FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

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JONATHAN P. STEVERSON
SECRETARY

VIA EMAIL

February 29, 2016

Dana Denson
Reedy Creek Improvement District
Orlando, FL 83843
Email: ddenson@rcid.org

Re: Final Audit Report for Stream Condition Index Laboratory Audit of Reedy Creek Improvement District;
OGC Case No. 16-0075

Dear Mr. Denson:

Thank you for responding to the preliminary audit report for this Stream Condition Index (SCI) Laboratory Audit. The Florida Department of Environmental Protection (department) has reviewed your response and determined that the proposed corrective actions are acceptable, and have been implemented. The indicated corrective actions will improve the quality assurance system for your freshwater invertebrate taxonomic identifications and SCI determinations.

Attached is the final audit report detailing the audit procedure and the department's recommendation for usability of the data. The final audit report will also be posted on the department's website at http://www.dep.state.fl.us/labs/cgi-bin/reports/search.asp. The details of the department's review are provided in the audit findings table. As noted in the report, the department has determined that your invertebrate taxonomy analysis procedures meet the data quality objectives for SCI data, and the department may use the data for refresher audit evaluation scoring for SCI sampler proficiency according to DEP SOP SCI 1300. The usability of the audited data for other purposes must be determined separately according to applicable requirements in rule 62-160.670, F.A.C.

Under Chapter 120 of the Florida Statutes, you and any other person whose substantial interests are affected by the department's agency action may challenge the final audit report, including the corrective actions and the data usability analysis. The process to challenge any portion of this agency action is described below in the Notice of Rights section.

If you have any questions or concerns about this final audit report, please feel free to contact Nia Wellendorf at (850)245-8190 or Joy Jackson at (850)245-8074.

Notice of Rights

This action is final and effective on the date mailed (via e-mail) unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this agency action becomes only proposed agency action, subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the department. Because an administrative hearing may result in the reversal or substantial modification of this action, the petitioner is advised not to proceed until the deadlines noted below for filing a petition for an administrative hearing or request for an extension of time have expired. Mediation is not available.

A person whose substantial interests are affected by the department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. The petitioner shall also mail a copy of the petition to Reedy Creek Improvement District, at the address indicated above at the time of filing.

Under rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the department's action may also request an extension of time to file a petition for an administrative hearing. The department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

If a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Intervention will be permitted only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205, F.A.C.

In accordance with rules 28-106.111(2) and 62-110.106(3)(a), F.A.C., petitions for an administrative hearing by the petitioner must be filed within 21 days of receipt of this written notice. Petitions filed by any persons who were not entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 21 days of publication of the notice, if published, or within 21 days of receipt of the written notice, whichever occurs first. Under section 120.60(3) of the Florida Statutes, however, any person who has asked the department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication.

The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes.

A petition that disputes the material facts on which the department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301, F.A.C.. Under paragraphs 120.569(2)(c) and (d) of the Florida Statutes, a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

This agency action constitutes an order of the department. Subject to the provisions of paragraph 120.68(7)(a) of the Florida Statutes, which may require a remand for an administrative hearing, the applicant has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

David Whiting, Deputy Director
Division of Environmental Assessment and Restoration
2600 Blair Stone Road
Tallahassee, FL 32399
Tel No.: (850) 245-8191

Attachments:
Final Audit Report

Copies furnished to:

Stacey Cowley, DEP Office of General Counsel
File

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this agency action, including all copies, was e-mailed before the close of business on March 01, 2016, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to 120.52(7)
Florida Statutes, with the designated Department Clerk,
receipt of which is hereby acknowledged.

Clerk 3/1/2016 Date

Final Audit Report

Reedy Creek Improvement District

Stream Condition Index Laboratory Audit
OGC Case No. 16-0075

Aquatic Ecology and Quality Assurance Section
Water Quality Standards Program
Division of Environmental Assessment and Restoration
Florida Department of Environmental Protection
February 2016

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Tallahassee, Florida 32399-2400
www.dep.state.fl.us

STREAM CONDITION INDEX LAB AUDIT REPORT

Scope of Audit

This report presents the findings of a Stream Condition Index (SCI) Laboratory Audit of the Reedy Creek Improvement District. Samplers or field organizations that submit SCI data to the Florida Department of Environmental Protection (department or DEP) must pass an initial field audit and then pass a refresher audit every five years, per DEP Standard Operating Procedure (SOP) SCI 1300. The refresher audit requires the sampler or field organization to collect an SCI sample at a designated DEP SCI Benchmark Site and submit the sample to a laboratory for processing, following DEP SOP SCI 2000, which covers lab sample sorting, lab taxonomic identification, and calculation and reporting of the SCI score resulting from the sample analysis. The sampler or field organization demonstrates continuing proficiency (and is designated with a "pass" status in the DEP Bioassessment Registry) if the reported SCI score is no more than 19 points lower than the median SCI score for the Benchmark Site. An SCI result that is within the acceptance criteria established for the respective benchmark site provides assurance to DEP that the sampler or field organization and the taxonomic lab are properly following the DEP SOP. DEP conducts a records audit of the required documentation associated with the refresher audit sample to better determine how closely the lab complies with the procedures in DEP SOP SCI 2000.

For this audit, a single SCI sample from Mormon Branch in Marion County was examined. The sample was collected on May 1, 2015, by Mr. Dana Denson and Ms. Monica Stevens-Diaz of Reedy Creek Improvement District (RCID) for their SCI proficiency demonstration. The samples were processed by RCID. Some of the audit findings are unique to the individual SCI sample while other findings and comments pertain to the overall laboratory protocols for the handling and processing of SCI samples.

Summary of Findings/Acceptance of Corrective Actions

A preliminary audit report was sent to RCID on November 30, 2015. Mr. Denson from RCID provided responses to the preliminary report on January 8, 2016. The findings, RCID's responses, and the department's comments are provided in Table 1 below.

The department found that RCID's macroinvertebrate taxonomy lab procedures complied with DEP SOP SCI 2000 for sample sorting, taxonomic identification, and index calculation, with a few minor deficiencies, as noted below. RCID has provided acceptable responses to all of the listed findings, and the department accepts the corrective actions to the deficiencies indicated in Table 1. Based on the results of this audit, the department auditors have concluded that RCID follows all appropriate department SOPs for SCI sample analysis.

Data Usability Recommendation

Based on the results of this audit, the Aquatic Ecology and Quality Assurance Section has determined that the SCI data produced by RCID meet the department's data quality objectives, and recommends that the data may be used for refresher audit evaluation scoring for SCI sampling according to DEP SOP SCI 1300. The usability of the audited data for other purposes must be determined separately according to applicable requirements in rule 62-160.670, F.A.C.

Lab Quality System: RCID maintains copies of the appropriate taxonomic identification keys as well as a reference collection with nearly 800 externally-verified specimens from across a variety of taxonomic groups. Further, most of the specimens identified in the Mormon Branch sample were represented in the reference collection.

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Sample Processing, Sorting and Quality Control (QC): RCID's sorting and identification procedures comply with DEP SOPs. There was a 20 point difference in scores between Replicate 1 and Replicate 2 (50 and 70 points, respectively), which is beyond what is typically encountered. Care should be taken to completely homogenize the detrital matrix before sub-sampling to ensure two representative replicates. There was some misunderstanding on the part of RCID about the audit process. RCID thought that the entire process, including sample sorting and identification, had to be done by the analyst doing the sampling. In this case, since both Mr. Denson and Ms. Stevens-Diaz had performed the field sampling portion, they independently sorted and identified the individual replicates, which is a deviation from their typical protocols and may have led to fewer internal checks. This issue was discussed and clarified via a telephone conversation with Mr. Denson on 1/8/16. Nonetheless, because it did draw attention to possible differences in sample processing, RCID instituted additional protocols for addressing such differences in the future.

Taxonomic Identification QC: There were two organisms left at the Order Ephemeroptera and another left at the Order Trichoptera. It is unusual to leave these particular organisms at such a low level of taxonomic resolution (assuming the head is intact). A brief note should be included on the bench sheet explaining why it was necessary to leave these organisms at this level. Mr. Denson clarified in a follow-up email on February 10, 2016, that this issue is also related to the misunderstanding that the analysts were being evaluated independently. Typically, any taxonomist with a question about an identification, would consult with the senior taxonomist, but this step was bypassed since they did not think it would represent the individual's performance. This difference in level of identification may have contributed to the differences between replicate SCI scores.

RCID provided a narrative description of internal QC processes that indicated internal taxonomic QC checks are performed. However, the sorting and taxonomic Quality Assurance/Quality Control (QA/QC) records that were submitted suggest that QC checks are performed annually by an external expert, not just by internal review. Either protocol satisfies the requirement in SCI 2220; however, the description and records should be consistent with one another. Regardless of the mechanism, records showing how discrepancies are resolved should be provided.

SCI Index Calculation: RCID correctly classified taxa according to their attributes, correctly applied the appropriate calculations, and correctly assigned Mormon Branch to the Peninsula SCI Bioregion.

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Table 1. Audit findings of deficiency and/or requests for additional information for the SCI Laboratory Audit of Reedy Creek Improvement District conducted by the Florida Department of Environmental Protection Aquatic Ecology and Quality Assurance Section.

SOP Reference	Audit Finding	RCID Response	Corrective Action Implementation Date	DEP Comments
SCI 2100, Section 3.1.2.5 – 3.1.2.6	The bench sheets indicate that the samples were subdivided properly. However, DEP noted that there was a 20 point difference in the two replicates for the Mormon Branch sample. Compared to 83 SCI samples processed by DEP in 2015, this represents the 99 percentile of differences between replicates.	The FDEP SCI refresher audits were conducted independently by sampler, not by organization (group) as per our normal protocols. Samplers understood the testing was to assess their individual, not group efforts. Method SOP AQ-Macr-14v02 was updated on 1/7/16 to include QA/QC acceptable ranges to address differences between replicate scores. These updates will also be added to the RCID Environmental Sciences laboratory Quality Manual. Training of current taxonomist(s) will be included in this corrective action plan.	1/7/16	There was some confusion on the part of RCID that the entire process, including the sample sorting and identification, had to be done by the analyst doing the sampling. This misunderstanding led to fewer inter-analyst checks than usual as they thought they needed to work completely independently. This misunderstanding was clarified via a telephone conversation with Mr. Dana Denson on 1/8/16. However, because it did draw attention to possible differences in sample processing, RCID instituted additional protocols for addressing such differences in the future. DEP notes that regardless of the mechanism, care should be taken to completely homogenize the detrital matrix before sub-sampling to ensure two representative replicates. This corrective action is acceptable and considered complete.

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SOP Reference	Audit Finding	RCID Response	Corrective Action Implementation Date	DEP Comments
Table SCI 2230-1	There were two organisms left at the Order: Ephemeroptera and another left at the Order: Trichoptera. It is unusual to leave these organisms at such a low level of taxonomic resolution. No note was included on the bench sheet explaining why this was necessary.	This issue is also related to the misunderstanding that the analysts were being evaluated independently. Typically, any taxonomist with a question about an identification, would consult with the senior taxonomist, but this step was bypassed as they did not think it would represent the individual's performance (D. Denson 2/10/16). Method SOP AQ-Macr-14v02 was updated on 1/7/2016 to include protocols for sample taxonomic resolution to meet FDEP reference table SCI 2230-1 "Taxonomic Effort of Freshwater Macroinvertebrate Identifications". Training of current taxonomist(s) will be included in this corrective action plan.	1/7/16	This corrective action is acceptable and considered complete.
SCI 2220, Section 3.3 – 3.5	A narrative description was provided that indicated internal taxonomic QC checks are performed, but the sorting and taxonomic QA/QC records indicate that checks are performed annually by an external expert. The description and records should be consistent. Please clarify which procedure is used.	Method SOP AQ-Macr-14v02 section 14 (Quality Control) was updated on 1/7/16 to include protocols for quarterly proficiency demonstrations by taxonomists for each taxonomic specialty. This QA/QC check will be included in the RCID Environmental Sciences Laboratory Quality Manual. Training of current taxonomist(s) will be included in this corrective action plan.	3/31/16	Internal and external QA checks are performed by RCID, but the supporting documentation initially submitted did not make it clear that internal checks were being conducted. This was clarified in a telephone conversation with Mr. Denson on 1/8/16. Records showing how discrepancies are resolved should be maintained and provided. This corrective action is acceptable and considered complete.

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