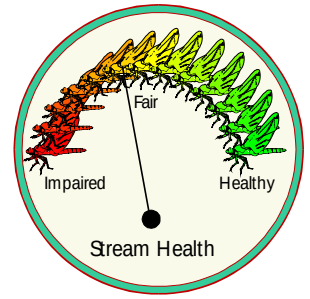


EcoSummary

BioRecon Report



Yellow Fever Creek @ SR78, Lee County 21 January 1998

BioReconnaissance (BioRecon): A rapid, cost effective screening mechanism for identification of biological impairment.

Purpose

A single BioRecon 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 in areas with many human activities do not necessarily have poor water quality, and the biological thresholds on which BioRecon is based require further refinement.

Basin Characteristics

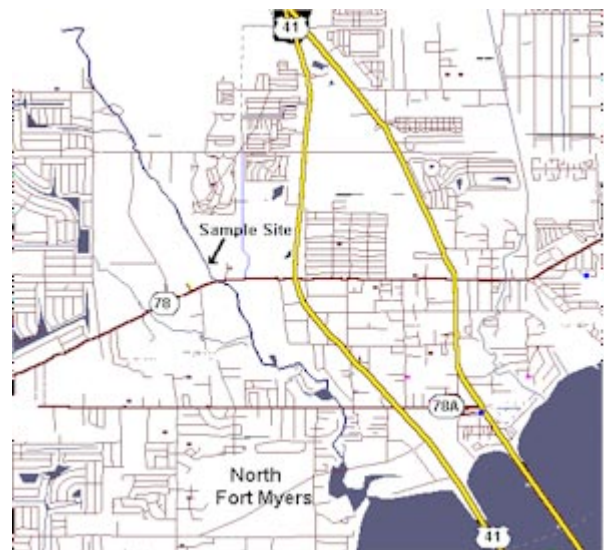
Yellow Fever Creek's drainage basin includes pine flatwoods, undeveloped open land, and low and medium density residential areas. The creek flows into the Caloosahatchee River.



Results

The BioRecon indicated that Yellow Fever Creek has barely adequate water quality to support a healthy aquatic insect community. **Yellow Fever Creek barely passed two of three BioRecon thresholds for a healthy stream.** There were **27** different taxa (minimum threshold = 18), a Florida Index score of **2** (threshold = 10), and **4** caddisflies or mayflies (threshold = 4). **Water chemistry met Class 3 standards for all parameters tested except dissolved oxygen, which was 4.9 ppm (standard is 5.0).** The site is located in pine flatwoods with some residential use. A road was under construction upstream, and part of the streambank had been cleared for retention ponds. The in-stream habitat consisted of mud and silt (65%), with aerobic (15%) and anaerobic leaf mats and small patches of vegeta-

tion, rubble, roots, and snags. Flow was very slow (0.07 m/sec) except in one shallow section which contained concrete rubble and other hard substrates. The habitat score was 115 points out of 160 possible.



Significance

These results indicate that this stream has marginal water quality to support a healthy aquatic community. However this is one of the few very slow flowing streams that have been sampled, and the results may be more indicative of slow currents than pollution. There are no obvious large sources of non-point-source pollution in the area. Further sampling of this and other slow-moving streams is needed.

Suggestions

Encourage good land use practices in the basin, and maintain a monitoring program to further refine BioRecon thresholds for streams and detect effects of changes in local land use. Examine other streams with slow current and varying degrees of human impact.

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Published by the Florida Department of Environmental Protection, Tallahassee, FL, 1997.