SOUTH FLORIDA WATER MANAGEMENT DISTRICT

2023–2024 Lower East Coast Water Supply Plan Update



LEC Stakeholder Meeting 3 July 12, 2024



Agenda

Welcome and Opening Remarks

Overview of the Draft 2023–2024 LEC Plan Update

Tom Colios, SFWMD

Nancy Demonstranti, SFWMD

- >Lake Okeechobee MFL Recovery Strategy Evaluation and Analysis
 - History and Background
 - Regional Modeling and Simulations
 - Analyses of Simulated MFL Exceedances and Violations
- ≻Next Steps

≻Adjourn

Mark Elsner, SFWMD Walter Wilcox, SFWMD James Beerens, SFWMD

Nancy Demonstranti

Welcome and Opening Remarks





Tom Colios Section Leader, Water Supply Planning LEC Stakeholder Meeting 3 July 12, 2024



Water Supply Plan Requirements

- ≻20-year planning period
- Demand estimates and projections
- ➢ Resource analyses
- ➢Issue identification
- Evaluation of water source options
- Water resource development
 - Responsibility of water management district
- ➤Water supply development
 - Responsibility of water users
- Environmental protective and restoration strategies
 - Minimum flows and minimum water levels (MFLs)



Regional Water Supply Plan

What It Does

- Provides a road map to meet future water needs while protecting water resources and natural systems
- Conducts a planning-level approach
- Projects future water demands
- Identifies and evaluates water source options

What It Does NOT Do

- Does not authorize consumptive use permits
- Does not establish MFLs
- Does not adopt rules
- Does not require water users to implement specific projects
- Does not address surface water quality issues (e.g., algal blooms)

Public Participation

- ➢Governing Board updates
- Three stakeholder workshops
- >Discussions with local and tribal governments, agricultural, and utility representatives
- Draft plan documents (except Appendix C & Executive Summary) posted online for public comment on February 7. Comments requested by May 15
 - Comments received under consideration
- Draft Appendix C & Executive Summary posted June 25
- Written comments due back July 31, 2024





Water Supply Plan Update Timeline



Questions and Public Comment

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Biscayne Bay, Bill Baggs Cape State Park

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Overview of the Draft 2023–2024 LEC Plan Update





Nancy Demonstranti, P.G. LEC Water Supply Plan Manager LEC Stakeholder Meeting 3 July 12, 2024



Water Supply Plan Documents

Planning Document



Appendices



https://www.sfwmd.gov/our-work/water-supply

Support MANAGEMENT DISTRICT **SUPPORT** DOCUMENT for WATER SUPPLY PLAN UPDATES Reference Document

sfwmd.gov

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Planning and Support Document Outlines

- **Executive Summary**
- **Chapter 1: Introduction**
- **Chapter 2: Demand Estimates and Projections**
- Chapter 3: Demand Management: Water Conservation
- **Chapter 4: Water Resource Protection**
- **Chapter 5: Water Source Options**
- Chapter 6: Water Resource Analyses
- Chapter 7: Water Resource Development Projects
- Chapter 8: Water Supply Development Projects
- Chapter 9: Conclusions and Future Direction

Appendices:

- A: Water Demand Projections
- B: Public Supply Utility Summaries
- C: MFLs and Prevention and Recovery Strategies
- D: Groundwater Monitoring
- E: Wastewater Treatment Facilities

Support Document:

- Chapter 1: Introduction
- Chapter 2: Water Conservation
- Chapter 3: Water Use Permitting
- Chapter 4: Water Resource Protection
- Chapter 5: Ecosystem Restoration and Water Resource Development
- Chapter 6: Water Source Options and Treatment
- Appendix: Conservation Glossary

Objectives

- Quantify sufficient water supply during 1-in-10-year drought conditions through 2045
- 2. Protect natural systems and water resources
- 3. Encourage water conservation measures and alternative source development
- 4. Promote compatibility with local government planning
- 5. Coordinate and integrate with other water resource initiatives



Biscayne Bay

Planning Area

- ➢Planning Horizon 2021 2045
- ➢Population (permanent)*
 - 2021 6,222,707
 - 2045 7,294,265
- >Irrigated agricultural acreage**
 - 2021 566,162
 - 2045 554,697

2% decrease

17%

increase

- ➢Gross water demand (mgd)
 - 2021 1,854.52
 - 2045 2,063.36



* Data from University of Florida (UF) Bureau of Economic and Business Research
 **Data from Florida Department of Agriculture and Consumer Services



Land Use



Population Projections





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Total PS and DSS Combined Raw Water Demands





Agricultural Acres

- Second largest use category
- Predominant crops are sugarcane, fresh market vegetables, and hay/pasture
- Projected overall decline of 2%

*FSAID = Florida Statewide Agricultural Irrigation Demand report



<u>sfwmd.gov</u>

Agricultural FSAID 9 Acreage



Acres	2020	2025	2030	2035	2040	2045
FSAID 9 Updated (2023-2024 LEC Plan)	572,178	554,444	554,709	554,872	554,524	554,697
FSAID 4 Projections - adjusted (2018 LEC Plan)	579,271	557,948	555,302	553,160	550,080	-

Landscape and Recreational Irrigation

➤Third largest use category

Fwmd.gov

- Includes irrigation for landscape, golf courses, sports fields, parks, common areas, road medians
- Projected to grow at a similar rate as population
- Often supplemented with reclaimed water

Reclaimed water meets approximately 26% of the L/R irrigation demands



Lower East Coast Draft Water Demands (mgd) Summary

Water Use Category	2021	2045	2040 From 2018 Plan Update
Public Supply	890.57	1,047.19	1,089.34
Domestic Self-Supply	10.55	14.45	15.76
Agriculture (i.e., crop, livestock, and aquaculture)	645.20	637.65	625.27
Commercial/Industrial/Institutional	87.35	102.56	66.96
Landscape/Recreational	178.65	199.18	156.46
Power Generation	42.20	62.33	52.75
LEC Planning Area Total	1,854.52	2,063.36	2,006.54

Demands in million gallons per day.

2021 to 2045 LEC Demand Total = 11% Increase



Water Conservation



➤ Agriculture

- FDACS best management practices
- More efficient irrigation systems

Public supply

- Indoor and outdoor programs
- Conservation rate structures

> Public supply per capita use rate (gallons per capita per day)

2000

2021

26% decrease

Potential conservation savings of 62 mgd through 2045

176

131

- Urban 46 mgd
- Agriculture 16 mgd*

*estimated by FDACS

The cheapest gallon of water is the gallon we don't use.

Water Resource Protection

- Water Use Permitting Criteria
- Restricted Allocation Areas (RAA)
 - L-1, L-2, and L-3 Canal System
 - North Palm Beach County/Loxahatchee River Watershed Waterbodies
 - Lower East Coast Everglades Waterbodies
 - Lake Okeechobee Service Area
 - ASR Storage Horizon Near the C-18W Reservoir
- Minimum Flows and Minimum Water Levels MFL)
 - Lake Okeechobee* (Recovery)
 - Everglades (Recovery)
 - Northwest Fork of the Loxahatchee River (Recovery)
 - Florida Bay (Prevention)
 - Biscayne aquifer (Prevention)
 - Lower West Coast aquifers (Prevention)
- ➢ Water Reservations
 - Nearshore Central Biscayne Bay/Canal Reaches
 - EAA Reservoir



*Revised recovery strategy



Water Source Options and Alternatives



Water Source Options

Category	Surface Water	Fresh Groundwater	Brackish Groundwater	Reclaimed Water	Storage
Public Supply	\checkmark	\checkmark	\checkmark		\checkmark
Domestic Self-Supply		✓			
Agriculture	✓	✓			✓
Landscape/Recreational	✓	✓	✓	✓	✓
Commercial/Industrial/Institutional	✓	\checkmark		✓	✓
Power Generation		✓	\checkmark	\checkmark	✓



Groundwater of the LEC



Fresh Groundwater (Surficial Aquifer System)

- Water Table aquifer
- Biscayne aquifer
- Lower Tamiami aquifer
- Saline Groundwater (Floridan Aquifer System) (chloride >250 mg/L)
 - Upper Floridan aquifer
 - Avon Park Permeable Zone
 - Lower Floridan aquifer
- ➤Seawater

(chloride >19,000 mg/L)

• Boulder Zone

Reclaimed Water Usage





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Public Supply Groundwater Demands (million gallons per day)

- Conservation and source
 - diversification have been
 - beneficial
- Surficial aquifer system (SAS)
 use has remained stable since
 2008
- Floridan aquifer system (FAS) use has increased to supply population growth since 2008



Resource Evaluation and Analysis

Data sources

- Water use permit information
- Regulatory limits
- Groundwater level and salinity monitoring data
- Demand estimates and projections
- ➢ Regional surface water simulation model (RSM)
- East Coast Floridan Model (ECFM)
 - 2045 demands similar in magnitude to the 2040 demands in 2018 Plan Update
 - Previous demand simulations still representative
- East Coast Surficial Model (ECSM)
 - Under development
 - Simulations results will be shared when completed



Saltwater Interface Mapping

> 2009, 2014, and 2019 maps - <u>https://www.sfwmd.gov/documents-by-tag/saltwaterinterface</u>

> Technical Report - <u>https://www.sfwmd.gov/sites/default/files/documents/ws-58_swi_mapping_report_final.pdf</u>

Broward



Miami-Dade



Palm Beach



29

Climate Change and Sea Level Rise

- South Florida is particularly vulnerable
- Rate of sea level rise is predicted to accelerate
- ➤The SFWMD is preparing by:
 - Conducting research
 - Performing computer simulations
 - Analyzing vulnerabilities in the current water management system and developing adaptation strategies
- Coordinate with other local and state agencies and stakeholders



Data from NASA, NOAA, USEPA, Rutgers, and USGS 2022; Sweet et al. 2022

Building Resilience and Mitigating Risks to South Florida's Water Resources

Water Resource Projects

- Lake Okeechobee System Operating Manual (LOSOM) and Herbert Hoover Dike repair
- Central Everglades Planning Project Everglades Agricultural Area (CEPP-EAA)
- C-111 South Dade
- Biscayne Bay and Southeastern Everglades Ecosystem Restoration (BBSEER)
- Biscayne Bay Coastal Wetlands L-31E Flow-way
- Western Everglades Restoration Project (WERP)
- Loxahatchee River (NW Fork & Watershed Restoration Project)



Water Supply Development Projects

➢Potable

- 20 projects proposed by 13 utilities: 113.60 mgd
- Most utilities have sufficient capacity and permit allocations to meet 2045 demands
- 11 utilities need projects to meet 2045 demand projections or treatment requirements

>Nonpotable

• 22 projects proposed by 11 utilities: 70.35 mgd







Proposed Water Supply Projects Summary

Water Source	Number of Projects	Capacity (mgd)	Cost (\$ million)		
Potable Projects					
Surficial Aquifer System	5	17.65	\$108.70		
Floridan Aquifer System	15	95.95	\$1 <i>,</i> 349.18		
Potable Total	20	113.60	\$1 <i>,</i> 457.88		
Nonpotable Projects					
Reclaimed Water	11	32.35	\$228.00		
Aquifer Storage and Recovery	11	38.00	\$167.00		
Nonpotable Total	22	70.35	\$395.00		
Total	42	183.95	\$1 <i>,</i> 852.88		

Future Direction

- Continue implementation of:
 - SAS and FAS monitoring programs
 - Water conservation programs
 - Alternative water supply development projects
 - CERP and other ecosystem restoration projects
- Evaluate, monitor, and design solutions in response to sea level rise and climate trends
- Implement long-term management measures for the FAS in coordination with utilities
- Coordinate with other agencies, local and tribal governments, and utilities on water supply elements



Draft Plan Conclusion



PLANNING DOCUMENT

The future water supply and ecosystem needs of the region can continue to be met through the 2045 planning horizon with appropriate management, conservation, and implementation of projects in this plan.

Construction of water supply development projects by Public Supply utilities

Implementation of CERP storage and other ecosystem restoration projects including projects identified in MFL prevention and recovery strategies

DRAFT

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Biscayne Bay, Bill Baggs Cape State Park


SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Lake Okeechobee MFL Recovery Strategy Evaluation and Analysis



2023-2024 LEC Stakeholder Meeting July 12, 2024



History and Background





Mark Elsner, P.E. Bureau Chief, Water Supply Bureau 2023-2024 LEC Stakeholder Meeting July 12, 2024



Lake Okeechobee MFL Criteria

➢ 2001 MFL adopted as 11 Feet NGVD

- Criteria based on lake's ability to protect coastal portion of SAS against saltwater intrusion, supply water to ENP and provide habitat for fish and wildlife
- Exceedance when water level falls below 11 feet NGVD for more than 80 consecutive or nonconsecutive days during an 18-month period
- Violation when exceedance occurs more than once every 6 years





Lake Okeechobee and MFL History

- 2000 SFWMD analysis for MFL Criteria for Lake Okeechobee Lake Regulation Schedule (WSE) approved by USACE
- 2001 Prevention Strategy adopted by SFWMD
- 2004 USACE initiated revisions to Lake Okeechobee Regulation Schedule
- 2008 Lake Okeechobee Regulation Schedule (LORS 2008) approved by USACE



Herbert Hoover Dike Rehabilitation

Recovery Strategy adopted by SFWMD

- 2023 Herbert Hoover Dike Rehabilitation completed by USACE
- Lake Okeechobee System Operating Manual (LOSOM)

Considerations for 2023-2024 LEC Plan Lake Okeechobee MFL Recovery Strategy

➢ USACE Record of Decision for LOSOM is pending

- SFWMD analysis of selected LOSOM schedule indicates the MFL will remain in recovery phase
- Executive Order 23-06, Achieve Even More Now for Florida's Environment
 - Directs SFWMD to develop additional storage north of Lake Okeechobee
 - District advancing Component A Reservoir (LOCAR) planning process under federal Section 203 authority
- >Additional capital projects are being planned and constructed
 - Includes storage north and south of the Lake and other approved projects



Regional Modeling and Simulations





Walter Wilcox, P.E. Bureau Chief, Water Resource Systems Modeling LEC Stakeholder Meeting 3 July 12, 2024



Regional Hydrologic Modeling

Background

SFWMD has built or is seeking to implement storage features north, south, east and west of Lake Okeechobee which will cumulatively add over **one million ac-ft** of storage to the system (the equivalent of more than two feet of Lake Okeechobee water)

Purpose

Simulate detailed daily rainfall-runoff processes, storage operation and flow routing within the LECWSP planning region and in the vicinity of Lake Okeechobee to examine the changes expected while transitioning from existing to proposed infrastructure

Strategy

Use the Regional Simulation Model BasiNs (RSMBN) to test scenarios exploring how this additional storage could improve system performance



Regional Simulation Model BasiNs (RSMBN)

- ➤A link-node application of the Regional Simulation Model (RSM) specific to Lake Okeechobee and basins in its vicinity, i.e., north of the "Red Line"
- Previously utilized for CERP (e.g., EAA Reservoir), SFWMD Northern Everglades planning initiatives and for the Lake Okeechobee System Operating Manual (LOSOM) development
- Provides hydrologic representation of Lake Okeechobee, Kissimmee Basin, EAA and other northern watersheds including Caloosahatchee and St. Lucie Estuaries
- Simulates a climate record from 1965-2016 including a wide range of wet and dry conditions



LECWSP Storage Scenarios

RSMBN simulated four scenarios:

- LOSOM: Existing & imminent infrastructure with current operations including the LOSOM Lake regulation schedule; includes A1FEB (60 kaf) and C44 Reservoir (50 kaf)
- EAARES: Future conditions including the addition of the EAA Reservoir (240 kaf), C43 Reservoir (175 kaf) and IRL South features (C23/C24 storage ~90 kaf); assumes a LOSOM-like operation for Lake Okeechobee
- LOCAR: EAARES scenario + LOCAR reservoir (200 kaf) north of Lake O; assumes a LOSOM-like operation for Lake Okeechobee
- ASR55: LOCAR scenario + 55 Aquifer Storage & Recovery (ASR) wells as proposed by the Lake Okeechobee Watershed Restoration Project; ASR injection is up to 308 kaf per year; assumes a LOSOM-like operation for Lake Okeechobee



Additional Modeling Notes

- Although not highlighted in the scenario list on the previous slide, model assumptions account for other system changes consistent with their implementation timeline, e.g., Kissimmee Headwater Schedule implementation, project Stormwater Treatment Areas (STAs) including Restoration Strategies, IRL STAs, A2 STA, etc. These details are listed fully in the Model Documentation Report (MDR)
- ➢All model runs simulate an additional ~50 kaf average annual LOSA supplemental demand to conservatively account for recently observed data in the Everglades Agricultural Area (EAA)
 - RSMBN EAA recalibration has been initiated for inclusion in future studies
- ➢Operations of assumed future model features (e.g., "LOSOM-like" for EAA Reservoir & LOCAR) are useful for planning, but future public processes (e.g., to update the Lake O regulation schedule) will ultimately define these operations

Lake Okeechobee

Stage Duration Curves for Lake Okeechobee

The addition of project storage tends to decrease higher lake stages and reduces the frequency and magnitude of high stage events.

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The addition of project storage tends to increase lower lake stages and reduces the frequency and magnitude of low stage events.



Date: 05/09/24 15:36:07 RSM Version 5816 Keyword: Io_duration Reference: rsmlib_2016_wS271_020124.xml

Lake Okeechobee (cont.)

Stage Envelope Example Graphic



Example "Blue" excursions above contribute penalties to the green bar to the right; Similarly, example "Red" excursions above contribute penalties to the yellow bar to the right. Lake Okeechobee Envelope Penalty Scores - All Years



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Lake Okeechobee Regulatory Releases

Mean Annual Flood Control and Environmental Releases from Lake Okeechobee for the 52 year (1965-2016) Simulation



The addition of project storage increases flow south toward the Everglades and reduces releases east and west to the Northern Estuaries



St. Lucie Estuary



Note:

- Event counts consider all inflow sources to the SLE (e.g., S80 as well as S48, S49, Gordy Rd, etc.)
- Extreme high flow events > 4000 cfs are reduced from ~160 events under LOSOM to ~110 events with the addition of storage

stwmd.gov

Caloosahatchee Estuary



Notes:

Low flow events < 457 cfs are reduced from ~450 events under LOSOM to ~100 events with the addition of storage

• Extreme high flow events > 6500 cfs are reduced from ~80 events under LOSOM to ~50 events with the addition of storage

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Lake Okeechobee Service Area

The addition of project 525 storage reduces water 490 LOSOM shortage cutbacks during EAARES 455 LOCAR ASR55 drought events with the 420 largest cutbacks 385 %9 % 350 Cutback Vol (1000 acft) 8 8 315 30.2% 280 27.3% 25.7% 245 22.5% 22.3% 21.3% 9.5% 210 24.0% 3% 175 23.2% 21.6% 16. 6.4% 8.7% 140 105 9.6% 70 3% 3% 35 1973-1974 1981-1982 2001 2007-2008 2011

Water Year (Oct-Sep) LOSA Demand Cutback Volumes Simulation Periods with Largest Cutbacks

Ending Water Year

The EAA Reservoir and C44 Reservoir can also supply water to maintain regional canals, thereby improving reliability for LOSA users and reducing supplemental irrigation demand on the Lake.

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Date: 05/09/24 15:36:53 RSM Version 5816

Keyword: losa cutback yrs v2

Reference: rsmlib 2016 wS271 020124.xml

Seminole Brighton Reservation



storage reduces average 56 5.4% 6.8% 5.7% 4.7% 2 3 3 4 48 Supplies and/or Shortages (1000 ac-ft) 40 25 24 32 50 49 24 16 26 25 LOSOM EAARES LOCAR ASR55 From LOK From Reservoir Unmet Demand

The LOCAR Reservoir can supply water to maintain regional canals, thereby improving reliability for the STOF and reducing supplemental irrigation demand on the Lake.

Note: The data on top of each bar represents the percentage of Demand Not Met.

ate: 05/09/24 15:37:1 RSM Version 5816 Keyword: seminole_dmd_v2 Reference: rsmlib 2016 wS271 020124.xm

The addition of project

annual water shortage

cutbacks for the

Seminole Brighton

Reservation

Modeling Data Available

Modeling output and performance measure graphics which compare the scenarios have been uploaded to SFWMD ftp at:

ftp://ftppub.sfwmd.gov/pub/mcbrown/LECWSP/

To successfully access and open the files please follow this recommended procedure:

- Copy the ftp link, and paste it in the address bar of your file/directory browser
 - (e.g., Windows Explorer/File Explorer in Windows or Finder in MacOS),
 - NOT into a web/internet browser (e.g., Microsoft Edge or Safari or Google Chrome)
- Please DO NOT preview or double-click on individual files at this point
- Copy the specific directories and/or files of interest into your LOCAL directory/folder/machine
- View or open the LOCAL copy of the files by double-clicking on them

Questions and Public Comment

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Biscayne Bay, Bill Baggs Cape State Park

Analyses of Simulated Lake Okeechobee MFL Exceedances and Violations





James Beerens, PhD Lead Scientist, Applied Sciences Bureau LEC Stakeholder Meeting 3 July 12, 2024



Lake Okeechobee MFL

➢ 40E-8.221 Florida Administrative Code

The MFLs contained in this Part identify the point at which further withdrawals would cause significant harm to the water resources, or ecology, of the area as applicable, pursuant to Sections 373.042 and 373.0421, F.S. It is the District's intent to **correct or prevent the violation** of these MFLs through management of the water resources and implementation of a recovery strategy.

40E-8.021 (18) states, (18) MFL Violation – ... Unless otherwise specified herein, in determining the frequency with which water flows and levels fall below an established MFL for purposes of determining an MFL violation, <u>a</u> <u>"year" means 365 days from the last day of the previous MFL exceedance.</u>

 Exceedance occurs more than once every 6 years
 Years counter starts on last day of previous MFL exceedance

> 2 violations since MFL inception (2009, 2011)



Exceedance Criteria: 80 consecutive or non-consecutive days with daily water elevation below MFL Criteria: <11.0 (N during a check window of up to eighteen months

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MFL Exceedances and Violations 20-year Projection

- Historically, future climatic data are represented by an ensemble of synthetic climatic data generated based on climatic historical data
- Each synthetic climatic data scenario is input to the physically based computer model to simulate stage response
- >Exceedances and violations are then recorded for each model run
- We refer to these as Deterministic results and they were generated for the LOSOM, EAARES, LOCAR, and ASR55 scenarios



Deterministic Analysis

➢ LOSOM (climate of 1965 − 2016)



LOSOM: 12 exceedances in 52 years of simulation

7 violations: 1973, 1976, 1977, 1981, 1990, 2009, 2011

7 violations: 1973, 1976, 1977, 1981, 1990, 2008, 2011

EAARES (climate of 1965 – 2016)

EAARES: 12 exceedances in 52 years of simulation



Deterministic Analysis (cont.)

➢ LOCAR (climate of 1965 − 2016)



LOCAR: 10 exceedances in 52 years of simulation

- 5 violations: 1974, 1977, 1981, 1990, 2009
- > 29% reduction in violations, 2011 eliminated

> ASR55 (climate of 1965 – 2016)



ASR: 8 exceedances in 52 years of simulation

➤ 3 violations: 1977, 1981, 1990

> 57% reduction in violations, 2009 and 2011 eliminated

Limitations of Deterministic Analysis

The prediction is limited to one model simulation and one sequence in historical rainfall conditions, assuming (a)



Climate predictions more often follow (b)

Best available science can incorporate uncertainty in rainfall conditions to improve the accuracy of the prediction

Produce probability-based outcomes

Atlantic Multidecadal Oscillation (AMO)



Increased rainfall in Central and South Florida when the North Atlantic Ocean is in its warm phase and conversely more persistent droughts and wildfires when in the cool phase

sfwmd.gov

Evidence of AMO cycle disruption (Mann et al. 2020)



Probabilistic Analysis

- Probabilistic approach models the exceedance and violation events for Lake Okeechobee as a Temporal Point Process (TPP) based on historical data
 Poisson Process is a model for a series of discrete events where the average time between events is known, but the exact timing of events is random
 For each scenario, waiting time was sampled between events for a 20-year outlook
- Sampling is a random selection from the respective distribution allowing for λ (average waiting time) to randomly change between its confidence band with normal distribution, incorporating uncertainty in rainfall conditions
 Procedure was repeated 1,000 times to obtain probability-based outcomes

Probabilistic Analysis of AMO Assumptions

1965 - 2016

Violation Comparison 1965 - 2016



> 12% chance of zero violations under ASR55

➢ 6% chance of zero violations under LOCAR

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67% chance of zero violations under ASR55

43% chance of zero violations under LOCAR

1995 - 2016

Conclusion

 Current evidence suggests that rainfall conditions will remain in the warm phase of the AMO in the foreseeable future
 Continuation of the AMO warm phase will result in fewer MFL violations,

including the possibility of zero violations after CERP implementation





Lake Okeechobee MFL Recovery Strategy





Mark Elsner, P.E. Bureau Chief, Water Supply Planning 2023-2024 LEC Stakeholder Meeting July 12, 2024



Considerations for 2023-2024 LEC Plan Lake Okeechobee MFL Recovery Strategy

➢ Record of Decision for LOSOM is pending

- Analysis of selected LOSOM schedule indicates the MFL will remain in recovery phase
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 - Directs SFWMD to develop additional storage north of Lake Okeechobee
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Includes storage north and south of the Lake and other approved projects



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Proposed Lake Okeechobee MFL Revised Recovery Strategy 1. Environmental enhancement projects to be implemented during extreme low

- 1. Environmental enhancement projects to be implemented during extreme low lake stages
 - Native vegetation planting, sediment scraping, prescribed burns, etc.
- 2. Regulatory criteria for consumptive uses of lake water
 - Lake Okeechobee Service Area (LOSA) RAA Rule
- 3. Water shortage restrictions
 - Phases 1 through 4 as needed
- 4. Capital projects in support of MFL recovery strategy
 - Lake Okeechobee Component A Reservoir (LOCAR)
 - Lake Okeechobee Watershed Restoration Project (55 ASR wells)
 - Central Everglades Planning Project (CEPP) A-2 Reservoir and STA
 - CERP Component F future LOSOM updates

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Questions and Public Comment

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Next Steps





Nancy Demonstranti, P.G. LEC Water Supply Plan Manager LEC Stakeholder Meeting 3 July 12, 2024



Next Steps/Questions

February 7/June 25
July 11
July 12
July 31
September 12

Posted draft documents
Draft Plan to Governing Board
Stakeholder meeting #3
Deadline for Written Public Comments
Final plan to Governing Board for consideration

Regional and Local Planning Linkage

- After the District's Governing Board approves the water supply plan update:
 - All local governments must amend their Comprehensive Plan to incorporate a Water Supply Facilities Work Plan within 18 months of the plan update's approval
 - If the plan update is approved in September 2024, Work Plans will be due by March 2026
 - Utilities identify the projects to be developed
 - Utility annual progress reports
 - District's automated WaSUP database due annually in November



Florida Bay
Questions and Public Comment

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- Plan Information can be found at www.sfwmd.gov/lecplan
- Workshop announcements sent via email



Biscayne Bay