# EcoSummary

**Myrtle Slough, WBID 2040, approx. 600 m west of State Road 31, Charlotte Co.**

**March 1, 2004**

*NPS BIOASSESSMENTS*

*EXCELLENT*

Stream Condition Index (SCI): The standardized biological assessment tool used by FDEP biologist to indicate ecosystem health and identify impairment as compared to reference (natural) conditions of streams within the various ecoregions of Florida

**For samples collected before June 8, 2004**
All field and laboratory methods followed FDEP Standard Operating Procedures and met FDEP quality assurance/quality control standards.
**For samples collected on or after June 8, 2004**
All field and laboratory methods followed FDEP Standard Operating Procedures (SOPs) and met DEP quality assurance/quality control standards.

## Purpose



A single Stream Condition Index sampling was performed at this site in order to examine the water quality in the stream and document the organisms that inhabit a potentially impacted stream in this geographical area. This is important because streams that are affected by human activities do not necessarily have poor water quality, and the biological standards on which the SCI is based require further refinement. Myrtle Slough, WBID 2040, is of particular interest because it is a source of drinking water for the City of Punta Gorda, and may be affected by ground water discharges with higher than normal amounts of dissolved salts. It is designated Water Body IDentification 2040 because two other streams in the area are also named Myrtle Slough.

## Watershed Characteristics

Myrtle Slough's drainage basin includes pine flatwoods, citrus groves, and improved pasture. Residential development is relatively sparse, but is increasing. The area around the sample site is mainly pasture and a large fill-mining operation. The creek flows into Shell Creek, the Punta Gorda reservoir, then the Peace River.

## Results

The SCI indicated that Myrtle Slough has adequate water quality to support a healthy aquatic insect community. **The stream scored 31 points out of 33 possible, and was rated "Excellent". Water chemistry met Class 3 standards for all parameters tested**. The Specific Conductivity (a measure of dissolved salts) was 931 microsiemens, not unusually high for the general area. The site is located in old pasture, about 200 meters from mining operations. The riparian (stream bank) zone on one side was open grass and brush, but there was a narrow fringe of oaks and cabbage palms along the other side of the creek. The in-stream habitat consisted of sand (70%), with small patches of vegetation (15%), rock rubble (9%), and undercut bank or exposed roots (4%). Flow was moderate (about 0.3 m/sec). The habitat score was 105 out of 160 possible points.

A Biorecon conducted at the same time also rated the stream as "Healthy."

## Significance

These results indicate that this stream has adequate water quality to support a very healthy aquatic community. The level of dissolved salts was not unusually high at the time of sampling, and does not appear to affect the aquatic biological community

## Suggestions

Encourage good land use practices in the basin, and maintain a monitoring program to further refine Stream Condition Index standards and to detect effects of changes in local land use. The Southwest Florida Water Management District has a program in place to reduce the release of high-conductivity ground water.

---

For more information, please contact
Albert S. Walton
South District Branch Office
7451 Golf Course Blvd., Punta Gorda, FL 33982
(941) 575-5814 (Suncom 765-5814)
E-mail: Albert.Walton@dep.state.fl.us

Published by the Florida Department of Environmental Protection
Tallahassee, Florida
For more information on the DEP Bioassessment programs, please visit
our web site at http://www.dep.state.fl.us/water/bioassess

**Myrtle Slough, WBID 2040, approx. 600 m west of State Road 31, Charlotte Co.**

