

FLORIDA FARM BUREAU FEDERATION

THE VOICE OF AGRICULTURE

November 4, 2022

Mr. Bob Verrastro, Lower West Coast WSP Update Manager
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

Delivered via email to bverras@sfwmd.gov

Re: Comments on Draft Chapters 2022 Lower West Coast Water Supply Plan Update

Dear Mr. Verrastro:

On behalf of the Florida Farm Bureau Federation and our 132,000 member families of which many live within the boundaries of the Lower West Coast (LWC) Water Supply Plan (WSP), I appreciate the opportunity to discuss the present and future water supply needs for agriculture within this critically important planning region. Please find our general comments below.

Comments:

1) Brackish Water Use by Agriculture

Brackish water has a limited scope in agriculture due to the varying needs of different crops. The practice of blending brackish groundwater with fresh water where available is encouraged when technically and economically feasible. Including additional information on the limited use and concerns of using brackish water would be appreciated.

2) Water Conservation

The implementation of agricultural Best Management Practices (BMPs) can certainly increase water conservation through irrigation efficiency improvements that reduce the amount of water used to meet specific crop needs. However, the water demand requirements for the crop itself remain the same and are not reduced. These specific crop water demands must be met for successful agricultural production. Consider including that water delivery efficiencies may improve through the implementation of technically and economically feasible BMPs, resulting in less water usage, however the water requirements of the crops to not change.

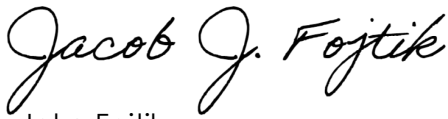
3) Draft LOSOM Water Supply Performance for the LWC WSP LOSA Area

The Lake Okeechobee System Operating Manual (LOSOM) operational plan, in its current draft, results in a lack of certainty for the Lake Okeechobee Service Area (LOSA) area of the LWC WSP. Seeing as

the LWC WSP has very limited ability to address the LOSOM water supply concerns, the upcoming Lower East Coast (LEC) WSP 2023 will be vital in doing so. Concerns include the LOSOM preferred alternative, PA25, does not provide for a return of the Lake Okeechobee Minimum Flow and Level to a prevention strategy or a return to the 1 in 10 Level of Service. The ability of LOSOM to meet future water needs in the LWC WSP area remains uncertain.

Thank you for the opportunity to work with the District and various agricultural stakeholders to improve the Lower West Coast Water Supply Plan. I look forward to our continuing discussions and collaboration.

Sincerely,

A handwritten signature in black ink that reads "Jacob J. Fojtik". The signature is written in a cursive, flowing style.

Jake Fojtik
Assistant Director of Government & Community Affairs
Florida Farm Bureau Federation

Collier County Public Utilities Department

2022 Lower West Coast Water Supply Plan Update

11/2/2022

#	Page	PDF	Location	Location2	Item	Comment to SFWMD
1	38	64	Table 3-2	-	Collier County Public Supply data.	The projected value seems high given the items already in place for water conservation.
2	75	101	Reclaimed Water System Interconnects.	Second paragraph.	The Fort Myers – South Facility does not currently provide reclaimed water service but will provide reclaimed water to Cape Coral’s facilities by 2023. In addition, Fort Myers expects to interconnect its South facility to the Fort Myers – Central facility by 2040. Finally, Cape Coral plans to add a new North Phase I Water Reclamation Facility by 2035 which will connect to the Everest – South system.	Collier County Utilities plans to interconnect Collier County - North, Collier County - South and Golden Gate City.
3	77	103	Aquifer Storage and Recovery.	Fourth paragraph.	Figure 5-13 shows the locations of ASR projects constructed in the LWC Planning Area and the water source type. To date, ASR systems have been built by Cape Coral, Collier County Utilities, Lee County Utilities, Marco Island, and Naples.	Collier County Utilities is evaluating the abandonment of all ASR wells.
4	77	103	Aquifer Storage and Recovery.	Fourth paragraph./Second bullet.	Collier County Utilities ASR Program – The Livingston Road ASR system was developed to enhance Collier County’s irrigation-quality water program by enabling the storage of excess reclaimed water in the Lower Floridan aquifer. Two ASR wells have been constructed and cycle testing has begun. Collier County also has considered ASR systems at Manatee Road and Carica Road.	Collier County Utilities is evaluating the abandonment of all ASR wells.
5	78	104	ASR wellfields in the LWC Planning Area.	Map.	Collier County Utilities data.	Collier County Utilities is evaluating the abandonment of all ASR wells. Carica well was abandoned.
6	116	142	Table 6-1.	-	Collier County Utilities data.	Data provided is not supported by the permits. Coordinate with item 11.
7	154	180	Table 8-4.	-	Collier County Utilities data.	The numbers provided do not appear to be correct.
8	155	181	Table 8-5.	Potable - SAS	Collier County Utilities data.	The information is out of date and needs to be updated.
9	155	181	Table 8-5.	Potable - FAS	Collier County Utilities data.	The information is out of date and needs to be updated.
10	156	182	Table 8-5.	Nonpotable - Reclaimed Water	Collier County Utilities data.	The information is out of date and needs to be updated.
11	B-4	266	Table B-1.	-	Collier County Utilities data.	Data provided is not supported by the permits. Coordinate with item 6.
12	B-21	283	Figure B-3.	Map.	Collier County Utilities data.	Map data needs to be updated. Please coordinate with CCWSD Staff.
13	B-22	284	Figure B-4.	Map.	Collier County Utilities data.	Map data needs to be updated. Please coordinate with CCWSD Staff.
14	B-24	286	Collier County Utilities.	-	Collier County Utilities data.	The Collier County Utilities data needs to be updated. On the amounts it does not show that we have a part of the permit expiring on October 12, 2024 that should be noted. Revise "Service Area" text. "Collier County (serving unincorporated Collier County). Bulk finished water purchased from Marco Island is provided by Collier County Utilities to unincorporated Key Marco and Goodland."
15	B-39	301	Table B-3.	Collier County.	Collier County Utilities data.	Same as above. "Collier County (serving unincorporated Collier County). Bulk finished water purchased from Marco Island is provided by Collier County Utilities to unincorporated Key Marco and Goodland."
16	E-4	392	Table E-1.	Collier.	Collier County Utilities data.	The Collier County Utilities information needs to be updated.
17	E-5	393	Table E-2.	Collier.	Collier County Utilities data.	The information is out of date and needs to be updated.
18	E-6	394	Table E-3.	Collier.	Collier County Utilities data.	The information is out of date and needs to be updated.
19	E-7	395	Table E-4.	Collier.	Collier County Utilities data.	The information is out of date and needs to be updated.
20	E-26	414	Full Page.	-	Collier County Utilities - Golden Gate.	The information is out of date and needs to be updated.
21	E-27	415	Full Page.	-	Collier County Utilities - North and South.	The information is out of date and needs to be updated.
22	E-28	416	Full Page.	-	Collier County Utilities - Northeast.	The information is out of date and needs to be updated.



November 4, 2022

Bob Verrastro
Principal Hydrogeologist
South Florida Water Management District
Via email: bverras@sfwmd.gov

RE: Audubon comments and recommendations on the 2022 draft update of the LWCWSP

Dear Mr. Verrastro:

Thank you for the opportunity to comment on the Draft 2022 Lower West Coast Water Supply Plan Update. Audubon Florida and Audubon Western Everglades (Audubon) commend the District's efforts in updating this Plan, including the emphasis on Water Supply Development Projects such as Everglades Restoration and the Corkscrew Regional Ecosystem Watershed (CREW) Project, as well as the protection of existing natural resources and water conservation strategies. This is no small task given the complex nature of the hydrology and growth of Southwest Florida, and we appreciate your intent to keep us informed and involved in this process. We believe that to achieve the water supply goals of meeting existing and future demands, while sustaining water resources and minimizing harm to natural systems, evaluating input from all stakeholders is necessary. After a careful review of the Plan, Audubon has the following recommendations:

1. To fully consider the hydrologic conditions of the area, please incorporate into the Plan Audubon's hydrology study on Corkscrew Swamp Sanctuary (CSS), based on 60+ years of hydrologic data. Additionally, these data and hydrologic model outcomes, which were a collaborative project between CSS and the Big Cypress Basin of the District, should be part of the Surficial Aquifer System Modeling used for the LWCWSP update. These data don't appear to have been included or considered thus far and this is relevant to water supply planning because of the significant drying and lowering of the water levels for these wetlands, with negative implications for both wet season water levels and dry season and drought conditions, including watershed-scale ecological functions. You will find the final report at this link (https://corkscrew.audubon.org/sites/default/files/2021-02-24_modellingreport_final_submitted.pdf), and your colleagues at the Big Cypress Basin and in your West Palm Beach hydrology department under Akin Owosina will have the latest information on subsequent work on this project.

2. Important collaboration with the District on hydrologic modeling of CSS watershed dry season negative impacts to Audubon wetland and water resources revealed several causal factors: a) public water supply and agricultural irrigation pumping; and b) drainage impacts of canals and water management infrastructure south of CSS. Audubon recommends continued collaboration on data, modeling, and any identified solutions.
3. More recently, research staff have identified what appear to be reductions in rainy season peak water levels at CSS each year since around 2009. This may be a contributing factor to abnormally low water levels during the subsequent dry seasons and reduces the production of prey for wading birds. We request that the District collaborate further with Audubon to locate the cause of this hydrologic wet season impact and identify possible solutions.
4. The 2022 Update states there are no identified issues with meeting water supply needs for existing and future users and the region's ecosystems and natural resources out to 2045. Audubon questions this conclusion because of the documented existing conflicts with, and impacts to natural wetland ecosystems within CSS and the surrounding watersheds, including especially the Flint Pen Strand unit of the CREW Project. We suspect these hydrologic impacts and conflicts are found elsewhere in the Lower West Coast (LWC) planning area, including North Golden Gate Estates, Lehigh Acres, Cape Coral, and other areas in close proximity to domestic self-supply (DSS) wells, public water supply wellfields, and/or agricultural irrigation. Audubon recommends this conclusion be revised to correctly identify this unaddressed water supply conflict, and to emphasize the importance of monitoring, modeling, and furthering the current District collaboration with Audubon and others to assure the hydrologic health of all the LWC watersheds concurrent with water supply availability out to 2045.
5. Water conservation measures have had some positive results, bringing per capita water use from 2000 to 2020 down about 30% from 177 gallons per person per day to 123 g/p/d. However, nationwide, the average per capita use is about 82 g/p/d (USGS 2015 estimate). Audubon believes the higher water usage may be due to a heavy use of irrigation water for maintaining turf grasses. The Plan anticipates a 36% increase in irrigation for landscaping and recreational turf grasses, amounting to an unmet water conservation challenge. To help address this unmet important objective, the District should collaborate with local governments, NGOs, and other community organizations and agencies to incentivize the reduction of acreage of grassed lawns and fields, including increasing the use of native landscaping. For example, Audubon promotes and organizes a residential program called "Plants for Birds" (<https://www.audubon.org/PLANTSFORBIRDS>).
6. Planned heavy and increasing reliance on reuse waters is increasing nutrient pollution in all the waterways that are downstream of such irrigated areas (see Collier County water quality monitoring data presented to the Big Cypress Basin Board July 8, 2022). Again, increasing the percentage of native landscaping and reducing the acreage of grassed lawns and fields will help reduce this nutrient pollution source and harmful algal bloom consequences. In addition, utilities should adopt higher levels (tertiary/advanced) of wastewater treatment to reduce nutrient-rich effluent.

7. Increasing water storage capacity should identify many more wetland and nature-based solutions in addition to “grey” infrastructure like reservoirs. An example would be collaboration with Conservation Collier on acquiring and restoring the hydrology of Horse Pen Strand in North Golden Gate Estates where domestic self-supply wells will face water supply challenges during buildout dry season droughts in the future. Another example would be expansion beyond the first phase of the successful Southern CREW Restoration Project to include inholding acquisition and restoration of the Flint Pen Strand and Kehl Canal/Imperial River watershed. These nature-based approaches to water storage also add to watershed climate change resilience.

We celebrate and look forward to continuing our decades of collaborating with the South Florida Water Management District and Big Cypress Basin to manage resilient and robust regional Corkscrew Swamp and Western Everglades watersheds and the human and natural communities that depend on them. Please let us know if you need clarification on our input on the Lower West Coast Water Supply Plan 2022 Update draft.

Sincerely,

Kelly Cox
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Audubon Florida
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Brad Cornell
Policy Director
Audubon Western Everglades
bcornell@audubonWE.org

Florida Department of Agriculture and Consumer Services

Date: November 2, 2022

To: Bob Verrastro, South Florida Water Management District
Water Supply Bureau

RE: Draft Chapters 2022 Lower West Coast Water Supply Plan Update

The Florida Department of Agriculture and Consumer Services (FDACS) appreciates the opportunity to comment on the South Florida Water Management District's (SFWMD) Draft 2022 Lower West Coast (LWC) Water Supply Plan (WSP) Update.

Our review focused on aspects of the LWC WSP which have the potential to impact agricultural lands and operations. The comments provided are specific to the topics below and do not constitute a review of the entire LWC WSP and its supporting appendices. Below are general comments followed by specific comments.

General Comments

1) Draft LOSOM Water Supply Performance for LWC WSP LOSA Areas

The Lake Okeechobee System Operating Manual (LOSOM) operational plan as currently drafted does not include the preferred alternative, PA25, Zone D subzone to maintain water supply performance at low lake levels resulting in a lack of certainty for the Lake Okeechobee Service Area (LOSA) portion of the LWC WSP. The LWC WSP has very limited ability to address July 2022 Draft LOSOM Environmental Impact Statement (EIS) water supply performance concerns. The upcoming Lower East Coast (LEC) WSP 2023 Update will be key to address concerns that contrary to 2013 and 2018 LEC WSP Update expectations, the LOSOM preferred alternative, PA25, does not provide for a return of the Lake Okeechobee Minimum Flow and Level (LO MFL) to a prevention strategy or a return to the 1 in 10 Level of Service (LOS) for LOSA even with the PA25 low stage Zone D subzone.

The LEC WSP addresses the entire LOSA and is referenced in the LWC WSP to avoid the introduction of unintended deviations between the two WSPs. Existing surface water availability from existing canal and storage networks within LOSA under the 2008 Lake Okeechobee Regulation Schedule (2008 LORS) is not adequate to meet water use demands and environmental needs during 1-in-10-year drought conditions. Past analyses concluded that additional storage would be needed to provide adequate water supply for existing legal uses and the natural system. Below are LOSA excerpts from the 2013 and 2018 LEC WSP Updates.

From the 2013 Lower East Coast Water Supply Plan Update:

Chapter 3 – Water Resources Analyses-Current and Future Conditions. This excerpt contains the background information on the regulatory context for Lake Okeechobee’s temporary MFL recovery status, the LOSA Restricted Allocation Area (RAA), and expectations for the lake’s future MFL prevention status.

“In October 2008, SFWMD’s Governing Board adopted restricted allocation area criteria for LOSA (Section 3.2.1.G, Basis of Review). These criteria limit surface water withdrawals from Lake Okeechobee and all surface water hydraulically connected to the lake. The change in permit criteria was necessitated by the impacts to water supply and increased exceedances of the lake MFL criteria from implementation of the 2008 Lake Okeechobee Regulation Schedule (2008 LORS), which reduced stages in Lake Okeechobee by approximately one foot. When repairs by USACE to the Herbert Hoover Dike are complete and the lake’s regulation schedule is revised through a National Environmental Policy Act analysis, the expectation is that the resulting schedule will raise lake levels. The additional water held in the lake is expected to return the lake from MFL recovery status to MFL prevention status, enhance the level of certainty to existing permitted users now receiving less than 1-in-10 level of certainty, and support environmental objectives. In the meantime, these criteria are part of the MFL recovery strategy for the lake.”

From the 2018 Lower East Coast Water Supply Plan Update:

“Conclusions ES-9

Building on the findings and conclusions of previous LEC water supply plan updates, this 2018 LEC Plan Update assesses water supply demand and available sources for the LEC Planning Area through 2040. This 2018 LEC Plan Update concludes that future water needs of the region during 1-in-10 year drought conditions can be met through the 2040 planning horizon with appropriate management, conservation, and implementation of projects identified herein. Currently, the 1-in-10 year level of certainty is reduced to 1-in-6 year drought conditions for water users (primarily agriculture) that rely solely on surface water from Lake Okeechobee or its tributaries located within the LOSA portion of the LEC Planning Area. Additional water from Lake Okeechobee resulting from operational changes or a revised regulation schedule is expected to return the lake to an MFL prevention strategy, enhance the level of certainty for existing permitted users now receiving less than a 1-in-10 year level of certainty, and support environmental objectives. Meeting future water needs through 2040 in the LEC Planning Area depends on the following:

- * Construction of potable water supply development projects by PWS utilities;*
- * Implementation of CERP and other projects identified in MFL prevention and recovery strategies; and*
- * Completion of repairs to the Herbert Hoover Dike by the USACE and subsequent implementation of a new Lake Okeechobee Regulation Schedule.”*

2) Water Resource and Water Supply Development Projects

An organizational tool to illustrate the purpose(s) these projects serve would be helpful to clarify what is being accomplished. It appears that most of SFWMD water supply funding and resources are being used for environmental restoration projects. A table or matrix with the projects listed and columns representing the various purposes—such as additional natural system water supply, additional developed areas water supply, water quality, restoration, monitoring, project planning/feasibility, conservation, or research would provide a consolidated reference.

3) Brackish Water Use by Agriculture

Information on the limited nature of brackish water for agricultural use and concerns if other uses increase the salinity of brackish water is appreciated.

4) Farm Scale Storage Relationship to Consumptive Use Permit Allocations

It is suggested that language be included to clarify that farm-scale storage may have some modest, ancillary benefit for water supply but rarely can be considered a supplemental source in a water use permit that relies on sources available in the 1:10 drought condition.

5) Conservation

Water conservation and BMPs can increase irrigation efficiency and reduce the amount of water used to meet crop needs. However, the water demand requirements for the crop itself are not reduced and need to be met for successful agricultural production. Also, conservation may reduce the amount of water needed to meet future demands but rarely, if ever, reduces future water demands to an amount less than the existing demands. Specific edits mindful of these aspects of conservation are in the suggested edits section.

Specific Comments:

Executive Summary

- **Page ES-2, Paragraph 3**

The text, “AG is projected to remain the largest water use category in the LWC Planning Area, accounting for approximately 57% of the total 2045 projected demand” might contain a typo as 52.6% is listed in Table ES-1. Other water use categories also appear to be inconsistent with the table. Please verify and change accordingly.

At the end of the paragraph, providing the volumes for the 2019 1-in-10 demands and the projected 2045 1-in-10 demands would complete the information for the planning condition of meeting water supply demands in a 1-in-10-year drought.

- **Page ES-2, Table ES-1**

Including a 1-in-10 demands column would account for the planning condition of meeting water supply demands in a 1-in-10-year drought.

- **Page ES-3, Natural Systems and Resource Protection, Paragraph 1**

Consider suggested change below:

“The water supply needs for natural systems are protected and addressed through a variety of regulatory mechanisms and restoration projects.”

- **Water Source Options, Page ES-4, Paragraph 4**

Consider adding some form of “at the current level of surface water usage” in this paragraph.

Chapter 2: Demand Estimates and Projections

We appreciate the inclusion of the 1-in-10 condition being highlighted for explanation and included in the tables in the chapter as well as the appendix.

- **Figure 2-1**

Please clarify if the legend represents “Hay” or “Hay/Pasture” consistent with the use categories.

Chapter 3: Demand Management: Water Conservation

- **Page 29 – First paragraph, last sentence**

“Hardware and technology that can improve system management, reduce water quantities required used to meet crop needs, and minimize water losses include the following:”

The efficiency of the delivery of water required to meet crop needs is increased so less water is used but the water requirements of the crops do not change. Consider removing “required” from the sentence.

- **Page 33 – Regulatory Initiative, first sentence**

We are not sure the word “excellent” is the best choice in this context. Consider suggested change below:

“Regulations are **useful** tools to assist in the implementation of better practices and more efficient devices.”

Chapter 4: Water Resource Protection

- **Page 52, Restricted Allocation Areas**

Consider suggested change below:

“Two RAAs extend into the LWC Planning Area (Figure 4-1): (1) Lower East Coast Everglades Waterbodies (Section 3.2.1.E of the Applicant’s Handbook), and (2) Lake Okeechobee and Lake Okeechobee Service Area (Section 3.2.1.F of the Applicant’s Handbook). Both RAAs were adopted as components of MFL recovery strategies. The Lower East Coast Everglades Waterbodies RAA was adopted in 2007 as part of the Everglades MFL recovery strategy to protect base condition water for restoration projects as of April 1, 2006, and the Lake Okeechobee and Lake Okeechobee Service Area RAA was adopted in 2008 as part of the Lake Okeechobee MFL recovery strategy necessitated by the impacts to water supply and increased exceedances of the MFL criteria from implementation of the 2008 LORS, which reduced stages in Lake Okeechobee by approximately 1 foot. These RAAs are discussed with their associated MFLs in the Lower East Coast water supply plan updates.”

Chapter 5: Water Source Options

- **Page 57, Caloosahatchee River (C-43 Canal)/ Lake Okeechobee**

The sentence “Currently, all works associated with the Herbert Hoover Dike rehabilitation project are expected to be completed in 2022 along with a revised lake schedule and Lake Okeechobee System Operating Manual, expected to be completed by 2023” implies a revised lake schedule will remedy availability issues. This is clearly not the case. Additional language to clarify that these items are not linked, per United States Army Corps of Engineer (USACE) decisions, may be needed.

Chapter 8: Water Supply Development Projects

- **Page 148 Agriculture Section**

This section lists many ideas but no funded projects or programs. As acknowledged, BMPs may induce conservation, but not reduce demand nor expand supply.

Chapter 9: Conclusions and Future Direction

- **Page 159, first paragraph**

Consider suggested change below:

“Water conservation by all users reduces the water needed to meet future demands and is a component of meeting future water needs (Chapter 3).”

- **Page 161 Natural Systems and Resource Protection**

Consider suggested change below:

“Water supply needs for natural systems and developed areas are addressed through water resource development projects such as CERP (Chapter 7). CERP includes regional projects to improve the quality, timing, volume, distribution, and delivery of water to the natural system and includes enhanced water availability for other uses.”

- **Page 163 Surface Water**

Consider suggested change below:

Bullet 5: “AG users are encouraged to consider reducing or augmenting surface water use with options such as stormwater and tailwater recovery, the blending of brackish groundwater with fresh water where available, and more efficient water conservation practices where technically and economically feasible.”

- **Page 165 Floridan Aquifer System**

Consider suggested change below:

Bullet 6: “AG water users are encouraged to consider blending brackish water from the FAS with fresh groundwater or surface water to produce acceptable irrigation-quality water where technically and economically feasible.”

- **Page 166 – 167 New Storage Capacity for Surface Water or Groundwater**

Consider suggested change below:

Bullet 2: “New or retrofitted surface water storage systems for agricultural operations could provide additional water supply for irrigation” but are not usually considered a new source of water for permit allocations due to the uncertainty of availability during a 1-in-10-year drought condition.”

- **Page 168 Climate Change and Sea Level Rise**

Consider suggested change below:

Bullet 5: Water users are encouraged to periodically review irrigation schedules and install weather-based controllers to adapt to changes in climate”.

- **Page 168 Conclusions**

Bullet 3: Completion of repairs to the Herbert Hoover Dike by the USACE and implementation of the new Lake Okeechobee System Operating Manual.

Please see General Comments regarding the Draft LOSOM Water Supply Performance for LWC WSP LOSA Areas. The ability of the LOSOM regulation schedule to meet future water needs for the environment and society and in the LWC LOSA area is uncertain.

Thank you for the opportunity to provide comments on the 2022 Draft LWC WSP Update. Please contact me if you would like any follow-up concerning the comments provided.

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