Lake Okeechobee and Caloosahatchee Call for Action & Update June 6, 2018

CALL FOR ACTION

Army Corps of Engineers (USACE)

Contact(s):

Colonel Jason Kirk, District Commander and District Engineer

Email: Jason.a.kirk@usace.army.mil

Lieutenant Colonel Jennifer Reynolds, Deputy District Commander for South Florida

Email: Jennifer.A.Reynolds@usace.army.mil

Key Message 1: Immediately stop all regulatory releases from Lake Okeechobee (S-77) to the Caloosahatchee until flows at the Franklin Lock (S-79) drop below 3,000 cfs.

Key Message 2: Immediately send water south. Where is the shared adversity?

- The west coast stakeholders and the Lake scientists have been requesting higher releases from the Lake to benefit the ecology of the Lake and the Caloosahatchee since January. Water was kept in the lake to assure water supply. Now, the estuaries are penalized by having to take all of the water that was reserved when it is no longer needed.
- The dark-colored freshwater plume extends out into the Gulf of Mexico and along Sanibel's beaches. This is already impacting tourism, the quality of life for our residents, and the local economy.

Key Message 3: Immediately implement solutions to address inherent INEQUITY of the Adaptive Protocols for Lake Okeechobee and LORS 2008.

- Directly contributed to the MFL violation in the Caloosahatchee that occurred for 89 days and retained excess water in the Lake.
- Under LORS, in the upper bands of the schedule or when hydrologic conditions are "very wet" flows are measurements at S-77 (at the Lake) and do not take into account watershed runoff versus on the east coast where they are measured at S-80 (the estuary).

South Florida Water Management District (SFWMD)

Contact(s):

Ernie Marks, Executive Director

Email: emarks@sfwmd.gov

Federico Fernandez, Governing Board Chair

Email: fefernan@sfwmd.gov

Rick Barber, Local Governing Board Rep.

Email: fbarber@sfwmd.gov

Jaime Weisinger, Local Governing Board Rep.

Email: jweisinger@sfwmd.gov

Key Message 1: Immediately send water south. Where is the shared adversity?

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 Water was kept in the lake for assurance of water supply. Now, the estuaries are penalized by having to take all of the water that was reserved when it is no longer needed.
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Key Message 2: Between May 23rd and June 5th the L-8 canal back-flowed 30,007 acre-feet (ac-ft) of water into Lake Okeechobee and the S-310 (near Clewiston) back-flowed 4,239 ac-ft.

- Why is the L-8 Flow Equalization Basin (FEB) not providing the necessary relief to eliminate the need for back-flowing from the L-8?
- What is the future strategy for reducing or eliminating back-flowing from the S-310?
- How did the A-1 FEB perform during this event? Is it providing additional capacity for moving Lake O water south or is it primarily taking stormwater runoff from the EAA?

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- Under LORS, in the upper bands of the schedule or when hydrologic conditions are "very wet" flows are measurements at S-77 (at the Lake) and do not take into account watershed runoff versus on the east coast where they are measured at S-80 (the estuary).

Key Message 4: Immediately deploy flow monitoring stations within the Caloosahatchee watershed tributaries between the Franklin Lock (S-79) and the Moore Haven Lock (S-77).

• We need to better understand where the flows within the watershed are coming from. Currently, approximately 50% of the flow that we are receiving at S-79 is coming from the Caloosahatchee watershed. Flow monitoring stations deployed within the Caloosahatchee watershed tributaries will allow us to determine where the water is coming from and what projects are needed to curtail it.

Florida Department of Environmental Protection (FDEP)

Contact:

Drew Bartlett, Deputy Secretary Ecosystems Restoration

Email: drew.bartlett@dep.state.fl.us

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Governor Rick Scott

Contact: rick.scott@eog.myflorida.com

CONDITIONS SUMMARY

- CURRENT LAKE O LEVEL IS 14.22 FEET (6/6/18)
- As a result of Tropical Storm Alberto and other rainfall, water levels in Lake Okeechobee increased by MORE THAN 1-FOOT DURING THE MONTH OF MAY (13.16 FEET ON 5/1/18).
- Lake O is currently within 1 foot of the Intermediate Sub-band of the Lake Okeechobee Regulation Schedule (LORS 2008). As a result, LORS calls for regulatory Lake releases of up to 4,000 cfs at S-77 and up to 1,800 cfs at S-80.
- While target discharges to the Caloosahatchee at the Moore Haven Lock S-77 structure are currently 4,000 cubic feet per second (cfs), combined with large amounts of runoff from the Caloosahatchee watershed, <u>actual flows</u> at the Franklin Lock (S-79) right now are averaging 8,260 cfs (see current flows at USACE link below).

http://w3.saj.usace.army.mil/h2o/reports/StatusDaily.htm

- Target flows from the Lake to the St. Lucie estuary are 1,800 cfs measured at the S-80 structure.
- No water is currently being sent south into the Everglades Agricultural Area (see S-354, S-351, S-352 and C-10A structures on map and link above).
- The Caloosahatchee went 89 days, beginning at the end of February, with Minimum Flow and Level exceedences, where flows to the estuary were inadequate to maintain salinity below the 10 psu salinity harm threshold in Fort Myers. Although, the estuary received flows equal to or greater than 650 cfs for the entire dry season, salinities still remained above the harm threshold.
- Based on SCCF monitoring data, the west coast stakeholders requested 800-1,000 cfs to keep salinities below the 10 psu harm threshold. The SFWMD system status reports indicated that "the Caloosahatchee estuary would not benefit from additional water", which was not factual at the time of the reports.

MANAGEMENT DISCUSSION AND RECOMMENDATIONS

- Discontinue freshwater releases from Lake Okeechobee until flows at the Franklin Lock (S-79) drop below 3,000 cfs (USACE issue).
- The west coast stakeholders and the Lake scientists have been requesting higher releases to get water out of the Lake to benefit the ecology of the Lake and the Caloosahatchee since January. Water was kept in the lake for assurance of water supply (USACE and SFWMD issue). This situation was at least partially preventable.
 - If additional flows of 150 cfs to meet a target discharge of 800 cfs were provided to the Caloosahatchee estuary it would have reduced the Lake by ~0.70 inches. If an additional 350 cfs were provided to meet a target discharge of 1,000 cfs, it would have reduced the Lake by ~1.64 inches (USACE and SFWMD issue). (Lake Okeechobee ~450,000 acres; 1 foot = ~450,000 ac-ft of storage; 37,500 ac-ft per inch of Lake water)
- We need to identify other places to send water besides to the west and east coast estuaries. If the SFWMD chooses to reserve water for water supply south of the Lake, the estuaries should not be penalized by having to take all of the water that was reserved when it is no longer needed (SFWMD issue).

- Our current situation underscores the inequity in the *Adaptive Protocols for Lake Okeechobee*, which directly contributed to the MFL violation in the Caloosahatchee that occurred for 89 days and retained excess water in the Lake (USACE and SFWMD issue).
 - This inequity needs to be fixed in the next version of the Lake Okeechobee Regulation Schedule and Adaptive Protocols.
- Currently, approximately 50% of the flow that we are receiving at S-79 is coming from the Caloosahatchee watershed.
 - We need to better understand where the flows within the watershed are coming from.
 We need flow monitoring stations deployed within the Caloosahatchee watershed tributaries to determine where the water is coming from and what projects are needed to curtail it (SFWMD and FDEP issue).