



2011 Annual Quality Assurance Report

SW District Office

Biology Section

December 2011

Submitted by Gitta Schmitt

The Southwest District Bioassessment Group is responsible for biological assessments, providing training of biological assessment methods per FDEP Standard Operating Procedures as outlined in the DEP QA Rule, 62-160, F.A.C, and provides technical support to other departmental programs in the ecological aspects of water quality science. Additionally, members of the Strategic Monitoring Program (SMP) assist with biological field sampling and consequently require quality assurance (QA) training and audit.

SWD Bioassessment staff:

Peggy Morgan, ESIII; Gitta Schmitt, ESII; and Charles Thompson, OPS ESII

Strategic Monitoring Group (SMP) Staff:

Chris Anastasiou, ES III; Peter Tosh, OPS ESI; Justin Heller, OPS ESII and Charles Thompson, OPS ESII

In the 2011 calendar year, the Bioassessment Group provided training for field sampling and field-testing procedures used for bioassessment; the trainee is from a consulting firm. Other QA activities performed by the Bioassessment Group staff included technical assistance, in the form of Project and report reviews for other sections; and revision of our SOPs and QA manual. The group also provided outreach, writin Ecosummary reports, participating in classroom and Environmental Fairs, and retrieving data at the public request. Aside these activities, the group did a series of Stream Conditioning Index (SCIs) and Lake Vegetation Index for the Strategic Monitoring Group (SMP), as well as some special studies for the Standards and Assessment Section (SAS) in Tallahassee, which involved deployment of multiparameter meters, SCIs and Fyke net deployment. Starting in June through August the group responded to the Piney Point permitted emergency discharge by setting monitoring sites in the Bishop Harbor; collecting and identifying macroinvertebrates collected using ponar grabs. The Bioassessment Group also participated in a series of QA training workshops that were developed by the SAS, and which took place in April, and November.

In May 2011, during a routine reconnaissance in the Hillsborough river watershed, the group noted a mistake in the ARC GIS layer regarding the location and direction of a stream, the group found an unknown permanent stream and 2 unknown intermittent streams and corrected the trajectory for the original reckoned stream.

In 2012, the SMP group has several sites that require SCIs and some that require LVIs. The Bioassessment group will do reconnaissance of these sites and determine the best areas for assessment and perform the before mentioned assessments. The group plans to continue to provide training for new DEP staff and consultants as well as assisting SAS with its special projects. The group will continue with outreach for students and the general public, as well as writing Ecosummaries, technical reports, review Plan of Studies and Reports for other Sections, and provide data when requested either for the public, consultants or other government agencies.

Quality Assurance Training Activities

The section conducted or participated in various QA training activities in 2011. These involved different categories of training, as follows.

The SAS coordinated training for field staff performing bioassessment procedures according to the DEP SOPs. Instructors were from the SAS as well as other sections within DEP.

For the Lake Vegetation Index (LVI), training for both the LVI field methodology and the taxonomic identification of plants, which is needed to calculate the LVI, was conducted in April 26th through April 28th, 2011 in Apopka, Florida. Staff attending: Peggy Morgan, Peter Tosh, Jonathan Seiler, Charlie Thompson, Gitta Schmitt.

Training for the Stream Condition Index (SCI) sampling procedure and the Stream Habitat Assessment (HA) procedure was conducted in November 16th and 17th, 2011, during the Biocriteria Meeting. The meeting was held in Sarasota as part of the routine and ongoing activities conducted to facilitate training and discussion for biocriteria issues. Field and meeting-room activities addressed various QA topics for the bioassessment DEP SOPs, as well as methods development for new marine bioassessment procedures.

Wilderness First Aid and CPR training were held at the Hillsborough River State Park, on December 6th thru the 8th with classroom and “hands on” training for emergencies situations. Staff: Chris Anastasiou, Peggy Morgan, Charlie Thompson, Justin Heller, Peter Tosh and Gitta Schmitt.

Audit Activities

The section was audited by Standard and Assessment Section (SAS) for the data in the Dissolved Oxygen study conducted by the SWD in 2010.

Stream Habitat Assessment (HA) proficiency testing was conducted to evaluate individuals' ability to score streams according to the DEP HA SOP and have their scores fall within a specified range established by the median score of experts who evaluate the same benchmark streams. The HA procedure supports the interpretation of data derived from the SCI and BioRecon assessments. During the Biocriteria Meeting in November, 2011, SWD staff assisted in the establishment of three benchmark sites for Habitat Assessment audits and completed three of the five required assessments for the Habitat Assessment audit. Staff: Gitta Schmitt, Charles Thompson and Chris Anastasiou.

The section also participated in team proficiency testing for the Lake Vegetation Index field assessment procedure at the Biocriteria Meeting on April 27, 2011. Assessment teams were evaluated against the median score established by expert teams performing the DEP LVI SOP on the same lakes. Staff receiving certification: Peggy Morgan, Peter Tosh, Jonathan Seiler, Charlie Thompson, Gitta Schmitt

The Bioassessment group macroinvertebrate taxonomists participated in two inter-laboratory taxonomy identification quality control exercises ("Round Robin") coordinated by the SAS biology QA coordinator. These performance audits are conducted yearly to assess the ability of Department taxonomists to correctly identify organisms used in calculations for the Stream Condition Index (SCI), the BioRecon method, the Lake Condition Index (LCI), the Shannon-Weaver Diversity Index and other bioassessment activities, such as those used for the evaluation of wetlands and sediment biota. Staff participating: Peggy Morgan and Gitta Schmitt.

The most recent results were summarized in the 2010 SAS Report, indicating that both SWD taxonomists achieved the level of proficiency required by the DEP QA Rule, 62-160, F.A.C