



South Florida Water Management District

WATER RESOURCES ADVISORY COMMISSION ISSUES WORKSHOP MINUTES

July 10, 2012

9:00 AM

SFWMD Clewiston Field Station
2425 Hookers Point Road, Clewiston, FL 33440

1. Introduction and Meeting Purposes

The meeting was called to order by WRAC Chairman Kevin Powers. Housekeeping items were discussed. Mr. Powers turned the meeting over to Governing Board member Dan DeLisi for introduction. Mr. DeLisi discussed the background of the topic and the Governing Board direction. How do we optimize what we have today and manage it better? How can we ensure that the Everglades gets what when it needs it? How do we balance the needs of all users?

Introductions were made around the room.

2. Recap: Interim Solutions for Improving Performance of the Central and Southern Florida System

Kurt Harclerode and Don Fox asked for clarification of slides during the presentation.

Yvonne Gsteiger - Could we see the translation of minimum flow and level (mfl) "exceedences" and "violations"?

Cal Neidrauer - We have estimated exceedences, but not violations. The latter would not be an easy analysis and likely would not provide useful information.

Jane Graham - It would be interesting to see.

Jennifer Hecker - Why does EWSA6 result in lower exceedences for Lake Okeechobee mfl.

Cal Neidrauer - Because we are putting more water into the Lake. The other modeling runs only take water out of the Lake with no augmentation.

Jane Graham - What defines the cutback (greater than 7 days, more than 18,000 acre feet and greater than 10%) and how does it translate to a phase cutback? Would it be a phase 1?

Tom McVicar - It would represent greater than a phase 1 cutback.

Lisa Interlandi - Which one of the EWS modeling proposals is comparable to the back pumping recommendation?

Cal Neidrauer - EWS3_4 is the closest.

Lisa Interlandi - Why did we not model the exact same run as the backpumping proposal?

Cal Neidrauer - These runs were at the request of a stakeholder and that exact request was not made. These recent slides are outside the Governing Board (GB) direction to staff. The GB asked us to look specifically at EWSA6.

Jennifer Hecker - I would agree that we need to look specifically at EWSA6 so we can better compare the various runs.

Tim Sargent - Wouldn't that violate our current adaptive protocols?

Susan Gray - Yes, but if we factor in supplemental water it may not.

Lisa Interlandi - My organization would like to see more parity between users without significant impacts to Lake Okeechobee Service Area (LOSA) users.

Paul Gray - This past spring was a perfect example of a time when there was no prediction of cutbacks and we cut the estuary off nevertheless. I think that the backpumping idea is unnecessary - what we should focus on are the Adaptive Protocols (AP) triggers.

Dan DeLisi - Paul, I am concerned that may not be enough. We need more water in the system and we need to better manage the overall system. Modifying the AP triggers will be a one-time solution.

3. **Water Supply Augmentation/Supplemental Environmental Flows (EWSA6 Analysis)**

Susan Gray - Water supply augmentation may result in up to 2% increase in water, 2% increase in phosphorus (P) and 6 % increase in nitrogen (N). We saw no impact to the St. Lucie Estuary (SLE) with the exception of a very minor decrease in C44 discharges to the Lake and therefore increased flow from C44 to the SLE. Staff has created a draft water quality/habitat monitoring program to look at in-lake changes as a result of increased flows from the Everglades Agricultural (EAA).

Stephen Davis - Fish kills will probably not occur based on a one time event. These things happen with prolonged accumulation of low oxygen conditions. Localized changes will occur but the Lake has a huge assimilative capacity.

Paul Gray - Does localized impact cause a migration of mobile species from the impacted area?

Don Fox - Yes, we have seen that.

Steve Davis - Again, I am not concerned about a one year event, but the cumulative impact over years.

Susan Gray - We can constrain our environmental impacts in terms of load, *Chlorophyll a*, etc. What are we willing to accept? We will need to monitor extensively to evaluate the impacts.

Barbara Miedema - We need to look at Lake Okeechobee schedule changes.

Don Fox - We need to avoid reversal in Lake stages ... if the Lake is declining and birds are nesting - don't reverse that.

Kurt Harclerode - How many years are we talking about when there is supplemental water to backpump?

Cal Neidrauer - Roughly one third to one half of the time.

Stephen Davis - We are talking about backpumping during dry years when the Lake is low. Where are we getting the water and won't it be the time when the Everglades national park (ENP) needs the water most? This is probably one of the biggest constraints due to impacts to the Everglades.

Cal Neidrauer - Stephen, not all droughts are regional in nature - sometimes the Lake is low but the Everglades has plenty of water. We have the tools to evaluate the impacts south. We could look at times when the Water Conservation Areas (WCAs) were discharging to tide and evaluate the backpumping during those periods.

Paul Gray - In May and June we were discharging to tide from the WCAs while the

Caloosahatchee Estuary (CE) was cut off. We tend to compare the additional input of nutrients to the existing condition - which we know is a disaster. We should compare it to the Total Maximum Daily Load (TMDL) and our documented research on nutrient goals. We will see that the impacts are even greater and more damaging.

Tom Perry - I do have concerns over the water quality impacts. But that water is then allocated to the CE therefore it should have a short term impact on Lake ecology.

Rolland Ottolini - We have increased the scrutiny on the estuary loads. The TMDL reduction for the basin may be achieved through BMP implementation.

Stephen Davis - More water quantity means more load.

Newton Cook - If the water going into the Lake is better than the Lake water quality and the water then is directed to the CE, the impact to the Lake should logically be minor.

Jonathan Ullman - Have the District done a biological study of backpumping impacts and has it been peer reviewed?

Susan Gray - Yes. We did see a change in benthic organisms, but they recovered after the backpumping was terminated. We can certainly do a more comprehensive monitoring program, if we decide to move forward.

Don Fox - Dissolved oxygen can be a problem but it could be mitigated with a bubbler.

Jonathan Ullman - Did anyone evaluate impact to air quality as a result of increased pumping?

Tommy Perry - The water has to be pumped anyway just a change in direction.

Rae Ann Wessel - I am concerned about the impact of the increased nitrogen both on the Lake and on the CLE during low flow conditions or on both estuaries during high flows. I am also concerned about the increased levels of *Chlorophyll a*. Levels acceptable to the Lake are too high for the SLE. We need to look specifically at the really dry years when this is most likely to help.

Cal Neidrauer - As we add constraints for operation we decrease benefits to the CE.

Terrie Bates - We know there are a lot of unknowns but we could do it as a pilot and gather the information necessary to further evaluate the concept.

Yvonne Gsteiger - We are talking about water that needs to go south and instead are thinking of reversing that project objective - zero sum gain. How do we assure that the water backpumped actually makes it to the CE?

Charles Shinn - I agree with Newton Cook. If we put better quality in the Lake and then send it to the CE we should see a net "no impact". Additionally, water might be held longer in the area north of the Lake which may improve habitat and water quality. I support a pilot with constraints.

Tom McVicar - I disagree with Jonathan's assessment that the ENP always needs water. Currently, the S12's are closed and we are dumping WCA2 water to tide. We need to get smarter on how we manage the water.

Lisa Interlandi - Is there any change to the water shortage line that assures that the water will have an environmental benefit? What is the legal mechanism to assure that it is earmarked for the CE and not for agricultural demands?

Dan DeLisi - We need to have a tracking mechanism to assure that. It would be part of the constraints.

Steve Davis - There is no time when the Everglades does not need water. Nitrogen into the Lake is the problem ... the water we are talking about is 2-3 times the Lake level. I would disagree with the concept of "no impact" to the Lake.

Newton Cook - The water we are talking about is water that the southern end of the system does not want or need or water that will not meet the phosphorus standard.

Ray Scott - The water that is backpumped is the assist in meeting CE demands not agricultural needs.

Jennifer Hecker - Our preference is still finding ways to modify the AP triggers without backpumping. Water quality concerns and legal constraints to the delivery are major obstacles.

Roger Copp - Water coming out of S77 is better than the Lake average, therefore the Lake average concentration does not apply.

Andrew Geller - Does the model include the entire LOSA?

Cal Neidrauer - Yes.

4. Potential Operating Criteria - Open Discussion

See above section

5. Summary and Objectives for Next Workshop

Dan DeLisi - We have your concerns noted. The next meeting will be in three weeks and then WRAC on August 2, 2012 in West Palm Beach.

Please note: After the meeting the decision was made to cancel the Special Issues Workshop of July 31st and instead bring it back to the WRAC at their regular monthly meeting on August 2, 2012.