

Water Supply Facilities Work Plan Updates

SFWMD Technical Assistance Guide

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FOREWORD

This Technical Assistance Guide is intended to assist local governments that are updating their existing Water Supply Facilities Work Plan (Work Plan) and/or amending their Comprehensive Plans to incorporate the updated Work Plans, as required by Section 163.3177(6)(c), Florida Statutes (F.S.). This guide provides general information for local governments regarding the requirements of updating a Work Plan. However, each local government is unique, and this guide does not address specific aspects of each local government's Work Plan. South Florida Water Management District (SFWMD) staff are available to provide technical assistance, including the review of draft updates, Comprehensive Plan amendments, and other planning documents. Additional guidance is available on the SFWMD website.

Statutes requiring the development of Work Plans were promulgated in 2005 leading to the adoption of many original Work Plans between 2007 and 2010. Since then, Chapter 163, F.S., has been amended; local changes have occurred; regional water supply plans have been updated; and lessons have been learned regarding the development, review, and adoption of existing Work Plans. If a local government has not adopted a Work Plan, they should contact the SFWMD for technical assistance.

This guide describes the process of adopting or updating a local government's Work Plan. Section 1 includes the statutory history of Work Plan requirements; Section 2 provides background information for updating Work Plans; Section 3 describes the topics local governments must address when updating their Work Plans; and Section 4 outlines the methods local governments can use when adopting their Work Plans.

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SECTION 1: STATUTORY HISTORY AND REQUIREMENTS

Statutory History

The Florida Legislature enacted bills during the 2002, 2004, 2005, 2011, 2012, 2015, and 2016 sessions to address the state's water supply needs. These bills, particularly Senate Bills 360 and 444 enacted during the 2005 legislative session, strengthened the statutory links between the regional water supply plans (RWSPs) prepared by water management districts and the Comprehensive Plans prepared by local governments through changes to Chapters 163 and 373, Florida Statutes (F.S.). These changes improved coordination between local land use planning and regional water supply planning.

Regional Water Supply Plans

The South Florida Water Management District (SFWMD or District) develops and updates RWSPs to assess current and future water needs while sustaining Central and South Florida's water resources. Section 373.709, F.S., provides the framework for an RWSP's scope, analysis, implementation, and process. The RWSP plans are required to be based on a 20-year planning period and updated every 5 years. The RWSP must include specific water resource and water supply development projects. There are five RWSP regions within the SFWMD: Upper East Coast, Lower East Coast, Lower West Coast, Lower Kissimmee Basin, and Upper Kissimmee Basin/Central Florida Water Initiative (CFWI) (**Figure 1**). A list of local governments by water supply planning area is provided in **Appendix A**.

Comprehensive Plans

The Florida Legislature established a water supply planning process for local governments through the Community Planning Act [Chapter 163, F.S.] and Water Resources Act [Chapter 373, F.S.]. A local government's Comprehensive Plan provides guidelines for development of the community and includes the projects, programs and timeframes to implement the plan elements. Under Section 163.3177(6)(c)3., F.S., local governments are required to update their Comprehensive Plans within 18 months after the District's Governing Board approves the applicable RWSP. Work Plan Updates are comprehensive plan amendments, as required by Section 163.3184, F.S. Every seven years, local governments are required to complete an Evaluation and Appraisal Review (EAR) of their comprehensive plan to address new statutory requirements and local government conditions.

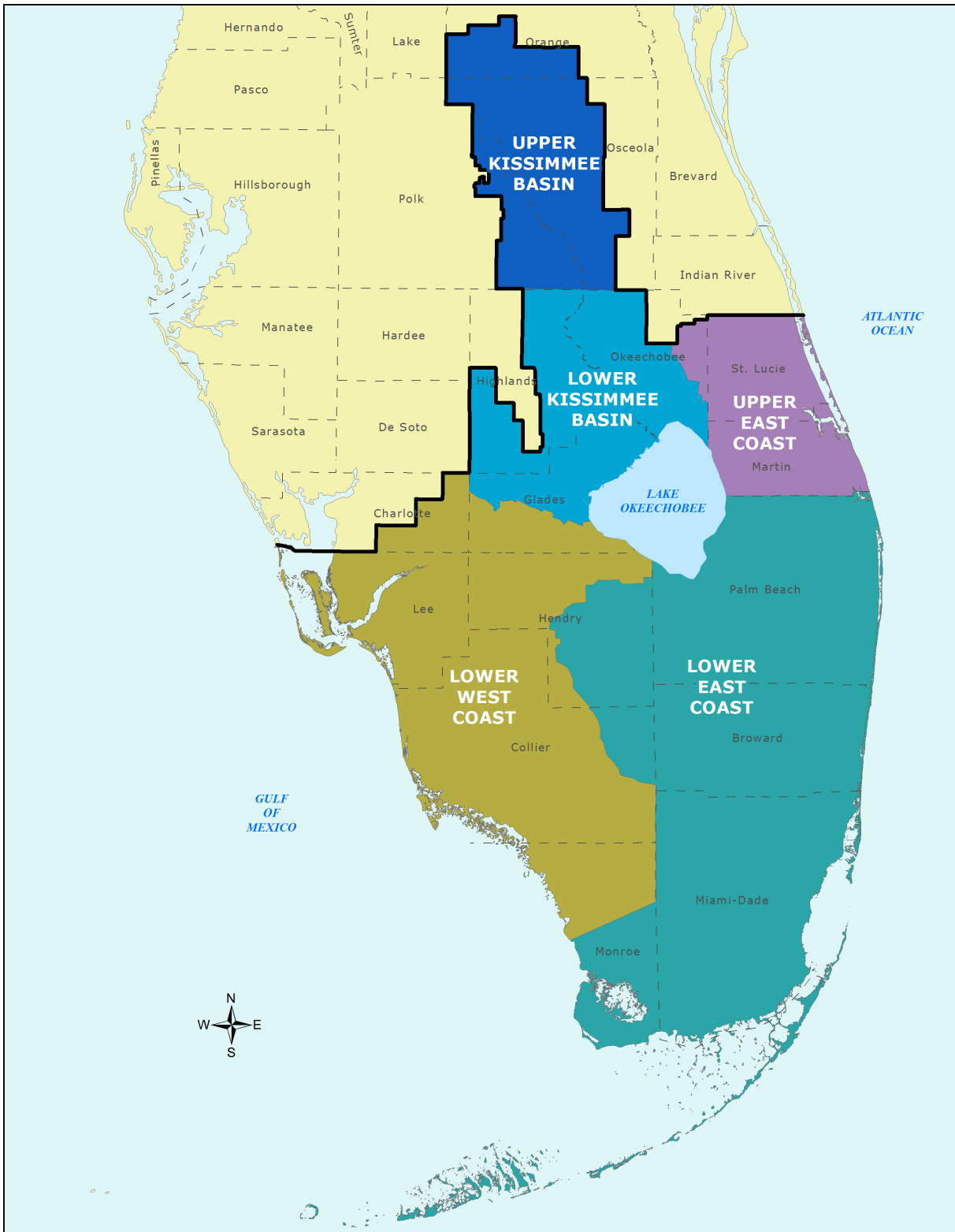


Figure 1. Water supply planning areas within the South Florida Water Management District.

Water Supply Facilities Work Plans

Within 18 months following approval of a RWSP, local governments must develop and adopt a Comprehensive Plan amendment consistent with the plan amendment process in Section 163.3184, F.S. The amendment must include updates to the local government's Water Supply Facilities Work Plan (Work Plan), as outlined in Section 163.3177(6)(c)3., F.S., and be consistent with the water resource and water supply development projects listed in the RWSP. The Work Plan must also cover at least a 10-year planning period and identify alternative and traditional water supply development as well as conservation and reuse projects needed to meet the community's projected future demands.

Statutory Requirements

There are multiple statutory provisions each local government must consider when updating its Work Plan, as summarized below:

1. Coordinate appropriate aspects of the Comprehensive Plan with the applicable RWSP [Section 163.3177(4)(a), F.S.].
2. Ensure the Future Land Use Plan is based on availability of adequate water supplies and public facilities and services [Section 163.3177(6)(a), F.S.]. Data and analyses demonstrating that adequate water supplies and associated public facilities will be available to meet projected growth demands must accompany all proposed Future Land Use Plan and Plan amendments submitted for review.
3. In consultation with the water supplier, ensure adequate water supplies and potable water facilities are available to serve new development no later than the issuance by the local government of a certificate of occupancy or its functional equivalent [Section 163.3180(2), F.S.].
4. For local governments subject to an RWSP, revise the General Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge element (the "Infrastructure element") through a Comprehensive Plan amendment to:
 - a. Identify and incorporate the alternative water supply project(s) selected by the local government from projects identified in the applicable RWSP, or alternative project(s) proposed by the local government under Section 373.709(8)(b), F.S. [Section 163.3177(6)(c), F.S.];
 - b. Identify the traditional and alternative water supply projects and the conservation and reuse programs necessary to meet water needs identified in the applicable RWSP [Section 163.3177(6)(c)3., F.S.]; and
 - c. Update the Work Plan for at least a 10-year planning period for constructing the public, private, and regional water supply facilities identified in the element as necessary to serve existing and new development [Sections 163.3177(6)(c)3. and (5), F.S.].

5. Revise the Five-Year Schedule of Capital Improvements to include water supply, reuse, and conservation projects and programs to be implemented during the 5-year period [Section 163.3177(3)(a)4., F.S.].
6. To the extent necessary to maintain internal consistency after making changes described in Paragraph 1 through 5 above, revise the Conservation element to assess projected water needs and sources for at least a 10-year planning period, considering the applicable RWSP and water use permit(s) [Section 163.3177(6)(d), F.S.]. The comprehensive plan must address the water supply sources necessary to meet the existing and projected water use demand for the established planning period, considering the applicable RWSP [Section 163.3167(9), F.S.].
7. To the extent necessary to maintain internal consistency after making changes described in Paragraphs 1 through 5 above, revise the Intergovernmental Coordination element to ensure consistency between the Comprehensive Plan and the applicable RWSP [Section 163.3177(6)(h)1., F.S.].
8. Local governments are required to comprehensively evaluate and update the Comprehensive Plan to reflect changes in local conditions every seven years. The evaluation could address the local government's need to update their Work Plan, including the development of alternative water supplies, and determine whether the identified alternative water supply projects, traditional water supply projects, and conservation and reuse programs are meeting local water use demands [Section 163.3191(3), F.S.].
9. Local governments may be exempt from updating their Work Plan if they meet certain criteria. A local government that does not own, operate, or maintain its own water supply facilities and is served by a public water supply entity with a permitted allocation of 300 million gallons per day or greater is not required to amend its Comprehensive Plan when an RWSP is updated if the local government uses less than 1 percent of the public water supply entity's total permitted allocation. However, the local government must cooperate with the public water supply entity that provides service within its jurisdiction and must keep the Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge element up to date, pursuant to Section 163.3191, F.S. A local government should contact the Florida Department of Economic Opportunity (DEO) to verify its qualifications for the exemption [Section 163.3177(6)(c)4., F.S.].
10. Local governments with a Sector Plan adopted in accordance with Section 163.3245, F.S., should incorporate information from the adopted Sector Plan, Master Plan, and Detailed Specific Area Plan into the Work Plan. The focus should be on water needs, water supply and resource development, conservation measures, and intergovernmental coordination activities with the SFWMD and water supply development projects needed to address projected development in the Sector Plan area [Section 163.3245, F.S.].

SECTION 2: BACKGROUND INFORMATION ON COMPREHENSIVE PLAN AMENDMENTS

Each local government is unique. Not all amendment requirements apply to all local governments, and there is not a single solution to meet the same set of requirements. If an aspect of the Comprehensive Plan or Work Plan does not apply to the local government, an explanation of what is not applicable and why must be provided. For example, a Work Plan may not need major updates because it was recently adopted, the local government is built-out, growth has not occurred during the planning time frame, or no growth is expected in the future.

Most local governments fall into one or more of the following situations:

- Has a water utility serving only the local government;
- Has a water utility serving the local government and areas outside the local government;
- Has a water utility serving the local government and is also served by one or more utilities from outside the local government;
- Does not have a water utility and is served by one or more utilities; or
- Does not have a water utility serving the local government and the residents are self-supplied.

Local governments may also be located within overlapping planning regions or WMD boundaries.

Comprehensive Plan Amendment General Requirements

Work Plan updates can be combined with other Comprehensive Plan amendments such as map revisions, evaluation and appraisal review changes, and non-related text modifications. The Comprehensive Plan amendment normally will go through the DEO's Expedited State Review Process, unless combined with an amendment that must be processed under the State Coordinated Review Process. Information on how to adopt a Comprehensive Plan amendment or where to submit an amendment can be found on DEO's website (<http://www.floridajobs.org/community-planning-and-development>).

Local governments should review the data and analyses that support the Work Plan to determine what aspects require updating. Changes since the Work Plan was adopted (e.g., water supplier, service area, planned facilities, water suppliers, water users, level of service standards) should be included in the revised Work Plan. In addition, during the EAR of the Comprehensive Plan, local governments must determine if plan amendments are necessary to reflect statutory changes related to water supply and facilities planning since the last plan update.

Comprehensive Plan elements that may need to be updated include: Future Land Use, Housing, Infrastructure, Conservation, Coastal Management, Intergovernmental Coordination, and Capital Improvements. The plan amendment should focus on updating the following:

- Planning time frames;
- Population estimates and projections;
- Projections of existing and future water demands;
- Identification of viable water sources and projects to meet demands;

- Capital improvement needs to meet existing and future demands;
- Conservation efforts; and
- Coordination with applicable RWSP.

District contact and mailing information Work Plan updates, Comprehensive Plan amendments for technical assistance is detailed in **Appendix B**.

Local Governments in Multiple Water Supply Planning Area or Water Management District

Several local governments are located within two water supply planning areas within the SFWMD or span the boundary between two water management districts. This can cause confusion for such local governments trying to determine when to submit Work Plan updates. If the due dates are not the same, the Work Plan update is due 18 months after the later applicable RWSP update is adopted. However, Collier and Hendry counties are exceptions as they are mostly located in the Lower West Coast planning area. The Work Plan update will need to include information from both RWSPs and/or districts, as applicable. **Appendix A** lists the local governments located within two water management districts.

Local governments located within two water supply planning areas within the SFWMD are as follows:

- **Collier County** – Included in the Lower West Coast and Lower East Coast RWSPs; Work Plan updates are due 18 months after the Lower West Coast RWSP
- **Glades County** – Included in the Lower West Coast and Lower Kissimmee Basin RWSPs; Work Plan updates are due 18 months after the Lower Kissimmee Basin RWSP
- **Hendry County** – Included in the Lower West Coast and Lower East Coast RWSPs; Work Plan updates are due 18 months after the Lower West Coast RWSP
- **Monroe County** – Included in the Lower West Coast and Lower East Coast RWSPs but has no utilities in the Lower West Coast; Work Plan updates are due 18 months after the Lower East Coast RWSP
- **Okeechobee County** – Included in the Upper East Coast and Lower Kissimmee Basin RWSPs; Work Plan updates are due 18 months after the Lower Kissimmee Basin RWSP

SECTION 3: WATER SUPPLY FACILITIES WORK PLAN TOPICS TO ADDRESS

This section provides information on how to update specific Work Plan requirements. The local government should clearly demonstrate in the Work Plan how the requirements are being updated and adopted. If a topic does not apply to the local government, it should be clearly stated in the Work Plan. **Appendix C** provides a checklist to ensure all requirements have been addressed.

The Work Plan must incorporate the traditional and alternative water supply sources identified in the RWSP or proposed by the local government under Section 373.709(8)(b), F.S., to meet existing and projected needs for at least a 10-year period. The Work Plan must identify the capital improvements that will be needed to develop, treat, and deliver those supplies. It must also include conservation measures and reuse supplies that can be used to offset demand for new water. The capital improvements needed in the first 5 years of the Work Plan must be included in the 5-year

Schedule of Capital Improvements. However, there is no format requirement specified in Chapter 163, F.S., for the Work Plan.

Work Plan Requirements by Topic

Local Government Overview

This section is not mandatory but is intended to provide a brief overview of the local government, including information on the geography, history, character, existing and proposed land uses, growth and development patterns within the local government and surrounding the local government, build-out status, and population. Unusual or distinctive information that is not statutorily required but may affect water use and planning should be included here.

Data and Analysis

This section should provide a brief narrative of the data and analysis the local government must provide to state planning and regulatory agencies as part of their proposed Comprehensive Plan amendments, particularly those changing the future land use map to increase density and intensity of land use. Any issues or deviations with the data and analysis should be clearly explained.

Relevant Regional Issues

This section should briefly address overarching regional issues impacting water supply planning at the local level, such as the adoption of rules affecting availability of water, a Sector Plan, or large-scale development. A narrative of the effects of identified regional issues on the local government, not the water supplier, should be included. Additionally, the local government's policies addressing the identified regional issues/impacts should be described. Specific issues for each water supply planning region is provided in **Appendix D**. Local governments are encouraged to include other notable issues that impact their community. The Work Plan can include other regional water supply issues being addressed by the local government, water supplier, or county in which they are located.

Planning Time Frames

The Work Plan should include two planning time frames—short range and long range—covering at least an overall 10-year planning period. The planning period should start with the year the Work Plan is adopted and be based on the best available data. To the extent practicable, the planning time frames in the Work Plan should be consistent with the applicable RWSP. For example, the 2017 Lower West Coast Water Supply Plan uses a 26-year planning horizon (2014 to 2040); with 2014 as the base year and projections and estimates provided in ten (10) year increments. If it is not possible to have consistent planning periods, the data and analysis should include an explanation of why it is not possible and how the time frames have been coordinated with the applicable RWSP and the rest of the Comprehensive Plan.

Population Projections

Changes to the population estimates and projections in the Work Plan could necessitate revisions and updates to other elements of the Comprehensive Plan such as the Future Land Use, Housing, Transportation, Infrastructure, Conservation, and Capital Improvements elements. Where population projections cannot be consistent in all elements of the Comprehensive Plan, the data and analyses should explain why it is not possible. For example, the population projections in the Housing element may be different to meet requirements for federal and state housing programs. Adopted or anticipated large-scale developments (e.g., Developments of Regional Impact, Sector Plans) should be included in the updated population projections.

Population estimates and projections should be based on the best available data and include permanent and seasonal residents. If a seasonal population is not applicable to the local government, that must be clearly stated. Estimates and projections may differ between the Work Plan (and Comprehensive Plan) and the applicable RWSP as RWSPs use only permanent resident numbers for population projections. Population estimates and projections in the RWSPs are based on the University of Florida's Bureau of Economic and Business Research medium population projections for a given year.

Section 163.3177(1)(f)3., F.S., directs local governments to use the most current population estimates and projections from the Office of Economic and Demographic Research or those generated by the local government using a professionally acceptable method. Local governments also can utilize the University of Florida's Bureau of Economic and Business Research reports or the Shimberg Center for Housing studies. If using a methodology not based on one of these data sources, the local government should contact the DEO to determine if the methodology is appropriate and acceptable.

The updated population estimates and water projections should be prepared for:

- The geographic extent of the local government;
- Areas served by the local government's water facilities as well as self-supplied areas;
- Areas the local government provides water to outside of its jurisdiction; and
- Areas within a local government where another local government or utility provides water.

Identification of Current and Future Areas Served

As applicable, this section should depict areas served by the local government's utility, areas served by other water suppliers, locations of small public water supply systems, and any areas of self-supply. Current and future service areas should be clearly distinguished, and if those areas are the same, that must be clearly stated. Maps of utility areas currently served and future utility areas are included in the applicable RWSP Update in the appendix titled "Information for Local Government Comprehensive Plans." Alternatively, a narrative description of the service area(s) can be provided.

Areas Served by Domestic Self-Supply Systems

Geographic areas and projected withdrawal amounts for existing and future domestic self-supply systems should be identified in this section. Withdrawal amounts may be calculated using the local government's level of service standard(s) or another method. Regional water service to be provided to these areas in the future, if any, should be described. If there are no self-supplied areas, that should be clearly stated.

Potable Water Level of Service Standard

The existing and projected potable water level of service standard should be updated, if needed. The level of service standard is an indicator of the extent or degree of service provided by, or proposed to be provided by, a facility based on and related to the operational characteristics of the facility. The level of service standard indicates the capacity per unit of demand for each separate public facility, pursuant to Section 163.3164(28), F.S. The statute does not specify if the use rate should be raw or finished water, but most local governments use finished water.

The Work Plan should evaluate the existing and projected potable water level of service standard(s) based on the following:

- An identification of the existing standard(s) by water supplier, service area, and/or facility, if applicable.
- A comparison of the existing standard to current use and ensured consistency with level of service of existing supplier(s).
- The need for revising standards for residential uses and additional standards for non-residential uses.

The level of service standard should be specific to the local government, not the overall standard of the water supplier. If a local government has multiple water suppliers, a level of service standard should be adopted for each water supplier.

Water Demand Projections

The water demands should be updated to address existing and projected needs based on the needs for potable water use as well as industrial, agricultural, and any other use appropriate to the local government. The water demand projections should be based on the updated planning time frames and population projections, consistent with the applicable RWSP. Whether the water demands are for raw or finished water must be specified; use of finished water demands is encouraged. The projected demands of adopted or anticipated large-scale developments (e.g., Developments of Regional Impact, Sector Plans) should be included.

Updates to the water demand projections should consider the existing and projected potable water level of service standard(s) and include the demands for self-served areas (e.g., private wells) and non-potable water uses (e.g., agriculture, industrial, irrigation).

If more than one water supplier serves the local government, updated water demand projections and level of service standards must be provided for each water supplier and specific to the local government. If a local government provides water to area(s) outside its jurisdiction, updated water

demand projections are required and should include the same geographic areas as the updated population estimates and projections and be consistent with the updated time frames. The information can be presented with the population projections.

Water Supply Sources and Projects

The local government should determine if existing and future water sources will be adequate to serve projected demands over the planning time frames. Updated information should address the following, as applicable:

- If no new water sources will be needed, explain how this was determined.
- Provide plans for new water sources, if needed.
- Demonstrate that each water supplier serving the local government has adequate capacity.
- Provide plans to serve any areas that are currently self-supplied during the planning period.
- Identify new water sources needed or planned.
- Update water supply projects (alternative and traditional) to be consistent with the Work Plan's planning period (e.g., remove completed projects and add new projects for the updated planning period).
- Revise the Five-Year Schedule of Capital Improvements to include the water supply projects deemed necessary within the 5-year planning period.
- Identify existing and proposed commitments for water conservation and reclaimed water programs.

Water Suppliers

Local governments should determine the status of existing water suppliers and, if applicable and appropriate, identify new or future water suppliers. This section should address the following, as applicable for each water supplier that serves the local government:

- Information concerning water suppliers (e.g., new/modified water use permit information, agreements, service areas)
- The status of water use permit(s) and if treatment capacities are adequate to meet demand over the planning period
- The water supplier's service area(s), applicable RWSP, and water use permits
- Existing and projected level of service standards for each service area/water supplier
- Information on the potential impacts to existing Minimum Flow and Minimum Water Levels (MFLs), Water Reservations, or Restricted Allocation Areas in the updated planning period
- Information on how the water will be provided, including water sources, infrastructure and capital improvement needs, bulk sales, and contract details
- How water suppliers are coordinating with the applicable RWSP
- Plans, if any, for new water suppliers to serve the local government

Conservation and Reuse Efforts

Local governments should review existing conservation and reuse efforts and describe how they have been implemented. Determine if any updates are needed and address any changes in statutory

requirements. The information should focus on, be specific to, and be undertaken by the local government, not the water supplier or the county. Separate information on county and regional efforts should be included. At a minimum, the review should address and update the following, as applicable:

- Existing levels of water conservation, use, and protection as well as the applicable policies of the local government, the SFWMD, and the applicable RWSP
- Options to conserve water, including rate structures, education programs, Florida-friendly landscape ordinances, and irrigation ordinances
- The local government's implementation of the SFWMD's Mandatory Year-Round Landscape Irrigation Conservation Measures, as detailed in Chapter 40E-24, Florida Administrative Code
- How successful local government enforcement of water shortage and other irrigation restrictions has been
- Update any language referencing "xeriscape, xeriscaping," etc. to "Florida-friendly landscaping." Section 373.185, F.S., was revised in 2009 to replace xeriscaping with Florida-friendly landscaping.
- How reclaimed water/reuse has been used, if applicable. If not used, explain why.
- Planned or needed reclaimed water/reuse projects in the 10-year planning period of the Work Plan
- New conservation and reuse efforts to be studied and/or implemented by the local government
- County and/or regional efforts in water conservation or reclaimed water/reuse that overlap the local government's service area.

Intergovernmental Coordination Activities

The local government should review data, analysis, goals, objectives, policies, and other coordination activities to determine if they need to be revised or because of changes in statutory requirements. The updated information should address the following, as applicable:

- Coordination activities with all water suppliers, relevant agencies, and partners
- Needs for additional coordination activities
- Information on Memoranda of Understanding, bulk service agreements, contracts, etc.
- Coordination with the applicable RWSP

If intergovernmental coordination activities are adequate and no new activities will be needed, the local government should include a narrative of how this was determined and how all issues listed above have been addressed.

Sector Plans

This section only applies to local governments that have adopted a Sector Plan consistent with the requirements of Section 163.3245, F.S. All other local governments should omit this section.

Local governments with a Sector Plan adopted via Comprehensive Plan amendment, found in compliance by the DEO, and consistent with the requirements of Section 163.3245, F.S., should

incorporate information from the adopted Sector Plan, Master Plan, and Detailed Specific Area Plan into the Work Plan. As a part of the Sector Plan process, the water needs, sources, and water supply and resource development projects identified in the Sector Plan's Master Plan must be incorporated into the Comprehensive Plan and applicable RWSP.

Required information includes the following:

- The phasing schedule allocating a portion of the local government's future growth to the planning area through the planning period
- Population estimates and projections
- Water demand projections
- Identification of viable water sources to meet demands
- Proposed water conservation measures
- General identification of regional public facilities necessary to support future land uses
- Capital improvements needed to meet demands and to be included in the local government's Five-Year Schedule of Capital Improvements
- Identification of general procedures and policies to coordinate with the SFWMD and to incorporate the Sector Plan area's proposed development into the applicable RWSP.

Capital Improvements Schedule/Water Supply Projects

The local government should review the Capital Improvements element and the Five-Year Schedule of Capital Improvements to identify capital improvement projects to be implemented in the first 5 years following adoption of the Work Plan and the entity responsible for the projects. This includes both publicly and privately funded water supply projects necessary to achieve and maintain adopted level of service standards, including projects needed to serve any adopted or anticipated large-scale developments (e.g., Developments of Regional Impact, Rural Land Stewardship Areas, Sector Plans), even if the local government is not responsible for the improvements. The following actions should be performed, as applicable:

- Revise the list of water supply projects (alternative and traditional) to be consistent with the Work Plan's planning period, including those funded by the local government and their water supplier.
- Remove completed projects and add projects planned for the updated 10-year planning period.
- Include alternative water supply, reuse, and/or water conservation projects selected to meet future water needs, consistent with the RWSP and the Work Plan.
- Indicate if the projects are funded or unfunded. If a project is unfunded, provide a level of priority for funding.
- Identify projects beyond the Five-Year Schedule of Capital Improvements (e.g., a needed project in the seventh year of a 10-year plan) and how they will be implemented and funded.
- Describe projects needed to serve any adopted or anticipated large-scale developments (e.g., Sector Plans).
- Describe how projects are coordinated with the applicable RWSP.

Projects funded by the water supplier rather than the local government can be adopted by referencing the Capital Improvements Schedule. If this option is chosen, the water supplier's Capital Improvements Schedule should be adopted by a policy that includes the title of the schedule and the date of adoption. If no projects are proposed for the Work Plan time frame, this should be clearly indicated.

Comprehensive Plan Goals, Objectives, and Policies

Existing goals, objectives, and policies, regardless of where they are located in the Comprehensive Plan, should be reviewed to determine if any updates are needed or because of changes in statutory requirements. The results of the review should be commented on in the data and analysis section of the Work Plan, or it may be assumed this review item has not been completed. Information for the Work Plan update can be cross-referenced and/or located in more than one element of the Comprehensive Plan. The goals, objectives, and policies should consider the following issues:

- Implementation of the Work Plan
 - Policies implementing the Work Plan by incorporating the Work Plan into the Comprehensive Plan or adopting the Work Plan by reference
 - When adopting the Work Plan by reference, the policy must identify the title and author of the document and clearly indicate what provisions and edition of the document are being incorporated [Section 163.3177(1)(b), F.S.]
- Concurrency provisions for water supply availability
- Water conservation programs and activities specific to the local government
- Alternative water supply projects
 - Local governments must incorporate into the Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Natural Groundwater Aquifer Recharge element alternative water supply project(s) selected from the those identified in the applicable RWSP, pursuant to Section 373.709(2)(a), F.S., or proposed by a local government under Section 373.709(8)(b), F.S. [Section 163.3177(6)(c)(3), F.S.]
- Reclaimed water programs
- Level of service standards specific to the local government
 - Update and/or review the level of service standards. The level of service standards need to be consistent throughout the Comprehensive Plan and Work Plan.
- Population projections
 - Update and/or review the population projections. The projections should be consistent throughout the Comprehensive Plan and Work Plan Update. If they are not consistent, explain why.
- Water supply/source needs and demands
- Intergovernmental coordination with the SFWMD, water suppliers, and other local governments, including areas that cross jurisdictional boundaries. Identify any joint planning areas and joint infrastructure service areas related to water supply.
- Incorporation of the Work Plan into the Comprehensive Plan

- Incorporation of another local government’s or water supplier’s Work Plan into the Comprehensive Plan
- Sector Plan coordination and implementation

Incorporating Water Supplier’s Water Supply Information into a Work Plan by Reference

If a local government relies on another local government for its water supply and is utilizing the detailed data and analysis from that local government for the Work Plan, it can incorporate the information by reference into its Work Plan. The reference to the water supplier’s plan must be incorporated into the Comprehensive Plan with an adopted policy that includes the specific title and adoption date of the document. Here is suggested language for a policy that incorporates a water supplier’s Work Plan into a local government’s Comprehensive Plan:

The [local government] hereby adopts by reference the Water Supply Facilities Work Plan (Work Plan) for [water supplier], dated xxxx, for a planning period of not less than 10 years. The Work Plan addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the [local government’s] water service area. The [local government] shall review and update the Work Plan at least every 5 years, within 18 months after the Governing Board of the water management district approves an updated regional water supply plan. Any changes affecting the Work Plan shall be included in the annual Capital Improvements Plan update to ensure consistency between the Potable Water sub-element and the Capital Improvements element.

Summary information should be included in the Work Plan, even if detailed information is incorporated by reference. Detailed data and analyses that could be incorporated into the Work Plan by reference and requirements that should be included in the Work Plan are listed below, by topic.

Detailed Data and Analysis Requirements

- Identification of Current and Future Areas Served
- Water Demand Projections
- Water Supply Sources and Projects
- Water Suppliers
- Capital Improvements/Water Supply Projects
- Capital Improvements Schedule

Requirements That Should Be Addressed in Local Government’s Work Plan

- Statutory History
- Statutory Requirements
- Local Government Overview
- Relevant Regional Issues
- Planning Time Frames
- Population Projections

- Areas Served by Domestic Self-Supply Systems
- Potable Water Level of Service Standard
- Conservation and Reuse Efforts
- Intergovernmental Coordination Activities
- Sector Plans
- Comprehensive Plan Goals, Objectives, and Policies
- Related Comprehensive Plan Amendments

Related Comprehensive Plan Amendments

To maintain consistency within the Comprehensive Plan, data, analysis, goals, objectives, and policies should be reviewed in the Future Land Use, Housing, Sanitary Sewer, Conservation and Coastal Management Elements of the local government’s Comprehensive Plan to determine if they need to be updated or revised based on information and updates in the Work Plan. Information for the Work Plan Update Comprehensive Plan amendment can be cross-referenced and/or located in more than one area or element of the Comprehensive Plan. Update the elements to be consistent with the updates to the Work Plan as applicable. If there are differences in data and analyses or goals, objectives, and policies in the different elements of the Comprehensive Plan, the differences should be explained.

Evaluation and Appraisal Review

While an Evaluation and Appraisal Report is not required, local governments are encouraged to comprehensively evaluate and update Comprehensive Plans, as necessary, to reflect changes in local conditions. The evaluation could address the extent to which the local government has implemented the Work Plan or the need to update the Work Plan. The evaluation could include the development of alternative and traditional water supply sources and projects, and if conservation and reuse programs are meeting local water use demands.

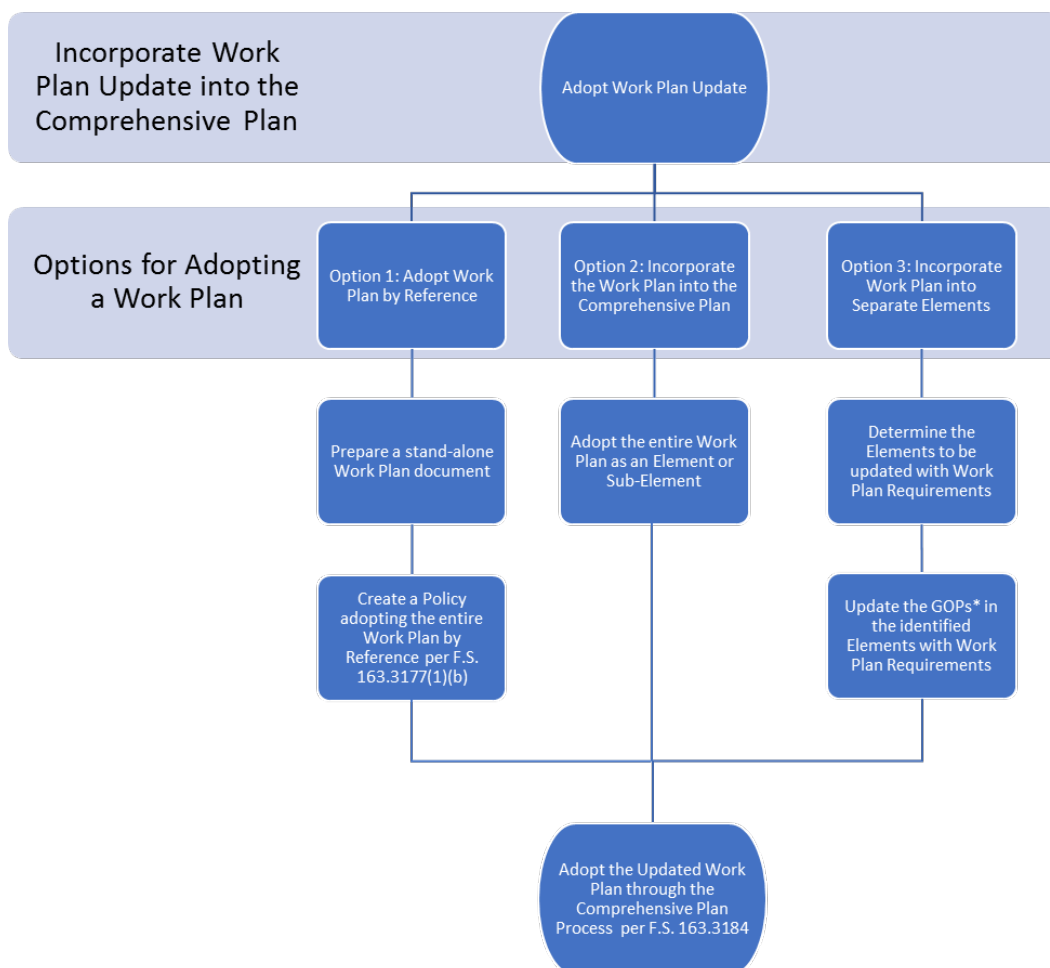
SECTION 4: INCORPORATION OF THE WORK PLAN INTO THE COMPREHENSIVE PLAN AND ADOPTION OPTIONS

This section provides information on how to incorporate the Work Plan update requirements into the local government’s Comprehensive Plan. The Work Plan must include the traditional and alternative water supply sources identified in the RWSP or proposed by the local government under Section 373.709(8)(b), F.S., to meet existing and projected needs for at least a 10-year period. The Work Plan must identify the capital improvements that will be needed to develop, treat, and deliver those water projects. It must also include conservation measures and reclaimed water supplies that can be used to offset demand for new water. The projects needed in the first 5 years of the Work Plan must be included in the Five-Year Schedule of Capital Improvements. However, there is no requirement for how the Work Plan is incorporated into the Comprehensive Plan.

There are three options available to local governments for adopting Work Plan updates into the Comprehensive Plan:

- Option 1. Work Plan as a standalone document adopted by reference into the local government’s Comprehensive Plan;
- Option 2. Work Plan incorporated into the local government’s Comprehensive Plan; or
- Option 3. Work Plan requirements incorporated into applicable elements of the Comprehensive Plan.

The local government should clearly state how the Work Plan requirements are being updated and adopted. This section provides guidance on how to update the Work Plan requirements for the three aforementioned options (**Figure 2**). The Work Plan requirements can be incorporated primarily into the Potable Water sub-element or included in various elements of the Comprehensive Plan (typically the Future Land Use, Potable Water, Sanitary Sewer, Conservation, Coastal Management, Housing, Intergovernmental Coordination, and Capital Improvements elements). A summary table identifying where various topics are located within the local government’s Comprehensive Plan could be utilized. **Appendix E** includes a listing of acronyms and abbreviations for common planning terms, RWSP, Work Plans, and Comprehensive Plans.



*GOPs: Goals, objectives, and policies

Figure 2. Adoption process for a Water Supply Facilities Work Plan.

Option 1: Work Plan as a Standalone Document Adopted by Reference into the Local Government’s Comprehensive Plan

Option 1 provides a framework for creating a standalone document detailing the needed information for creating a Work Plan. The Work Plan will need to be incorporated into the Comprehensive Plan by an adopted Comprehensive Plan policy. An example of such a policy is:

The [local government] hereby adopts by reference the Water Supply Facilities Work Plan (Work Plan) into the [local government’s] Comprehensive Plan, dated xxxx, for a planning period of not less than 10 years. The Work Plan addresses issues that pertain to water supply facilities and requirements needed to serve current and future development within the [local government].

Option 1 typically consists of the following five sections and all the topics included under the “Work Plan Requirements by Topic” portion of **Section 3** above.

- **Section 1: Introduction** – Purpose of the Work Plan; general description of how water service is provided to the community; description of the major features of the community’s water system; anything else of a general introductory nature and a summary of statutory requirements.
- **Section 2: Data Requirements** – Data are focused on population estimates and projections, water needs for at least a 10-year time frame, existing water supply facilities, and level of service standards.
- **Section 3: Analysis Requirements** – Identification of the facilities needed to develop, treat, and distribute traditional and alternate supplies of water over the 10-year period, as well as facilities needed to implement a reuse program, conservation efforts, and intergovernmental coordination efforts.
- **Section 4: Five-Year Schedule of Capital Improvements** – Update the Schedule for facilities needed within the first 5 years and the projected needs for the second 5 years, regardless of the entity responsible for the improvements.
- **Section 5: Goals, Objectives, and Policies** – Review and update goals, objectives, and policies, as needed.

Option 2: Work Plan Incorporated into the Local Government’s Comprehensive Plan

The second option is to incorporate the entire Work Plan into the local government’s Comprehensive Plan as a section or an element and must contain the information discussed in **Section 3**.

Option 3: Work Plan Requirements Incorporated into Applicable Separate Elements of the Comprehensive Plan

The third option is to incorporate Work Plan requirements directly into applicable elements of the Comprehensive Plan, not as a standalone document as in Options 1 and 2. The topics included under the “Work Plan Requirements by Topic” **Section 3** above will need to be included in the Comprehensive Plan. The following list provides suggested locations by Comprehensive Plan element for where requirements and topics could be addressed.

Future Land Use Element

- Local Government Overview
- Statutory History
- Statutory Requirements
- Sector Plans
- Planning Time Frames
- Population Projections
- Goals, Objectives, and Policies

Housing Element

- Planning Time Frames
- Population Projections
- Goals, Objectives, and Policies

Sanitary Sewer Sub-Element

- Relevant Regional Issues
- Conservation and Reuse Efforts
- Planning Time Frames
- Population Projections
- Identification of Current and Future Areas Served
- Goals, Objectives, and Policies

Potable Water Sub-Element

- Local Government Overview
- Statutory Requirements
- Relevant Regional Issues
- Planning Time Frames
- Population Projections
- Identification of Current and Future Areas Served
- Areas Served by Domestic Self-Supply Systems
- Potable Water Level of Service Standard
- Water Demand Projections
- Water Supply Sources and Projects
- Water Suppliers

- Sector Plans
- Conservation and Reuse Efforts
- Intergovernmental Coordination Efforts/Activities
- Goals, Objectives, and Policies

Conservation Element

- Conservation and Reuse Efforts
- Water Sources
- Sector Plans
- Goals, Objectives, and Policies

Coastal Management Element

- Conservation and Reuse Efforts
- Water Sources
- Goals, Objectives, and Policies

Intergovernmental Coordination Element

- Water Suppliers
- Capital Improvements/Water Supply Projects
- Intergovernmental Coordination Activities
- Sector Plans
- Goals, Objectives, and Policies

Capital Improvements Element

- Potable Water Level of Service Standard
- Sector Plans
- Capital Improvements/Water Supply Projects
- Schedule of Improvements
 - First 5 Years
 - Second 5 Years
- Goals, Objectives, and Policies

Topics for the Work Plan Update can be cross-referenced or located in more than one element of the Comprehensive Plan. The element or sub-element where the Work Plan requirements are addressed should meet the needs of the local government; however, there is no condition that a requirement must be addressed in a specific element or sub-element. The local government should provide information demonstrating how each Work Plan update requirement is met. If a topic does not apply to the local government, that should be clearly stated. **Appendix C** provides a checklist to ensure all requirements have been addressed.

APPENDIX A: LOCAL GOVERNMENTS BY WATER SUPPLY PLAN REGION AND WATER MANAGEMENT DISTRICT

Lower East Coast Planning Region Local Governments

<u>Broward County</u>	<u>Miami-Dade County</u>	<u>Monroe County</u>	<u>Palm Beach County</u>
Coconut Creek	Aventura	Islamorada	Atlantis
Cooper City	Bal Harbour Village	Key Colony Beach	Belle Glade
Coral Springs	Bay Harbor Islands	Key West	Boca Raton
Dania Beach	Biscayne Park	Layton	Boynton Beach
Davie	Coral Gables	Marathon	Briny Breezes
Deerfield Beach	Cutler Bay		Cloud Lake
Fort Lauderdale	Doral		Delray Beach
Hallandale Beach	El Portal		Glen Ridge
Hillsboro Beach	Florida City		Golf
Hollywood	Golden Beach		Greenacres
Lauderdale Lakes	Hialeah		Gulf Stream
Lauderdale-by-the-Sea	Hialeah Gardens		Haverhill
Lauderhill	Homestead		Highland Beach
Lazy Lake Village	Indian Creek Village		Hypoluxo
Lighthouse Point	Key Biscayne		Juno Beach
Margate	Medley		Jupiter
Miramar	Miami		Jupiter Inlet Colony
North Lauderdale	Miami Beach		Lake Clarke Shores
Oakland Park	Miami Gardens		Lake Park
Parkland	Miami Lakes		Lake Worth
Pembroke Park	Miami Shores		Lantana
Pembroke Pines	Miami Springs		Loxahatchee Groves
Plantation	North Bay Village		Manalapan
Pompano Beach	North Miami		Mangonia Park
Sea Ranch Lakes	North Miami Beach		North Palm Beach
Southwest Ranches	Opa-Locka		Ocean Ridge
Sunrise	Palmetto Bay		Pahokee
Tamarac	Pinecrest		Palm Beach
Weston	South Miami		Palm Beach Gardens
West Park	Sunny Isles Beach		Palm Beach Shores
Wilton Manors	Surfside		Palm Springs
	Sweetwater		Riviera Beach
	Virginia Gardens		Royal Palm Beach
	West Miami		South Bay
			South Palm Beach
			Tequesta
			Wellington
			West Palm Beach
			Westlake

Lower Kissimmee Basin Planning Region Local Governments

Glades County

Moore Haven

Highlands County

--

Okeechobee County

Okeechobee City

Lower West Coast Planning Region Local Governments

Charlotte County

--

Collier County

Everglades City

Marco Island

Naples

Hendry County

Clewiston

LaBelle

Lee County

Bonita Springs

Cape Coral

Esteros

Fort Myers

Fort Myers Beach

Sanibel

Upper East Coast Planning Region Local Governments

Martin County

Jupiter Island

Ocean Breeze Park

Sewall's Point

Stuart

Indiantown

St. Lucie County

Fort Pierce

Port St. Lucie

St. Lucie Village

Upper Kissimmee Basin/CFWI Planning Region Local Governments

Orange County

Bay Lake

Belle Isle

Lake Buena Vista

Ocoee

Orlando

Reedy Creek

Windermere

Winter Garden

Osceola County

Kissimmee

St. Cloud

Polk County

--

Local Governments in Two Water Management Districts

<u>Local Government</u>	<u>County</u>	<u>Water Management Districts</u>
Belle Isle	Orange	SFWMD and SJRWMD
Ocoee	Orange	SFWMD and SJRWMD
Orange County	Orange	SFWMD and SJRWMD
Orlando	Orange	SFWMD and SJRWMD
Winter Garden	Orange	SFWMD and SJRWMD
Osceola County	Osceola	SFWMD and SJRWMD
Charlotte County	Charlotte	SFWMD and SWFWMD
Polk County	Polk	SFWMD and SWFWMD
Highlands County	Highlands	SFWMD and SWFWMD
Okeechobee County	Okeechobee	SFWMD and SJRWMD

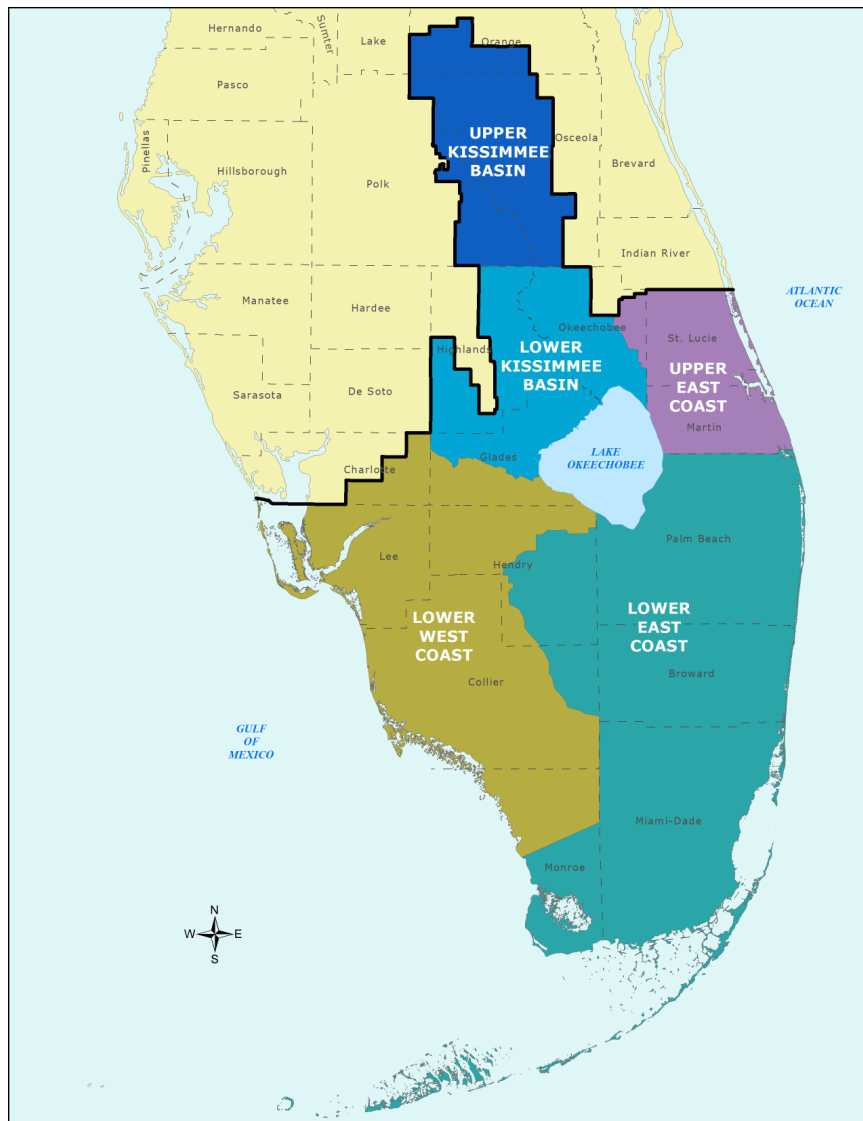


Figure A-1. Water supply planning areas within the South Florida Water Management District.

APPENDIX B: CONTACTS, RESOURCES, AND MAILING INFORMATION FOR WORK PLAN UPDATES AND COMPREHENSIVE PLANS AND AMENDMENTS

SFWMD Webpages

Water Supply Facilities Work Plan: <https://www.sfwmd.gov/doing-business-with-us/work-plans>

Regional Water Supply Plans: <https://www.sfwmd.gov/our-work/water-supply>

SFWMD Contacts

Glennika Gordon
ggordon@sfwmd.gov
(561) 682-2544

Terry Manning
tmanning@sfwmd.gov
(561) 682-6779

Mailing Information for Submittal of Plan Amendments and Work Plans to the SFWMD

Local governments are encouraged to submit Comprehensive Plan amendments to the SFWMD in an electronic format (e.g., a PDF via email, a link to an FTP site). Paper copies also are accepted. Submit amendments to:

Terry Manning, Senior Policy and Planning Analyst
South Florida Water Management District
Water Supply Bureau
3301 Gun Club Road
West Palm Beach, FL 33406
sflocalgovplan@sfwmd.gov

Other Water Management District Contacts

Southwest Florida Water Management District
James Golden
james.golden@watermatters.org
(352) 796-7211 x4790

St. Johns River Water Management District
Steve Fitzgibbons
sfitzgib@sjrwmd.com
(386) 312-2369

Florida Department of Economic Opportunity

Bureau of Community Planning and Growth

Website: <http://www.floridajobs.org/community-planning-and-development>

Regional Planning Administrator Contacts

**Broward, Martin, Miami-Dade, Orange,
Osceola, Palm Beach, and St. Lucie
Counties**

Kelly Corvin
kellyccorvin@deo.myflorida.com
(850) 717-8503

**Charlotte, Collier, Hendry, Glades,
Highlands, Lee, Monroe, Okeechobee, and
Polk Counties**

Justin Stiehl
justin.stiehl@deo.myflorida.com
(850) 717 8523

APPENDIX C: CHECKLIST FOR WATER SUPPLY FACILITIES WORK PLAN REQUIREMENTS

Topics that need to be updated in a Water Supply Facilities Work Plan:

- _____ Identified how the Work Plan will be incorporated into the Comprehensive Plan
- _____ Identified Work Plan format option
- _____ Statutory history
- _____ Statutory requirements
- _____ Local government overview
- _____ Data and analysis
- _____ Relevant regional issues
- _____ Planning time frames
- _____ Population projections
- _____ Identified current and future service areas
- _____ Identified areas served by domestic self-supply systems
- _____ Potable water level of service standard
- _____ Water demand projections
- _____ Water supply sources and projects
- _____ Water suppliers
- _____ Conservation and reuse efforts
- _____ Intergovernmental coordination activities
- _____ Sector Plans
- _____ Capital improvements schedule/water supply projects
- _____ Comprehensive Plan goals, objectives, and policies
- _____ Related Comprehensive Plan amendments
- _____ Evaluation and Appraisal Review

APPENDIX D: ISSUES IDENTIFIED IN REGIONAL WATER SUPPLY PLANS

This appendix provides a summary of issues for each Regional Water Supply Plan (RWSP) published by the South Florida Water Management District (SFWMD or District). More detailed information can be found in the applicable RWSP, which can be accessed at: <https://www.sfwmd.gov/our-work/water-supply>.

2020 Upper Kissimmee Basin/Central Florida Water Initiative Regional Water Supply Plan

Detailed information on the regional issues for the Upper Kissimmee Basin can be found in the 2020 Upper Kissimmee Basin/Central Florida Water Initiative Regional Water Supply Plan. Briefly, the water supply issues are as follows:

1. Traditional groundwater resources alone cannot meet future water demands or currently permitted allocations without unacceptable impacts to water resources and related natural systems. In some areas, utilization of traditional groundwater is near, has already reached, and has exceeded sustainable limits. Adverse impacts from withdrawals are occurring in several areas.
2. Through a collaborative effort of local governments and utilities, 85 potential water supply and water resource development projects have been identified to meet current and future water resource needs. It is imperative that local governments begin planning for the development of alternative water projects to maintain an uninterrupted water supply.
3. Water conservation by all water use categories continues to be a priority to meet the region's future water needs. While conservation efforts have been implemented in the region, additional conservation is critical to allow time for construction of alternative water supplies.

2019 Lower Kissimmee Basin Water Supply Plan Update

Detailed information on the regional issues can be found in Chapter 6, Water Resource Issues and Analyses, of the 2019 Lower Kissimmee Basin Water Supply Plan Update. The water supply issues are as follows:

1. New uses of surface water from Lake Istokpoga and Indian Prairie canals are limited in accordance with Minimum Flow and Minimum Water Level (MFL) and Restricted Allocation Area (RAA) criteria.
2. Surface water withdrawals from Lake Okeechobee and the integrated conveyance systems that are hydraulically connected to and receive water from Lake Okeechobee currently are restricted due to Lake Okeechobee Service Area RAA criteria.
3. Water Reservations are under development for the Kissimmee River and Chain of Lakes that propose restricting increased consumptive uses from these water bodies.
4. Cumulative groundwater withdrawals need to be evaluated for impacts to lakes with MFL criteria along the Lake Wales Ridge between the Southwest Florida Water Management District and the SFWMD.

2018 Lower East Coast Water Supply Plan Update

Detailed information on the regional issues can be found in Chapter 7, Water Supply Source Options, of the 2018 Lower East Coast Water Supply Plan Update. Briefly, the water supply issues are as follows:

1. Fresh surface water and groundwater are limited; further withdrawals could have impacts on the regional system, wetlands, pollution, existing legal uses, and saltwater intrusion. As a result, additional conservation measures and alternative water supplies need to be developed.
2. Surface water and groundwater allocations are limited due to the following Restricted Allocation Area (RAA) rules and Minimum Flows and Minimum Water Levels (MFLs): Lake Okeechobee Service Area (surface water only), North Palm Beach County/Loxahatchee River Watershed Waterbodies, and Lower East Coast Everglades Waterbodies.
3. Construction of additional storage systems (e.g., reservoirs, aquifer storage and recovery systems) to capture wet season flow volumes will be necessary to increase water availability during dry conditions and attenuate damaging peak flow events from Lake Okeechobee.
4. Expanded use of reclaimed water is necessary to meet future water supply demands and the Ocean Outfall Law [Section 403.086(9), Florida Statutes].
5. Expanded use of brackish groundwater from the Floridan aquifer system requires careful planning and wellfield management to minimize drawdowns and prevent undesirable changes in water quality.

2017 Lower West Coast Water Supply Plan Update

Detailed information on the regional issues can be found in Chapter 6, Water Resource Issues and Analyses, of the 2017 Lower West Coast Water Supply Plan Update. Briefly, the water supply issues are as follows:

1. Increased withdrawals from the surficial aquifer and intermediate aquifer systems are limited due to potential impacts to the resource and existing legal uses, as defined in the permitting criteria.
2. Surface water allocations from Lake Okeechobee and hydraulically connected surface waters are limited in accordance with the Lake Okeechobee Service Area Restricted Allocation Area (RAA) criteria.
3. Peak freshwater discharges during the wet season affect the health of the Caloosahatchee Estuary.
4. Surface water availability and current storage capacity are insufficient to meet water demands and environmental needs for the C-43 Canal and Caloosahatchee River and Estuary during dry conditions.

2016 Upper East Coast Water Supply Plan Update

Detailed information on the regional issues can be found in Chapter 3, Issues and Evaluations, of the 2016 Upper East Coast Water Supply Plan Update. Briefly, the water supply issues are as follows:

1. New uses of surface water from the C-23, C-24, and C-25 canals are limited in accordance with RAA criteria.
2. Surface water allocations from Lake Okeechobee and the C-44 Canal are limited in accordance with the Lake Okeechobee Service Area RAA criteria.
3. If the region experiences changes in crop types and irrigated acreage, construction of additional surface water storage systems may be required to increase water availability.
4. Potential decreases in Floridan aquifer system water levels may result in artesian flow reductions for agricultural users in portions of Martin and St. Lucie counties.
5. Expansion of surficial aquifer system withdrawals is limited due to potential impacts to wetlands as well as the increased potential for saltwater intrusion. New or increased allocations of water from the surficial aquifer system in coastal areas beyond those currently permitted require detailed evaluation.
6. Existing freshwater flows affect the health of the St. Lucie River and Estuary and southern Indian River Lagoon.

APPENDIX E: COMMON PLANNING TERMS, ABBREVIATIONS, AND ACRONYMS

The following terms, abbreviations, and acronyms often are used in comprehensive and water supply planning. Although other acronyms may be used, the following list is intended to a) assist local governments while updating Work Plans and developing Comprehensive Plan amendments, and b) help community residents better understand common planning terms.

298	Chapter 298, F.S., Water Control District
°C	degrees Celsius
°F	degrees Fahrenheit
1994 LWC Plan	<i>1994 Lower West Coast Water Supply Plan</i>
2000 KB Plan	<i>2000 Kissimmee Basin Water Supply Plan</i>
2000 LEC Plan	<i>2000 Lower East Coast Water Supply Plan</i>
2000 LWC Plan	<i>2000 Lower West Coast Water Supply Plan</i>
2013 LEC Plan Update	<i>2013 Lower East Coast Water Supply Plan Update</i>
2005-2006 KB Plan	<i>2005-2006 Kissimmee Basin Water Supply Plan Update</i>
2005-2006 LWC Plan Update	<i>2005-2006 Lower West Coast Water Supply Plan Update</i>
2005-2006 LEC Plan Update	<i>2005-2006 Lower East Coast Water Supply Plan Update</i>
2011-2014 LEC Plan	<i>2011-2014 Lower East Coast Water Supply Plan Update</i>
2012 LWC Plan	<i>2012 Lower West Coast Water Supply Plan Update</i>
2014 LKB Plan	<i>2014 Lower Kissimmee Basin Water Supply Plan</i>
2016 UEC Plan	<i>2016 Upper East Coast Water Supply Plan Update</i>
2017 LWC Plan	<i>2017 Lower West Coast Water Supply Plan Update</i>
2008 LORS	2008 Lake Okeechobee Regulation Schedule
ac	acre
ac-ft	acre-foot
ACOE	Army Corps of Engineers
ACSC	Area of Critical State Concern
AFSIRS	Agricultural Field Scale Irrigation Requirements Simulation
AG	agriculture
AGR	agricultural self-supply or agricultural irrigation
AGMOD	Agricultural Water Use Model
Applicant's Handbook	<i>Applicant's Handbook for Water Use Permit Applications within the South Florida Water Management District</i>
ASR	aquifer storage and recovery
AWE	Alliance for Water Efficiency
AWEP	Agriculture Water Enhancement Program
AWS	alternative water supply
Basis of Review	<i>Basis of Review for Water Use Permit Applications within the South Florida Water Management District</i>
BAD	best available data
BBCW	Biscayne Bay Coastal Wetlands
BCB	Big Cypress Basin
BCBB	Big Cypress Basin Board

BCNP	Big Cypress National Preserve
BEBR	Bureau of Economic and Business Research (University of Florida)
bgd	billion gallons per day
bls	below land surface
BMAP	basin management action plan
BMP	best management practice
C&SF Project	Central and Southern Florida Flood Control Project
CARL	Conservation and Recreational Lands
CEPP	Central Everglades Planning Project
CERP	Comprehensive Everglades Restoration Plan
CFCA	Central Florida Coordination Area
CFRPC	Central Florida Regional Planning Council
cfs	cubic feet per second
CFI	Cooperative Funding Initiative
CFP	Cooperative Funding Program
CFWC	Conserve Florida Water Clearinghouse
CFWI	Central Florida Water Initiative
CFWI RWSP	Central Florida Water Initiative Regional Water Supply Plan
CGM	Comprehensive Everglades Restoration Plan Guidance Memorandum
CHHA	Coastal High Hazard Area
CIE	Capital Improvements Element
CII	commercial/industrial/institutional
CIS	Capital Improvements Schedule
CREW	Corkscrew Regional Ecosystem Watershed
CUP	consumptive use permit
CUPCon	Consumptive Use Permitting Consistency
CWA	Clean Water Act
CWCP	Comprehensive Water Conservation Program
CY	Calendar Year
D & A	data and analysis
DBHYDRO	South Florida Water Management District's corporate environmental database
DBP	disinfectant/disinfection by-product
DDN	drawdown
Decomp	Water Conservation Area 3 Decompartmentalization and Sheet Flow Enhancement Project
DEO	Department of Economic Opportunity (Florida); formerly Department of Community Affairs
DEP	Department of Environmental Protection (Florida)
District	South Florida Water Management District
DO	dissolved oxygen
DO	development order
DOF	Department of Forestry

DOI	Department of Interior
DOT	Florida Department of Transportation
DPM	Decomartmentalization Physical Model
DRI	Development of Regional Impact
DSAP	Detailed Specific Area Plan (for a Sector Plan)
DSS	Domestic and Small Public Supply
DWM	dispersed water management
DWMP	District Water Management Plan
DWSA	Districtwide Water Supply Assessment
DWSP	District Water Supply Plan
EA	environmental assessment
EAA	Everglades Agricultural Area
EAA EPD	Everglades Agricultural Area – Everglades Protection District
EAR	Evaluation and Appraisal Report/Review
ECFAS	East Coast Floridan Aquifer System (Model)
ECFM	East Coast Floridan Model
ECFT	East Central Florida Transient (groundwater model)
ECFT(sf)	East Central Florida Transient (groundwater model, used previously by the SFWMD)
ECFRPC	East Central Florida Regional Planning Council
ECP	Everglades Construction Project
ED	electrodialysis
EDD	Everglades Drainage District
EDR	electrodialysis reversal
EFA	Everglades Forever Act
EIS	environmental impact statement
EMT	Environmental Measures Team
ENP	Everglades National Park
EOP	end of permit
EPA	Everglades Protection Area (Water Conservation Areas 1, 2A, 2B, 3A, and 3B; Arthur R. Marshall Loxahatchee National Wildlife Refuge; and Everglades National Park)
EPD	Everglades Protection District
EQIP	Environmental Quality Incentive Program or Environmental Improvement Program
ERP	environmental resource permit
ERTP	Everglades Restoration Transition Plan
ET	evapotranspiration
ETp	potential evapotranspiration
F.A.C.	Florida Administrative Code
FARMS	Facilitating Agricultural Resource Management Systems
F.S.	Florida Statutes
FAS	Floridan aquifer system
FASS	Florida Agricultural Statistics Service

FAU	Florida Atlantic University
FAWCET	Florida Automated Water Conservation Estimation Tool
FAWN	Florida Automated Weather Network
FDACS	Florida Department of Agriculture and Consumer Services
FDEO	Florida Department of Economic Opportunity
FDEP	Florida Department of Environmental Protection
FDOH	Florida Department of Health
FDOT	Florida Department of Transportation
FEB	flow equalization basin
FEMA	Federal Emergency Management Agency
FFA	Florida Forever Act
FFL	Florida-Friendly Landscaping
FGBC	Florida Green Building Coalition
FGCSA	Florida Golf Course Superintendents Association
FGCU	Florida Gulf Coast University
FGFWFC	Florida Game and Fresh Water Fish Commission
FGLP	Florida Green Lodging Program
FGUA	Florida Government Utility Authority
FHDC	Florida Housing Data Clearinghouse
FIU	Florida International University
FKAA	Florida Keys Aqueduct Authority
FLUE	future land use element
FLUM	future land use map
FPL	Florida Power & Light
FPUA	Fort Pierce Utility Authority
FRESP	Florida Ranchlands Environmental Services Project
FSAID	Florida Statewide Agricultural Irrigation Demand
ft	foot
ft bls	feet below land surface
FWS	Florida Water Star
FY	Fiscal Year
gal	gallon
GAT	Groundwater Assessment Team
GIS	geographic information system
GOPs	goals, objectives, and policies
gpcd	gallons per capita per day
gpd	gallons per day
gpdpp	gallons per day per person
gpm	gallons per minute
gpy	gallons per year
HAT	Hydrologic Assessment Team
IAS	intermediate aquifer system
ICE	Intergovernmental Coordination Element

ICI	Industrial/Commercial/Institutional
ICU	intermediate confining unit
ID	identification
IFAS	Institute of Food and Agricultural Sciences (University of Florida)
IGCC	International Green Construction Code
IMWID	Istokpoga Marsh Watershed Improvement District
IOP	Interim Operating Plan
IQ	irrigation quality
IRL	Indian River Lagoon
JDSP	Jonathan Dickinson State Park
KB	Kissimmee Basin
KBMOS	Kissimmee Basin Modeling and Operations Study
KB Planning Area	Kissimmee Basin Planning Area
KBWSP	Kissimmee Basin Water Supply Plan
KCOL	Kissimmee Chain of Lakes
KOE	Kissimmee-Everglades-Okeechobee
kWh	kilowatt hour
LDR	Land Development Regulation
LEC	Lower East Coast
LEC Planning Area	Lower East Coast Water Supply Planning Area
LECSA	Lower East Coast Service Areas
LECsR	Lower East Coast Subregional (Model)
LEED	Leadership in Energy and Environmental Design
LFA	Lower Floridan aquifer
LGCP	Local Government Comprehensive Plan
LILA	Loxahatchee Impoundment Landscape Assessment
LKB	Lower Kissimmee Basin
LKBGWM	Lower Kissimmee Basin Groundwater Model
LOER Program	Lake Okeechobee and Estuary Recovery Program
LOPA	Lake Okeechobee Protection Act
LOPP	Lake Okeechobee Protection Plan
LORS	Lake Okeechobee Regulation Schedule
LOS	level of service
LOSA	Lake Okeechobee Service Area
LOSS	Level of Service Standard
LOWCP	Lake Okeechobee Watershed Construction Project
LPA	local planning agency
LPRO	low-pressure reverse osmosis
LRA	landscape/recreational/aesthetic
LWC	Lower West Coast
LWC Planning Area	Lower West Coast Water Supply Planning Area
LWDD	Lake Worth Drainage District
LWL	Lake Work Lagoon

m	meter
M/D	mining/dewatering
MAC	minimal aquifer connection
MAMF	median of annual median flows
MAP	monitoring and assessment plan
MCL	maximum contaminant level
MDL	Maximum Developable Limit
MDWASD	Miami-Dade Water and Sewer Department
MF	microfiltration
MFL	Minimum Flow and Minimum Water Level
MFLRT	Minimum Flows and Levels and Reservations Team
MFR	multi-family residential
MG	million gallons
mg/L	milligrams per liter
mgd	million gallons per day
mgm	million gallons per month
mgy	million gallons per year
MIL	mobile irrigation laboratory
MOA	Memorandum of Agreement
MODFLOW	Modular Three-Dimensional Finite-Difference Groundwater Flow Model
ModWaters	Modified Water Deliveries to Everglades National Park
MOU	Memorandum of Understanding
MSL	mean sea level
mt	metric ton
N/A	not applicable
NAVD88	North American Vertical Datum of 1988
ND	not determined
NEEPP	Northern Everglades and Estuaries Protection Program
NE-PES	Northern Everglades – Payment for Environmental Services
NF	nanofiltration
NGVD29	National Geodetic Vertical Datum of 1929
NIR	net irrigation requirement
NRCS	Natural Resource Conservation Service
NWFWMD	Northwest Florida Water Management District
O&M	operations and maintenance
OCI	Okeechobee Correctional Institute
OCU	Orange County Utilities
OFW	Outstanding Florida Water
OUC	Orlando Utilities Commission
OEDR	Office of Economic and Demographic Research
OUA	Okeechobee Utility Authority
PBCWUD	Palm Beach County Water Utilities Department

PCB	polychlorinated biphenyl
PCUR	per capita use rate
pH	potential of hydrogen (a figure expressing the acidity or alkalinity)
PIR	project implementation report
ppb	parts per billion
PPH	persons per household
ppm	parts per million
PRMRWSA	Peace River Manasota Regional Water Supply Authority
PSC	Public Service Commission
psi	pounds per square inch
psu	practical salinity unit
PWR	Power Generation
PWS	Public Water Supply
RAA	Restricted Allocation Area
RAI	Request for Additional Information
RCID	Reedy Creek Improvement District
REC	Recreational/Landscape Irrigation
RIB	rapid infiltration basin
RO	reverse osmosis
ROD	Record of Decision
ROMP	Regional Observation and Monitor-Well Program
RSM	Regional Simulation Model
RT	Regulatory Team
RWSP	Regional Water Supply Plan
SAS	surficial aquifer system
SD	standard deviation
SFER	South Florida Environmental Report
SFR	single-family residential
SFRPC	South Florida Regional Planning Council
SFWMD	South Florida Water Management District
SFWMM	South Florida Water Management Model
SHA	significantly hydrologically altered
SJRWMD	St. Johns River Water Management District
SLE	St. Lucie Estuary
SLPA	State Land Planning Agency (DEO)
SLR	sea level rise
SLRW	St. Lucie River watershed
SLRWPP	St. Lucie River Watershed Protection Plan
SMA	8.5 Square Mile Area
SOP	Standard Operating Procedure
SOR	Save Our Rivers
SP	Sector Plan
SPT	Solutions Planning Team

SR	State Road
SRWMD	Suwannee River Water Management District
STAG	State and Tribal Assistance Grants
SAV	submerged aquatic vegetation
STA	stormwater treatment area
SJRWMD	St. Johns River Water Management District
STOF	Seminole Tribe of Florida
STOPR	St. Cloud, Tohopekaliga Water Authority, Orange County, Polk County, and Reedy Creek Improvement District
SWFRPC	Southwest Florida Regional Planning Council
SWFWMD	Southwest Florida Water Management District
SWI MAL	saltwater intrusion minimum aquifer level
SWTP	South Water Treatment Plan (Marco Island Utilities)
SWUCA	Southern Water Use Caution Area
TAZ	traffic analysis zone
TBD	to be determined
TBW	Tampa Bay Water
TCEC	Treasure Coast Energy Center
TCRPC	Treasure Coast Regional Planning Council
TDS	total dissolved solids
TECO	Tampa Electric Company
TMDL	total maximum daily load
TTHMs	total trihalomethanes
TWA	Tohopekaliga Water Authority
UEC	Upper East Coast
UF	University of Florida
UF/IFAS	University of Florida/Institute of Food and Agricultural Sciences
UFA	Upper Floridan aquifer
UKB	Upper Kissimmee Basin
U.S.	United States
USA	urban service area
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDA-NASS	United States Department of Agriculture – National Agricultural Statistics Service
USDA-NRCS	United States Department of Agriculture – Natural Resources Conservation Service
USDOI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UV	ultraviolet
VEC	valued ecosystem component

WaSUP	Water Supply Utilities Project (database)
Water CHAMP	Water Conservation Hotel and Motel Program
Water Pro	Water Conservation Program for Restaurants
WaterSIP	Water Savings Incentive Program
WCA	Water Conservation Area
WCCF	Water Cooperative of Central Florida
WCD	water control district
WMD	water management district
WOD	Works of the District
Work Plan	Water Supply Facilities Work Plan
WPA	water preserve area
WPCG	Water Planning Coordination Group
WPSP	Water Protection and Sustainability Program
WRA	water resource area
WRAC	Water Resources Analysis Coalition (SFWMD)
WRAP	Water Restoration Action Plan
WRCA	Water Resource Caution Area
WRD	Water Resources Development
WRDA	Water Resources Development Act
WRF	water reclamation facility
WSE	water supply and environment (regulation schedule)
WSIS	water supply impact study
WSP	water supply plan
WTP	water treatment plant
WWTF	wastewater treatment facility
WY	Water Year (for SFWMD, May 1 through April 30)
yr	year