TMDL AUDIT Executive Summary

Audited Organization:
Organization Name: Lee County Environmental Laboratory
DOH Certification #: E45049
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Audit Date: March 30th & 31st, 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 Lee County Environmental Laboratory conform with 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 Lee County Environmental Laboratory; and
- an on-site performance audit of current field sampling and field testing procedures (conducted March 30, 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 and 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, Lee County Environmental Laboratory does not have adequate documentation to allow verification of the quality of some of the audited results. Inspection of the organization's records also indicated that some of the data quality did not meet the data quality objectives established for TMDL purposes.

The field team demonstrated technical competence in performing current field sample collection and testing activities, however test calibration procedures and recordkeeping practices did not fully satisfy the requirements of the DEP Standard Operating Procedures.

The observed procedural and documentation problems will be corrected with the Lee County Environmental Laboratory's plan of corrective actions for both the laboratory and field operations.

The attached table summarizes the findings of the audit of historical data. Other supporting documentation is available upon request.

TMDL DATA AUDIT SUMMARY (TMDL DATA USABILITY)

DATA FROM SAMPLES COLLECTED ON DECEMBER 19, 2002

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

Legend: Y=Data quality met TMDL criteria; N=Data quality did not meet TMDL criteria; ?=Data quality could not be verified from the audited documentation; "-"=Not audited; SHADED=Not applicable