

2008 Monitoring Summary

Mill Creek at Butler Co Rd 45 intersect (31.54871/-86.68067)

BACKGROUND

The Alabama Department of Environmental Management (ADEM) selected the Mill Creek watershed for biological and water quality monitoring as part of the 2004 Basin-wide Screening Assessment of the South East Alabama (SE-AL) River Basins. The screening assessments were conducted at stream reaches where land use estimates and non-point source information from the local Soil and Water Conservation Districts indicated a moderate or high potential for impairment from nonpoint sources in non-urban areas. Results of the 2004 screening-level evaluation identified Mill Creek at MLLB-1 for further monitoring during the 2008 Basin Assessment of the SE-AL River Basins to more fully assess biological conditions at the site, as well as the extent and cause of any impairment. Mill Creek was listed in [Alabama's Clean Water Act \(CWA\)305\(b\)/ §303\(d\) list](#) of impaired waters for not meeting its biological integrity. The ADEM selected Mill Creek for [2008 South East Alabama \(SE-AL\) Use Support Assessment](#) to verify biological impairment assessed in 2004 using ADEM's [Intensive Multi-habitat Bioassessment methodology \(WMB-EPT\)](#).

The ADEM attempted water quality sampling, habitat and macroinvertebrate assessments of Mill Creek at Butler County Road 45 intersect at MLLB-1 in 2008 as part of this intensive monitoring effort. However, neither water sampling nor assessments could be conducted due to dry stream bed and no flow conditions in all visits.



Figure 1. Reach Characteristics of Mill Creek watershed at MLLB-1, February 19, 2011.

Table 1. Summary of watershed characteristics.

Watershed Characteristics		
Basin	Perdido-Escambia River	
Drainage Area (mi ²)	1	
Ecoregion ^a	65d	
% Landuse		
Forest	Deciduous	28
	Evergreen	41
	Mixed	16
Shrub/scrub		5
Pasture/hay		5
Cultivated crops		1
Development	Open space	3
Population/km ² ^b	7	

a.Southern Hilly Gulf Coastal Plain

b.2000 US Census

WATERSHED CHARACTERISTICS

Watershed characteristics are summarized in Table 1. Mill Creek at MLLB-1 is a very small [Fish and Wildlife \(F&W\)](#) stream with a drainage area of one square mile (Figure 1). It is located in Butler County on Southern Hilly Gulf Coastal Plain. Landuse within the watershed is predominantly forest (85%), interspersed with a some patches of shrub/scrub and pasture/hay. Population density is very low. No permits have been issued on the watershed as of February 23, 2011.

SUMMARY

Due to dry stream conditions, water samples were not collected and macroinvertebrate sampling was not performed.

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