



CONSERVANCY Of Southwest Florida

*Preserving Southwest Florida's
natural environment and
quality of life ... now and forever.*

March 26, 2009

Colonel Paul L. Grosskruger
US Army Corps of Engineers
Jacksonville District
701 San Marco Blvd.
Jacksonville, FL 32207-8175

Dear Colonel Grosskruger,

On behalf of the Conservancy of Southwest Florida, we are writing to express our strong support for continued base flow discharges from Lake Okeechobee to the Caloosahatchee River and Estuary, as requested by Lee County in its March 17, 2009, letter to the US Army Corps of Engineers. We understand that a decision will be made by your agency either today or tomorrow on this matter. As a leading advocacy group for improving water resource protection in southwest Florida, the Conservancy offers the following concerns regarding the South Florida Water Management District's recent recommendation to discontinue base flows from Lake Okeechobee to the Caloosahatchee River.

Inconsistent with the Lake Okeechobee Regulation Schedule (LORS)

As you are already aware, this year marked the first of the new Lake Okeechobee Regulation Schedule (LORS), a plan that more equally distributes discharges from Lake Okeechobee into receiving water bodies. According to the Final Supplemental Environmental Impact Statement (FSEIS), the LORS Study Preferred Alternative that was approved by the Record of Decision (ROD):

provides the ability to make long-term, low-volume releases to the Caloosahatchee Estuary, St. Lucie Estuary, and the WCAs. These releases include low-volume pulse releases and base flow releases to the Caloosahatchee and St. Lucie estuaries that allow Lake Okeechobee to be maintained at more desirable levels throughout the year... The base flow releases also provide a benefit of maintaining desirable salinity levels in the estuaries.¹

When the Lake water level is in the "Operational Band," between elevations 9.7 and 17.25 feet, the goal of the LORS is to "manage the lake stage to balance all authorized project purposes." On March 16, 2009, the Lake level was 12.42 feet, well into the Operational Band. At least two of the authorized purposes for the Central and Southern Florida Project are implicated in the Corps' decision at this Lake level: improving the quality of the environment and improving the integrity of urban water supplies affected by the Project.²

Sub-bands within the Operational Band have been developed for determining Lake releases, including the Beneficial Use Sub-band and the Base Flow Sub-band. The Base Flow Sub-band is between 12.6 and 14.5 feet NGVD. For March – April the bottom of the Sub-band is 12.6 feet, less than 0.2 feet above the March 16, 2009, Lake level. The SFWMD recommendation appears to be based upon the March 16, 2009, Lake level being in the Beneficial Use Sub-band, which is below the Base Flow Sub-band and does not indicate releases to the Caloosahatchee in Part D (Figure 3-4) of the LORS.³ However, Part D for Base Flow and Low water level conditions

¹ U.S. Army Corps of Engineers. Final Supplemental Environmental Impact Statement: Lake Okeechobee Regulation Schedule Study (Nov. 2007) ("FSEIS"), p. 1.

² FSEIS, pp. 67-77.

suggests that only "very dry conditions may require that releases to tide (estuaries) be discontinued." The current conditions are not "very dry." As a matter of record, the Lake level is currently classified as "dry", but are more than 2 feet higher than it was at this time last year and nearly 2 feet higher than the same period in 2007.

The SFWMD recommendation did not adequately take into account the language in the LORS that pertains to operations at the boundaries of bands and sub-bands, such as the current situation. The LORS states:

When operating near band and sub-band limits, up to 30-day forecasts will be made and releases will be scheduled to lower or maintain Lake Okeechobee at the desired level during the 30-day period. Scheduling of releases may include the adjustment of band/sub-band limits when determining the release to implement.⁴

The forecasts performed by SFWMD for the rest of the dry season show only a 10% risk that the Lake level will descend into the Water Shortage Management Band.

Furthermore, the SFWMD recommendation did not take into account the portions of the LORS dealing with "Low Volume Releases" or "Make-Up Releases." For Low Volume Releases, the LORS states:

In the event that the lake level is above the Water Shortage Management Band and conditions exist that would require low-volume releases, additional operational flexibility would allow low-volume releases to be implemented. The low-volume releases would be implemented to address conditions including, but not limited to the following: to prevent and/or to lower high lake levels, to address algal blooms, to disperse saltwater in the river and/or estuary or improved other conditions related to the Congressionally-authorized project purposes.⁵

For "Make-Up Releases" the LORS provides:

Historically, the planned Lake Okeechobee releases to tide (estuaries) have been subject to reduction or prevention by downstream conditions such as downstream local basin runoff, the tidal cycle, tidal storm surge, and spawning in the estuaries ... When these conditions have occurred in the past, the releases have been delayed or discontinued to prevent adverse effects downstream from Lake Okeechobee. To address this issue, proposed operational guidance includes conducting releases from Lake Okeechobee to tide ... to make up releases that were previously reduced or prevented. These make-up releases from Okeechobee to tide (estuaries) ... will occur as soon as possible and may occur when Part D [does] not allow releases or prescribe[s] a lower volume release.⁶

Therefore, there is the continued ability for the Corps to provide base flow releases and it would be consistent with the Lake Okeechobee Regulation Schedule to continue to do so.

⁴ FSEIS, p. 83.

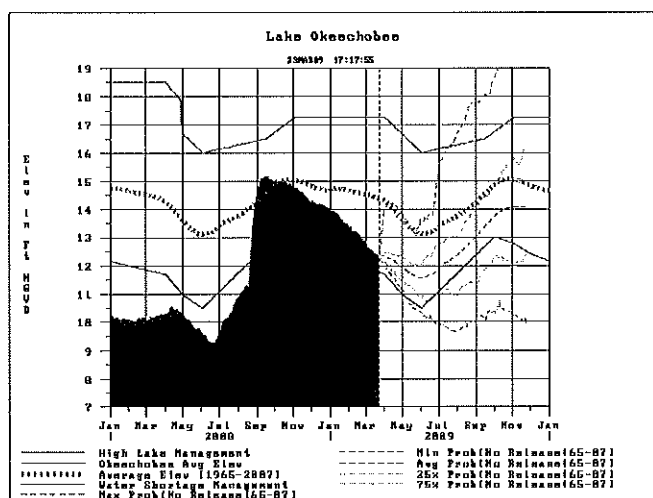
⁵ FSEIS, p. 85.

⁶ FSEIS, p. 82.

Inconsistent with the Caloosahatchee Minimum Flows and Levels standard

This decrease in freshwater sometimes prevents the Caloosahatchee River from meeting its Minimum Flow and Level (“MFL”). According to SFWMD staff at the March 12, 2009 governing board meeting where this was discussed, the releases were “doing the job” in helping “maintain good salinity”. It was even acknowledged that discontinuing the releases would result in violations of the Minimum Flows and Levels standards and the killing of the recovering seagrasses in the river. The minimum flows and levels (MFL) established for the Caloosahatchee River is a 300 cfs monthly flow for appropriate salinities at the S-79 location. The termination of the current 650 cfs pulse releases will lead to an MFL exceedance. An exceedance occurs in a 365-day period when a 30-day average salinity concentration is greater than 10 parts per thousand at the Ft. Myers salinity station or when one daily salinity reading is greater than 20 parts per thousand in concentration at this station.⁷

On March 10, 2009, a couple days prior to this SFWMD decision, the water elevation level for Lake Okeechobee was 12.54 ft. NGVD⁸, which is approximately 1 ½ - 2 feet higher in elevation than this time the proceeding two years and is still within the “Beneficial Use” sub-band of the Lake Okeechobee Regulation Schedule – a safe range for allowing base flows. Because this level is over the “Water Shortage Management Band”, no water supply user is subjected to restrictions at this time (see graph below). Despite the probability of the Lake reaching Water Shortage Management levels before the wet season (starting June 1st) is in fact less than 10%, SFWMD staff said that they “may need the water”. However, during the same agenda item discussion at the SFWMD meeting, there was recommendation to not increase restrictions to curb demand and instead, an acknowledgement that this actions was considered to be necessary due to “a lot of other demands, both human and natural, coming online”.⁹ The Caloosahatchee River will be without freshwater for more than two months as a result, if these base flow releases are no longer provided as a result of this recommendation being enacted upon. Curbing consumption and implementing additional alternative water supply measures should be considered prior to letting rivers run dry or being overrun from saltwater intrusion.



⁷ Rule 40E-8.221(3), F.A.C.

⁸ SFWMD web site.

http://www.sfwmd.gov/portal/page?_pageid=2814,19613293,2814_19613388&_dad=portal&_schema=PORTAL.

⁹ SFWMD web site.

http://www.sfwmd.gov/portal/page?_pageid=2814,19613293,2814_19613388&_dad=portal&_schema=PORTAL.

Water supply needs should be balanced with environmental needs throughout all the users and resources in the entire system. However, this decision was based primarily on Broward's water supply needs without consideration and technical analysis as to the impacts on other users, such as the water that Ft. Myers obtains from the Caloosahatchee River. The fact that it was acknowledged by the SFWMD staff that recovering seagrasses would be lost as a result of the cessation of the releases, and that the logic was that it might not be sustainable to continue providing these releases so we might as well let the seagrasses die now in order to not "waste" the water (what amounts to only 3-4" of Lake Okeechobee for the whole dry season), is more than disconcerting. It negates the economic and environmental impacts from the loss of those resources to Southwest Florida's tourism-based economy, which relies heavily on water-dependent activities such as sportsfishing. Therefore, the recommendation to cease these releases is unnecessary and inconsistent with the Caloosahatchee Minimum Flows and Levels standard, as well as the LORS reduced harm approach that was enacted specifically to address providing an equitable framework that would be more protective of the Caloosahatchee River and Estuary. Thus, base flows should be continued to prevent MFL exceedances and properly implement the LORS reduced harm approach.

Inconsistent with Efforts to Protect Critical Habitat for the Endangered Smalltooth Sawfish and the Florida Manatee

One particularly important aspect to this decision that has been absent in the discussion is the fact that the Caloosahatchee River and estuary provides habitat for a plethora of marine and estuarine flora and fauna, including state and federally listed species. "Modifications of natural freshwater flows into [these] estuarine and marine waters through construction of canals and other controlled devices have changed temperature, salinity, and nutrient regimes; reduce[s] both wetlands and submerged aquatic vegetation; and degraded vast areas of coastal habitat¹⁰." Seagrasses and other submerged aquatic vegetation (SAV) are habitat to fish, turtles, shrimp, crabs, snails as well as the endangered Florida manatee and smalltooth sawfish. "Water supply and flood management practices currently followed for Lake Okeechobee, however, can cause fluctuations in the distribution of SAV (and their elimination) periodically by causing significant and rapid changes in salinity and light transmission throughout the estuarine portions of the river."¹¹ In this case, seagrass species in the Caloosahatchee such as *Valisineria*, will almost certainly die off entirely as a result of the cessation of these base flow releases.

Destruction of seagrasses and SAV habitat are particularly devastating to the endangered Florida manatee and endangered smalltooth sawfish. The Caloosahatchee River and estuary is currently considered critical habitat under the Endangered Species Act (ESA) for the manatee and has been proposed as critical habitat for the smalltooth sawfish. The southwest Florida population of manatee and one of the last remaining distinct populations of sawfish is dependent on the health of the river and estuary system.

Alteration to salinity levels in the estuaries has also been identified as a threat to sawfish and its habitat. Since "salinity levels in estuaries are mostly a function of freshwater flow rates", the National Marine Fisheries Service suggests that "it may be necessary to regulate flow levels where it is possible" in support of the smalltooth sawfish¹². The 2009 Sawfish Recovery Plan states that to meet recovery goals, agencies should ensure that "freshwater flow regimes (including timing, distribution, quality, and quantity) into recovery regions... are appropriate to

¹⁰ National Marine Fisheries Service, 2009. Smalltooth Sawfish Recovery Plan. Pg. 1-21.

¹¹ Lee County (2004). Manatee Protection Plan. Lee County Division of Natural Resources. p. 4.

¹² National Marine Fisheries Service, 2009. Smalltooth sawfish recovery plan. Pg. IV-9.

ensure natural behavior... by maintaining salinities within preferred physiological limits of juvenile smalltooth sawfish¹³."

Regulation of freshwater flows and management of Lake Okeechobee are conservation and recovery goals for the Florida manatee established by both the Florida Fish and Wildlife Conservation Commission and the US Fish and Wildlife Service¹⁴. MFLs should be set and implemented "by state WMDs for surface waters throughout the state, including those used by manatees (e.g. Biscayne Bay, Florida Bay and the Caloosahatchee River)... [because] current and future withdraws from surface waters have the potential to impact aquatic resources (e.g. SAV) important to manatees¹⁵." Fluctuations in availability of seagrasses and SAV in the Caloosahatchee River can "alter manatee behavior and the distance needed to travel in order to forage during the wintertime," which may increase likelihood of collision with watercraft – the top threat to manatee survival¹⁶.

Without the continuation of these base flows, the recovery of the Caloosahatchee's ecological systems will be threatened and its aquatic resources again subjected to significant harm. Base flows are critical to the health of seagrasses, oysters as well as the endangered smalltooth sawfish and the Florida manatee that are harmed by the fluctuating salinity levels of the River; therefore, they should be continued.

Inconsistent with Lee County's Ability to Obtain Its Permitted Public Water Supply Allocation

In addition to the aforementioned environmental issues, our organization is concerned with the effects that this change will have on Lee County's ability to withdraw allocated water supplies for its citizens. The Olga Water Treatment Plant draws water from the Caloosahatchee just 3,960 feet upstream of the W.P. Franklin Locks to provide water to Ft. Myers. During low water conditions in the Lake there is not enough freshwater being released to protect the freshwater supply at Olga and the WP Franklin Locks have to limit their operation schedule to prevent salt water from extending up to the water plant intake¹⁷. The cessation of the base flows will limit Lee County's ability to obtain its permitted allocated water supply to provide for its citizens.

The termination of base flow discharges was largely justified at the March 12, 2009 SFWMD Governing Board Meeting by the fact that Water Conservation Area 2, which provides Broward County wellfields with water, is experiencing much lower water elevation levels than it has in recent years, which is resulting in increased chloride levels in the wellfields. The discussion did not, however, discuss the water supply needs of Lee County or the affects that such actions might have on water treatment systems such as the Olga Water Treatment Plant, which services Ft. Myers and depends upon surface water as its supply.¹⁸ If a "shared adversity" approach is to be implemented, the Conservancy feels that water supply hardships should in fact be shared - instead of prioritizing one county's needs above the next. Therefore, Lee County's water supply impacts should be given equal consideration in any decision with regard to ceasing base flow releases from Lake Okeechobee to the Caloosahatchee River.

¹³ National Marine Fisheries Service, 2009. Smalltooth sawfish recovery plan. Pg. iv.

¹⁴ Florida Fish and Wildlife Conservation Commission (2007). Florida manatee management plan. p. 62.

¹⁵ US Fish and Wildlife Service (2008). Florida manatee recovery plan, third revision, October, 2001. p. 98.

¹⁶ Lee County (2004). Manatee protection plan. Lee County Division of Natural Resources. p. 4.

¹⁷ Sanibel-Captiva Conservation Foundation. <http://www.sccf.org/content/130/Caloosahatchee-and-Lake-Okeechobee-Issues.aspx#lorss>. Accessed March 25, 2009.

¹⁸ Lee County Utilities Web site. Updated in 2005.

<http://www3.leegov.com/utilities/Facilities/Water/Olga%20New.htm>.

Inconsistent with Appropriate Public Noticing and Commenting Procedures

Although the SFWMD has already made their recommendation regarding base flow discharges, the Conservancy of Southwest Florida believes that the process for arriving at this decision did not properly include the public and relevant stakeholders and sufficient information to appropriately make such a decision. As a result, a balanced discussion of the possible repercussions of this recommendation on the environment and regional water supplies did not occur.

A decision that affects the health of an entire estuary, including the ecosystems and wildlife that it supports and the people who rely on the river for their water supply needs, should be listed separately as an item for action with sufficient public noticing and opportunity to comment by all interested stakeholders. Addressing this critical issue within the context of a standard Water Conditions Report agenda item without proper public notice and opportunity for input as was done at the March 12, 2009 SFWMD meeting does not do justice to the significance of this decision. Since this is considered a situation of "shared adversity," we strongly encourage the Corps to independently assess the environmental, economic, and water supply implications for all users and resources throughout the system before enacting any decision on this matter. We also hope that the South Florida Water Management District will properly notice and notify stakeholders for southwest Florida in the future, so that appropriate regional representation and input from southwest Florida can be incorporated into a fair and balanced process with regard to Lake Okeechobee management.

Conclusion

The Conservancy of Southwest Florida supports Lee County's request in opposition to the SFWMD Governing Board's recommendation that base flow discharges from Lake Okeechobee into the Caloosahatchee River be continued for the following reasons:

1. Inconsistent with the Caloosahatchee Minimum Flows and Levels standard.
2. Inconsistent with the reduced harm approach set forth by the revised Lake Okeechobee Regulation Schedule.
3. Inconsistent with protecting the critical habitat of the endangered smalltooth sawfish and the Florida manatee.
4. May adversely affect Lee County's ability to obtain its allocated withdrawal amount to provide for its Ft. Myers' citizens.
5. Not appropriately publicly noticed and assessed, with inadequate opportunity for stakeholder comment in the decision-making process.

The Conservancy of Southwest Florida therefore requests that the Corps to continue base flow discharges from Lake Okeechobee into the Caloosahatchee River at the previous level of 650 cfs. Thank you for your time and consideration of our comments. If you have any further questions please contact me at (239) 262-0304 Ext. 250.

Sincerely,

Jennifer Hecker
Natural Resource Policy Manager

cc: South Florida Water Management District Governing Board
Carol Wehle, Executive Director, SFWMD
Lee County Board of County Commissioners