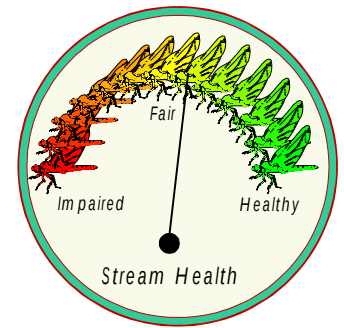


EcoSummary

BioRecon Report



Stroud Creek at State Road 78, North Fort Myers July 31, 1996

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

Purpose

A single BioRecon sampling was performed at this site in order to document the organisms that inhabit a potentially impacted stream in this geographical area, and to compare this stream with others which have minimal human impacts. This is important because impacted streams can still have adequate water quality, and the biological indicator thresholds that are the basis of BioRecon require further refinement.



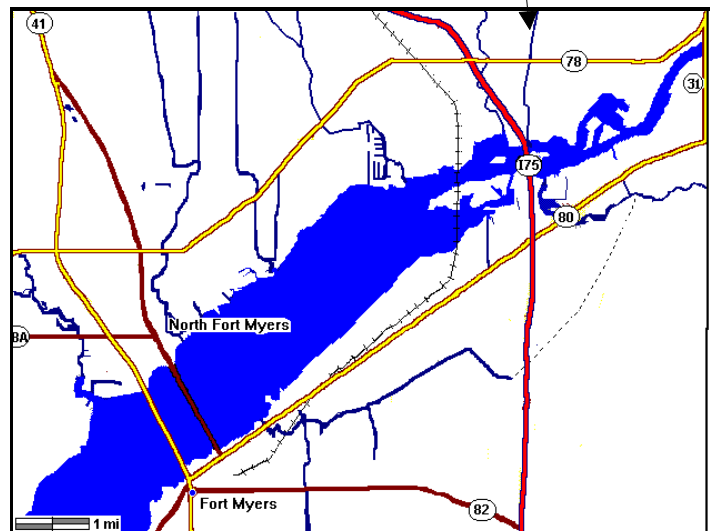
Basin Characteristics

The drainage basin for Stroud Creek includes suburban and semirural residential areas and undeveloped open land. Major land uses in the area include residential and small agricultural areas. Pine flatwoods are the dominant natural vegetation.

Results

The BioRecon indicated that Stroud Creek is an impacted stream with habitats and macroinvertebrate species that differ from unimpacted streams in the same area, but supports a marginally healthy aquatic community. The site is located in a residential area with a vacant lot on one side. Both banks are lined with Brazilian Pepper. Scattered cypress are also present. The understory on the banks is grass and poison ivy. The habitat consists of sand (83%), with a few snags, leaf mats, and about 10% exposed roots/ undercut banks. Flow was evident but slow (0.1 m/sec). Stroud Creek barely met the BioRecon threshold for a healthy stream. There were 18 different taxa (minimum threshold = 18), 5 mayflies

Stroud Creek



or caddisflies (minimum = 4), and a Florida Index score of 7 (minimum = 10). Water chemistry indicated that pH was rather low (5.6) and dissolved oxygen was 4.5 parts per million, below the Class III standard of 5 ppm.

Significance

These results confirm that this stream is at present somewhat impacted by human activities, but still provides barely adequate water quality for a healthy macroinvertebrate population.

Land in the immediate drainage area is not densely developed now, however, the potential exists for increasing impacts to the stream from more intensive residential and commercial development.

Suggestions

Encourage good land management practices in the basin and maintain a monitoring program to detect effects of changes in local land use and provide data for refinement of BioRecon thresholds and methods.

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