



Celebrating 40 years of island conservation

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Jan Mandrup-Poulsen  
Administrator, Watershed Evaluation and TMDL Section  
Florida Department of Environmental Protection  
2600 Blairstone Road, Mail Station 3555  
Tallahassee, Florida 32399-2400

*Transmitted via Email: Jan.Mandrup-Poulsen@dep.state.fl.us*

Re: Comments on Draft Nutrient TMDL for the Caloosahatchee Estuary

Dear Mr. Mandrup-Poulsen:

The Sanibel Captiva Conservation Foundation (SCCF) appreciates the opportunity to provide these comments on the Caloosahatchee Draft Nutrient TMDL for the Caloosahatchee Estuary.

Over the past year and a half SCCF staff has participated with other stakeholders on the working team evaluating the development of this TMDL. These comments reflect our concerns with some aspects of the draft TMDL. Our interest is making sure that protective standards are established, based on existing data and reasonable modeling assumptions, to improve the water quality in the Caloosahatchee estuary. Improvements will only be possible if proper sources of water quality degradation are identified and reasonable, protective standards are established for the BMAP process. We appreciate your consideration of these comments.

We thank DEP staff for their consideration of our prior comments including the modeling evaluation by Dr. Vic Bierman, who was hired independently by The Clean Water Network of Florida, to conduct a parallel modeling effort. We found as we believe the Department did, that his objective contributions added substantially to the evaluation of the modeling.

#### *Dissolved Oxygen*

The Department has characterized the dissolved oxygen (DO) problems in the river as a natural condition and has indicated that it will not establish limits for DO in this TMDL,

siting that nutrient reductions will have a positive influence on DO. While we agree that in general nutrient reduction will positively affect DO we do not agree that the low DO condition in the Caloosahatchee is natural. Rather we believe that there was insufficient 24 hour data used to evaluate DO in the unique configuration of the river. SCCFs real time autonomous sensor monitoring network, RECON ([://recon.sccf.org/index.shtml](http://recon.sccf.org/index.shtml)), clearly shows that DO periods of anoxia are related to high flow events that cannot be characterized as natural and are actively being addressed in order to reduce high flows. In the same manner that the TMDL modeling assumed that the Lake Okeechobee discharges are meeting their TMDL the system should be modeled using optimum flows to reveal the impact of flows on anoxic conditions and distribution in the river.

We feel that the unique configuration of the river and periods of anoxia related to high flows as well as the presence of two endangered species the Manatee and Smalltooth Sawfish make this parameter of significant importance in the establishment of the TMDL for the Caloosahatchee estuary and, later this year, the TMDL for the Caloosahatchee tributaries.

Additionally, there are ongoing studies assessing the impact of sediment oxygen demand in the Caloosahatchee that could provide additional information that needs to be considered with flow and the modeling of the freshwater portion of the river. At a minimum we urge the DEP strike any language suggesting that low DO in the estuary is a natural condition and suggest that the TMDL recognize the need for addressing DO as additional data, including 24 hour DO monitoring and SOD results, become available in order to evaluate the need for a TMDL for dissolved oxygen.

### *Model Assumptions*

In our previous comment letter we questioned the selection criteria and assumptions used relative to agricultural BMPs. As we noted at that time the modeling made assumptions about the application of bmps that are neither part of any permit nor monitored or reported. The presentations showed use of bmps in the S4 basin and west of the lake where some of the heaviest loading to the Caloosahatchee is known to originate. The model runs done subsequent to our letter did not address these bmp assumptions which we believe has caused the modeling to underestimate the loading from these basins. We would request that the model be run excluding any bmp that is not part of a permit condition that includes monitoring and compliance conditions.

Additionally, we must note for the record that the model assumes discharges from Lk O to the Caloosahatchee are meeting the lake TMDL of 40 ppb phosphorus or 140 metric tons/year despite the fact that these conditions are unlikely to be achieved decades from now. Lake O averages 500-600 metric tons annually and in 2005 received 900 metric tons. While making these assumptions helps to parse out the basin contribution it underestimates the conditions that the Caloosahatchee will be facing for decades to come.

***Nitrogen***

Based on work by Chamberlin & Doering, the Charlotte Harbor National Estuary Program (CHNEP), the Caloosahatchee River Watershed Protection Plan and Janicki (2003) we believe the nitrogen TMDL is a reasonable target notwithstanding our concerns about some of the model assumptions noted above.

***Corrections***

We also note corrections in the description of the Caloosahatchee on page two of the Draft TMDL Report. The river is approximately 75 miles long; 15.5 miles from Moore Haven to Ortona, 27.9 miles from Ortona to Franklin and 33.2 miles from Franklin to San Carlos Bay. The WP Franklin Lock and Dam was completed in 1965.

Thank you for your consideration of our comments.

A handwritten signature in black ink that reads "Rae Ann Wessel". The signature is fluid and cursive, with a large loop at the beginning.

Rae Ann Wessel  
Natural Resource Policy Director  
Sanibel Captiva Conservation Foundation

cc: Dr. Nathan Bailey