



# ECOSUMMARY

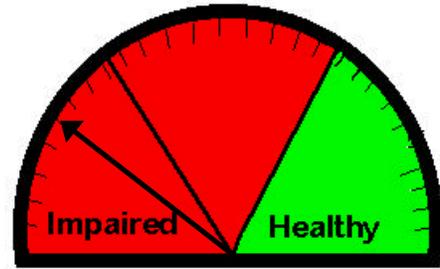
A Biorecon

## Assessment

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

### Surface Water Assessment & Monitoring Program

South District



Stream Health

## Broad Creek at Carmalita Street, Punta Gorda

February 20, 1997

## Purpose

A single BioRecon sampling 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 impacted streams may have good water quality, and the biological thresholds on which BioRecon is based require further refinement.



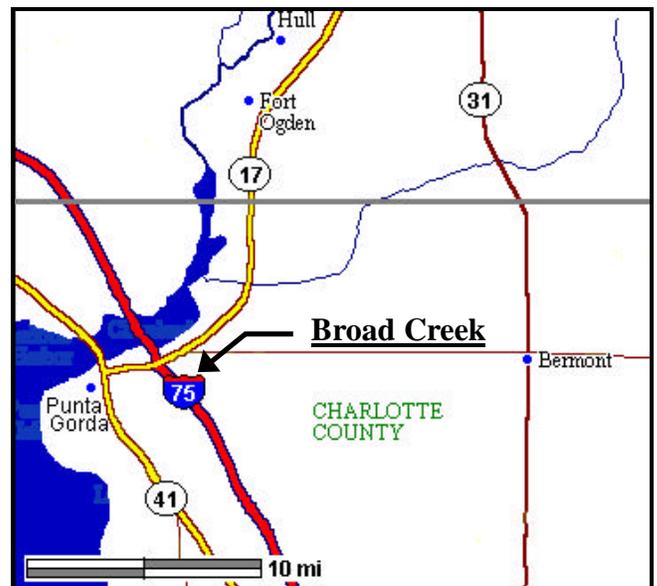
## Results



The BioRecon indicated that Broad Creek does not support a healthy aquatic insect community. The site is located beside an interstate highway; the surrounding land and the riparian (stream bank) zone are highly altered. The habitat consisted of sand/silt (60%), with a heavy growth of aquatic vegetation (40%). Flow was slow (less than 0.1 m/sec). **Broad Creek passed only one BioRecon threshold for a healthy stream.** There were **34** different taxa (minimum threshold = 18), a Florida Index score of **3** (threshold = 10), and **2** caddisflies or mayflies (threshold = 4). **Water chemistry indicated that dissolved oxygen was 4.1 parts per million, below the Class III standard of 5 ppm.**

## Basin Characteristics

The drainage basin for Broad Creek includes the Charlotte County Airport, I-75, cow pastures, undeveloped open land, borrow pits, and pine flatwoods. Major land uses in the area include industry, transportation, and ranching. The creek is a major stormwater conduit and flows into the Peace River.



## Significance

These results indicate that this “stream” is impaired in its ability to support a healthy aquatic community.

Some of the ditches draining to Broad Creek have been cleared and reshaped in the last year, which may have affected the aquatic community even more than the usual conditions in the creek.

## Suggestions



Encourage good land use practices in the basin, and maintain a monitoring program to further refine BioRecon thresholds for streams. Reshaping parts of the ditch and improving the riparian habitat might improve conditions, if this could be done without reducing the creek’s drainage capacity.

For more information call Albert S. Walton, Jr., 941-639-4967 or write DEP, 7451 Golf Course Blvd., Punta Gorda, FL 33982, attn.: Albert Walton.