



ECOSUMMARY

A SWAMP Report

Telegraph Creek on Babcock Ranch

A BioRecon Assessment

September 16, 1996

Purpose

BioRecon: A rapid, cost-effective screening mechanism for identification of biological impairment.

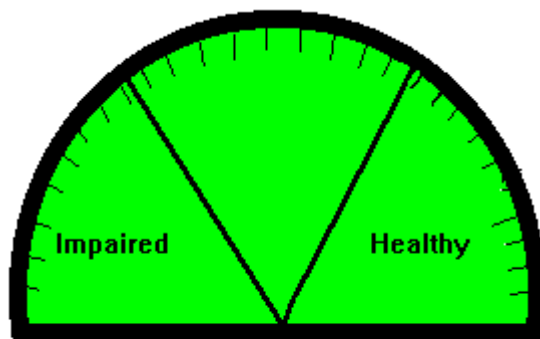
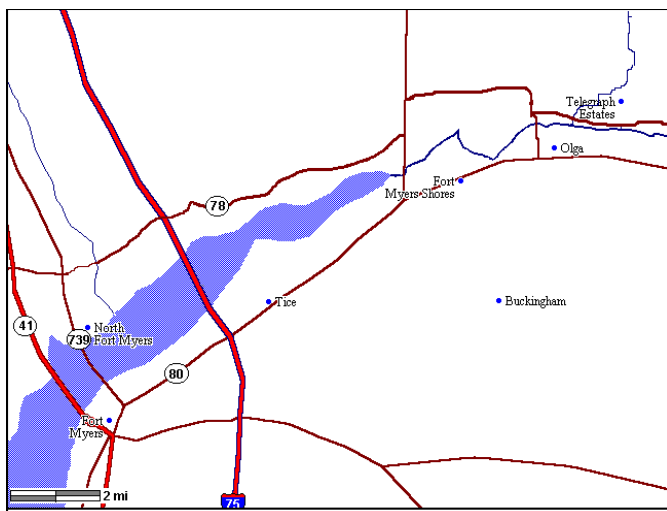
A single BioRecon sampling was performed at this site in order to determine the water quality in the stream and document the organisms that inhabit an unimpacted stream in this geographical area. This is important because reference data is required for comparison with impacted streams and the biological thresholds on which BioRecon is based require further refinement.



TELEGRAPH CREEK

Basin Characteristics

The drainage basin for Telegraph Creek includes pine flatwoods, scrub, and palmetto prairies. Major land uses in the area include cattle grazing, hunting, nature tours, and hay fields. Babcock Ranch is one of the mayor landowners in the basin. Big Island Canal, which dates from the 1930's, also drains Telegraph Swamp and reduces the flow in Telegraph Creek. The creek flows into the Caloosahatchee River. The site is a reference station for biological water quality criteria development.



Stream Health

Results



The BioRecon indicated that Telegraph Creek has excellent water quality and supports a very healthy aquatic insect community. The site is located in a forested natural area with an unaltered riparian (stream bank) zone. The habitat consisted of roots/undercut banks (30%), aquatic vegetation (20%), rock rubble (20%), and snags (15%). There was little sand or leaf mat, possibly due to massive flooding last summer. Flow was strong (0.2 to 0.4 m/sec). **Telegraph Creek passed all three BioRecon thresholds for a healthy stream.** There were 37 different taxa (minimum threshold = 18), a Florida Index score of 21 (threshold = 10), and 13 caddisflies or mayflies (threshold = 4). **Water chemistry indicated that dissolved oxygen was 4.8 parts per million, slightly below the Class III standard of 5 ppm.**

Significance

These results confirm that this stream has very good water quality at present, and is relatively unimpacted by human activities.

Land in the immediate drainage area is mostly pine/palmetto flatwoods with sparse cattle grazing. However, the potential exists for impacts to the stream from more intensive agriculture (row crops) that is being introduced nearby.

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.

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