A site map can be viewed by clicking on the report site name.

EcoSummary

Gee Creek downstream of SR 419/434

April 17, 2002

TMDL STUDIES

HEALTHY

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

For samples collected before June 8, 2004
All field and laboratory methods followed FDEP Standard Operating Procedures and met FDEP quality assurance/quality control standards.
For samples collected on or after June 8, 2004
All field and laboratory methods followed FDEP Standard Operating Procedures (SOPs) and met DEP quality assurance/quality control standards.

Purpose



A biorecon was performed at Gee Creek to further monitor the health of this stream. In 1996-97, a study was carried out by FDEP Central District biologists to assess the health of the different tributaries flowing into Lake Jesup (see http://www.dep.state.fl.us/water/bioassess/docs/biorepts/otherepts/jessup.pdf.) This bioassessment was designed as a follow-up to that study. In addition, the data obtained will be useful in the further refinement of FDEP's bioassessment protocols.

Watershed Characteristics

Gee Creek originates in 78-acre Lake Kathryn, a highly urbanized and eutrophic water body located in Casselberry alongside US Hwy 17/92. The eighteen square mile drainage area of the creek includes virtually all of the city of Casselberry, plus portions of Longwood and Winter Springs, all of which are within Seminole County. About 70% of the basin is urbanized, with most of the remainder being natural uplands and wetlands. Gee Creek flows northward out of Lake Kathryn through the western part of Winter Springs before uniting with Soldier's Creek at the extreme western end of Lake Jesup.

Results

The creek received a healthy rating on the biorecon. There were 33 different macroinvertebrate taxa collected, including 5 from the sensitive EPT group (larval mayflies, stoneflies, and caddisflies). Gee Creek was given score of 14 on the Florida Index, based on the number of different pollution-intolerant invertebrates found there.The most abundant macroinvertebrate taxa collected were the riffle beetle *Stenelmis* sp., the non-native clam *Corbicula fluminea*, the mayfly *Pseudocloen* sp., and the caddisfly *Cheumatopsyche*.

In addition to the biorecon, the level of total coliform bacteria in the water was measured. The result was 244 colonies/100mL, which is a relatively low value.

The habitat assessment was fairly good, Gee Creek scoring 104 out of a possible 160 points.

Significance

These results suggest that Gee Creek is in fairly good health. Although not truly excellent results, they are sufficient to rate them stream as "healthy" at this time.

Suggestions

Streamside landowners should help to minimize the amount of pollution entering the system by reducing or eliminating the use of pesticides, herbicides, and inorganic fertilizers, maintaining septic and sewer systems, and controlling invasive exotic plant species on their properties.

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For more information on the DEP Bioassessment programs, please visit our web site at http://www.dep.state.fl.us/water/bioassess

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