

The pages in this document were taken from the "Millers Creek Watershed Improvement Plan" published in April 2004. The entire document can be found at <http://www.aamillerscreek.org/Findings.htm>.

Millers Creek Watershed Improvement Plan

**Excerpt Showing an Example of How to
Document Watershed Geology and Soils**

April 2004

Geography

The Millers Creek watershed is located on the Defiance end moraine. The creek originates at an elevation of approximately 880 feet Mean Sea Level (MSL) and drops roughly 130 feet in 2.5 miles to an elevation of 746 MSL. The average gradient (elevation drop over length) of Millers Creek is approximately 52 ft/mi (See **Figure 5.2**). By comparison the Huron River from its headwaters to Lake Erie has an average gradient of 2.95 ft/mi. The Millers Creek gradient is rare in Southeast Michigan and theoretically should offer some of the area's most diverse stream habitat.

The creek flows across the broad Huron River valley, carrying some glacial outwash material, post-glacial alluvium and watershed soils. In the Ruthven Nature Area, a well-preserved kame marks the spot where granular material filled a glacial hole before the last retreat of the glaciers. When the glacier melted away, the granular material filling the void was left behind as a mound some 30 feet higher than the surrounding landscape.

Most of the soil in the watershed is classified as poorly draining (hydrologic soil class C) clay loam (See **Table 5.1** below). Some granular alluvium soils (material deposited historically by running water) are immediately adjacent to the creek, but they make up a small percentage of the total watershed area. In the lower reaches of the watershed, particularly in the Huron High

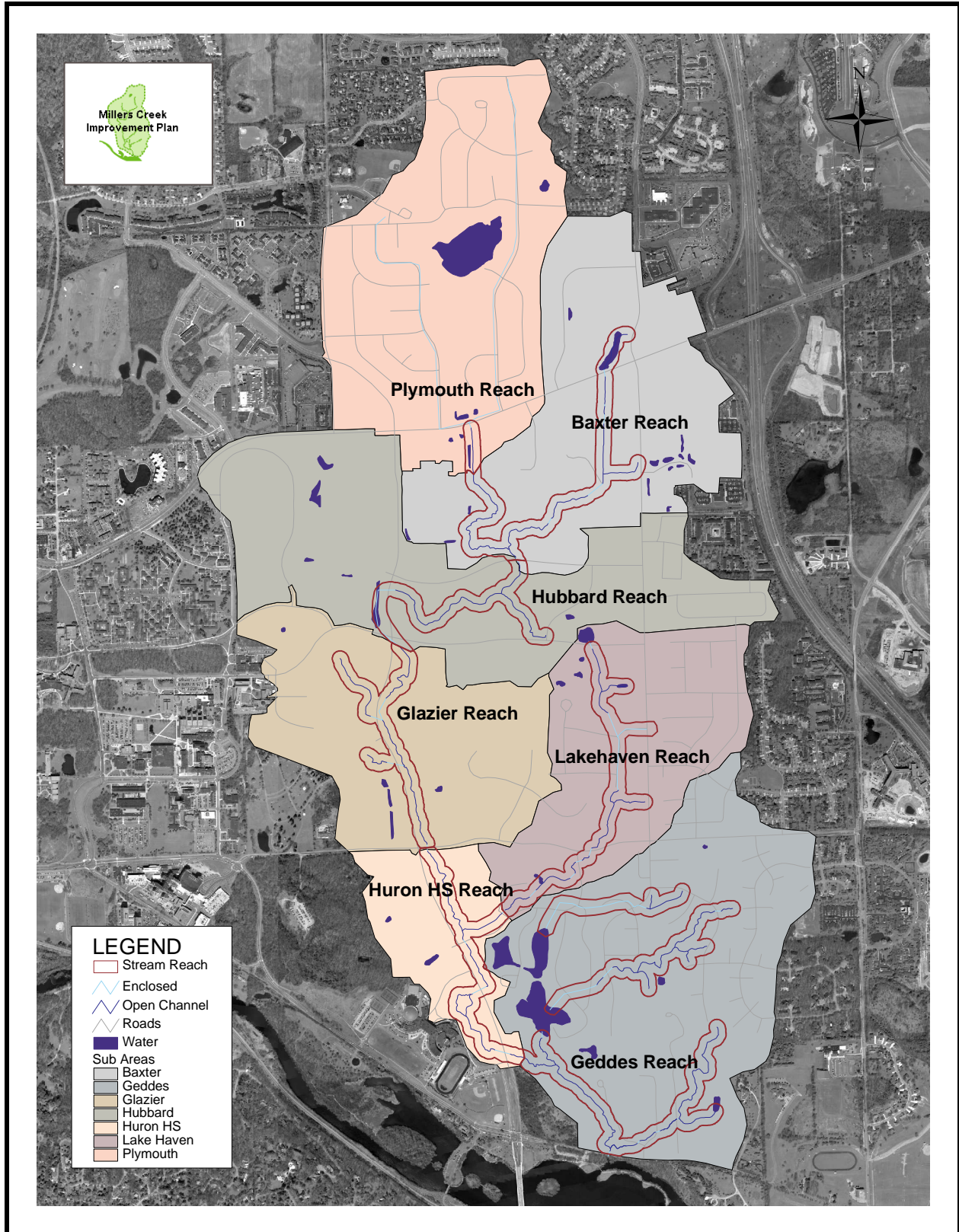


Figure 5.1 Millers Creek Reaches

School and Geddes subwatersheds, there are some significant areas of loamy sands that are probably alluvium or glacial outwash deposits.

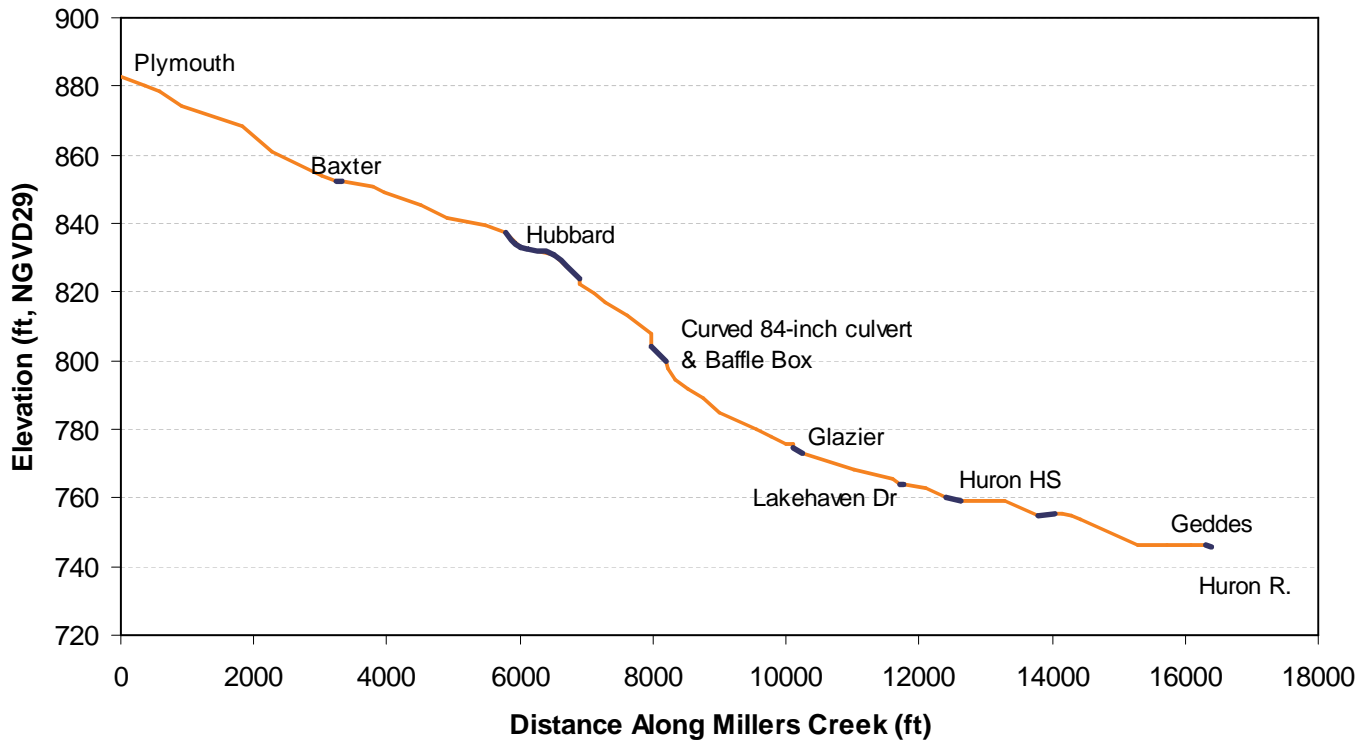


Figure 5.2 Elevation Change Along Millers Creek

Table 5.1 Millers Creek Soils (identified by SCS Texture Class) by Subwatershed

	Subarea	Plymouth	Baxter	Glazier	Hubbard	Huron HS	Lake Haven	Geddes
Hydrologic Soil Type	Total Subarea Area (ac)	275.86	241.04	196.43	258.73	80.55	170.10	308.52
A	Loamy Sand	0.0%	0.0%	8.3%	0.0%	36.8%	0.0%	0.0%
A	Sandy Loam	0.0%	0.0%	37.9%	3.0%	16.0%	4.2%	41.3%
B	Loam	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	2.4%
B	Clay Loam	96.8%	100.0%	53.8%	97.0%	23.6%	89.0%	53.7%
C	Sandy Clay Loam	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	0.1%
D	Muck	2.9%	0.0%	0.0%	0.0%	4.0%	4.9%	0.0%
D	Fill	0.0%	0.0%	0.0%	0.0%	18.5%	0.7%	2.4%
Impervious	Water	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%