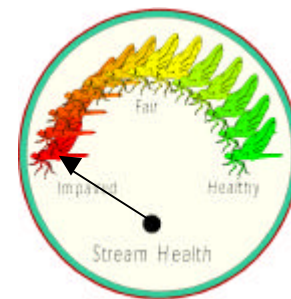


EcoSummary

BioRecon Report



"Compton" Branch Blackwater River State Forest Section 22 dirt road Okaloosa County August 12, 1998

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

Purpose

A BioRecon was performed at this site to assess the impacts of a dirt road to the biota and wildlife habitat in "Compton" Branch. This bioassessment was a partnership with the Blackwater River State Forest and the Gulf Plain Ecosystem Partnership.

Background

"Compton" Branch at the bioassessment site (Lat 30 55' 20" Long 86 44' 00") is a first order tributary to the Blackwater River, which is classified as Outstanding Waters under the Florida Water Quality Standards. The Blackwater River flows into Pensacola Bay via the Blackwater and East Bays. The Yellow River Marsh along Blackwater Bay is a State Aquatic Preserve. "Compton" Branch drains the southern pine plains and hills of subecoregion 65F.



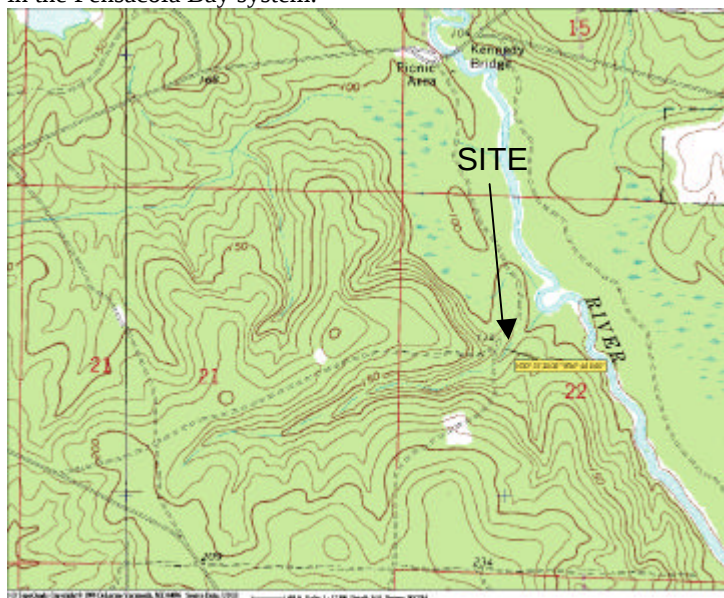
Results

The BioRecon indicated severe impairment to the biological community. All 3 biological indicators failed to meet thresholds established for healthy aquatic ecosystems:

Biometrics	Value	Thresholds
Taxa Richness	13	≥ 24
Florida Index	8	≥ 22
EPT	3	≥ 17

The aquatic community had low diversity and productivity. The site habitat was degraded. Sediment (98% clayey sand, 1 % mud/silt) smothered the benthic habitats limiting the substrate availability and diversity. The stream was braided due to road sediments filling the natural channel. Sediment deposition below the road had reduced its depth to 0.2 meters or

less from ~ 0.6 to 1 meters. The stream became turbid after disturbing the sediments. These sediments cloud the downstream river and bays after rainfall and eventually deposit in the Pensacola Bay system.



Significance

The results confirm that this stream is degraded by human activities. This "Compton" Branch site does not meet Class III State Water Quality Standards 62-302 for recreation and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. Sediment runoff from the dirt road had smothered wildlife habitat and killed local wetland vegetation. This runoff contributes to downstream turbidity and the filling of river and bay bottoms.

Suggestions

Stream restoration has begun with the Blackwater River State Forest and the Gulf Coastal Plain Ecosystem Partnership closing the road. Volunteers will plant vegetation to stabilize sediments and filter runoff. Historical silviculture activity has reduced the riparian zones in many Northwest Florida streams. Future forest management to restore native riparian and transitional zone forest would enhance fish and wildlife diversity and productivity.

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