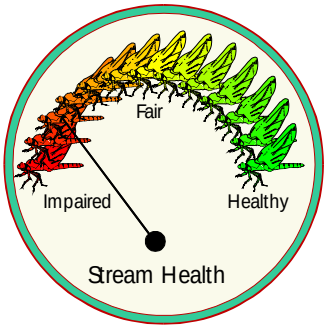
Bio-Reconnaissance

EcoSummary

BioRecon Report

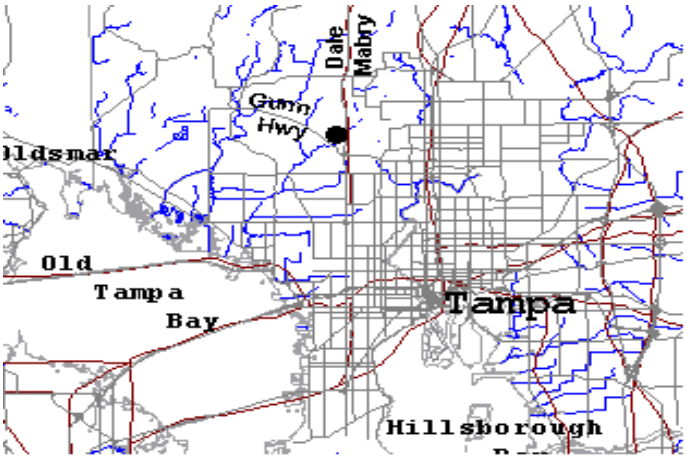


Sweetwater Creek, Hillsborough County
10 March 1998

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

Purpose
A BioRecon was performed on Sweetwater Creek in order to gain further information on the biological health of the watershed in the administration of Florida's Ecosystem Management and Total Maximum Daily Loads programs.

Basin Characteristics
Sweetwater Creek is located in western Hillsborough County, flowing from Carrollwood through the Town and Country area to Old Tampa Bay. The sampling site was located upstream of the Gunn Highway brdge. The riparian zone is limited in the immediate area, and the streambed appears to have been dredged in the past. However, there is a good amount of submerged vegetation, and some roots and snags present, providing instream habitat for macroinvertebrates. Land use in the basin consists almost entirely of high density residential development. There are no permitted domestic or industrial waste discharges upstream of the sample site.



Results
The stream was clear and its velocity was 0.5 m/s. Dissolved oxygen was 6.97 mg/l. Conductivity was 182 Tmho/cm, pH was 6.60 SU and temperature was 19.5 ^{0}C. The habitat assessment score was in the low submarginal range.

This site on Sweetwater Creek failed all three measurements of the BioRecon. This indicates that the stream did not support a healthy macroinvertebrate community and did not meet its designated use at the time of sampling.

Significance
An unbalanced invertebrate community may result in an inadequate food web for the support of vertebrate animals, such as fish and birds. If water quality is responsible for the impacted invertebrate population, Sweetwater Creek may also be affecting water quality in Old Tampa Bay.

Suggestions
Adequate instream habitat capable of supporting a diverse macroinvertebrate community is present at this site. Therefore it is suspected that water chemistry contributes to the unbalanced community in addition to habitat destruction. It is recommended that a water chemistry investigation , including heavy metals and pesticides, be executed. Accordingly, further recommendations for restoration could be made. background data for the ongoing management of medfly infestation that is currently threatening South Florida.

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