# FINAL AUDIT REPORT

# City of Lakeland Public Works
# Lakes and Stormwater Division
# OGC Case No. 15-0160

**Field Performance Audit, August 5, 2014**

**Aquatic Ecology and Quality Assurance Section**
**Water Quality Standards Program**
**Division of Environmental Assessment and Restoration**
**Florida Department of Environmental Protection**
**April 3, 2015**

## Introduction

This field performance audit of the City of Lakeland Public Works Lakes and Stormwater Division sampling staff was conducted by the Florida Department of Environmental Protection (Department) Aquatic Ecology and Quality Assurance Section in accordance with Rules 62-160.650 and 62-160.670, Florida Administrative Code, to include the evaluation of specific data quality objectives identified for data used to assess impairment of state surface waters. The field performance audit is used to verify that a sampling organization is correctly implementing the Department Standard Operating Procedures (SOPs) for Field Activities, and covers sample collection, field testing, and required field documentation. This audit report lists the procedural and documentary deficiencies observed by the Department auditors and the corrective actions implemented by the sampling organization in response to the audit findings.

## Description of Sampling Event and Audit

On August 5, 2014, Department auditors Nia Wellendorf and Meghann Niesen observed City of Lakeland sampler Sandra George prepare for the sampling event at the City of Lakeland office. Preparations included organizing and labeling the sample bottles, preparing the truck and boat, and conducting meter calibration and verification. Following field preparation, the auditors and field personnel (Sandra George and Curtis Porterfield) traveled to Lake Parker, the first sample location, and observed a typical surface water grab sampling event for standard lake monitoring conducted by the City of Lakeland. The auditors and field personnel then traveled by boat to Lake Crago, the second sample location, and observed a second sampling event. Auditors then accompanied Sandra George to the Polk County Laboratory to hand deliver the collected water samples and associated documentation. After returning to the City of Lakeland offices, auditors observed Sandra George completing field meter calibration verifications.

## Findings

Procedures or documentation that did not comply with evaluation criteria are identified in the attached audit report findings table (Table 1). Audit findings of deficiency were minor. The approved corrective actions and implementation time line is included in the findings table.

## Preliminary Audit Report and Implementation of Corrective Actions

A preliminary audit report was sent to the City of Lakeland Public Works Lakes and Stormwater Manager Curtis Porterfield on December 5, 2014. The report included a findings table with spaces for the audited party to respond with further information and/or corrective actions. City of Lakeland staff replied with proposed corrective actions on February 27, 2015 (see Table 1). The auditors have reviewed the corrective actions and deem them acceptable. Corrective actions were implemented December 18, 2014, and approved by the Department March 6, 2015.

2600 Blair Stone Road, MS 6511
Tallahassee, Florida 32399-2400
www.dep.state.fl.us

## Usability Statement

Based on the results of this audit, the samples collected by the City of Lakeland Lakes and Stormwater Division meet the data quality objectives for impaired waters determination under Chapter 62-303, F.A.C. In addition, the City's sampling personnel follow all appropriate Department Standard Operating Procedures for sample collection and field meter data collection.

2600 Blair Stone Road, MS 6511
Tallahassee, Florida 32399-2400
www.dep.state.fl.us

**Table 1.** Audit findings for the field performance audit of the City of Lakeland Lakes and Stormwater Division conducted by the Florida Department of Environmental Protection Aquatic Ecology and Quality Assurance Section on August 5, 2014.

| Finding number | SOP reference | Audit Finding | City of Lakeland Response | DEP Comments |
|---|---|---|---|---|
| 1 | FD 5000 section 2.1 | Only initials of sampling personnel were recorded with no reference to full name. | Full names of samplers will be recorded on all data sheets, field sheets, calibration forms, etc. Implemented 12-18-14 | This corrective action is acceptable and considered complete. Note that initials may be used on field documents if clear linkage is available to full names. |
| 2 | FD 4100 section 3 | It was not specified who did what portion of the field sample measurements. | Field sheet has been revised to include an area to notate specific sampler information for future sampling events; this info will be recorded for future events. Implemented 12-18-14 | This corrective action is acceptable and considered complete. |
| 3 | FD 5000 section 2.9 | The matrix collected was not recorded for samples. | Field sheet has been revised to include an area in which to specify sample matrix; this info will be recorded for future events. Implemented 12-18-14 | This corrective action is acceptable and considered complete. |
| 4 | FD 5000 section 2.10 | The type of sample collected was not recorded on the field sheets; however, the submittal forms to the Polk County lab identified the samples as grab samples. | Field sheet has been revised to include an area in which to specify type of field sample; this info will be recorded for future events. Implemented 12-18-14 | This corrective action is acceptable and considered complete. |

2600 Blair Stone Road, MS 6511
Tallahassee, Florida 32399-2400
www.dep.state.fl.us

| | | | | |
|---|---|---|---|---|
| 5 | FD 2000 section 2 | There is not an official sampling kit prepared for field teams by laboratory personnel. New sample bottles are retrieved by field personnel at the time of pervious sample drop off. | Polk County Natural Resources (PCNR) laboratory has initiated a new procedure for providing sampling kits. This process will require the advance completion of the Laboratory Sampling Kit Request Form listing information that is specific to bottles, preservatives, analytes, etc. The PCNR lab will prepare a sample kit using the form that properly logs all the appropriate information related to the sample supplies as required by FD 2000 Section 2.<br>Implemented 12-18-14 | This corrective action is acceptable and considered complete. |
| 6 | FD 2000 section 3.1 | The lot numbers and inclusive dates of use for acid preservatives are not provided to field teams by laboratory personal but recorded and maintained only within the Polk County lab. | Lot numbers and inclusive dates of use for acid preservatives will be provided by PCNR lab, and documented on the field sheet.<br>Implemented 12-18-14 | This corrective action is acceptable and considered complete. |
| 7 | FD 4100 section 1.2.2 | Certificates of assay, grade and other vendor specifications for standards/reagent are not received in packaging, but all information is present on standard/reagent bottle labels. Information associated with standards lots must be maintained. | Vendor assay specifications for standards, including lots, will be printed and maintained as part of the calibration record.<br>Implemented 12-18-14 | This corrective action is acceptable and considered complete. |

2600 Blair Stone Road, MS 6511
Tallahassee, Florida 32399-2400
www.dep.state.fl.us

| | | | | |
|---|---|---|---|---|
| 8 | FT 1400 section 2.2.2 | Quantitative bracket of calibration verifications for temperature measurement device was performed in the past but has been discontinued since 2001. | Quantitative bracket calibration verifications for temperature will be conducted annually using a verified National Institute of Standards and Technology (NIST) traceable thermometer. Implemented 12-18-14 | This corrective action is acceptable and considered complete. |
| 9 | FD 4100 section 3 | Units indicated on the field sheet for field testing measurements for Specific Conductance is incorrect and inconsistent with calibration records and sample submittal forms. | Units for specific conductance have been corrected on the field sheet and will be collected using consistent measurements in the future. Implemented 12-18-14 | This corrective action is acceptable and considered complete. |

2600 Blair Stone Road, MS 6511
Tallahassee, Florida 32399-2400
www.dep.state.fl.us