



13081 MILITARY TRAIL
DELRAY BEACH, FLORIDA 33484-1105

Board of Supervisors
James M. Alderman
Stephen Bedner
Jeffrey P. Phipps, Sr.
Harry Raucher
John I. Whitworth III
Executive Director
Tommy B. Strowd, P.E.
Attorney
Mark A. Perry, P.A.

September 5, 2019

Colonel Andrew Kelly
District Commander
Department of the Army, Jacksonville District Corps of Engineers
701 San Marco Boulevard
Jacksonville, FL 32207-8175

**Subject: Comments on Planned Deviation to LORS 2008 Regulation Schedule
Environmental Assessment and Finding of No Significant Impact**

Dear Colonel Kelly:

The Lake Worth Drainage District (LWDD) is in receipt of the U.S. Army Corp of Engineers (USACE) draft Environmental Assessment (EA) and proposed Finding of No Significant Impact (FONSI) for the 2019 Planned Deviation to the Water Control Plan for Lake Okeechobee and Everglades Agricultural Area (LORS 2008) (Deviation). We appreciate the opportunity to review and provide comments on the proposed Deviation.

1. Background

The operation of Lake Okeechobee (Lake) affects numerous dependent and interdependent stakeholders throughout the State of Florida (State) and acts as a direct and indirect driver of large socio-economic and environmental significance. Large sectors such as the environment, tourism, construction, nursery, agriculture and public water supply are directly dependent on the correct timing and distribution of flows into and out of the Lake. All of these interconnected sectors are dependent on the correct quantity, quality, timing and distribution of water associated with a hydrological cycle that varies greatly both spatially and temporally in south Florida.

The Lake Worth Drainage District is a special taxing district established by the Florida Legislature in 1915 for the purposes of flood protection and water control. While our primary permitted source of supplemental water is Water Conservation Area No. 1, our secondary source is Lake Okeechobee. During droughts, we frequently rely on Lake Okeechobee when water levels in the conservation areas have fallen below their floor elevations.

Decades of water resource planning by both the USACE and the South Florida Water Management District (SFWMD) have preceded us to develop a series of well-substantiated operational protocols that have successfully considered the complex balance of competing objectives associated with the Lake. These multi-year planning efforts used extensive hydrologic computer simulations to test operational flexibility and facility operations by using appropriate performance measures to evaluate the benefits and impacts of different water resource alternatives. These types of analyses are critical to assure that all stakeholders can assess the effect that a proposed plan would have on both the environment and the economy prior to the plan's implementation. The very health of the diverse regional ecosystems in the State is dependent upon careful allocation of the regional water resources

to assure that water movement within the regional system of storage areas, treatment areas, canal systems and water control structures provides the best timing, distribution, quantity and quality of water for all stakeholders.

2. Proposed Deviation

By its very nature, a planned deviation to a currently authorized operational protocol is understood to be temporary. A temporary change in the normal operations should address a limited scope and be focused on achieving a specific hydrologic or environmental outcome over a specified period of time. The proposed Deviation appears to be conceptual in scope, yet extensive in the sense that it could span a period of years until a new permanent schedule is properly formulated. In addition, there appears to be no technical analysis supported by any hydrologic simulations or associated specific performance measures from which one could reasonably quantify and assess the potential performance of the proposal. If extended over several years, this deviation essentially becomes a new Interim Regulation Schedule by default. Given the extensive nature of the proposed Deviation in both time and scope, it would appear reasonable to utilize some level of hydrologic analysis to identify the benefits and impacts prior to adoption/implementation.

a. Triggers

Currently, in the proposed Deviation the classification of conditions that would define a Harmful Algal Bloom (HAB) outbreak is only a general narrative. Defining the existence of an HAB or the 'anticipation' of a HAB occurring as proposed is very general and difficult to quantify. There are no specific criteria that define the thresholds of an HAB event or the anticipation that an event will occur. Therefore, it would be difficult, if not impossible, to evaluate the outcome of any proposed alternative operational protocol based on the proposed language. It will be similarly difficult, if not impossible, for any stakeholder to estimate the intensity, frequency or duration of outcomes associated with operational decisions for the proposed Deviation, and therefore one cannot estimate the degree of impact to their interests.

The proposed Deviation discusses a very tenuous and indirect relationship between Lake Okeechobee releases and the occurrence of HABs in the estuaries. It does not appear to provide a direct cause and effect relationship that would warrant a deviation to the existing operational schedule to somehow manage HABs. Therefore, it would appear to be illogical to propose an operational change that could have serious negative effects on ecological conditions and water supply effectiveness while the water quality benefits appear to be limited.

b. Water Banking

The element of Water Banking, while not a new concept, has uncertainties that could contribute to the realization of unintended negative consequences. While the goal of the concept is admirable, in real-time operations, this would shift the timing of water deliveries such that it could have significant negative ecological effects and impacts to water supply and navigation interests. Holding back flood discharges during wet conditions from the Lake in anticipation of low volume releases during dry periods could have serious environmental impacts on Lake Okeechobee, the Caloosahatchee and St. Lucie estuaries and the remnant Everglades. This could also impact water supply interests in the Lake Okeechobee Service Area (LOSA) and the Lower East Coast (LEC) Service Area from West Palm Beach to Homestead and the Florida Keys.

3. Potential Consequences

The following is a brief summary of concerns raised by the proposed Deviation, followed by a more in-depth description of concerns.

- Water shortages during the winter and spring dry season, enhanced by the Deviation's proposed drawdown;
- Insufficient water to maintain normal operation of south Florida's water management system to recharge southeast Florida wellfields that provide water to roughly six million people;
- Risk to coastal wellfields affected by saltwater intrusion when there is not enough water to recharge the Biscayne Aquifer; this includes the potential violation of the Biscayne Aquifer MFL rule;
- Risk of not enough water to supply existing legal water users including public water supply, farming, golf courses, nurseries, landscaping and other uses during droughts;
- Ecological impacts to natural habitats in both Lake Okeechobee and the remnant Everglades, including impacts to threatened and endangered species;
- Impacts to navigation; and
- Significant economic losses around the Lake (fishing, marinas, jobs, etc.).

a. Caloosahatchee Estuary

Figure 2-1 (Alternative B - Preferred Alternative) of the proposed Deviation illustrates the range of Lake stages over time that could be utilized to address a HAB condition. The proposed Deviation states that no releases other than water supply would be made below elevation 12.0 ft NGVD-29 between April and August of each year except when stages are rising. It is unclear whether environmental releases to the Caloosahatchee Estuary would be made in this sub-set of the Beneficial Use Sub-Band, pursuant to SFWMD analysis and recommendation pursuant to the Adaptive Protocols document.

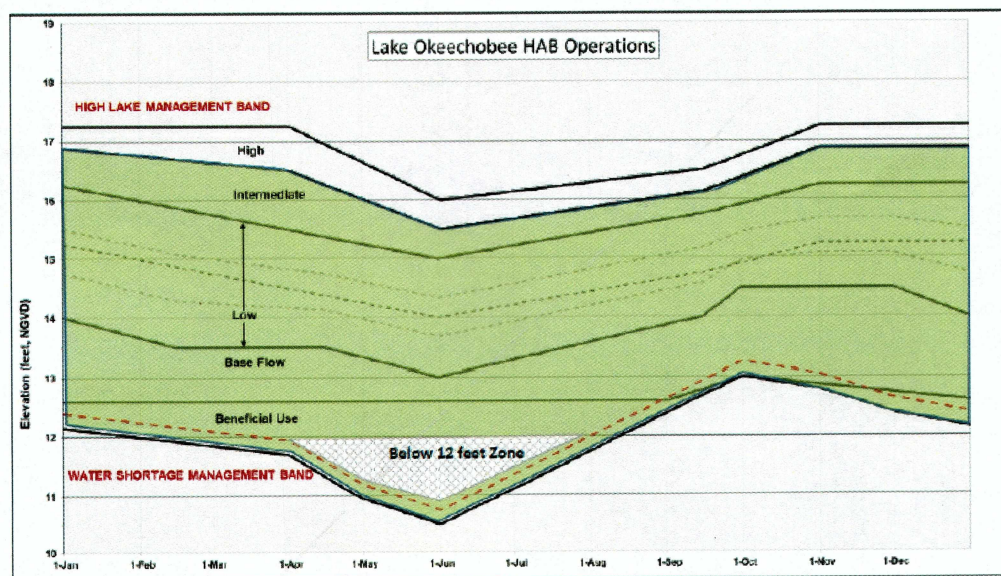


Figure 2-1. Range of lake stages where east/west HAB operations could occur (shaded green area) with cutbacks in deviation releases implemented 0.25 feet above Water Shortage Management Band (red dashed line). Below 12 feet zone is shown (hatched area) to show where releases would not be made except if the lake was rising.

b. Water Supply

It has been long recognized that the implementation of LORS 2008 resulted in a documented reduction in the regional water supply level of service associated with the Lake. The proposed deviation will certainly further deteriorate the regional level of service in both LOSA and the LEC. The current analysis does not address any of these likely water supply impacts.

The proposed Deviation has very significant potential negative implications to water supply interests that rely on the Lake as a source of supplemental water during dry periods. Since the inception of the C&SF Project 70 years ago, there has been a recognition of the critical role that the Lake has in providing supplemental regional water for urban and agricultural interests surrounding and south of the Lake. This was an established mission element of the C&SF Project plan and has been a prime consideration in the operation of the Lake ever since. More specifically, the State relied on the premise that a specified volume of regional water storage would be available in the Lake when it established water supply allocations and issued permits for the development and consumption of water for urban and agricultural interests. Subsequently, these interests made significant investments in water supply infrastructure based on the assurance that their permitted water supply would be sufficient to meet current and future demands. The State's existing codified water supply plans provide a solid foundation for this allocation program, and they also consider south Florida's reliance on the Lake as a regional source of supplemental water.

c. Water Quality

The LWDD certainly recognizes the threat that HAB's pose to both the ecosystem and urban/ agricultural interests in and around the coastal estuaries. While solutions to this problem must be developed and implemented, it must also be recognized that this is, at its essence, a water quality problem. Since the HAB's are fueled by nutrient loads introduced by adjacent land uses, it appears that addressing the sources of this pollution is critical to ultimately resolving this human health issue. Creating an operational protocol to avoid the introduction of additional nutrient loading into downstream receiving bodies, or to minimize the transport of algal or bacteria species, etc. is an extreme solution that does not address the sources of the problem.

4. Authority

Addressing a local water quality problem through the operation of a federal project appears to be outside of typical federal authority. Furthermore, such an operation is not proven to solve HAB concerns and would certainly transgress multiple and explicitly authorized C&SF Project purposes. Throughout the development of the Comprehensive Everglades Restoration Plan (CERP), it was clearly understood that federal interest in the project could not include cost sharing of the construction, operation or maintenance of water quality features. Water Quality is clearly the responsibility of the State, and Florida's Blue-Green Algae Task Force is hard at work developing recommended solutions. Therefore, it is unclear how the proposed operational deviation lies within the USACE's authority to address local water quality issues.

Historically, the USACE has deferred to the local sponsor, SFWMD on Lake operations that affect water supply under state law. SFWMD operates the structures of the C&SF Project that release water from regional storage to water users in South Florida. Furthermore, SFWMD has allocated water supply from the regional system for almost a half-century through SFWMD's water supply permitting program.

In this role, SFWMD has traditionally served as the primary advocate for the protection of existing legal users and future water supply. It now appears that this is changing, and federal priorities are potentially impinging on what was previously a State legal authority. Such actions are not acceptable and interfere with established water rights and natural system protections throughout the south Florida region. Many local government utilities and the communities that they serve, rely on the State's regional water management system for wellfield recharge to stave off potential saltwater aquifer intrusion. Increased chloride concentrations in public water supplies are difficult if not impossible to mitigate in the short-term. The health effects of high chlorides are serious, particularly with regards to elderly populations that may be susceptible to heart disease or diabetes. Typically, severe water shortages require utilities to reduce line pressures. This can result in very low fire protection system pressures that can place high rise buildings at a severe fire risk during these periods.

The regional natural ecosystems are also affected by operations of the regional water management system. It is therefore critically important that these water uses are not significantly affected by major federal operational changes put in place to address a local water quality problem. The proposed Deviation does not appear to reference the role of the "non-federal partner" in the proposed protocol. There is no mention of these responsibilities or authorities in the proposed Deviation.

In 2010, the SFWMD developed the 'Adaptive Protocols for Lake Okeechobee Operations' as a guide for the 'non-federal partner' in its consideration of Lake operations relative to State responsibilities and authorizations. Measures identified in the Adaptive Protocols are intended to guide operations to manage the volume, timing and delivery of water out of Lake Okeechobee to more equitably distribute water deliveries between permitted users and natural systems – for the benefit of wildlife, habitat protection and saltwater management. These measures include:

- Improving salinity levels in the Caloosahatchee Estuary;
- Reducing the chances of the Lake falling low enough to create a water shortage; and
- Limiting exceedances of Lake Okeechobee's minimum flow and levels (MFL) rule, which can cause ecological harm to the Lake.

5. Recommendations

CERP is the federal-state partnership that was intended to bring environmental restoration to south Florida's ecosystems via the C&SF Project. The project elements of CERP were intended to meet certain environmental objectives while not impacting existing legal users of water. These requirements were codified in the Savings Clause of the CERP Programmatic Regulations (WRDA 2000). In the absence of CERP components or the SFWMD Adaptive Protocols, it difficult to understand how environmental and water quality objectives will be accomplished without impacting existing legal users.

We therefore respectfully recommend delaying the adoption and implementation of the proposed Deviation until such a time that:


- a. Hydrologic and hydraulic simulation models can be created and run to analyze the proposed Deviation schedule to quantify benefits and impacts (if any);
- b. The above referenced simulations have been peer reviewed;
- c. Adjustments are made to the proposed Deviation to eliminate/reduce any negative consequences identified in the modeling phase;
- d. Public meetings are held to allow all potentially affected stakeholders a forum for public input, and

Colonel Andrew Kelly
September 5, 2019
Page 6

- e. Clarification is provided to address all the concerns raised above, including but not limited to, the division of responsibilities pertaining to water quality between the State and Federal governments.

Again, we thank you for the opportunity to comment on the proposed EA/FONSI. Lake Okeechobee has often been referred to as the 'Liquid Heart of South Florida' and as such it plays a critically important role in the ecology and economy of south Florida. Changes in its operation must be carefully considered and evaluated to ensure the best possible outcome for the people of south Florida. We at the Lake Worth Drainage District stand ready to assist the USACE and SFWMD in any way as you consider the potential implementation of the deviation. Thank you for your consideration.

Sincerely,



Tommy B. Strowd, P.E.
Executive Director / District Engineer
LAKE WORTH DRAINAGE DISTRICT

TBS/ts

- c: Angela E. Dunn, Chief Environmental Branch, Jacksonville District, USACE
Melissa Nasuti, Environmental Branch, Jacksonville District, USACE
Andrew LoSchiavo, Restoration and Resources Section Chief, Planning and Policy Division —
Environmental Branch, Jacksonville District, USACE
Diana M. Holland, Major General, U.S. Army Commanding
Drew Bartlett, Executive Director, SFWMD
John Mitnick, Interim Assistant Executive Director, SFWMD
Jeremy McBryan, Water Resources Director, Palm Beach County
Stephen Bedner, President, Board of Supervisors, LWDD