

Key West Water Supply Plan

- Intent: *“necessary to serve existing and new development”*
- Updates due every 5 years, based on SFWMD updates.
- The last version passed City Commission in 2015, but didn’t get rendered to FDEO, so wasn’t updated in Code.
- The 2022 version is 90% the same approved changes as in 2015



Priority 4: Environmental Protection

Goal 4: Water Efficiency and Resilience:

#1 Support Water Supply Plan:

Pass and enforce upcoming Comprehensive Plan ordinances and mandates on irrigation schedules and water efficient fixtures.

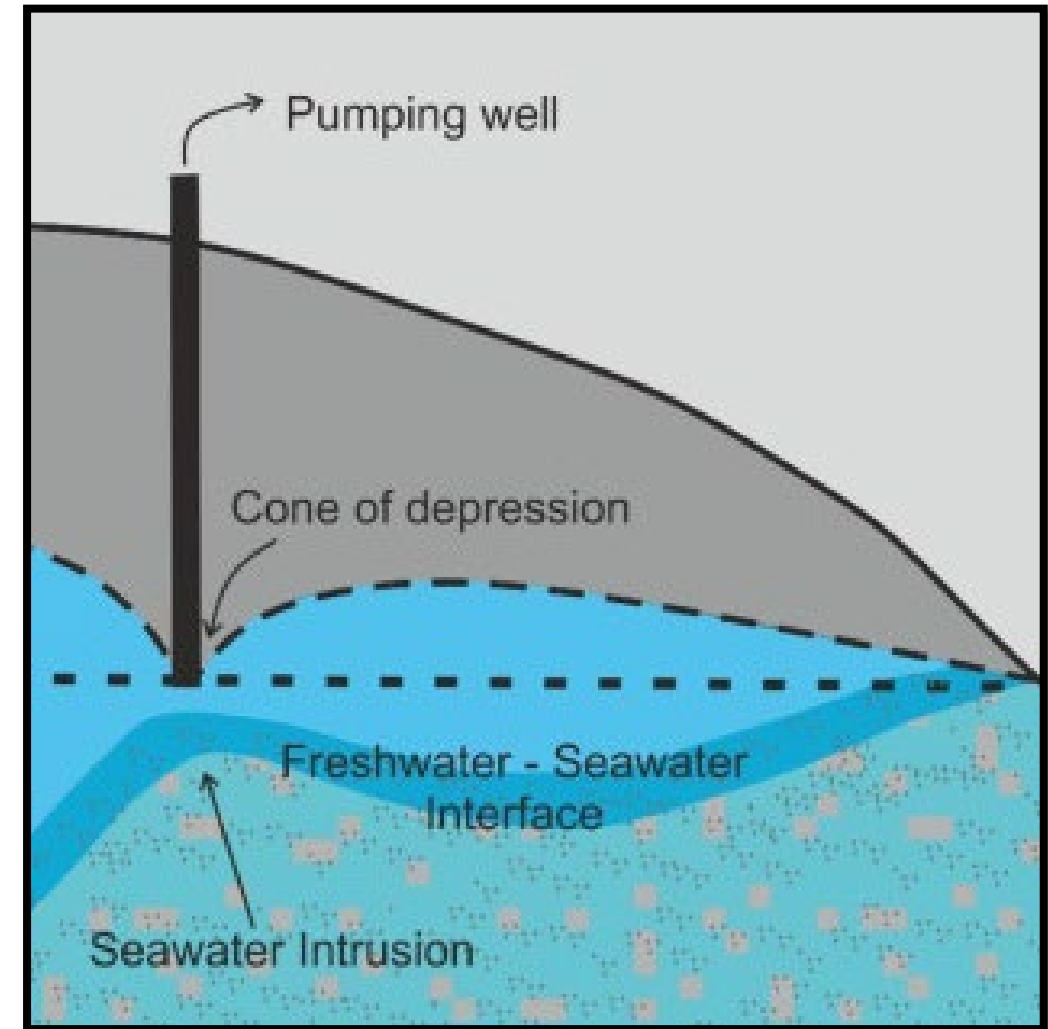
Priority 2: Adaptation/Sea Level Rise

Goal 2: Short Term Critical Projects and Plan

#6 Protect Water Supply:

Prevent an increase in salinity and keep water costs low by:

- Continuing to support FCAA legislatively in legal battles with Turkey Point
- Implementing the City's Water Supply Plan to reduce water consumption;
- Increasing the number of cisterns in new building initiatives; and,
- Conducting a cost-benefit analysis of utilizing reclaimed water.

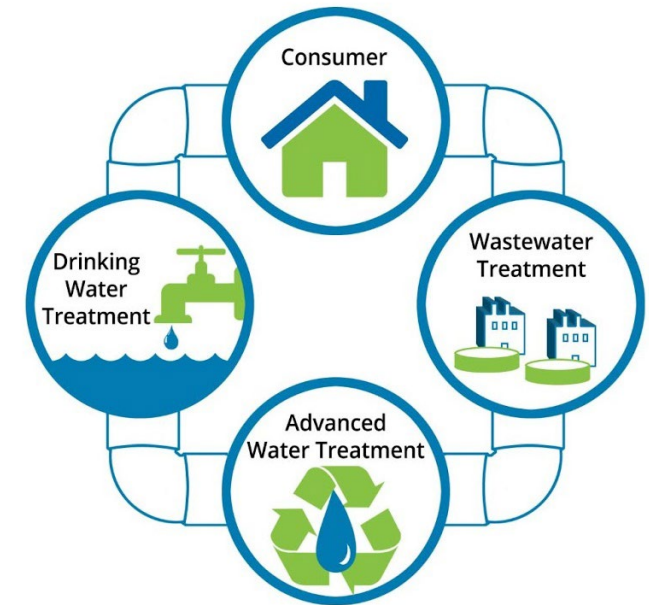




Major Water Supply Plan Updates

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. Includes potable water as a reuse feasibility option
6. Includes proactive building codes as option to increase efficiencies
7. 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.

Direct Potable Reuse





Major Comp Plan Updates:

Conservation Element:

6-1.2.12 Water Quality and Quantity

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.”



Major Comp Plan Updates:

Future Land Use Element:

Innovative Resource Mgmt & Climate Adaptation

1-1.12.6 Water Efficiency in Building and Construction

- Shall research and recommend progressive water efficient building codes and retrofits
- Shall explore regulatory and/or incentive programs

1.1.12.7 Conservation Tier Rates:

- Shall coordinate with the FKAA and other local governments on a conservation rate structure

1.1.12.8 Stormwater Mitigation

- Shall research and recommend new methodologies for rainwater retention





Major Comp Plan Updates:

Conservation Element:

Water Quality and Quantity

6-1.2.5 Protection and Conservation of Potable Water Supply

- Updates to 70% native, to match LDRs
- Calls for adoption of SFWMD's mandatory year-round permanent landscape irrigation

6.1.2.14 Landscape Guidelines

- Shall research and recommend policies and guidelines allowing cistern capacity to satisfy some portion of stormwater storage requirements

6.1.2.19 Proactive Building Codes

- Shall research and recommend ...established efficiency standards that increase efficiency without substantially increasing cost or complexity.





Major Comp Plan Updates:

Capital Improvements Element:

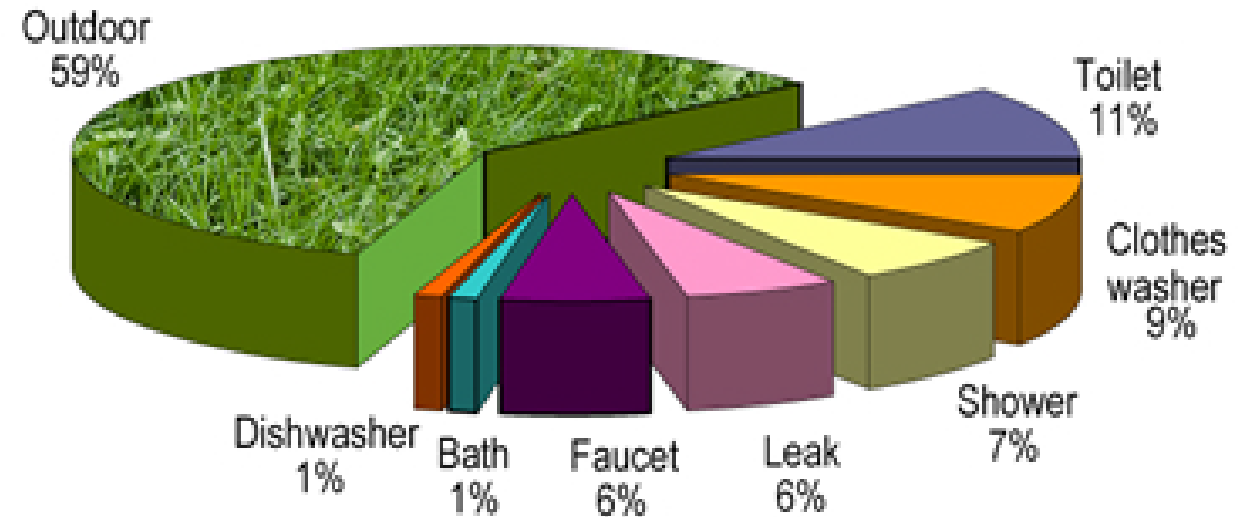
Requiring Development and Permits Compliant with Concurrency, Level of Service

9-1.6.1 Level of Service Standards

Residential & Commercial:

100 gal/capita/day

Residential Average Water Use



Source: American Water Works Association Research Foundation, End Uses of Water



Major Building Code Updates:

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, **including renovations.**
2. Adopt South Florida Water Management Districts' Year-Round Irrigation Rules allowing 2 irrigation days per week on specific days.

Water Fixture Analysis	
Upgrade	Maximum Water Use & Savings
High Efficiency Toilet (HET)	1.28 gallons/flush (25% savings)
Showerheads	1.5 gallons/minute (40% savings)
Bathroom Faucet	1.5 gallons/minute (32% savings)
Kitchen Faucet	1.5 gallons/minute (40% savings)
Clothes Washers	3.2 WF* Front Load (32% savings) 4.3 WF Top Loading (34% savings)
Dishwashers	3.5 gallons / cycle (42% savings)
Urinals	.5 gallons/flush (50% savings)

*WF: Water Factor: gallons/cycle/cubic foot