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**TO:** Everglades Technical Oversight Committee  
**FROM:** Frank Nearhoof, FDEP Representative  
**DATE:** October 10, 2001  
**RE:** C111 Total Phosphorus Monitoring

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Data quality associated with implementation of the U.S. Army Corps of Engineer's (USACE) C-111 project has been an issue discussed at recent TOC meetings. In response to concerns raised, the Florida Department of Environmental Protection (Department) has conducted a review of total phosphorus data collected by the USACE.

Since January of 2000 the USACE has monitored total phosphorus (TP) in the C-111 project area. As stated in the C-111 draft General Reevaluation Report Supplement, the intent of this monitoring was to determine compliance relative to phosphorus levels in the 5-10  $\mu\text{g/L}$  range. It is necessary that the data be obtained with an accuracy and precision commensurate with the intended use of the data. Based on a review of Everglades Round Robin results laboratory audits, and inter-laboratory split-sample studies, the Department believes that low-level TP results (<20  $\mu\text{g/L}$ ) prior to November 2000 do not meet the intended project purposes and should be qualified for use in USACE C-111 planning and compliance determination. These findings of these analyses were presented at the February 9, 2001 and May 21, 2001 TOC meetings and are summarized in the February 9, 2001 memorandum from Frank Nearhoof. Discussions between the Department and USACE have resolved all data quality issues and resulted in the following recommendations:

1. TP data less than 20  $\mu\text{g/L}$  collected prior to June 2000 should be qualified with a "?" ("Data generated in accordance with all Q/A and contract requirements in place at the time but do not meet the higher standards incorporated in the Draft FDEP Guidance for TP Analysis in the Everglades").
2. TP data less than the PQL (16  $\mu\text{g/L}$ ) collected between June and November 2000 all values reported should be qualified with a "J" with the accompanying comment: "Estimated value below PQL".

Beginning in December 2000 there is evidence, including reduced split-sample variance and favorable ERR-IX scores, that an acceptable level of accuracy and precision within the TP concentration range of interest has been attained; therefore, Everglades TP data generated by the USACE after November 2000 exhibit a level of accuracy and precision comparable to SFWMD and FDEP. This improved data quality is a direct result of extensive cooperation between SFWMD, FDEP and the Corps aimed at reducing inter-lab variability, standardizing of methods and procedures and development of lines of communication between the various labs.