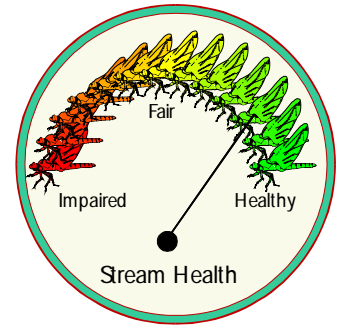


# EcoSummary

## BioRecon Report



### Horse Creek at SR 72 July 10, 1997

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

#### Purpose

A repeat BioRecon sampling was performed at this site in order to examine the water quality in the stream and document the organisms that inhabit a reference stream in this geographical area. This is important because data from streams of known good water quality is needed for comparison with potentially impacted streams, and the biological thresholds on which BioRecon is based require further refinement

#### Basin Characteristics

The drainage basin for Horse Creek includes pine flatwoods, native and improved pasture, and oak woodlands. Major land uses in the area include low density grazing and rural residential. The creek flows into the Peace River.



#### Results

The BioRecon indicated that Horse Creek has adequate water quality to support a very healthy aquatic insect community. The site is located in a pasture with numerous oaks, especially near the stream. The riparian (stream bank) zone is covered by grass and low herbaceous vegetation under an oak, cypress, and willow canopy. The habitat consisted of sand/silt (50%), but with adequate aquatic vegetation (15%), benthic leaf mats (10%), and undercut banks (10%). Flow was strong (0.3 to 0.5 m/sec). Horse Creek passed all three BioRecon thresholds for a healthy

stream. There were 38 different taxa (minimum threshold = 18), a Florida Index score of 23 (threshold = 10), and 14 caddisflies or mayflies (threshold = 4). Water chemistry met all Class III standards.



#### Significance

These results confirm that this stream supports a very healthy aquatic community.

Land in the immediate drainage area is mostly woods and pasture with sparse residential use. However, the potential exists for impacts to the stream from more intensive agricultural development and potential phosphate mining in the headwaters.

#### 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.

For more information, contact Albert Walton, FDEP South District, 7451 Golf Course Blvd., Punta Gorda, FL 33982 (941)639-4967.

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