

July 24, 2003, Meeting of the Technical Oversight Committee

**To: Principals of the Consent Decree**

Superintendent, Everglades National Park  
Manager, A.R.M. Loxahatchee National Wildlife Refuge  
District Engineer, Jacksonville District, Army Corps of Engineers  
Secretary, Florida Department of Environmental Protection  
Executive Director, South Florida Water Management District

**From: Representatives to the Technical Oversight Committee**

Garth Redfield, South Florida Water Management District  
Frank Nearhoof, Florida Department of Environmental Protection  
Nicholas Aumen, Everglades National Park  
Mike Waldon, A.R.M. Loxahatchee National Wildlife Refuge  
Colonel James May, Jacksonville District, Army Corps of Engineers

**Re: Consensus determination and recommendations** concerning exceedances of the Interim Phosphorus Levels for A.R.M. Loxahatchee National Wildlife Refuge under the Settlement Agreement (1991, Case No. 88-1886-Civ-HOEVELER)

The Technical Oversight Committee (TOC) approved the following determination and recommendations unanimously at the July 24, 2003 TOC meeting:

The State/Federal Consent Decree established Interim and Long-term Levels for phosphorus concentrations at 14 monitoring sites in Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge). Interim Levels became effective in February 1999 and the more stringent Long-term Levels will become effective in December 2006. The Interim Levels were designed to provide water quality equivalent to the observed in the 1978-79 base period for Outstanding Florida Waters. Despite reductions in phosphorus loads and exceedance frequencies subsequent to full-scale operation of STA-1W (July 2000) and STA2 (July 2001), Interim Levels have been exceeded one or more times in each of the four years since they went into effect.

The TOC could not reach a consensus that the exceedances were due to error or due to extraordinary natural phenomena. However to resolve the issues in dispute and move constructively forward, the TOC recommends the following to assist us in gaining scientific understanding of historic and future exceedances and to decrease the likelihood of future exceedances.

We recommend immediate implementation of all the following:

## **A. Controlling Phosphorus loads to the Refuge**

1. Continue to develop and implement strategies to operate the STAs within their design range. That should include review of baseline hydrologic data sets used for STA design and updating to reflect current regional water management.
2. Review the long-term plan to determine whether additional measures are appropriate for optimizing phosphorus reduction. Implement such measures as necessary to achieve the long-term levels.
3. Refine operational strategies to reduce short-term peak loads to and from the STAs.
4. Review of regional water management decisions affecting STA operations and performance.

## **B. Enhancing Monitoring of the Refuge**

Design and implement an enhanced monitoring program to improve spatial and temporal understanding of factors related to phosphorus dynamics.

## **C. Modeling of the Refuge**

1. Develop a water quality / hydraulic model for the Refuge with a phosphorus cycling component.
2. Evaluate issues associated with phosphorus loads and transports within the L-40 and L-7 canals.
3. Develop and track a simple phosphorus mass-balance for the Refuge.