

MEMORANDUM

TO: Tommy Strowd, Director, Operations, Maintenance & Construction Division
Terrie Bates, Director, Water Resources Division

FROM: Susan Sylvester, Chief, Water Control Operations Bureau
Linda Lindstrom, Chief, Applied Science Bureau
Dean Powell, Chief, Water Supply Bureau

DATE: July 18, 2012

SUBJECT: Operational Position Statement for the Week of July 17 – July 23, 2012

The U.S. Army Corps of Engineers (USACE) is responsible for managing Lake Okeechobee water levels and makes operational decisions about whether to retain water or release water based on their regulation schedule release guidance. The USACE makes this decision taking into account the best available science and data provided by its staff and a variety of partners, which includes the South Florida Water Management District (SFWMD).

The SFWMD team has discussed the system wide environmental conditions, the water supply conditions, and has evaluated the overall status of the water management system. Detailed reports are available at the SFWMD's [Operational Planning](#) internet page.

Recommendation to the USACE

This week there is no recommendation to the USACE regarding releases to the Caloosahatchee Estuary. Consistent with last week's SFWMD recommendation, on July 15th, the USACE began a 10-day, 300 cfs average environmental water supply release at S-79, to be supplemented as needed with S-77 releases from Lake Okeechobee. The current 10-day target releases will end the morning of Tuesday, July 24th: although the target releases are zeros for the last four days (Saturday-Tuesday). Next week's position statement will contain recommendations regarding continuation or termination of releases.

Recent rainfall has generated sufficient C-43 basin runoff so that Lake releases may not be necessary to meet the current environmental water supply target flows. The SFWMD also recognizes that basin runoff flow rates may exceed the environmental water supply target flows for the next several days. The SFWMD recommends that the USACE continue their standard operation to allow runoff from the C-44 basin (S-308 to S-80) to backflow to Lake Okeechobee via S-308 rather than discharge to tide via S-80.

Weather and Climate

Rainfall during the past week totaled 2.68 inches district wide (through 7 am July 17th). About 2.18 inches of rain fell directly over Lake Okeechobee during the past 7-days. During the past 30 days district-wide rainfall has been 4% above average; and the region north of Lake Okeechobee has received roughly 14% above average rainfall. The SFWMD precipitation outlook for the next ten days (July 18 – July 28) is near-average with moderate confidence. The CPC outlook currently shows slightly increased chances for above-normal rainfall for the July-October period.

Recent Operations History

The July 16, 2012 Lake Okeechobee stage (reported by the USACE on July 17th) was 12.01 feet NGVD, 0.01 feet higher than 7-days ago. The Lake is 0.15 feet higher than it was a month ago and is 1.91 feet higher than it was a year ago. The current stage is 1.61 feet lower than the historical average for this date. The Lake stage remains in the Beneficial Use Sub-band of the 2008 Lake Okeechobee Regulation

Schedule (2008 LORS), about 0.6 feet below the bottom of the Baseflow Sub-band and about 0.6 feet above the Water Shortage Management Band.

On Sunday, July 15th at 07:00, the USACE initiated the SFWMD-requested 10-day environmental water supply release at S-79 to benefit the Caloosahatchee Estuary by reducing salinity. Some C-43 Basin runoff occurred and contributed to this release. The current release ends Tuesday, July 24th at 07:00 and was the 6th consecutive 10-day environmental water supply release for the Caloosahatchee Estuary that was recommended in 2012; the first release started May 26th.

The LORS-2008 release guidance suggests no releases to the WCAs; such releases are not desirable due to relatively high stages in the WCAs. All WCA stages are above their respective regulation schedules. With the Lake O stage in the Beneficial Use sub-band, the LORS-2008 gives no guidance regarding releases at S-79 and S-80. The SFWMD's Adaptive Protocols provide the needed guidance for the appropriate release amounts.

Lake Okeechobee Adaptive Protocols Release Guidance Details

The Lake Okeechobee stage remains in the Beneficial Use sub-band and SFWMD staff continue to follow the Lake Okeechobee Adaptive Protocols (AP) regarding releases to the Caloosahatchee Estuary. The Adaptive Protocols were developed to provide guidance for both baseflow discharges and environmental water supply releases. The water supply balance achieved by following the protocol was evaluated by the Water Resources Advisory Commission and the SFWMD Governing Board, leading to board acceptance in September, 2010.

The following describes the release guidance per the Final Adaptive Protocols for Lake Okeechobee Operations (September 16, 2010). Each Tuesday the Coastal Ecosystem Section reviews the salinity conditions in the Caloosahatchee estuary and forecasts the predicted salinity for 14 days into the future at Val I75. The AP criterion for determining whether the estuary needs water is based on the predicted salinity at Val I75 being at least 5 psu within the next two weeks. According to the salinity criterion, the estuary currently needs freshwater inflow at S-79, supplemented from Lake Okeechobee as necessary.

The Tributary Hydrologic Condition (THC) has fallen back into the dry classification (LORS-2008 classifications). The THC is based on the weekly Lake Okeechobee net inflow computation and the Palmer Index. The THC is estimated using the methodology described in Appendix K of the USACE's Water Control Plan for Lake Okeechobee and the EAA. On Monday of each week the LORS-2008 release guidance parameters, including the THC, are calculated by the SFWMD using the most-recent data. The 14-day average Lake Okeechobee Net Inflow was -1020 cfs (dry) through July 15th and the Palmer Index on July 15th was -1.51 (dry). The THC is the wetter of these two parameters, thus it is classified as dry.

The following conditions in the Adaptive Protocol Release Guidance indicate "No S-77 releases to the Caloosahatchee Estuary unless the Governing Board recommends otherwise":

1. the Lake O stage is within the Beneficial Use subband,
2. the Caloosahatchee Estuary needs water per the forecast salinity at the I-75 bridge,
3. there is less than a 50% chance of the Lake stage falling below elevation 11.0 feet before the end of the 2012-13 dry season, and
4. the Tributary Hydrologic Condition (THC) classified as dry

For additional information pertaining to operations history and past recommendations, refer to the archive of operational position statements at www.sfwmd.gov under the Operational Planning topic.