## Selected Alternative

**In the final analysis…**
Alternatives LORS-FWO and 3 were not considered to have performed favorably in meeting the 17.25 high lake constraint for public safety.
Alternatives 2-a, 2a-m and 4 were not considered to have favorably met multiple objectives, including water supply, Lake Okeechobee below stage envelope, Greater Everglades peat dry-out.
Alternative 1bS2 was considered to have minimally met the 17.25 high lake constraint for public safety by exceeding the constraint by less than one percent. However, for public safety considerations, the Corps could not accept 1bS2 over 1bS2-m, although that option produced comparable benefits within the study area.

**1bs2-m** was selected as the TSP based on meeting the public health and safety constraint for the Herbert Hoover Dike, the overall environmental balance it provides for meeting the LORSS objectives for lower lake management, and improvement in the preferred estuary discharge performance, while continuing to meet the Greater Everglades water requirements, as well as limiting the impacts to water supply and commercial navigation.

The TSP recommendation was also based on consideration of feedback received from the LORSS Project Delivery Team; pubic comments (written and verbal) received to date on the study, and internal Corps technical staff recommendations to the district commander and other Jacksonville District employees.

## For Details of the Study and Public Comment


Jacksonville District website www.saj.usace.army.mil
Project Manager Pete Milam j.p.milam@saj.usace.army.mil
U.S. Army Corps of Engineers
Jacksonville District
701 San Marco Blvd.
Jacksonville, FL 32207-8175


Workshops:
July 11 at Clewiston, John Boy Auditorium, 1200 WC Owen Avenue
July 12 at Ft. Myers, Lee County Commission Chambers, 2120 Main Street
July 13 at Stuart, Indian River Community College / Chastain Campus 2400 S.E. Salerno Road

A 45-day public comment period begins in August.

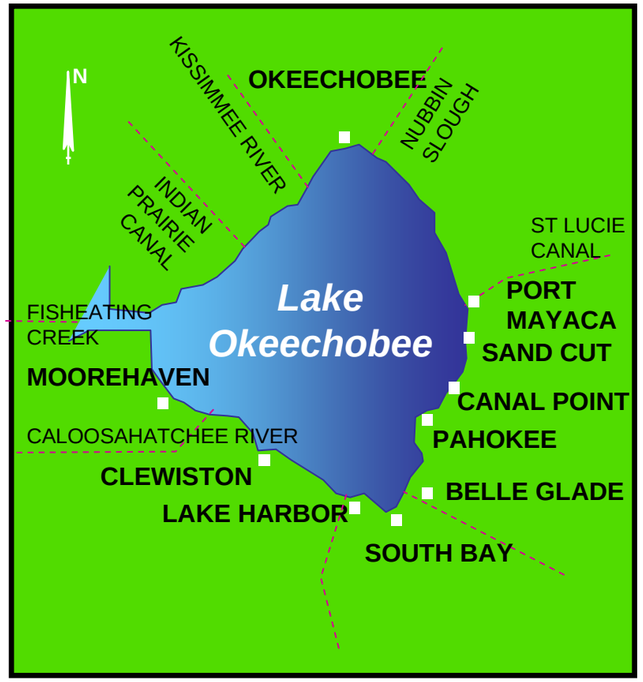
Regional public meetings will be held in September.

U.S. Army Corps of Engineers Fact Sheet

# Lake Okeechobee Regulation Schedule Study

## Overview

The U.S. Army Corps of Engineers, Jacksonville District, manages Lake Okeechobee in close coordination with the South Florida Water Management District (SFWMD). The Corps manages lake levels through water management structures and canals that lead to the Caloosahatchee estuary to the west and the St. Lucie estuary to the east. A series of major canals also flow south from the lake. Because the current regulation schedule lacks sufficient flexibility, periodic releases of large quantities of low quality fresh water to the estuaries have been required. The overriding concern that leads to this type of discharge is the stability of the Herbert Hoover Dike and public safety. These releases have caused damage to the estuaries.




Lake Okeechobee water management actions are guided by a regulation schedule referred to as the Water Supply and Environment (WSE) schedule. Because the WSE is based on actions that would be taken in relatively drier years, and as we have entered a period of higher rainfall, the Corps has had to deviate on occasion from the WSE. Water managers now agree that the WSE regulation schedule can be improved. The resulting Lake Okeechobee Regulation Schedule Study (LORSS) includes a two-part approach for developing improved water management guidelines for Lake Okeechobee:

**Short-term:** The Jacksonville District initiated a fast-track study for revising the current WSE, *based on operational changes only, without the benefit of any new construction*. The document to revise the regulation schedule, a draft Water Control Plan (WCP), which will be supported by a Supplemental Environmental Impact Statement (SEIS), is being prepared now. Work on the draft WCP and SEIS began in fall 2005. The revised regulation schedule is planned for implementation for a three-year period beginning January 2007.

**Long-term:** In early 2007, when a new Lake Okeechobee regulation schedule is ready for implementation, water managers will immediately begin to develop a new regulation schedule that *will take into account construction of early Comprehensive Everglades Restoration Plan (CERP) projects, including Acceler8 project components*. The components will provide many additional options for water storage and management. Acceler8 is a state initiative being implemented by the SFWMD for the purpose of expediting construction of eight CERP project components. The new regulation schedule is currently planned for early 2010 implementation. As CERP features come on line, the system operation manual will be modified.

## LORSS Tentatively Selected Plan Evaluation

The U.S. Army Corps of Engineers considers public safety our highest priority. The Corps must maintain a regulation schedule that does not compromise health and safety.

The Corps' tentatively selected plan (TSP) is alternative 1bS2-m. The TSP was selected based on the improved and overall balanced performance it provides for lower lake management, improvements in the preferred estuary discharge performance, maintenance of Greater Everglades water deliveries and minimization of negative impacts to water supply and commercial navigation.

The initial array of alternatives included 'No Action' and three alternatives. The intermediate array included 11 alternatives, and the final array included seven:

- **LORS-FWO**
- **1bS2**
- **2a**
- **3**
- **1bS2-m**
- **2a-m**
- **4**

***Herbert Hoover Dike***

The LORSS project delivery team evaluated the No-Action Plan against the alternative regulation schedules using CERP performance measures (PM).

### Alternative comparisons within Performance Areas

**Public Safety**
The Corps evaluated all alternatives looking at high lake elevations, beginning at lake stages of 16.00 to 17.25 feet NGVD.
Considering 16.00 and above allowed the Corps to consider the trends in duration of days within the high lake band of 16.00 to 17.25.
Based on this evaluation, alternatives 2a and 2a-m performed best; followed by 1bs2, **1bs2-m** and 4; with No-Action, LORS-FWO and 3 performing worst.

**Caloosahatchee Estuary**
The Corps considered 5 PM in our evaluation of impacts on the Caloosahatchee Estuary - four flow rate ranges (<450cfs, 450 to 2800cfs, 2800 to 4500cfs and >4500cfs), and Mean Moving Weekly Flows >4500cfs. The Corps evaluated all plans as being comparable from the perspective of high and low estuary discharge rates. As a result the Corps focused on the preferred flow rate of 450 to 2800cfs to capture the differences between the alternatives.
Based on our evaluation alternatives 3, LORS-FWO, 1bS2 and **1bS2-m** performed best; followed by 2a-m and 4; with 2a and No-Action performing worst.

**St. Lucie Estuary**
The Corps considered 5 PM in our evaluation of impacts to the St. Lucie Estuary - four flow rate ranges (<350 cfs, 350 to 2000 cfs, 2000 to 3000 cfs, and >3000 cfs), and Mean Moving two-week flows >3000 cfs. The Corps evaluated all plans as being comparable from the perspective of high and low estuary discharge rates. As a result the Corps focused on the preferred flow rate of 350 to 2000 cfs to capture the differences between the alternatives.
Based on our evaluation alternatives 2a-m, **1bS2-m**, 1bS2 and 4 performed best; followed by 3 and LORS-FWO; with No-Action and 2-a performing worst.

**Lake Okeechobee (Environmental)**
The Corps considered 6 PM in our evaluation of environmental impacts to the lake, and focused on Lake Okeechobee above and below stage envelope.
Based on our evaluation of the above stage envelope, alternatives 2a-m, 2a and 4 performed best; followed by **1bS2-m**, and 1bS2; with LORS-FWO, No Action and 3 performing worst.
Based on our evaluation of the below stage envelope, alternatives No-Action, LORS-FWO and 3 performed best; followed by 1bS2 and **1bS2-m**; with 4, 2a and 2a-m performing worst.

**Water Supply (EAA-LOSA)**
The Corps considered nine PM and focused on three additional PM as primary in its evaluation: Mean Annual Everglades Agriculture Area (EAA); Lake Okeechobee Service Area (LOSA) Demands and Demands Not Met; and, LOSA demand cutbacks volume percent for the seven years/largest cutbacks. The three additional PM were considered by the Corps based on recommendations from the South Florida Water Management District.
Based on this evaluation alternatives No-Action, LORS-FWO and 3 performed best, followed by 1bS2, **1bS2-m** and 4, with 2a and 2a-m performing worst.

**Navigation**
The Corps considered navigation in evaluation of all alternatives. Based on the evaluation, all alternatives increased the number of days that the lake fell below 12.56 feet NGVD (a critical level for navigation of commercial vessels), as compared to the no-action alternative.
Alternatives 3 and LORS-FWO had the least impact; followed by 1bS2, **1bS2-m** and 4, with alternatives 2a and 2a-m having the most impact.

**Greater Everglades (flow into Everglades National Park)**
For this evaluation, the Corps used 5 CERP-based PMs – peat dry out, reversals, tree islands, recession and snail kite.
Based on our evaluation, alternatives No-Action, 1bS2, 3 and LORS-FWO performed best; followed by **1bS2-m** and 4 and with 2a and 2a-m performing worst.

**"This schedule represents the optimal balanced solution for the system in total. Made possible through the hard work of numerous state and federal agencies, the schedule will without question be an improvement over the current schedule. The study process itself provided us with a significant improvement in our understanding of the total system. We cannot afford to wait until projects now in the planning stages are constructed. The system requires immediate action and we have taken up the challenge and succeeded in developing a better way to manage the water. This is a testament to the passionate pursuit of improving our environmental stewardship."**

**- Col. Robert Carpenter,**
**Jacksonville District commander**
**U.S. Army Corps of Engineers**