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

EcoSummary

Manuel's Branch above weir, Manuel"s Drive, Ft Myers

September 16, 2002

GOOD

NPS BIOASSESSMENTS

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 repeat Stream Condition Index sampling was performed at this site in order to examine the water quality in the stream, study seasonal variation, 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

Manuel's Branch's drainage basin is urban and suburban Fort Myers, including residential, commercial, and light industrial land uses. Lee Memorial Hospital and Ft. Myers High School are adjacent, and the canal for which Canal Street is named forms the upper part of Manuel's Branch. Bank restoration and revegetation projects have been done near the sample site. The creek flows over a small weir into the Caloosahatchee River.

Results

The SCI indicated that Manuel's Branch has adequate water quality to support a

healthy aquatic insect community. **The stream scored 25 points out of 31 possible, and was rated "Good". Water chemistry met Class 3 standards for all parameters tested.** The site is located in a residential area, with a high school on one side. The riparian (stream bank) zone on one side was grass with a paved jogging trail, scattered trees, and a football field; the other had a dense growth of exotic and native trees, with sparse vegetation under them. The weir at the downstream end of the sample site maintains a minimum depth of 0.3 meters at its base, and is approximately one meter above the usual level of the stream below it. The in-stream habitat consisted of sand and silt (73%), with patches of vegetation (3%), roots (7%), rubble (13%), leaf mats (1.5%), and snags (2%). Flow was moderate (0.25 m/sec). The habitat score was 93 out of 160 possible points. A BioRecon sampling done at the same time as the SCI indicated the stream was impaired.

Significance

These results indicate that this stream has adequate water quality to support a healthy aquatic community. The SCI score was only 2 points lower than the score of the previous sampling done March 8, 2001, so no significant seasonal effect was found.

Suggestions

Encourage good land use practices in the basin, and maintain a monitoring program to further refine Stream Condition Index standards and compare them to BioRecon standards, and to detect effects of changes in local land use.

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