City. This process shall continue to be a subcomponent of the concurrency management process. The procedures shall include working with the private companies to ensure that solid waste collection needs and evolving private market conditions are effectively coordinated so that the City's future population is adequately served by solid waste collection.

**Monitoring Measure: Achievement of Solid Waste Level of Service Standard.**

**Policy 4-2.2.1: Solid Waste Projects.** Based on the solid waste demand projections presented in the 2012 Updated Data Inventory and Analysis of the Solid Waste Sub element, the City does not anticipate a deficit in the capacity.

**Policy 4-2.2.2: Solid Waste Projects.** The City of Key West will continue provide for future solid waste demands and facility needs with the following level of service standards, and enact a Solid Waste Master Plan to meet the City's goals of 75% waste diversion.

**Level of Service (lb/capita/day)**

<u>Land Use</u>	<u>Total Waste Generation</u>	<u>Recyclable Waste Generation</u>
Residential	2.66	0.5
Non-Residential	6.37	0.25

**Policy 4-2.2.3: Solid Waste Coordination and Management Activities.** The City shall continue to coordinate with Monroe County's solid waste management program to achieve improvements in hazardous waste collection and disposal.

**OBJECTIVE 4-2.3: RECONCILE EXISTING FUTURE POTABLE WATER DEFICIENCIES.** The Florida Keys Aqueduct Authority has not identified any existing future system deficiencies. However, the future system includes regular use of the Authority's Reverse Osmosis plant, which is very energy and fiscally intensive. The more water efficiencies the City can create, the less expensive our future water will be. The City shall investigate potential water supply and water quality issues and coordinate at least annually in a formal meeting with the Board of the Florida Keys Aqueduct Authority for purposes of identifying problems, issues and opportunities associated with water quality, water supply, and water distribution.

**OBJECTIVE 4-2.4: PLAN AND COORDINATE SURFACE WATER MANAGEMENT SERVICES TO MEET EXISTING AND FUTURE SURFACE WATER MANAGEMENT NEEDS.** The City shall continue to annually amend its capital improvements schedule and implement regulations to include recommended regulatory measures directed toward meeting level of service criteria as well as managing impacts of stormwater runoff on water quality in a manner consistent with goals, objectives

and policies of the Comprehensive Plan. The City will utilize the adopted 2012 Stormwater Master Plan as a guide for its capital improvements planning.

**Monitoring Measure: Achievement of Stormwater Drainage of Service Standard.**

**Policy 4-2.4.1: Compliance with Capital Improvements Element.** All major public facility projects shall be undertaken in accordance with the schedule provided in the Capital Improvements Element of this plan, as may be hereinafter amended.

**Policy 4-2.4.2: Priority for Correcting Existing Deficiencies.** In developing the annual schedule of capital improvement projects, the City shall assign highest priority to those projects required for purposes of correcting existing deficiencies.

**Policy 4-2.4.3: Existing Deficiencies Shall Not Be Increased by New Development.** The City shall issue no development order for new development which would result in an increase in demand on deficient facilities prior to completion of improvements needed to bring the respective facility up to standard. Prior to issuing a site plan or building permit (whichever is first applicable), the City shall render a finding that the applicant has provided written assurance that the proposed development shall be served with each of the above cited facilities with a level of service at least equal to that level of service stipulated in Policy 4.1.1.2. The development application shall include written assurances that any required improvements shall be in place concurrent with the impacts of the development (i.e., by the time a certificate of occupancy is granted by the City).

**Policy 4-2.4.4: Coordinate with Monroe County Hazardous Waste Planning Efforts.** The City shall offer assistance to Monroe County as the County assesses and plans for hazardous waste management in a manner consistent with Florida Statutes.

**OBJECTIVE 4-2.5: MEETING PROJECTED PUBLIC FACILITY DEMANDS.** The City shall plan for projected public facility demands through its Capital Improvements Schedule.

**Monitoring Measure: Annual adoption of a Capital Improvements Schedule that includes facility capacity improvements.**

**Policy 4-2.5.1: Coordinate with Capital Improvements Element.** All public facility projects shall be undertaken in accordance with the schedule provided in the Capital Improvements Element of this Plan.

**Policy 4-2.5.2: Public Facility Planning and Management Efficiency.** In scheduling the location, timing and staging of public facility improvements, the City Commission shall use the following criteria:

1. Minimize disruption of services;
2. Prevent duplication of labor; and
3. Maintain service levels for all respective facilities.

**Policy 4-2.5.3: Additions of Public Facility Project Approvals.** All required federal, State, and County permits shall be obtained before the City undertakes or authorizes contractors to undertake construction and/or operation of facilities.

**Policy 4-2.5.4: Scheduling Needed Capital Improvements.** The City Commission shall ensure that projects required to meet projected demands through the year 2016 shall be in the Capital Improvements

Element of this plan in accordance with the requirements of Florida Statutes.

**OBJECTIVE 4-2.6: ENACT EFFICIENCY EFFORTS TO REDUCE PROJECTED DEMANDS.**

The City shall utilize best management practices in efficiencies and conservation as a mandatory step in meeting projected demands in wastewater, solid waste disposal, drainage, potable water facilities and energy facilities and services.

**Monitoring Measure: Inclusion of best management practices in Land Development Regulations by 2016.**

**GOAL 4-3: PROVIDE ADEQUATE DRAINAGE. Provide adequate stormwater drainage in order to protect against flood conditions and prevent degradation of quality of receiving waters.**

**OBJECTIVE 4-3.1: PROTECT NATURAL DRAINAGE FEATURES.** The City shall maintain its Land Development Regulations and implement performance criteria for floodplain management and stormwater management, including level of service standards.

**Monitoring Measure: Inclusion of performance criteria for stormwater management in the Land Development Regulations and achievement of the Drainage Level of Service Standard in Land Development Regulations by 2015.**

**Policy 4-3.1.1: Ensure that Urban Lands Provide Adequate Drainage and Protection from Flooding and Manage the Retention of Ground and Surface Water at Levels that Enhance Natural Storage Capacity of Watersheds and Promote Aquifer Recharge.** Promote the ecological, biological, and hydrological role that surface waters play in sustaining recharge to aquifers and supporting surface vegetation. Manage the location design and intensity of urban development in order to foster continuance of natural hydrological processes, including preserving recharge areas, promoting on-site retention of surface waters and natural return of surface water into the soil, and channeling excess stormwater volume primarily via natural grassy swales. Require the integration of natural storage areas and natural drainage courses into water management plans for new development.

**Policy 4-3.1.2: Provide Adequate On-Site Retention and Ground Water Recharge while Directing the Surplus Run-off to Receiving Waterways in a Manner which Prevents Imbalance to their Ecosystems.** The City of Key West shall maintain Land Development Regulations which shall include land use controls, such as subdivision regulations, zoning, including site plan review and performance criteria as well as special erosion controls, water quality control, landscaping and flood management ordinances which shall assist in implementing stormwater management and water quality controls. The programs shall be continually updated based on improved knowledge of problems, issues, and best management practices.

**Policy 4-3.1.3: Pursue the Development of Adequate Off-Site Surface Water Management Facilities.** The City shall monitor at regular intervals the performance of existing off-site drainage facilities, evaluate existing and potential future problems or issues, and pursue the funding of necessary structural and non-structural system improvements for effective surface water management. All new developments shall provide an equitable contribution for off-site drainage improvements necessitated by the development. No new development shall be allowed which fails to meet adopted level of service standards for drainage.

**Policy 4-3.1.4: Coordinate Watershed Management Plans and Policies with Appropriate Public**

**Agencies.** Ensure coordination of watershed management plans and policies, with appropriate local, regional, state and federal agencies

**Policy 4-3.1.5: Buffer Zone Requirements.** The City shall continue to enforce its Land Development Regulations to include performance criteria which shall require that new development provide buffer zones adjacent to natural drainage ways and retention areas.

**Policy 4-3.1.6: Managing Land Use in the Floodplain.** The City shall continue to enforce its Land Development Regulations to include performance criteria regulating development within floodplain areas.

**Policy 4-3.1.7: Inspection and Maintenance of Drainage Systems.** The City shall continue to maintain a program and schedule for the inspection and maintenance of drainage components. As part of the Stormwater Management Plan implementation program the City shall ensure that drainage system components are monitored pursuant to best management practices.

**GOAL 4-4: PROTECT FUNCTIONS OF GROUNDWATER AQUIFER RECHARGE AREAS. The functions of natural groundwater aquifer recharge areas within the City shall be protected and maintained.**

**OBJECTIVE 4-4.1: COORDINATE ISSUES SURROUNDING AQUIFER RECHARGE.** The City shall coordinate with Monroe County and the South Florida Water Management District in providing for maintenance of aquifer recharge area functions. The City shall maintain Land Development Regulations that include performance standards that reinforce natural hydrologic relationships that optimize erosion control, percolation and recharge of groundwater in order to enhance water quality. The City shall assist management of recharge areas and recharge of groundwater in order to promote continuance of natural hydrological processes to the maximum reasonable extent.

**Monitoring Measure: Inclusion of performance criteria for groundwater recharge in the Land Development Regulations.**

**Policy 4-4.1.1: Protect Surficial Aquifer Recharge Areas.** The City has no prime aquifer recharge areas which have been identified by the South Florida Water Management District. The City has a shallow freshwater lens that some residents are permitted to use for landscape purposes. The City shall maintain Land Development Regulations which regulate the use of the freshwater lens for domestic purposes. In updating its Land Development Regulations the City may, if necessary and feasible, evaluate the function and condition of the freshwater lens. The City, if feasible, should conduct a study of the freshwater lens by 2017.

**Policy 4-4.1.2: Coordinate with Other Recharge Protection Programs.** The City will continue to coordinate with local, State, and federal agencies to achieve regional aquifer recharge protection objectives.