



Memorandum

TO: Chris Stahl, Florida State Clearinghouse

THROUGH: Edward C. Smith, Director *ECS*
Office of Ecosystem Projects

FROM: Alyssa Freitag and Stan Ganthier
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DATE: September 4, 2019

SUBJECT: Department of the Army, Jacksonville District Corps of Engineers, Draft Environmental Assessment and Proposed Finding of No Significant Impact — 2019 Planned Deviation to the Water Control Plan for Lake Okeechobee and Everglades Agricultural Area (Lake Okeechobee Regulation Schedule [LORS 2008]) — Glades, Hendry, Martin, Okeechobee, and Palm Beach Counties, Florida

SAI #: FL201908068706C

Summary:

The United States Army Corps of Engineers (Corps) has prepared a Draft Environmental Assessment (EA) and Proposed Finding of No Significant Impact (FONSI) associated with a planned deviation to the 2008 Lake Okeechobee Regulation Schedule (LORS 2008). The goal for LORS 2008 is to balance project purposes while taking measures within its authority to further public health and safety and to improve the ecological health of Lake Okeechobee and the St. Lucie and Caloosahatchee estuaries with minimal or no impact to competing project purposes. In addition to meeting Congressionally authorized project purposes, including flood control, water supply, navigation, fish and wildlife enhancement, and recreation, LORS objectives include a) ensuring public health and safety; b) managing Lake Okeechobee at optimal lake levels to allow recovery of the lake's environment and natural resources; and c) reducing high volume regulatory releases to the estuaries.

In response to the widespread freshwater harmful algal blooms (HABs) in 2016 and 2018, the Corps is initiating a planned deviation from LORS 2008 in anticipation of and following HABs with the goal of reducing the risk to public health and safety associated with HABs. The water management operational criteria described in the water control plan establish the allowable quantity, timing, and duration of releases from Lake Okeechobee to the Water Conservation Areas (WCAs) and to tide (estuaries). Water management decisions utilize LORS 2008 Parts A through D for guidance on releases from Lake Okeechobee. Information from Part A and Part B is utilized to compare the lake elevation and the corresponding band and sub-band, respectively.

Information from Part C and Part D is utilized to establish the recommended releases to the WCAs and the recommended releases to tide (estuaries). The planned deviation will allow the Corps to alter the timing and volume of Lake Okeechobee releases to the WCAs, east, and/or west to allow for greater flexibility with water management decisions when HABs are present, forecasted, or have occurred within the last 12 months in Lake Okeechobee, the St. Lucie or Caloosahatchee estuaries or the system of canals that connect them.

The planned deviation will allow the flexibility to make slightly larger releases east and west than LORS 2008 Part D (establishes allowable Lake Okeechobee releases to tide) calls for and make releases south when LORS Part C (establishes allowable Lake Okeechobee releases to the WCAs) does not recommend releases within the Beneficial Use Sub-Band, Base Flow Sub-Band, Low Sub-Band, and the Intermediate Sub-Band. The cumulative volume of water released under the planned deviation will be tracked against the volume held back that would have been released under LORS 2008. The objective will be to reach a net zero balance such that the total volume released between February 1 and January 31 each year is unchanged from the releases that would have taken place under the existing schedule.

Comments:

The Department previously provided comments on the proposed LORS 2008 Deviation during the initial coordination efforts with the Corps (FDEP letter; July 18, 2019). The Department acknowledges the Corps' intention with this planned deviation is to improve the ecological health of Lake Okeechobee, the St. Lucie Estuary, the Caloosahatchee Estuary, and the canals that connect them (C-43 and C-44). The preferred alternative for this proposed deviation as identified in the Draft EA is Alternative B — HAB Operational Strategy. Regarding Lake Okeechobee, the St. Lucie Estuary, the Caloosahatchee Estuary, and the C-43 and C-44 canals, HAB operations may be used if a HAB currently existed, or was anticipated to occur, or has occurred and caused harm or has impacted public safety during the past 12 months, or triggered a State of Florida emergency declaration in any of these waterbodies. Thus, this proposed deviation has the potential to be used quite often until LORS 2008 is replaced by LOSOM in 2022.

Table 4-1 is an extensive summary of the potential environmental consequences associated with implementation of the No Action Alternative and Alternative B. Regarding Alternative B, the Corps made "No effect" determinations for the following topics: climate, study area land use, regional water management operations, geology and soils, threatened and endangered species, essential fish habitat, HTRW, air quality, noise, cultural resources, and Native Americans. "Potential negligible effects" determinations were made for the following topics: hydrology, vegetative communities, and fish and wildlife resources. "Potential negligible to minor beneficial effects" determinations were given for the following topics: aesthetics, socioeconomics, and recreation. The Draft EA indicates no adverse effects are expected to water

quality. The effect determinations were based in part on previous analyses done for LORS 2008, previous analyses done by RECOVER, analyses of worst case scenarios, and the numerous constraints designed to mitigate risks of water management operations resulting in extremely low lake stages, extremely high WCA stages and excessive recession/ascension rates. However, the Draft EA does not present any new modeling results.

The Draft EA also does not address whether the altered water deliveries from the lake to the south will negatively affect STA performance. The Draft EA assumes that the total volume of water delivered to the STAs will approximate the current deliveries under LORS 2008, but the timing may be altered based on HAB operations. The decision to move water south would be coordinated with the SFWMD, and would depend on conditions within the WCAs, available treatment capacity within the STAs, and conveyance capacity of the EAA canals. The altered timing and loads under HAB operations may affect STA performance for several reasons. For instance, because total phosphorus (TP) concentrations in Lake Okeechobee vary throughout the year, as a result the overall nutrient load to the STAs may change while the total volume remains the same. The change in timing could result in the STAs being operated in the upper range of their operational envelope for longer periods, which may affect the performance of the STAs, or lead to diversions to ensure the STAs are not overloaded. Finally, as noted in the comments on Page 108 of the Draft EA, the full impacts of the HABs on STA performance are unknown at this time. Due to these uncertainties, the comments on Page 108 appear to conflict with the statement on Page 66 of the Draft EA that there is minimal risk associated with sending water south when HABs are occurring.

The potential for impacts to, or violations of, the Minimum Flows and Levels for Lake Okeechobee, St. Lucie Estuary, Caloosahatchee Estuary and Florida Bay as a result of the proposed action also has not been addressed. The Department acknowledges the Corps' commitment to provide the public and agencies the opportunity to receive updates and provide input during the weekly periodic scientists call prior to consideration of any deviation-related releases.

Specific Comments:

- On Page 1-8, first paragraph, please revise "...Governor Rick Scott issued Emergency Order (Executive Order 18-191)..." to "...Governor Rick Scott issued Executive Order 18-191...". For clarification, the Department issued Emergency Final Order No. 18-1100, Emergency Authorization for Measures Made Necessary by Lake Okeechobee Discharges and South Florida Algal Blooms, which suspended statutes and rules as noted within the order.
- On Page 1-8, first paragraph, please revise "The State of Florida has deployed two emergency task forces ..." to "The State of Florida has deployed two task forces ...".

- On Page 3-1, third paragraph, it is stated “... approximately 150 square miles (25 percent of Lake Okeechobee’s surface area)...” Since the total surface area of Lake Okeechobee is ~730 square miles, please revise the calculated percentage to 21%.
- On page 4-17, Table 4-2, please revise the “Current Actions and Operating Plans” column to state that the Herbert Hoover Dike Dam Safety Modification Study risk reduction measures will extend through 2022 (not 2025).

The Department appreciates the Corps’ efforts to exercise flexibility within the LORS 2008 to better manage lake regulatory releases to the estuaries. As observed, these efforts have reduced the occurrence of HABs in the estuaries associated with Lake Okeechobee. The Department supports the Corps’ efforts to address HABs and sincerely appreciates the opportunity to comment regarding the LORS 2008 Deviation request. The Department looks forward to continuing our partnership with the Corps. Should you have any questions regarding our comments, please contact Ed Cambeiro at (850) 245-3176.

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