A site map can be viewed by clicking on the report site name.

EcoSummary

Gator Slough Canal, 100m west of US 41, Lee Co., 2 mi. S of Charlotte Co. line

October 1, 2002

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 canal and document the organisms that inhabit an 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.

Watershed Characteristics

Gator Slough Canal's drainage basin includes pine flatwoods, agricultural areas, golf courses, and residential areas. Residential development is mainly downstream of the present sample site, but no suitable sites have been located downstream. The area around the sample site is mainly residential. The canal flows over a series of low weirs into Charlotte Harbor at Matlacha Pass.

Results

The SCI indicated that Gator Slough Canal has adequate water quality to support a healthy aquatic insect community. **The stream scored 27 points out of 31 possible,**

and was rated "Excellent". Water chemistry met Class 3 standards for all parameters tested. Nutrients were relatively low. The site is overgrown on one side by mixed shrubs and trees, and bordered by a grassy road on the other. The in-stream habitat consisted of sand and silt (32%) and rock rubble (33%), with thick growths of submerged aquatic vegetation (27%) and small patches of leaf mat and undercut bank. Flow was moderate (between 0.1 and 0.3 m/sec). The habitat score was 105 out of 160 possible points.

Significance

These results indicate that this part of the canal has adequate water quality to support a healthy aquatic community. The lower portion is deeper, with less flow and vegetation, and may not be as able to support a healthy 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. Comparing conditions near the mouth of the canal could be interesting.

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