TMDL AUDIT Executive Summary

Audited Organization:
Pinellas County Utilities Laboratory
Pinellas County Environmental Management District

DEP Auditors:
Environmental Assessment Section
2600 Blair Stone Road, MS 6511
Tallahassee, FL 32399-2400
(850) 245-8065

Audit Date: May 24-25, 2004

This audit was conducted to:

- evaluate past data for TMDL listing purposes as specified in Chapter 62-303, F.A.C. and
- determine if current sampling procedures used by Pinellas County Environmental Management District conform with DEP Standard Operating Procedure (DEP SOP) requirements.

To accomplish these objectives, the audit consisted of two different activities:

- A project audit of data retrieved from STORET that was identified as having been produced by Pinellas County Utilities Laboratory and Pinellas County Environmental Management District; and
- An on-site performance audit of current field sampling and field testing procedures conducted May 24-25, 2004

The project audit was performed using criteria that were developed to meet specific data quality objectives for the TMDL program. Selected records were reviewed to determine if sufficient information was available to verify the quality of the data, with emphasis on calibration, quality control procedures, and documentation. The purpose of the audit was to determine data usability and was not intended as a regulatory action against the audited party.

The Environmental Assessment Section (EAS) determined that for the selected STORET data set from Pinellas County Utilities Laboratory does have adequate documentation to allow verification of the quality of the audited results.

The field team demonstrated technical competence in performing all current field sample collection and testing activities. Test calibration procedures and recordkeeping practices did satisfy the requirements of the DEP SOPs.

Inspection of the laboratory's records revealed some procedural and recordkeeping deficiencies and certain field test calibration protocols and record keeping practices that did not satisfy some of the requirements of the DEP SOPs.

The observed procedural and documentation problems will be corrected with the implementation of the Pinellas County Utilities Laboratory's and Pinellas County Environmental Management District's plans of corrective action for laboratory and field operations.

The attached table summarizes the analyte records and types of evaluation criteria used for the audit of historical data. Other supporting documentation is available upon request.

TMDL DATA AUDIT SUMMARY (TMDL DATA USABILITY)
DATA FROM SAMPLES COLLECTED *DATE*
LABORATORY AND FIELD DATA

TMDL Criterion / Analytes	BOD	Chlorophyll A	Fecal Coliform	NH3	NO2	NO3	NOX	o-P	TKN	TP	TSS	Turbidity	Hardness (Tritrimetric)	Calcium	Magnesium	Arsenic	Copper	Lead	Mercury	pH	Sp Cond.	DO
Sample Preservation and Holding Times																						
Holding times met.	X	X		X			X	X	X	X	X	X	X	X	X					X	X	X
Sample preservation as acceptable	X	X		X			X	X	X	X	X	X	X	X	X							
Laboratory Practical Quantitation Limit																						
Reported PQL ≤ TMDL usability level	X	X		X			X	X	X	X	X	X										
Laboratory Replicate Precision																						
Replicates ≤ 20% RPD/RSD	X	X		X			X	X	X	V	X	X		X	X							
Laboratory Spike Recoveries																						
Spike recoveries were within TMDL limits				X			X	X	X	X				X	X							
Spike concentration levels met TMDL criterion				X			X	X	X	X												
SRM or QC check sample within limits	X																					
Field and Laboratory Quality Control Blanks																						
Blank detects <10% of sample values				X			X	X	X	X	X			X	X							
Field and Laboratory Instrument Calibration																						
At least the minimum number of standards were used				X			X	X	X	X		X		X	X					X	X	X
Correlation coefficient was ≥ 0.995				X			X	X	X	X				X	X							
Second source verification for initial calibration														X	X							
Initial verification after calibration																						
Verifications met TMDL recovery limits				X			X	X	X	X				X	X							
Samples & QC samples within verified time bracket.																				X	X	X
Samples & QC samples within verified concentration bracket.				X			X	X	X	X		X		X	X					X	X	X
Method Specific Requirements																						
All audited sample results were properly calculated		X		X			X	X			X		X	X	X					X	X	X
Critical method specific requirements met														X	X							

Legend: X – Analyte records were audited for indicated TMDL usability criterion.
Hatched [▨] Criterion not applicable