

THE CITY OF KEY WEST  
PLANNING BOARD  
Staff Report



To: Chairman and Planning Board Members

From: Katie P. Halloran, Planning Director and  
Alison Higgins, Sustainability Coordinator

Meeting Date: August 18, 2022

Application: **Text Amendment of the Comprehensive Plan** - A Resolution of the City of Key West Planning Board recommending an Ordinance to the City Commission replacing Appendix C: City of Key West Water Supply Facilities Work Plan, as well as amending the Comprehensive Plan sections – Chapter 1: Future Land Use Element Objectives 1-1.7, and Policies 1-1.12.6, 1-1.12.7 and 1-1.12.8; Chapter 4: Public Facilities Element Objectives 4-1.2, and Policies 4-1.2.1 and 4-1.2.2; Chapter 5: Coastal Management Element, Policy 5-1.2.2; Chapter 6: Conservation Element, Policies 6-1.2.5, 6-1.2.8, 6-1.2.9, 6-1.2.12, 6-1.2.14 and 6-1.2.19; Chapter 8: Intergovernmental Coordination Element, Policy 8-1.3.5; and Chapter 9: Capital Improvements Element, Policies 9-1.6.1, and 9-4.1.3; providing for transmittal to the State Land Planning Agency; providing for severability; providing for repeal of inconsistent provisions; providing for the inclusion in the City of Key West Comprehensive Plan; and providing for an effective date.

Request: The proposed amendment to the City of Key West Comprehensive Plan reflects State requirements in Florida Statutes 163, Part II, to update the City's Water Supply Plan

Applicant: City of Key West

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**Background:**

The adopted and effective City of Key West Comprehensive Plan of 2013 contains the Water Supply Work Plan required by Florida Statutes 163, Part II. This statute requires local governments to prepare and adopt a 10-year Water Supply Facilities work Plans into their comprehensive plans within 18 months after the South Florida Water Management District (SFWMD) approves a regional water supply plan or its update. The Lower East Coast Water Supply Plan Update (2018 LECWSP Update) was adopted by the District's Governing Board on November 8, 2018. Therefore, local governments within the Lower East Coast Region are required to amend their comprehensive plans and include an updated 10-year Water Supply Facilities Work Plan and related planning elements by May 2020. The City of Key West endeavors to now come into compliance with these state regulations through transmittal of these Comprehensive Plan text amendments.

Strategic Plan: The Key West Forward Strategic Plan, Priority 2, Goal 2 calls to Protect our Water Supply, and Priority 4, Goal 4 calls to support this Water Supply Plan.

Overview of Text Amendments to the Water Supply Plan

The City of Key West does not have its own water utility and relies on the water production and distribution systems that the Florida Keys Aqueduct Authority (FKAA) operates for the entire Keys. Therefore, the FKAA draft 2020 Water System Master Plan informs the amendments to the City's Comprehensive Plan to implement the City Water Supply Plan.

Highlights from the FKAA draft Water System Master Plan are as follows:

Section	Title	Highlights
1	Introduction	FKAA's current challenges include aging infrastructure, growing environmental concerns and future regulatory requirements.
2	Population and Water Demand Forecast	Over the next twenty years, FKAA will see an increase in its average day demand increase from 17.7 MGD to 19.1 MGD and maximum day demand increase from 20.8 MGD to 23.8 MGD.
3	Water Supply System	FKAA may consider construction of a new wellfield to protect its source water from seawater intrusion and provide a 4-MGD interconnect with Miami-Dade water.
4	Water Treatment and Standards	During drought conditions, FKAA may need to provide up to 1MGD of water supply from the new Stock Island Reverse Osmosis Facility to meet future maximum day demands.
5	Water Transmission System	FKAA will need to implement a long-term program to replace its transmission system pipeline.
6	Water Distribution System	FKAA will need to implement a long-term program to replace its distribution pipe, beginning with galvanized pipe and 2-inch diameter pipe.
7	Financial Plan	FKAA will evaluate the Capital Improvement Plan (CIP) and operating budget on an annual basis to determine appropriate funding needs.
8	Findings and Recommendations	The Master Plan recommends an annual budget of \$25.7 million to meet FKAA's long term capital improvement needs. Individual projects will be scoped, estimated, and prioritized annually.

**Conservation:**

A high priority is placed on water conservation by the SFWMD, FKAA, Monroe County and the City of Key West. It is a mandate to implement Best Management Practices in addition to various irrigation, xeriscape, plumbing fixture efficiency and wastewater reuse requirements. The City has undertaken certain actions and will seek other opportunities to conserve water, examples are:

1. Water Conservation Month – The month of April involves presentations, press releases and workshops that help businesses and residents reduce water use.
2. Conservation Rate Structure - progressively higher rates as water usage increases to encourage a water conservation ethic.
3. Florida-Friendly Landscaping - the City is currently developing a change to the Code of Ordinances to require Florida-friendly landscaping for new development and redevelopment.

4. Irrigation System Design Code - all new irrigation systems all newly permitted irrigation system rain sensors to automatically shut down if rain is detected.
5. Landscape Irrigation Restrictions – the City has implemented progressive landscape irrigation restrictions that meet the requirements of the SFWMD.
6. Water Conservation Education Program - the City publishes a variety of brochures and literature, promoting water conservation along with maintaining a website that includes water conservation information.
7. Water Harvesting – the City hosts rain barrel workshops and requires cisterns for all new residential development.
8. Sustainability Action Plan 2011 - the City's Sustainability Action Plan 2011 identified specification conservation actions that are ongoing.

#### Overview of Text Amendments to the Comprehensive Plan

The Comprehensive Plan changes achieve the following major updates:

1. Update plan dates, population counts and expected water consumption.
2. Expands definitions and encouraging recommendations of innovative water resource management.
3. Expands rainwater harvesting methods for consideration as stormwater management
4. Expands recommended certification and licensing programs
5. Increases native landscaping proportions
6. Includes potable water as a reuse feasibility option
7. Includes proactive building codes as option to increase efficiencies
8. Changes the Level of Service Standard for Potable Water for non-residential uses from 650 gallons/acre/day to 100 gallons/capita/day, matching Monroe County LOS and Key West Residential LOS.

#### Overview of Text Amendments to the Code of Ordinances

There are also a few major changes proposed for the Key West Code of Ordinances, which is not in the Planning Boards purview. They are listed for informational reasons only, as the Planning Board will not be voting on these items:

1. Local Modification of the Florida Building Code to lower maximum water flow of faucets, toilets, showerheads, dishwashers and clothes washers to that of EPA WaterSense or Energy Star standards.
2. Adopt South Florida Water Management Districts' Year-Round Irrigation Rules allowing 2 irrigation days per week on specific days.

While the City's Water Supply Work Program of 2012 contained most of the objectives and policies required to meet the direction of state statute, there are several which must be modified to be consistent with the LECWSP update of 2018. The complete listing of the policies proposed for adoption by the City Commission is arrayed below. They are also contained in the ordinance attached to this staff report. The policies and objectives proposed for adoption are underlined and those proposed for elimination are ~~struck through~~. Where objectives and policies remain as they are presently stated, the text is neither struck through nor underlined.

In addition, as noted above, the Water Supply Plan component of the City of Key West Comprehensive Plan is, in its entirety, being replaced with an updated document. It is attached in its currently adopted form and provided in a separate attachment in ~~strike through~~ underline form for ease of review.

**Request / Proposed Text Amendment:** *Proposed new language is underlined below and deleted language is ~~struck through~~ at first reading.*

**CHAPTER 1: - FUTURE LAND ELEMENT**

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**OBJECTIVE 1-1.7: IMPLEMENT WATER SUPPLY PLANNING IN ACCORDANCE WITH STATE GROWTH MANAGEMENT REQUIREMENTS.**

**Monitoring Measure(s):** Adoption and Update of Water Supply Plan ~~by 2014~~ within 18 months after the governing board of South Florida Water Management District approves its Lower East Coast Water Supply Plan, expected every 5 years.

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**OBJECTIVE 1-1.12: CONSIDER APPLICATION OF INNOVATIVE LAND AND WATER RESOURCE MANAGEMENT, CLIMATE ADAPTATION, AND ENERGY CONSERVATION CONCEPTS.**

The City of Key West shall maintain Land Development Regulations which incorporate concepts for managing land, water, and energy resources which are responsive to unique development and conservation issues identified in the City's Comprehensive Plan. The City of Key West shall adopt Land Development Regulations which incorporate concepts for managing land, water, and the built environment which are responsive to climate change issues including but not limited to sea level rise and increased frequency of intense rainfall events.

**Monitoring Measure(s):** Number of structures and sites protected through regulatory mechanisms.

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**Policy 1-1.12.6: Water Efficiency in Building and Construction.**

As necessary to meet goals, the City shall research and recommend progressive water efficient building codes and retrofits, including but not limited to retrofit at resale, mandatory reuse areas, conservation tier rates, irrigation pump pressure control reduction, and the International Green Construction Code.

As necessary to meet goals, the City shall explore regulatory and/or incentive programs and timelines to increase submetering, fixed interval metering, irrigation audits, rain/moisture sensor retrofits.

The City shall promote attendance at regional training workshops in water conservation in construction and continue to foster cooperative relationships between building trades, architects, engineers and building officials.

**Policy 1-1.12.7: Conservation Tier Rates.**

The City shall seek to coordinate with the FCAA and other local governments on an updated conservation rate structure before the next Work Plan Update.

**Policy 1-1.12.8: Stormwater Mitigation.**

The City shall research and adopt new methodologies for rainwater retention in order to increase freshwater recharge as well as reduce stormwater flooding and nonpoint pollution before the next Work Plan Update. These new methodologies could include but are not limited to cisterns, percolation tanks, green infrastructure, and stormwater mitigation fees.

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**CHAPTER 4: PUBLIC FACILITIES ELEMENT**

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**Objective 4-1.2: Adoption of the Key West Water Supply Facilities Work Plan.**

The City of Key West shall comply with its Water Supply Facilities Work Plan ~~2012-2025~~ (Work Plan), adopted in 2022, as required by section 163.3177(6)(c), F.S. within 18 months after the governing board of South Florida Water Management District adopted its Lower East Coast Water Supply Plan Update on November 8, 2018.

The Work Plan incorporates the Florida Keys Aqueduct Authority’s Capital Improvement Program 2020-2024 and the most recent 20-Year Water System Master Plan.

The Work Plan shall 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.

**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.**

The City shall coordinate appropriate aspects of its Comprehensive Plan with the South Florida Water Management District’s ~~Lower East Coast Regional Water Supply Plan update~~ adopted ~~February 15, 2007~~ November 8, 2018, with the Florida Keys Aqueduct Authority’s (FKAA) most recent 20-Year Water System Capital Improvement Program (2020-2024) December 2006 and with the Monroe County Water Supply Plan adopted ~~November 25, 2008~~ June 17, 2020. The City shall amend its Comprehensive Plan and Work Plan as required to provide consistency with the District, County and FKAA plans.

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**CHAPTER 5: COASTAL MANAGEMENT ELEMENT**

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**Policy 5-1.2.2: Limit Impacts of Development and Redevelopment Upon Water Quality and Quantity, Wildlife Habitat and Living Marine Resources and Implement Policies for Shoreline Land Uses.**

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**6. Ocean, Gulf, and Estuarine Water Quality.**

In order to protect the water quality of the Atlantic Ocean and the Gulf of Mexico, no new point source pollution shall be permitted to discharge into these waters or into ditches or canals flowing into these waters. In addition, in order to reduce nonpoint source pollutants, the City shall require the following:

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e. The City shall ~~explore incorporating~~ rainwater collection, distribution, and percolation systems into stormwater management planning.

f. The City ~~shall research~~ will research and recommend certification and licensing programs which encourage responsible business practices by landscaping professionals. This includes but is not limited to EPA's WaterSense and Energy Star, Florida's WaterStar, Green Industries – Best Management Program and the irrigation specialty contractor's license.

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**CHAPTER 6: CONSERVATION ELEMENT**

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**Policy 6-1.2.5: Protection and Conservation of Potable Water Supply.**

The City of Key West has no wellfields and has no need for a wellfield protection ordinance. In order to comply with policies of the South Florida Water Management District directed toward conservation of potable water supply and to achieve a reduction in the current rates of water consumption, Land Development Regulations shall be amended to incorporate the following performance standards:

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3. In order to reduce demand for irrigation water (which in turn often places greater demand upon potable water sources), at least ~~50-seventy~~ percent (70%) of all landscaping material obtained from offsite sources for use on any site should be native plant material adapted to soil and climatic conditions existing on the subject site. Further, at least ~~30-fifty~~ percent (50%) of all trees used in landscaping shall be native species adapted to soil and climatic conditions existing on-site in order to lessen water demand.
4. The City will explore and pilot innovative concepts in reuse of water, including use of cisterns for collecting rainwater for use in spray irrigation. In addition, the City shall study the feasibility of potable and/or landscape reuse of treated effluent ~~and {gray water}~~.

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6. At least seventy-five percent (75%) of the landscape must utilize 'right plant, right place' practices, as defined by Florida-Friendly Landscaping Design Standards.
7. In order to reduce demand for potable water used as irrigation, the City intends to adopt SFWMD's mandatory year-round permanent landscape irrigation measures into its Code of Ordinances, with the intent and purpose of establishing a regulatory framework to protect the water resources of the City of Key West.

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**Policy 6-1.2.8: Water Supply Demand.**

Implementation of the Work Plan shall ensure that adequate water supplies and public facilities are available to serve the water supply demands of any population growth that the City may experience.

The City will seek to reduce the water supply demand from 100 gallons per capita per day to 80 gallons per capita per day through efficiencies and conservation.

**Policy 6-1.2.9: Coordinated Water Supply Planning.**

The City shall coordinate the planning of potable water and sanitary sewer facilities, water supply sources, demands, other services and level-of-service standards with the Florida Keys Aqueduct Authority, South Florida Water Management District, other local municipalities, and through the Lower East Coast Water Supply Plan Update adopted November 8, 2018, as necessary.

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**Policy 6-1.2.12: Efficient Equipment and Appliances.**

The City will require the use of high efficiency/ultra-low volume toilets, showerheads, faucets, clothes washers, and dishwashers that are Energy Star rated and WaterSense certified in all ~~new~~ residential and commercial projects, including renovations.

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**Policy 6-1.2.14: Landscape Guidelines.**

The City will encourage the use of Florida-Friendly Landscape guidelines and principals; gutter downspouts, roof runoff, and rain harvesting through the use of cisterns, rain barrels and directing runoff to landscaped areas; drip irrigation or micro- sprinklers; rain or moisture sensor irrigation controllers; and the use of porous surface materials (bricks, gravel, turf block, mulch, pervious concrete, etc.) on walkways, driveways and patios.

By 2025, the City shall research and recommend policies and guidelines allowing cistern capacity to satisfy some portion of stormwater storage requirements.

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**Policy 6-1.2.19: Proactive Building Codes**

By 2025, the City shall research and recommend sections of the International Green Construction Code or other established efficiency standards that increase efficiency without substantially increasing cost or complexity.

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**CHAPTER 8: INTERGOVERNMENTAL COORDINATION ELEMENT**

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**Policy 8-1.3.5: Coordinated Facility Planning.**

The City shall coordinate the planning of potable water and sanitary sewer facilities, water supply sources, demands, other services and level-of-service standards with the Florida Keys Aqueduct Authority, South Florida Water Management District, other South Florida local governments and through the Lower East Coast Water Supply Plan Update adopted November 8, 2018, as necessary. This includes the City of Florida City activities that affect its wellfield area.

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**CHAPTER 9: CAPITAL IMPROVEMENTS ELEMENT**

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**Policy 9-1.6.1: Level of Service Standards.**

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Potable Water Level of Service:

**Residential**

100 gal/capita/day
<u>Minimum Pressure: 20 PSI at customer service</u>
<u>Minimum Potable Water Quality: Shall be defined by Chapter 62-550 F.A.C.</u>

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**Policy 9-4.1.3: Capital Improvement Schedules of Other Agencies.**

The City shall incorporate capital improvements affecting City levels of service by referencing the Capital Improvements Schedules of the Florida Keys Aqueduct Authority ~~(2011/2012 through 2015/2016)~~ (FY2020 through FY2024) state agencies and other units of government providing services, but not having regulatory authority over the use of land, into its Five-Year Schedule of Capital Improvements ~~(Fiscal Years 2012/2013 through 2017/2018)~~ (Fiscal Years 2020 through 2024). The City Schedule shall be maintained and updated annually.

**Comprehensive Plan Amendment Process:**

Planning Board Meeting:	March 17, 2022
City Commission (1st reading):	TBD, 2022
Local Appeal Period:	30 days
DEO Review (1 <sup>st</sup> Reading):	Up to 60 days
City Commission (2 <sup>nd</sup> Reading / Adoption):	TBD, 2022
Local Appeal Period:	30 days
DEO Review (2 <sup>nd</sup> Reading):	Up to 45 days
DEO Notice of Intent (NOI):	Effective when NOI posted to DEO site

**Analysis:**

The purpose of Chapter 90, Article VI, Division 3 of the Land Development Regulations (the “LDRs”) of the Code of Ordinances (the “Code”) of the City of Key West, Florida (the “City”) is to allow for Comprehensive Plan map and text amendments. The Section 90-551 states that the purpose of these amendments, “... is not intended to relieve particular hardships nor to confer special privileges or rights on any person, but only to make necessary adjustments in light of changed conditions. In determining whether to grant a requested amendment, the city commission shall consider, in addition to the factors set forth in this division, the consistency of the proposed amendment with the intent of the comprehensive plan.”

State law requires periodic updates to the City’s Water Supply Plans as stated in the City’s Comprehensive Plan; therefore these proposed amendments implement and are consistent with required components of the Plan. These amendments provide no special privileges or rights, nor do they relieve particular hardships. Associated water conservation endeavors apply equally to all residents and commercial property owners.

The criteria for evaluating a change to the Comprehensive Plan are listed in Section 90-954 of the City Code. The Planning Board, before recommending a change to the comprehensive plan, shall consider the following:

**Section 90-554(6) Justification.**

- a. **Comprehensive Plan Consistency.** Identify impacts of the proposed change in the comprehensive plan future land use map on the overall purpose of the comprehensive plan and consistency with applicable policies within the comprehensive plan.

**Response:** *The Comprehensive Plan contains the City’s Water Supply Work Plan which according to Florida Statute 163, Part II must identify the amendments to the Comprehensive Plan necessary to maintain consistency with the Lower East Coast Water Supply Plan (LECWSP) enacted and updated by the South Florida Water Management District. The proposed amendments contained in this staff report conform to the Work Plan, the 2018 update of the LECWSP & data provided from the Florida Keys Aqueduct Authority’s Capital Improvement Program 2020-2024 and Draft 20-Year Water System Master Plan.*

*The proposed policies and standards of the revised water Supply plan are specifically*

written to protect a scarce and expensive resource – potable water - and to encourage conservation of the resource.

The proposed policies, LOS standards and programs when implemented should aid in the provision of potable water to augment other policies of the Comprehensive Plan , most notably:

- Policy 1-1.4.4 – Maintain and Enforce Standards and Specifications for Design and Construction of Public and Semi-Public Services
- Objective 1-1.12 – Consider Application of Innovative Land and Water Resource Management, Climate Adaption and Energy Conservation Concepts
- Policy 1-1.1.14 – Prepare for Sea Level Rise
- Policy 1-1.11.5: Conservation of Potable Water Supply
- Policy 4-1.1.5 – Coordination between Future Land Use and Potable Water/Wastewater System Needs
- Policy 4-1.1.6 – Area Wide Planning for Potable Water and Wastewater Systems and Solid/Hazardous Waste Disposal
- Goal 4-2: Providing Facilities to Meet Existing and Projected Demands
- Objective 4-2.3: Reconcile Existing Future Potable Water Deficiencies
- Objective 4-2.6 – Enact Efficiency Efforts to Reduce Projected Demands
- Policy 8-1.3.6 -Consistency of Level of Service Standards

The proposed changes to the City Water Supply Plan of the Comprehensive Plan are also specifically directed to provide recommendations to ensure that negative concurrency issues do not occur. To this end, the new Potable water LOS is more precise and understandable, and the goal of reducing our water demand will make concurrency easier.

Proposed amendments also re-enforce the following sections of the City Code:  
Section 74 Subdivision III – Restrictions During Water Shortage Conditions, subsections 301-308,  
Section 74-238- Estimates of Flow and base charge units Section 108-233(1) Concurrency Facilities- Potable Water  
Section 94-68 – Potable Water  
Section 108-956(1) Potable water Access  
Section 108-957 Conservation of Potable Water

- b. Impact on surrounding properties and infrastructure.** The effect of the change, if any, on the particular property and all surrounding properties. Identify potential land use incompatibility and impacts on infrastructure.

**Response:** No negative impacts are expected from the implementation of the policies proposed. Rather, over time the implementation of the policies will provide a more reliable and safe water supply by identifying water conservation methods and by protecting the well fields serving the FKA users.

- c. Avoidance of special treatment.** The proposed change shall not:
1. Single out a small piece of land and confer special privileged treatment not

provided to abutting properties with similar characteristics and land use relationships; and

2. Provide for land use activities, which are not in the overall public interest but only for the benefit of the landowner.

**Response:** *The entire Water Supply Plan Update has been tailored to identify methods and practices the City can use to cooperate with the FCAA and the SFWMD to ensure a safe and effective water supply for the City. The City WSP has been written in direct response to state statute, which outlines the public interest to be served by an updated water supply plan.*

- d. **Undeveloped land with similar comprehensive plan future land use map designation.**  
The amount of undeveloped land in the general area and in the city having the same zoning classification as that requested shall be stated.

**Response:** *Not applicable – the WSP does not identify any particular property to be affected by its policies. The policies and objectives apply equally across the entire City.*

**RECOMMENDATION:**

The Planning Department, based on the criteria established by the Comprehensive Plan and the Land Development Regulations recommends to the Planning Board that the request to amend the Comprehensive Plan be **APPROVED**.