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Sent: Friday, February 27, 2015 9:06 AM
To: dokeefe@sfwmd.gov
Subject: System Constraints

Mr. O'Keefe,

The South Florida Water Management District (District) is to be commended for sending historic volumes of treated Lake water to the Everglades over the last year.

However, there are many statements in the "System Constraints" document that conflict with actual flow data, STA performance and system design reports, which demonstrate a very different message than the one contained in the "Constraints" document: *in fact, there is sufficient capacity in the existing system to send significantly more Lake water to the Everglades than in the past.* With the completion of the A-1 Flow Equalization Basin in the near future, the storage and treatment capacity will increase even more. That being said, additional storage, treatment and conveyance will still be needed to minimize the destructive Lake releases to the estuaries. A properly constructed "Constraints" document provides fundamental engineering justification for the State to purchase available lands within the EAA in order to add to the storage and treatment necessary to achieve this long-term goal. Some of the major discrepancies in the "Constraints" document are summarized below.

1. "Constraints" statements: *"The existing structures are not sufficient to pass high volumes from the Lake to the Everglades"* and *"Making large releases from the Lake to the Water Conservation Areas (WCAs) would require a significant enlargement of the primary EAA canals."*

District data indicate a very different situation: with the delivery of a steady supply of Lake water to the STAs year-round (i.e., not just during the wet season) the existing structures and EAA canals were sufficient for the District to send more treated water to the Everglades than ever before – more than 500,000 acre feet in the last 12 months.

2. "Constraints" statement: *"Sustained large Lake releases to the south result in water depths and nutrient loading that could cause substantial damage to the treatment works."*

District data indicate a very different situation: **STA performance has improved** concurrent with the sustained delivery of historic large volumes of Lake releases to the south in a year-round operation. Over the last year, the outflow phosphorus concentration from STA-1E, STA-1W, STA-2 and STA-3/4 improved by 4 parts per billion (ppb), decreasing from 21 ppb to 17 ppb. The only STA that has not exhibited a performance improvement was STA-5/6 which did not receive any Lake water. In addition, District scientists indicate there have been no adverse impacts on the treatment vegetation due to Lake water.

3. "Constraints" statement: *"The system has been designed to send Lake Okeechobee water east and west to the Atlantic Ocean and the Gulf without hydrologic constraints"*

System design reports, federal water control plans and STA operation plans indicate a very different situation: the system was designed to send Lake water south, east and west, and with the construction of the STAs, there exists the capability to send significantly greater volumes of Lake water to the south. Sending Lake water to the east and west has hydrologic constraints, including providing flood protection to landowners and businesses within the C-43 and C-44 basins. In addition to major environmental impacts to the estuaries, there are economic and other impacts to the coastal communities from untreated Lake releases, a point that was absent from the "Constraints" document.

In addition to inconsistent statements, descriptions of constraints in the document appear to be incomplete, potentially leading to misinterpretations by policy makers and the public. I have offered to sit down with Mr. Kivett to discuss these in more detail, but as of yet no date or time has been set. If you would like, I will make myself available to present the full set of comments at an upcoming WRAC or Governing Board meeting.

Because of the significance you have attached to this document, I thought it in your best interest to understand these inconsistencies. I would appreciate a few minutes of your time to discuss these at your convenience, either with a phone call or in person.

Thank you very much for your time and service.

Gary Goforth