

THE CITY OF KEY WEST
PLANNING BOARD
Staff Report



To: Chairman and Planning Board Members
Through: Katie P. Halloran, Planning Director
From: Melissa Paul-Leto, MPA, Planner I
Meeting Date: June 17th, 2021

Request: 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 1-1.12, 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, 6-1.2.11, 6-1.2.12, 6-1.2.14 and 6-1.2.19; Chapter 8: Intergovernmental Coordination Element Policies 8-1.3.5 and 8-1.3.7; and Chapter 9: Capital Improvements Element Policies 9-1.6.1, 9-4.1.1 and 9-4.1.3 as well as amendments to the section entitled, Data and Analysis, Chapter 5, Section 5.2 Potable Water.

Applicant: Patti McLauchlin, Interim City Manager

Property Owner: Not Applicable

Location: City Wide

Zoning and Comprehensive Plan Designation: Applies to all FLUM and Zoning Designations

Process:

Planning Board Meeting:	June 17 th , 2021
<i>If denied, then appeal may be filed within 10 calendar days.</i>	
City Commission (first reading):	July 20 th , 2021 (<i>tentative</i>)
DEO Review:	45 days
City Commission (second reading):	TBA
Local Appeal Period:	30 days
Render to DEO:	10 working days

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 does not have its own water utility. It relies entirely on the water production and distribution systems that the Florida Keys Aqueduct Authority (FKAA) operates for the entire Florida Keys. Therefore, the FKAA 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 Water System Supply Plan are as follows:

Section	Title	Highlight
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 should construct 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 will need to provide up to 1 MGD 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 system 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 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.

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.

FUTURE LAND USE GOALS, OBJECTIVES AND POLICIES CHAPTER 1:

FUTURE LAND USE ELEMENT

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~~ every five years after 2015.

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.

Policy 1.1.12.6: Water Efficiency in Building and Construction.

As necessary to meet goals, the City shall explore and enact 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 coordinate with the FCAA and other local governments on a 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.

CHAPTER 4: PUBLIC FACILITIES ELEMENT

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 2020-2030 (Work Plan) adopted TBA, 2021, 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 Capital Improvements listed in the Florida Keys Aqueduct Authority's' 20-Year Water System Capital Improvement Master Plan and Capital Improvement Program 2020-2024,

The Work Plan shall be updated, at a minimum, every 5 years, within 18 months after the governing board of the South Florida Water Management District approves an updated Lower East Coast Water Supply Plan as required by 163.3177(6)(c)3.

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 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)~~ (2020-2030) 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 Lower East Coast Regional Water Supply Plan update adopted ~~February 15, 2007~~ November 8, 2018, with the Florida Keys Aqueduct Authority (FKAA) 20-Year Water System Capital Improvement 2020 Master Plan and as updated by the agency's subsequent budgets 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.

CHAPTER 5: COASTAL MANAGEMENT ELEMENT

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.

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:

e. By 2022, the City shall incorporate rainwater collection, distribution and percolation systems into stormwater management planning.

f. The City shall support and advertise certification and licensing programs which encourage responsible business practices. This includes, but is not limited to EPA's WaterSense, Florida's WaterStar, Green Industries – Best Management Program and the irrigation specialty contractor's license.

CHAPTER 6: CONSERVATION ELEMENT

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, reduce irrigation needs and to achieve a reduction in the current rates of water consumption, Land Development Regulations shall be amended to incorporate the following performance standards:

3. ~~In order to reduce demand for irrigation water (which in turn often places greater demand upon potable water sources),~~ At least seventy (70%) percent 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 fifty (50%) percent 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.
6. At least 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.

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 shall work to reduce the water supply demand from 101 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 FCAA, South Florida Water Management District, other local municipalities, and through the Lower East Coast Water Supply Plan Update adopted November 8, 2018, as necessary.

Policy 6-1.2.12: Efficient Equipment and Appliances.

The City shall 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 major and minor development plans.

Policy 6-1.2.14: Landscape Guidelines.

The City ~~will encourage the use of~~ shall adopt 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 2022, the City shall research and enact policies and guidelines allowing cistern capacity to satisfy some portion of stormwater storage requirements.

Policy 6-1.2.19: Proactive Building Codes

By 2024, the City shall research and adopt sections of the International Green Construction Code or other established efficiency standards that increase efficiency without substantially increasing cost or complexity.

CHAPTER 8: INTERGOVERNMENTAL COORDINATION ELEMENT

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 protect its wellfield area.

Policy 8-1.3.7: Inter-Local Agreements.

Negotiate or renew inter-local agreements with water supply providers, ensuring contractual agreement of the adopted level of service standards, service area, populations and times for services provided.

Seek an interlocal agreement with Miami Dade County providing the City of Key West with an opportunity to comment on land use and regulatory issues related to the Florida City wellfield, aquifer and aquifer recharge area. This will set forth procedures for review of land use and regulatory activities identified as having potentially significant impacts on the aquifer recharge and water supply systems especially concerning hazardous waste generation. Criteria for determination of significant impacts shall be included in the interlocal agreement.

CHAPTER 9: CAPITAL IMPROVEMENTS ELEMENT

Policy 9-1.6.1: Level of Service Standards.

Potable Water Level of Service

Residential

100 gal/capita/day

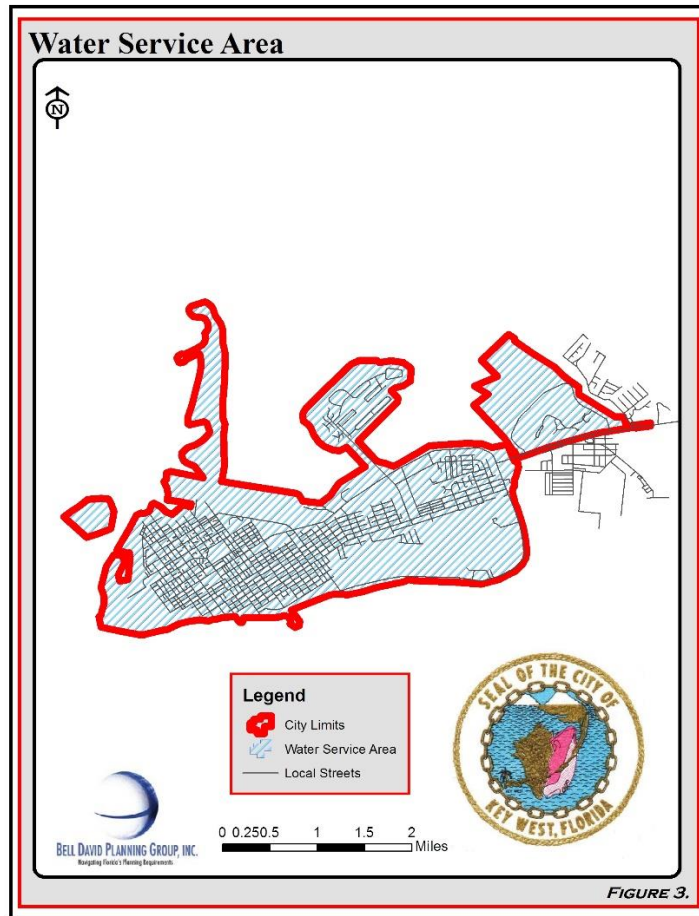
<u>Quantity: 93 gallons/capita/day</u>
<u>Minimum Pressure: 20 PSI at customer service</u>
<u>Minimum Potable Water Quality: Shall be defined by Chapter 62-550 F.A.C.</u>

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.

Water Service Area

The water service area of the City of Key West is that of its corporate limits. The City does not supply or re-sell water to other jurisdictions or users, except for providing water to cruise ships when docked at the City's piers when requested. The service area is illustrated below.



Analysis – Evaluation for Compliance with the Land Development Regulations:

The criteria for evaluating a change to the Comprehensive Plan are listed in Section 90-954 and 955 of the City Code. The Planning Board, before recommending a change to the comprehensive plan, shall consider the following:

1. 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 state statute 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 and the 2018 update of the LECWSP.*

- 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 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 FCAA 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.

- 2. Consistency with plan.** Whether the proposal is consistent with the overall purpose of the comprehensive plan and relevant policies within the comprehensive plan, including the adopted infrastructure minimum levels of service standards and the concurrency management program.

Response: The proposed update of the Water Supply Plan is in conformance with the Work Plan and establishes new water Level of Service Standards, which were not in the 2012 Work Plan due to the impending changes to the LECWSP of 2018. The proposed standards now include both quantity and quality LOS for all water users.

- 3. Conformance with ordinances.** Whether the proposal is in conformance with all applicable requirements of the Code of Ordinances.

Response: There are no parts of the City's Code of Ordinances, which are inconsistent with the proposed objectives and policies. In fact, the proposals 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 108-956(1) Potable water Access

Section 108-957 Conservation of Potable Water

- 4. Changed conditions.** Whether, and the extent to which, land use and development conditions

have changed since the comprehensive plan's effective date and whether such conditions support or work against the proposed change.

Response: *The Lower East Coast Water Supply Plan 2018 Update and the 2015 FCAA Budget both only available after the Comprehensive Plan WSP Work Plan of 2012 was completed. Both these new documents provide new data and policy direction, which should be reflected in the Water Supply Plan of the Comprehensive Plan in 2020.*

- 5. Land use compatibility.** Whether, and the extent to which, the proposal would result in any incompatible land uses, considering the type and location of uses involved.

Response: *No known land use incompatibilities will occur because the proposed amendments do not change land use designations or zoning.*

- 6. Adequate public facilities.** Whether, and the extent to which, the proposal would result in demands on public facilities and services, exceeding the capacity of such facilities and services, existing or programmed, including transportation, water and wastewater services, solid waste disposal, drainage, recreation, education, emergency services, and similar necessary facilities and services. Approval of a plan amendment does not constitute a concurrency determination, and the applicant will be required to a concurrency determination pursuant to [chapter 94](#).

Response: *The proposed changes to the City Water Supply Plan of the Comprehensive Plan are specifically directed to provide for more control to the City to ensure that negative concurrency issues do not occur. This can be done by recognizing the new Potable water LOS is more precise and understandable.*

- 7. Natural environment.** Whether, and to the extent to which, the proposal would result in adverse impacts on the natural environment, including consideration of wetlands protection, preservation of groundwater aquifer, wildlife habitats, and vegetative communities.

Response: *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.*

- 8. Economic effects.** Whether, and the extent to which, the proposal would adversely affect the property values in the area or the general welfare.

Response: *By proposing policies to encourage water conservation and re-use the cost of providing water through the FCAA over time may decrease. This is dependent, in part, upon conservation to reduce the amount of water generated by the FCAA reverse osmosis placed within the potable water delivered to the Florida Keys.*

- 9. Orderly development.** Whether the proposal would result in an orderly and compatible land use pattern. Any negative effects on such pattern shall be identified.

Response: *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 which guide the location, type, and quality of development within the City.*

10. Public interest; enabling act. Whether the proposal would be in conflict with the public interest, and whether it is in harmony with the purpose and interest of this subpart B and its enabling legislation.

Response: *The Work Plan for the WSP in the 2012 Comprehensive Plan specifically identifies the required elements of the revised WSP as directed by Florida Statutes relating to Water Supply Plans.*

11. Other matters. Other matters which the planning board and the city commission may deem appropriate.

Responses: *No other matters not already discussed impact the City Commission's decision to adopt or not adopt the recommended revisions to the Comprehensive Plan.*

RECOMMENDATION:

The Planning Department, based on the criteria established by the Comprehensive Plan recommends:

That the Planning Board approve the proposed resolution recommending to the City Commission that the proposed changes to the Water Supply element of the Comprehensive Plan be adopted.