

January 13, 2014

Mr. Blake Guillory, Executive Director
South Florida Water Management District
P.O. Box 24680
West Palm Beach, FL 33416-24680

Subject: Cost Effectiveness of Dispersed Water Management Projects

Dear Mr. Guillory,

At the Governing Board meeting on January 9, 2014, District staff reported that the District has obligated more than \$64.6 million for dispersed water management projects ("DWMPs"). In the same presentation, staff mentioned that many other projects that will reduce nutrient loads to Lake Okeechobee were held up due to insufficient funds. As I commented to the Board, I am concerned that the DWMPs may be diverting funds away from these critical nutrient reduction projects. I was encouraged to hear that you have committed to evaluating how cost effective these DWMPs are.

1. For each individual DWMP, can you please answer these questions?
 - a. What is the project name and where is it located?
 - b. What is the total cost, separated into initial cost and continuing costs?
 - c. If the landowner has a consumptive use permit, or a pending application,
 1. What is the maximum annual volume of water allocated by the permit, or requested in the permit application?
 2. When evaluating DWMPs, does the District consider whether or not the landowner has a consumptive use permit, or a pending application?
 - d. Were the funds for each project budgeted as specific line items? If not, what was the source of funding?

2. What are the estimated annual reductions in nutrient loads to Lake Okeechobee, or to the St. Lucie or Caloosahatchee River basins, anticipated for each of these DWMPs?
 - a. How were these load reductions estimated?
 - b. Are these reductions permanent, i.e., the water will be held and used on site, or temporary, e.g., released back to receiving waters after a storm event?
 - c. How will the actual nutrient load reductions be monitored?
 - d. If the actual nutrient load reductions do not meet the estimated load reductions, will the landowner return any of the funds paid for the DWMP?
 - e. What accountability for achieving the estimated nutrient load reductions does the District place on each DWMP owner?

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- f. What is the current annual phosphorus load and phosphorus concentration in waters being discharged from the lands to be used as the DWMP?
 1. What is the current Works of the District (e.g., 40E-61) permit limit for phosphorus for the same land?
 2. When evaluating DWMPs, does the District consider whether or not the property is meeting the existing Works of the District permit condition?
3. What is the estimated annual reduction in stormwater flow to Lake Okeechobee or the St. Lucie or Caloosahatchee River basins for each of these projects?
 - a. What is the current annual volume of water being discharged from the lands to be used as the DWMP?
 - b. How were the flow reductions estimated?
 - c. Are they estimated reductions to Lake Okeechobee (or the River basins), or estimated reductions from the landowner's property? As you know, in general the further the discharge point is from the Lake, the smaller the actual flow reduction would be due to water reuse and floodplain losses/attenuation.
 - d. Are these reductions permanent, i.e., the water will be held and used on site, or temporary, i.e., released back to receiving waters after a storm event through surface or groundwater discharges?
 - e. How will the actual flow reductions be monitored?
 - f. If the actual flow reductions do not meet the estimated flow reductions, will the landowner return a portion of the public funds paid for the DWMP?
 - g. What accountability for achieving the estimated flow reductions does the District place on each DWMP?
4. In their October 2013 Board presentation, District staff reported that the average cost for a DWMP was \$163 per acre foot of water per year.
 - a. What basis did the District use to establish this value as a fair cost?
 - b. Has that average cost been revised? If so, what is the current average annual cost per acre foot of water per year?
 - c. The 2013 Lake regulatory releases discharged more than 417,700 acre feet to the St. Lucie River and Estuary. These releases carried blue green algae, more than 1.43 million pounds of nitrogen, more than 153,000 pounds of phosphorus, and more than 15

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million pounds of sediment. The landowners, businesses, and residents impacted by these discharges were not compensated by the District. If the District compensated the landowners, businesses, and residents impacted by these discharges the same average rate per acre foot as the average DWMP, the District would owe over \$68 million. Preliminary reports indicate the actual economic and environmental damage to the St. Lucie River and Estuary region was considerably greater than that amount.

5. The latest 5-year average annual phosphorus loads discharged to Lake Okeechobee exceeded 420 metric tons, more than four times the Total Maximum Daily Load (TMDL) established for surface water inflows to Lake Okeechobee. The District has a Lake Okeechobee Protection Plan, which contains water quality projects that will reduce the nutrients entering the Lake. According to staff's presentation last week many of these projects are not being completed due to insufficient funds.
 - a. Which projects in the District's Plan could be implemented if the funds obligated to the DWMPs were instead expended to finish the projects?
 - b. What is the estimated average cost per pound of phosphorus removal for the water quality projects in the Lake Okeechobee Protection Plan?
 - c. How do these costs compare to the unit costs for the DWMPs?
 - d. Are the DWMPs located in tributaries identified in the Protection Plan as needing additional storage?
 - e. The District's 2005 annual report anticipated that the Lake's TMDL would be achieved by 2015, as mandated by the State's 2000 Lake Okeechobee Protection Act. What is the current estimate when the Lake's TMDL will be achieved?

6. The 2013 Lake regulatory releases discharged more than five times the TMDL for nitrogen and phosphorus to the St. Lucie River through the C-44 Canal. Yet the District's St. Lucie River Watershed Protection Plan does not contain a single project in the St. Lucie Basin to remove nutrients from Lake releases. What projects to treat Lake releases could the District implement in the St. Lucie River basin for \$64.6 million?

Sincerely,



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