

# LAKE OKEECHOBEE REGULATION SCHEDULE (LORS 2008)

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# LAKE OKEECHOBEE SYSTEM OPERATING MANUAL WEBINARS



- Webinar 1 – Overview of the Central & Southern Florida Project – 20 May
- Webinar 2 – Lake Okeechobee Ecology – 22 May
- Webinar 3 – Dam Safety and Herbert Hoover Dike – 24 May
- Webinar 4 – Estuary Ecology – 28 May
- **Webinar 5 – Water Management and the 2008 LORS – 30 May**
- Webinar 6 – Kissimmee River Restoration – 4 June



# WHAT WILL YOU LEARN



- The Lake Okeechobee water budget - how much water comes in and out of the lake on an average year and where it goes when it leaves
- What LORS 2008 is and what its purposes are
- How LORS 2008 manages Lake Okeechobee, what parameters and conditions are considered, and what they mean
- What interagency coordination is done as part of managing Lake Okeechobee



# WHAT WILL BE COVERED

- Defining LORS
- Central & Southern Florida Project Purposes
- Lake Okeechobee inflows and outflows
- LORS Guidance Part A
- LORS Guidance Part B
- LORS Guidance Part C and overview of Water Conservation Areas
- LORS Guidance Part D
  - Decoding the flow chart
    - Tributary hydrologic conditions
    - Short Term Forecasts
    - Long Term Forecasts
- Other factors considered into decision making process
- Coordination with others
- Key Takeaways
- Questions





# LAKE OKEECHOBEE REGULATION SCHEDULE (LORS) 2008



LORS is the current Water Control Plan for Lake Okeechobee and Everglades Agricultural Area, LOSOM (Lake Okeechobee System Operating Manual) will replace LORS

Establishes: Quantity, timing, and distribution of releases to the WCAs and tide (estuaries)

Intent: Manage water in Lake Okeechobee by making long term, low volume releases to the estuaries and WCAs.

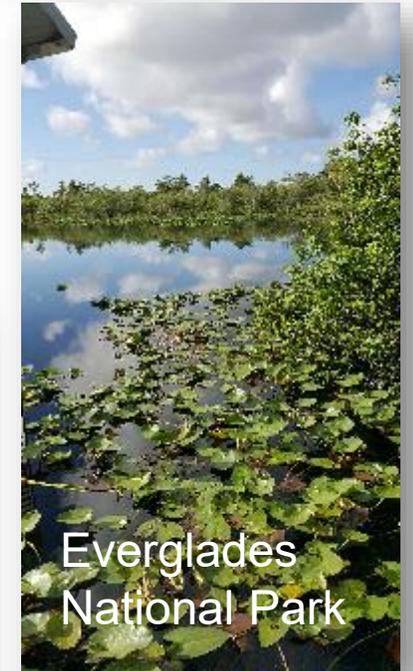
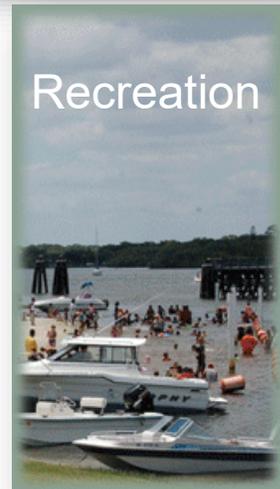




# C&SF PROJECT PURPOSES

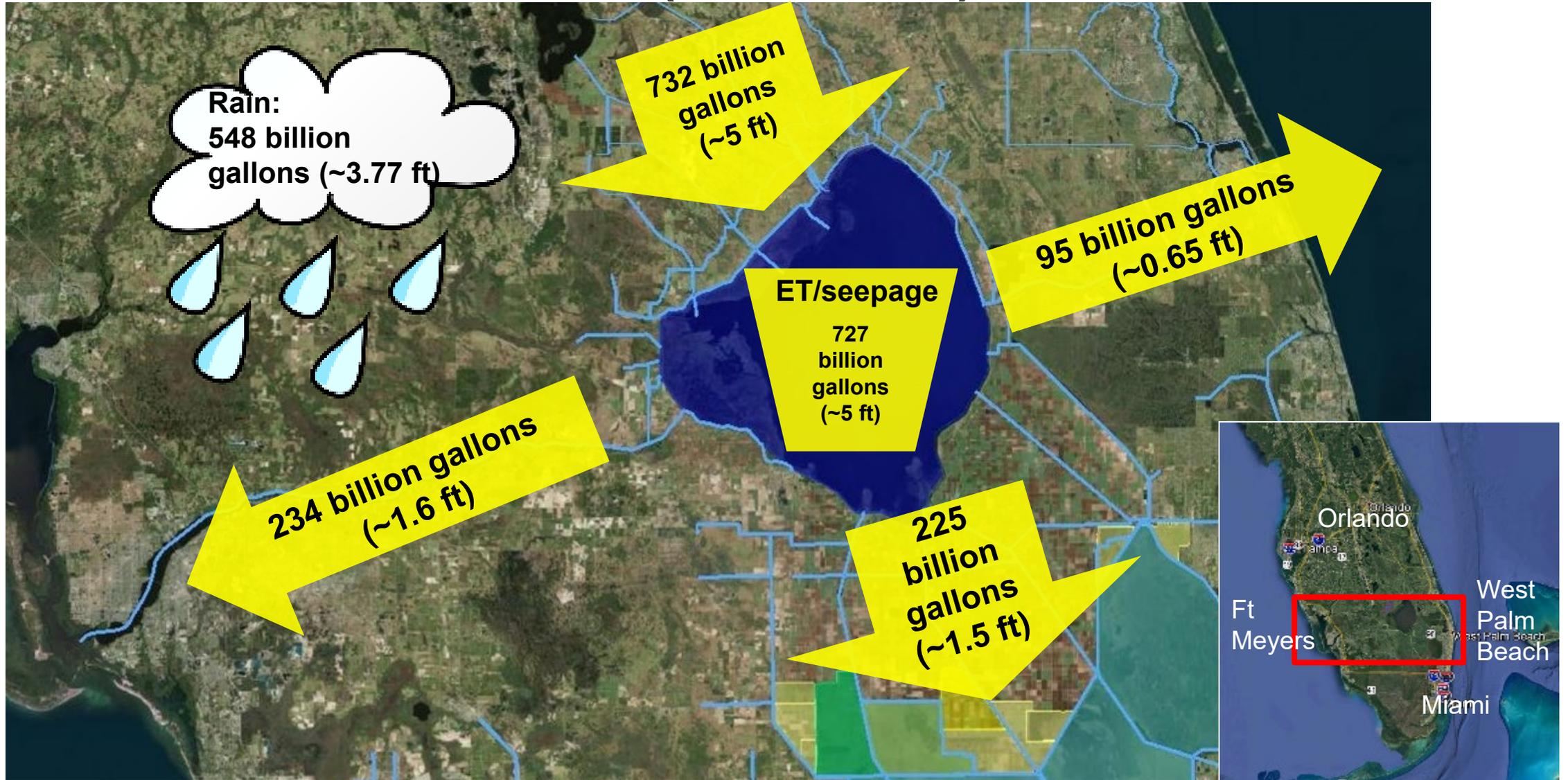


- Flood control
- Navigation
- Enhancement of fish and wildlife
- Recreation
- Water supply for
  - Agriculture
  - Municipalities
  - Industry
  - Everglades National Park
  - Regional groundwater control
  - Salinity control



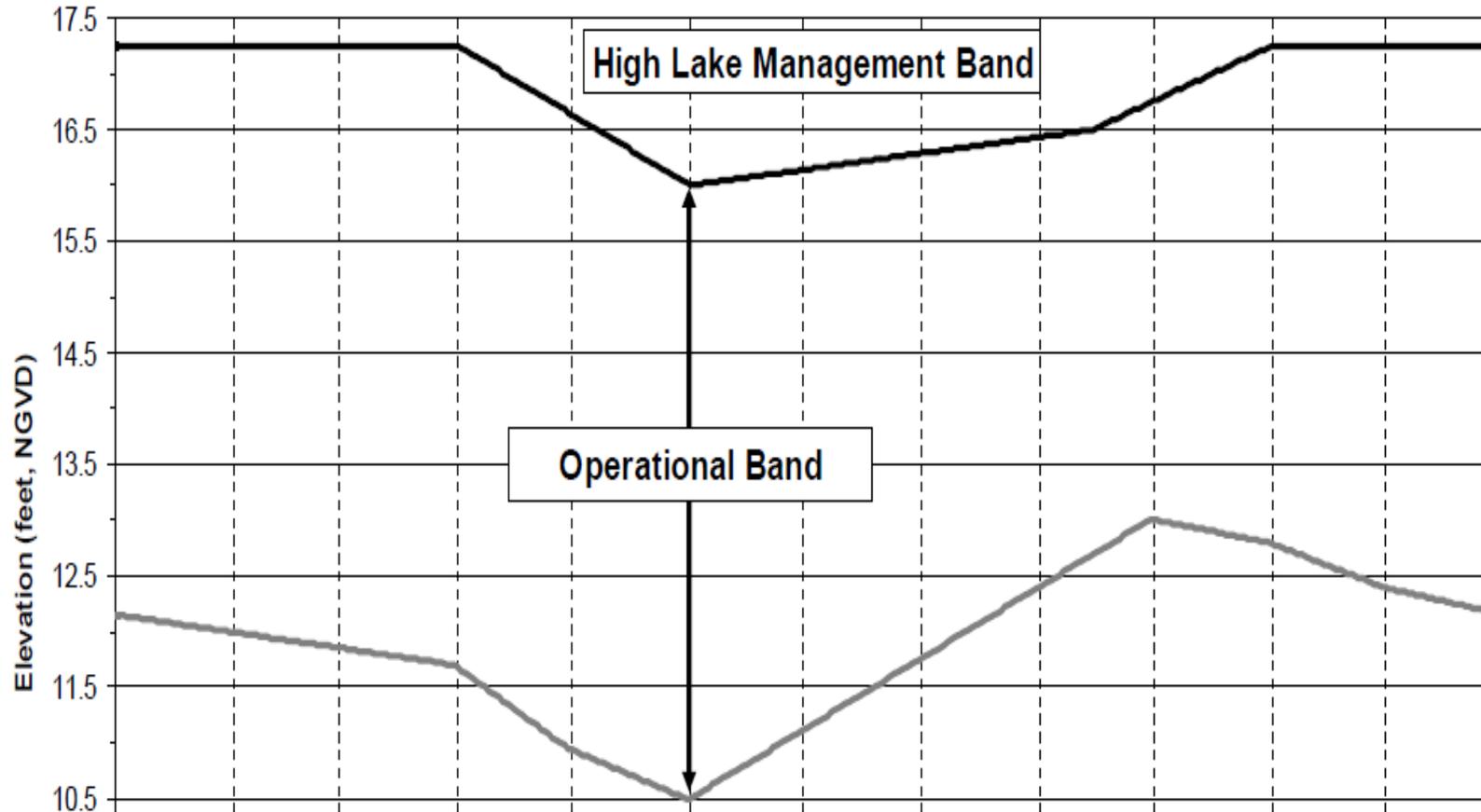


# AVERAGE ANNUAL LAKE OKEECHOBEE WATER BUDGET UNDER LORS (2008-2018)





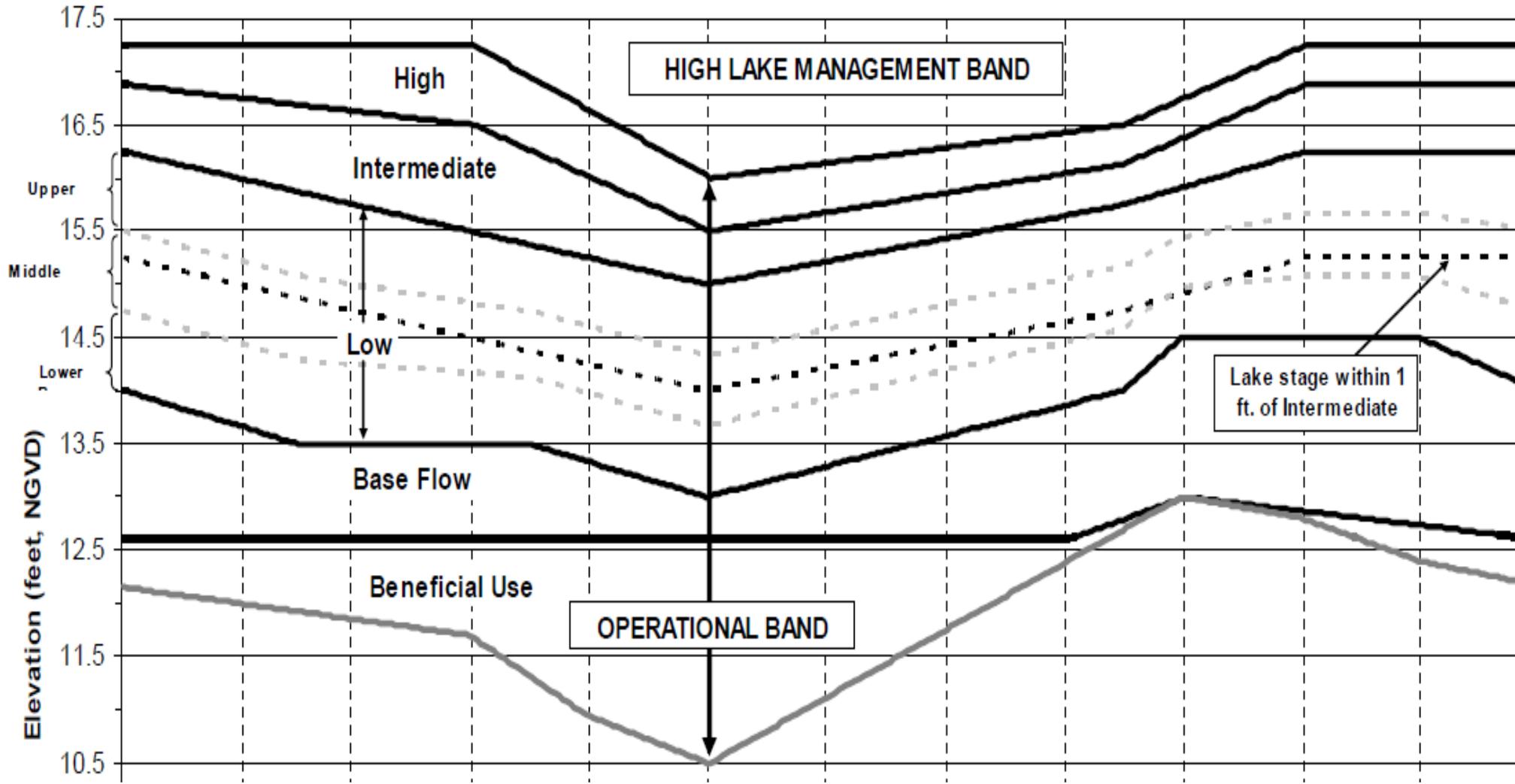
# LORS PART A: DEFINES BANDS



Lake Okeechobee water levels historically naturally varied seasonally. Holding Lake Okeechobee at a static level for the duration of the year is operationally impossible.



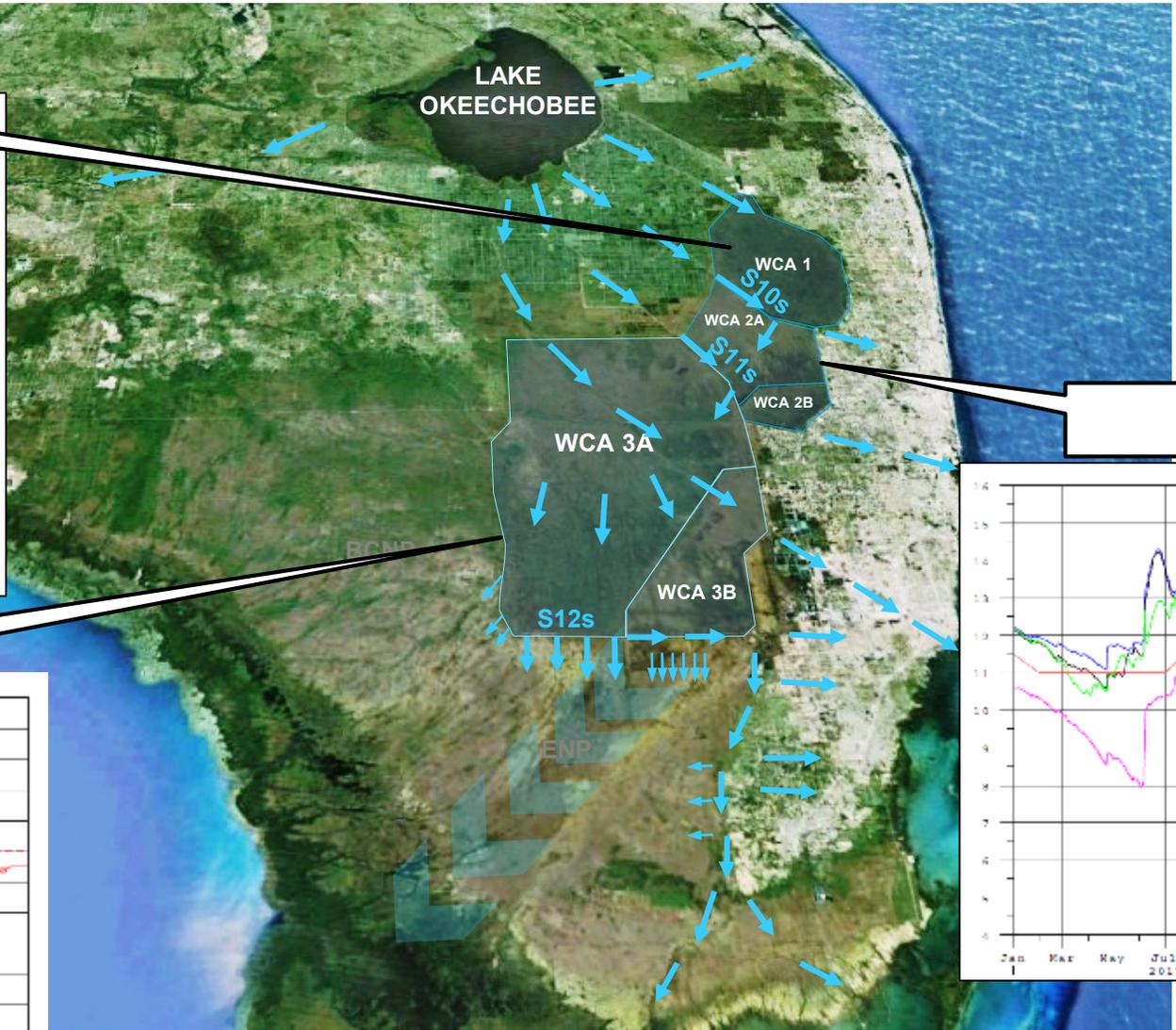
# LORS PART B: DEFINES OPERATIONAL SUB-BANDS



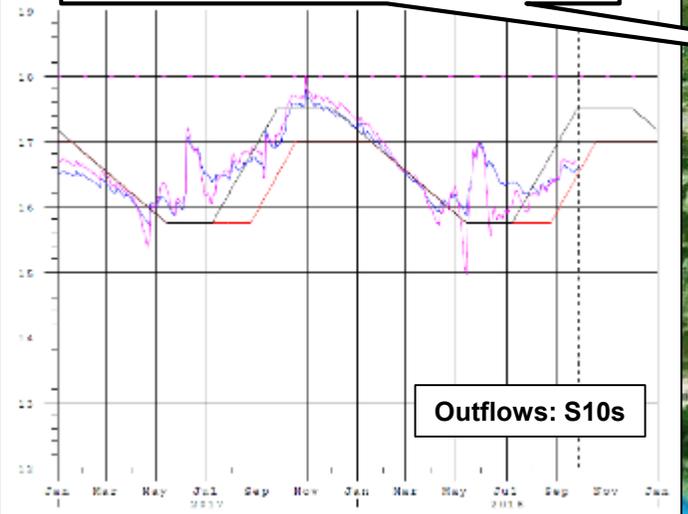
# PART C: RELEASE GUIDANCE TO WATER CONSERVATION AREAS



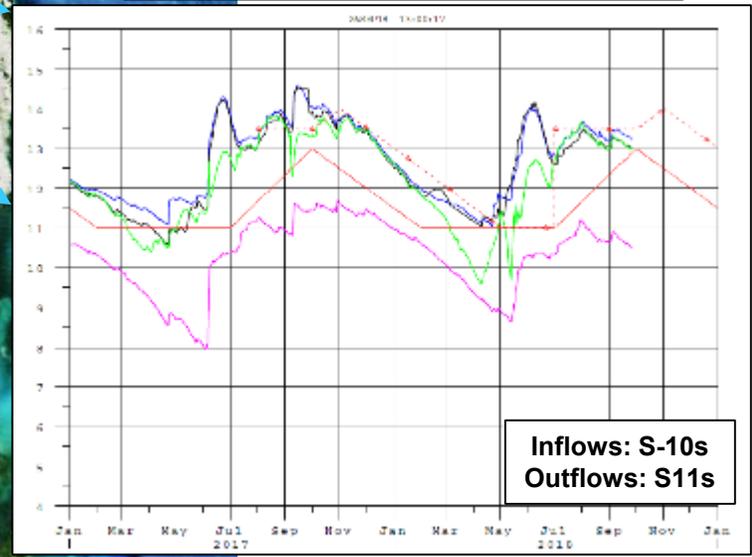
U.S. ARMY



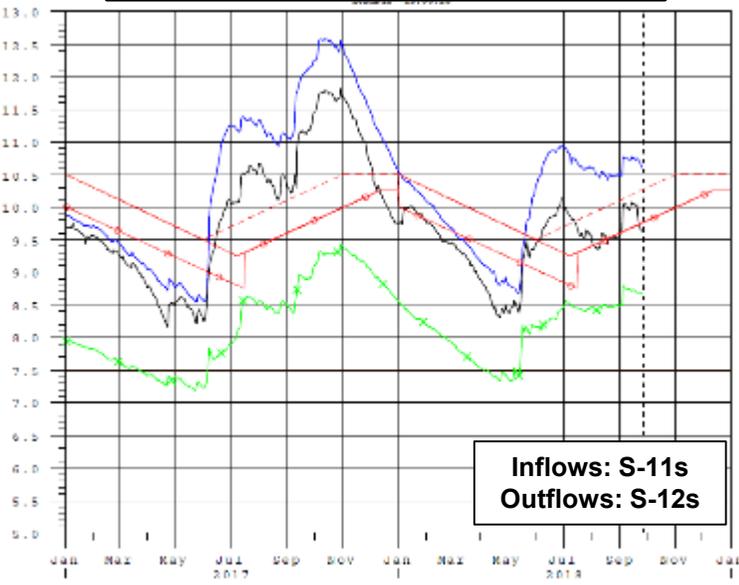
### WCA-1



### WCA-2A



### WCA-3A





# PART C: RELEASE GUIDANCE TO WCAS

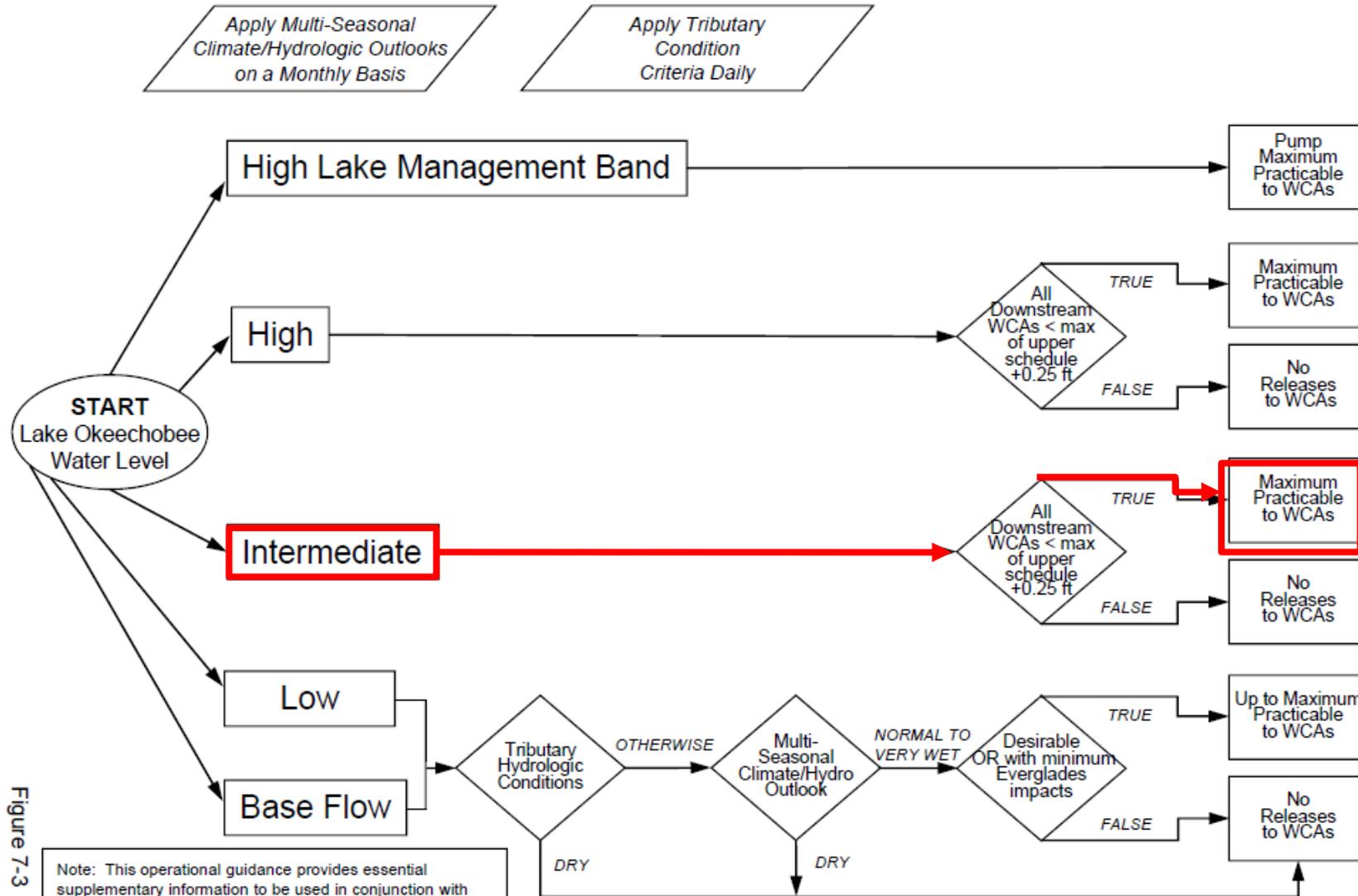


Figure 7-3

Note: This operational guidance provides essential supplementary information to be used in conjunction with other supporting documentation including text within the Water Control Plan.

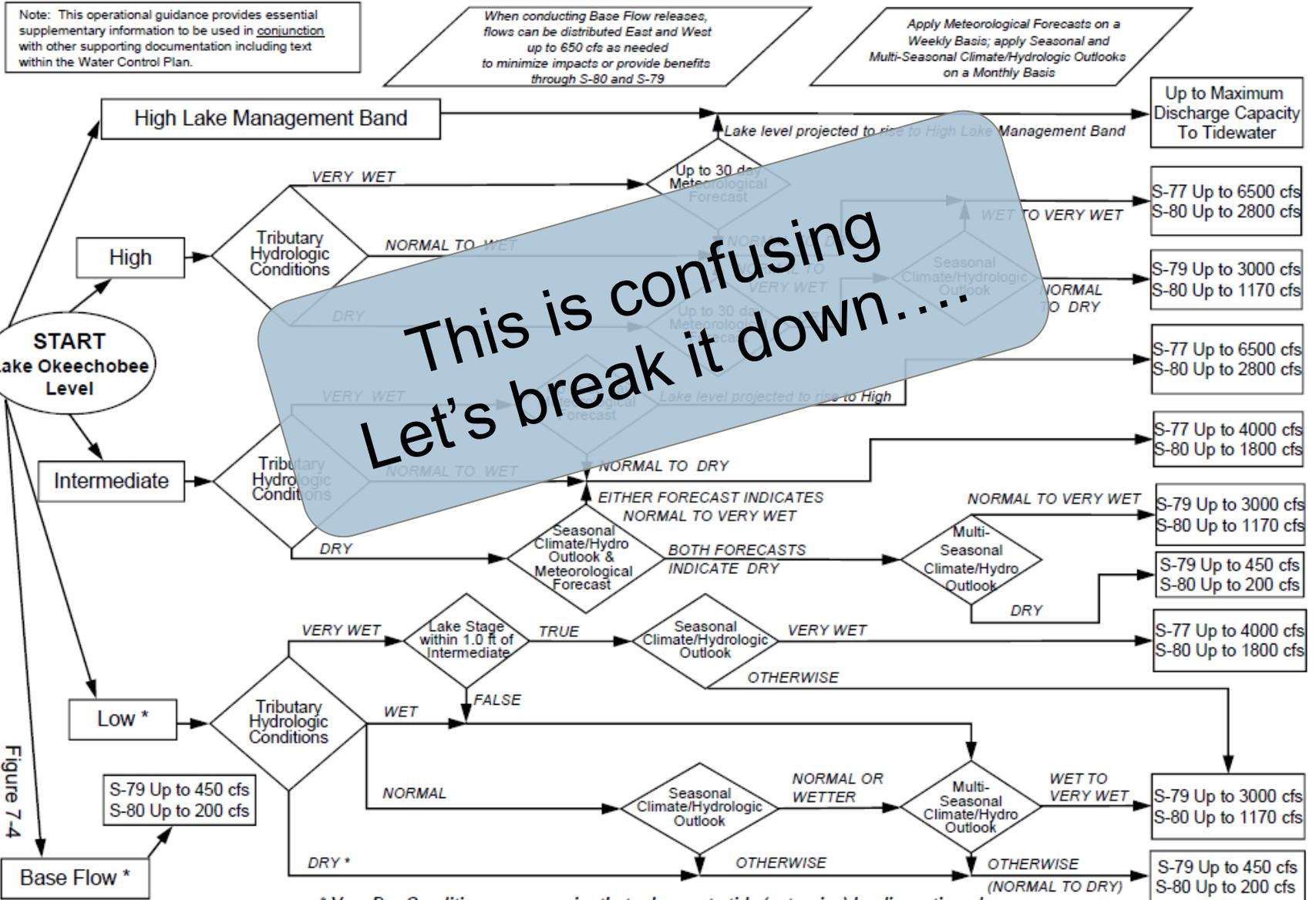
Specific flows to the WCAs are not included, as the inflows into the WCAs have to first manage runoff from the area south of the lake

(Arrows are an example)



# 2008 LORS

## Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)



This is confusing  
Let's break it down....



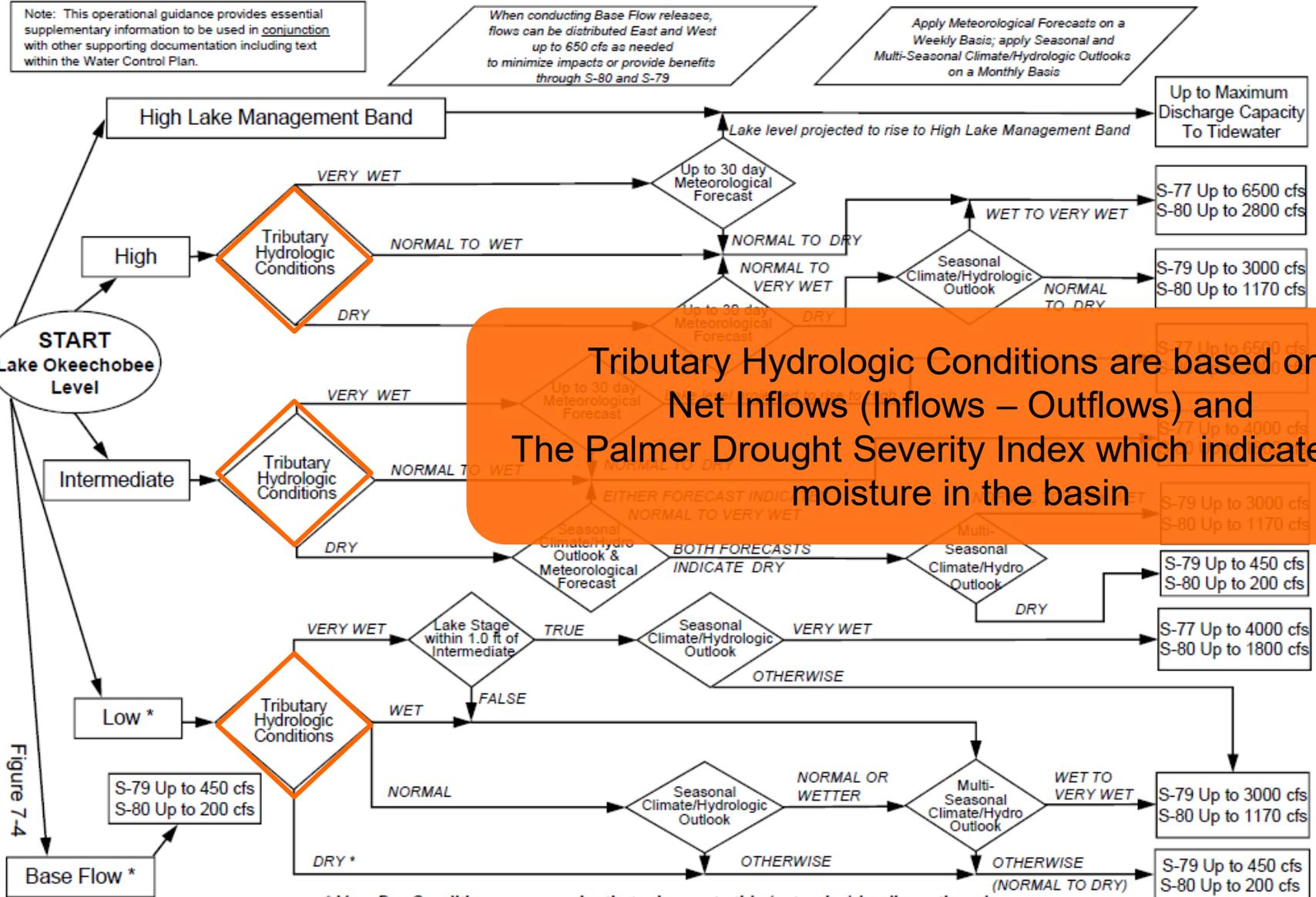
\* Very Dry Conditions may require that releases to tide (estuaries) be discontinued



# Tributary Hydrologic Conditions

## 2008 LORS

### Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)



Tributary Hydrologic Conditions are based on:  
 Net Inflows (Inflows – Outflows) and  
 The Palmer Drought Severity Index which indicates soil  
 moisture in the basin

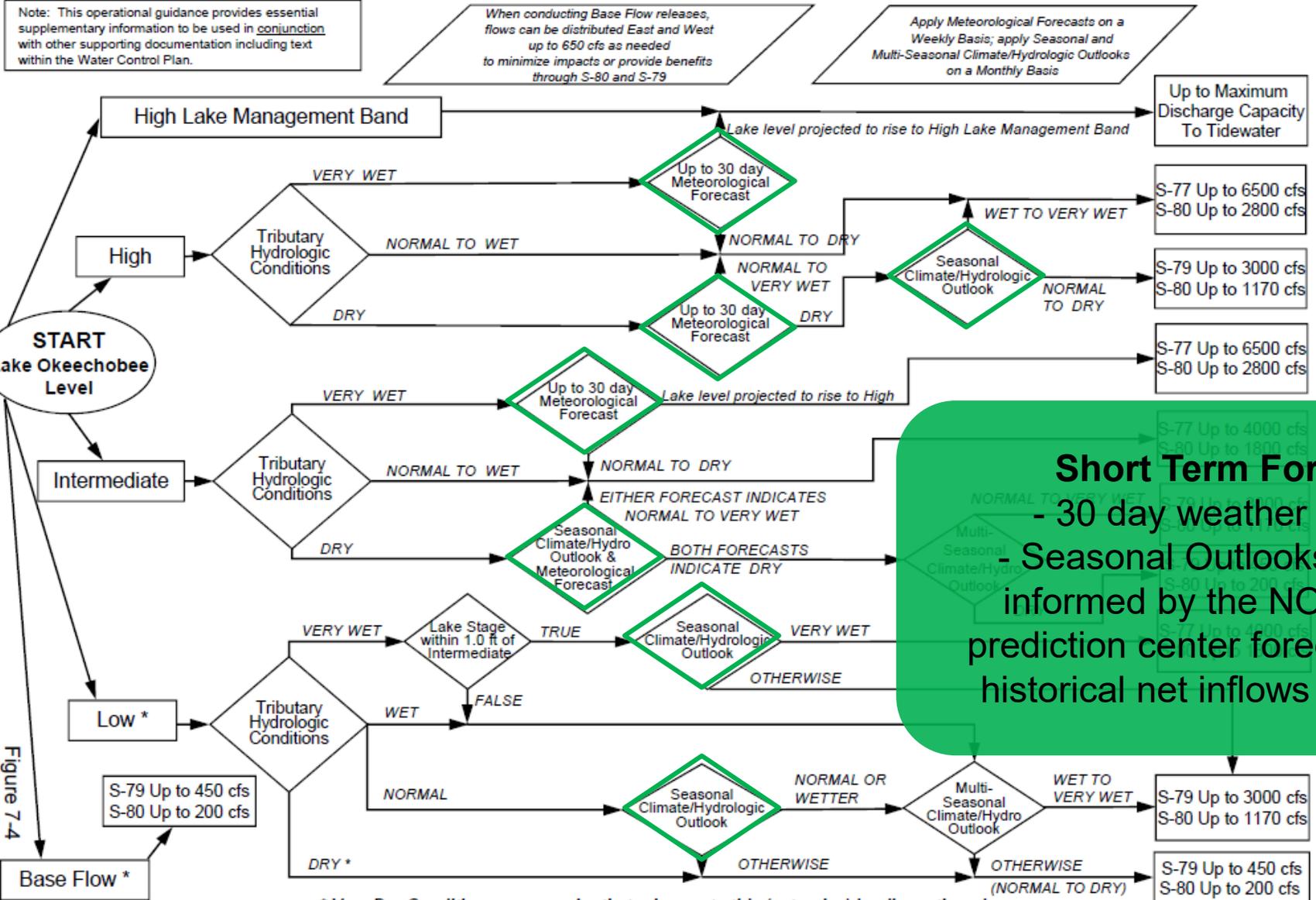
Figure 7-4

\* Very Dry Conditions may require that releases to tide (estuaries) be discontinued



## 2008 LORS

### Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)



**Short Term Forecasts:**

- 30 day weather forecasts
- Seasonal Outlooks – which is informed by the NOAA climate prediction center forecasts and the historical net inflows into the lake

Figure 7-4

\* Very Dry Conditions may require that releases to tide (estuaries) be discontinued



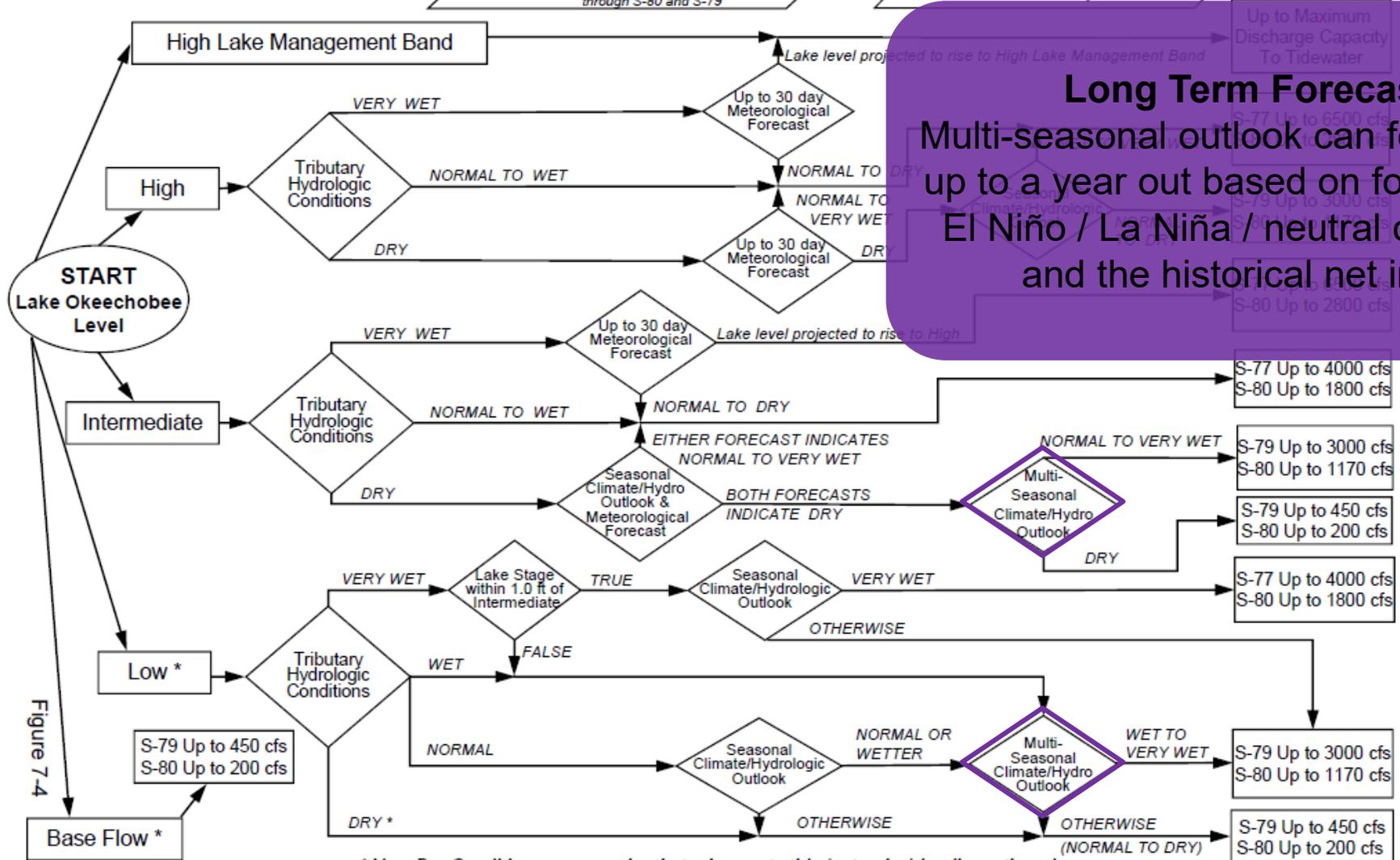
## 2008 LORS

### Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)

Note: This operational guidance provides essential supplementary information to be used in conjunction with other supporting documentation including text within the Water Control Plan.

When conducting Base Flow releases, flows can be distributed East and West up to 650 cfs as needed to minimize impacts or provide benefits through S-80 and S-79

Apply Meteorological Forecasts on a Weekly Basis; apply Seasonal and Multi-Seasonal Climate/Hydrologic Outlooks on a Monthly Basis



**Long Term Forecast:**  
 Multi-seasonal outlook can forecast out up to a year out based on forecasts for El Niño / La Niña / neutral conditions and the historical net inflow

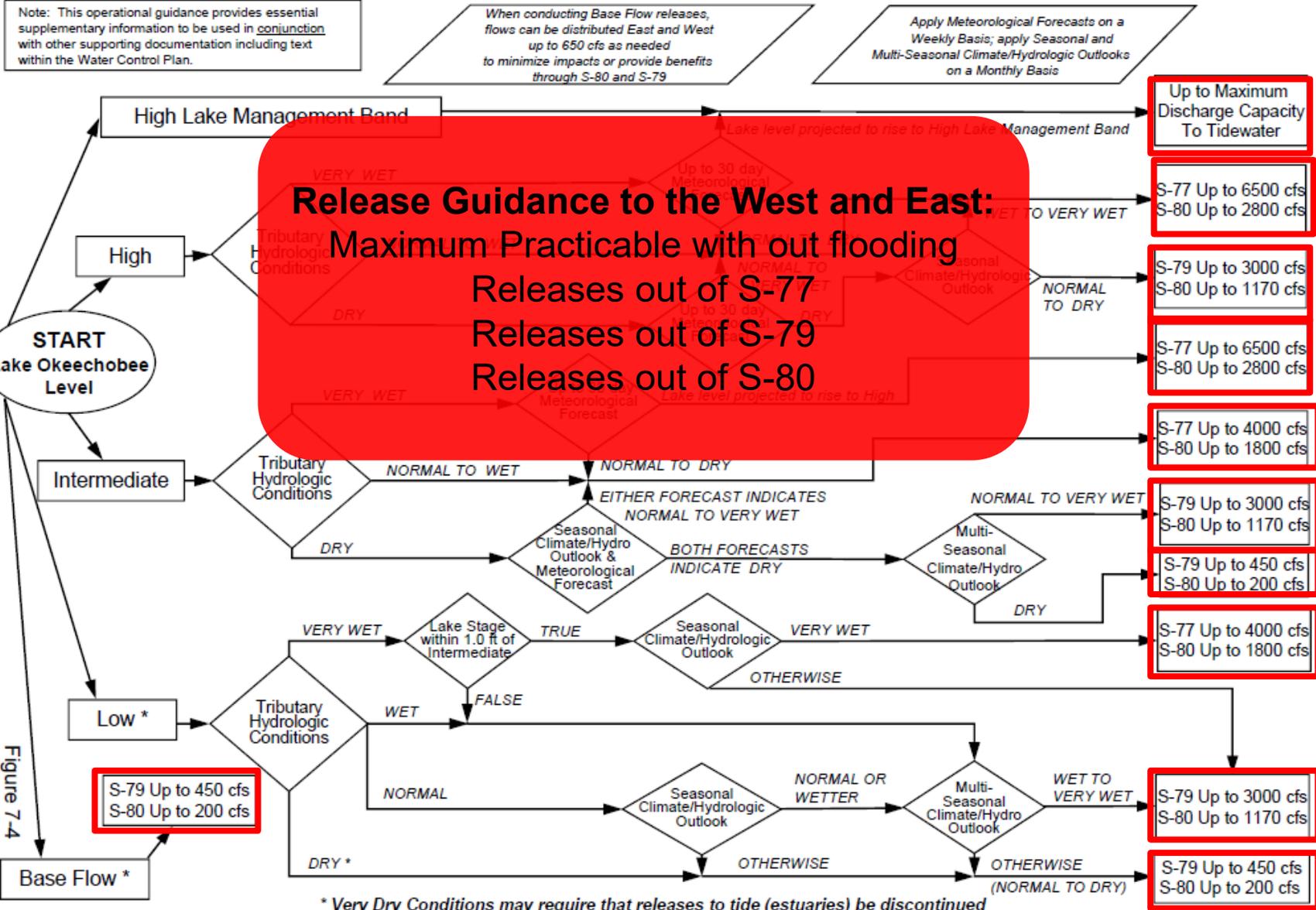
Figure 7-4

\* Very Dry Conditions may require that releases to tide (estuaries) be discontinued



# 2008 LORS

## Part D: Establish Allowable Lake Okeechobee Releases to Tide (Estuaries)





## OTHER FACTORS



Quantity, timing, and duration of potential releases includes consideration of:

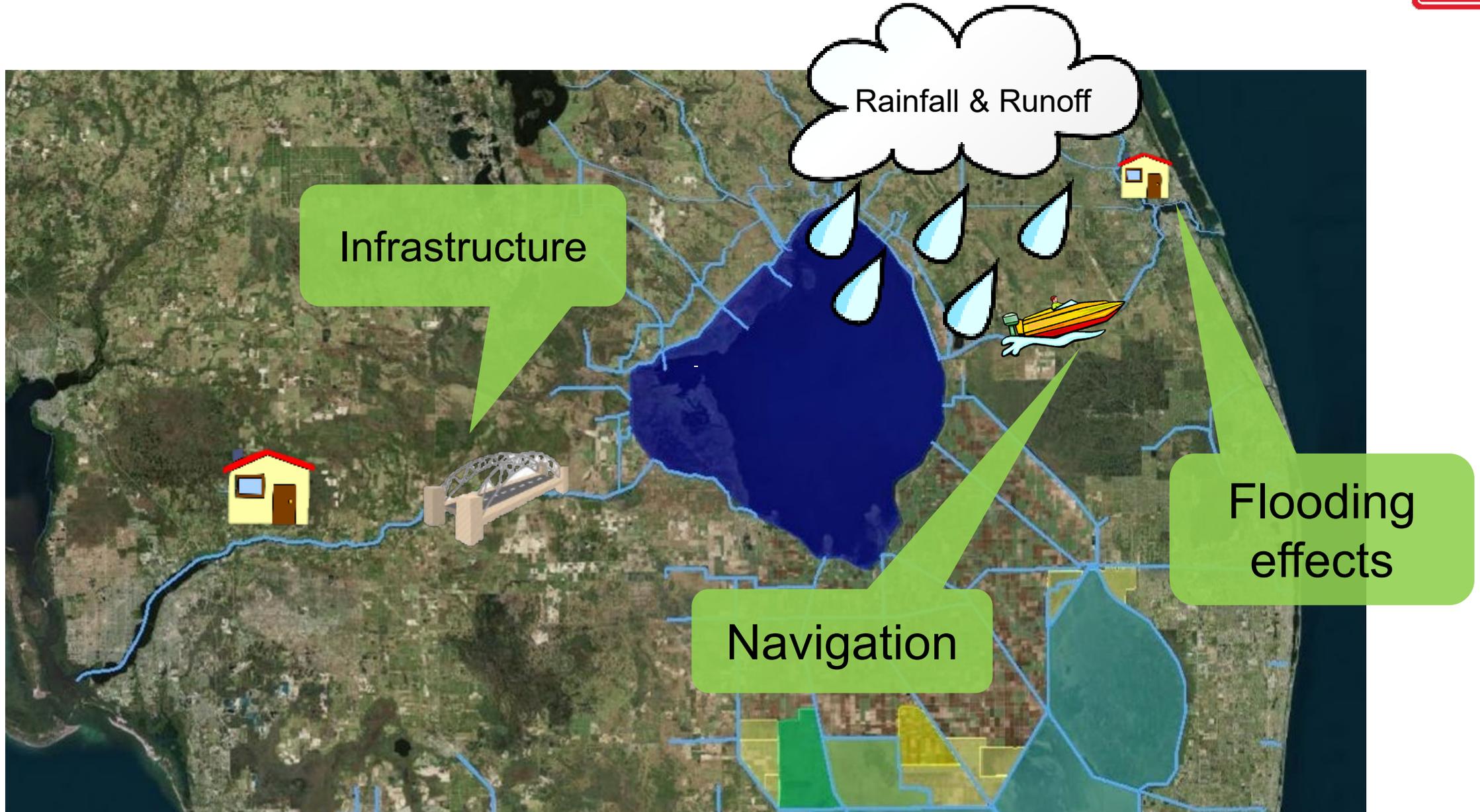
- Estuary Conditions/Needs (salinity, turbidity, algae)
- Lake Okeechobee Ecology Conditions/Needs
- Stormwater Treatment Capacity/Availability
- Water Supply Conditions/Needs (agricultural and municipal)
- Construction Activities
- Deviations in Water Control Plans within the C&SF Project
- Waterway Navigation
- Saltwater Intrusion
- Canal Elevations in EAA, C-44, and C-43



Sooty Tern Nestings, Okeechobee, Mike Baranski



# CONSTRAINTS ON RELEASES WEST/EAST





# COORDINATION / INFORMATION GATHERING



Local governments



**MICCOSUKEE**  
TRIBE OF INDIANS OF FLORIDA

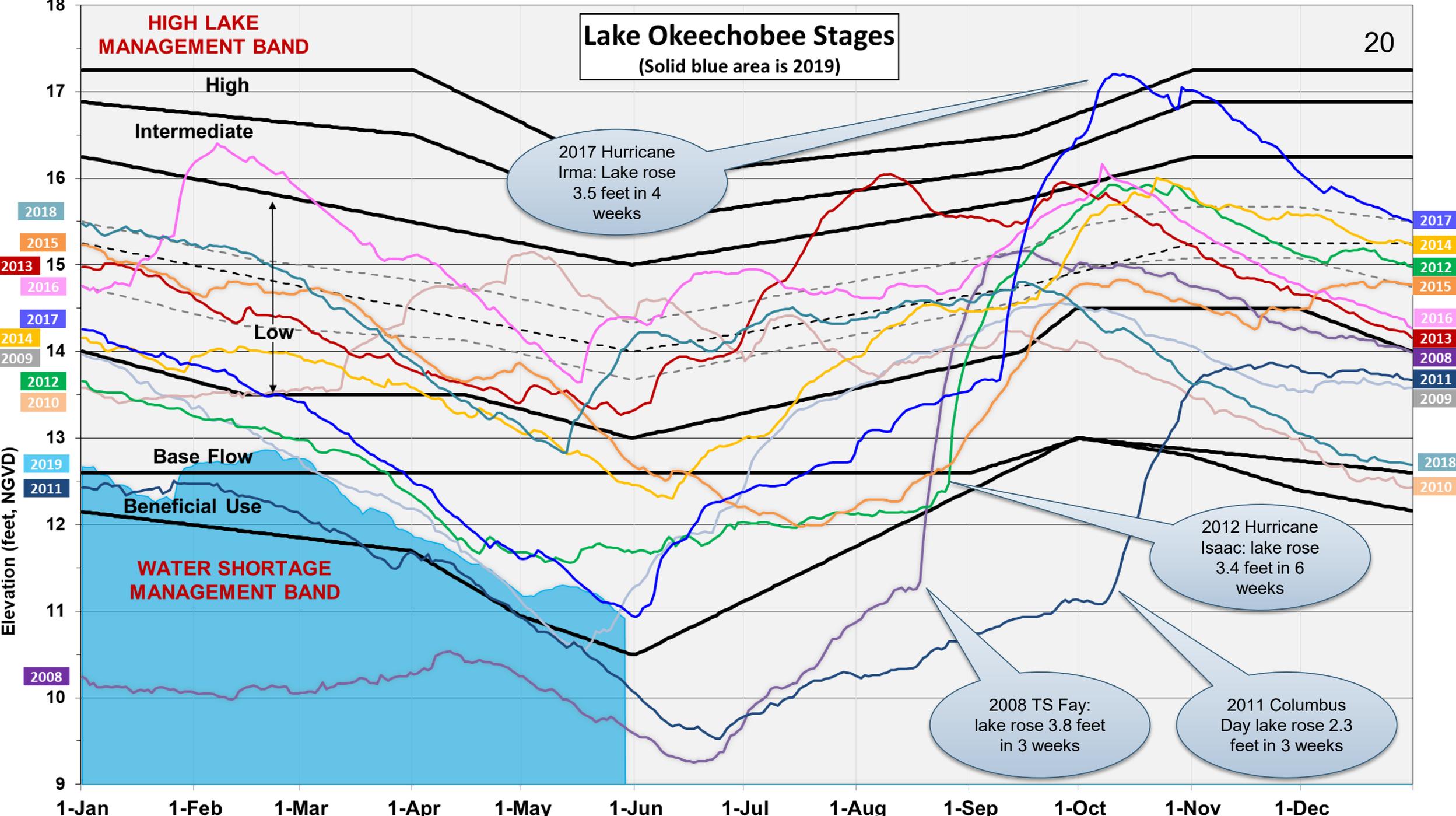


Non-Governmental Agencies



# Lake Okeechobee Stages

(Solid blue area is 2019)





# KEY TAKEAWAYS



- The Lake Okeechobee water budget will generally remain constant, inflows can not be changed as part of the effort to re-write the water control plan. Quantity, Timing, location, and duration of releases out of the lake can be altered as part of the new water control plan (Lake Okeechobee System Operating Manual – LOSOM).
- LORS 2008 intended to manage the flood control and dam safety risk on the lake by making long term, low volume release to the estuaries and to the WCAs.
- Project purposes of Lake Okeechobee and the C&SF Project are all *considered* when making an operational plan, with flood control/dam safety taking the highest priority.
- LORS 2008 manages Lake Okeechobee using a combination of metrics and parameters including, but not limited to, lake stage and band/sub-band classification and antecedent hydrologic, ecological and meteorological conditions and forecasts.
- Stakeholders should understand how LORS 2008 works and evaluate its successes and faults when looking forward to LOSOM. This plan is the product of decades of operational iterations, let's continue to improve the plan in a way which best balances the project purposes.

# QUESTIONS

30 MINUTES

TYPE A QUESTION INTO THE WEBINAR CHAT  
OR EMAIL [LAKEOCOMMENTS@USACE.ARMY.MIL](mailto:LAKEOCOMMENTS@USACE.ARMY.MIL)

LOSOM Website: [www.saj.usace.army.mil/LOSOM](http://www.saj.usace.army.mil/LOSOM)

LOSOM Email for comments: [LakeOComments@usace.army.mil](mailto:LakeOComments@usace.army.mil)

USACE Water Management Page: [www.saj.usace.army.mil//WaterManagement/](http://www.saj.usace.army.mil//WaterManagement/)