

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 Macroinvertebrate Populations

April 2004

Macroinvertebrate Population / Habitat

In general, Millers Creek is in poor physical condition and appears to support an impoverished macroinvertebrate population (See **Appendices J and K**). With the high gradient and extremely flashy conditions, small storms that occur several times a year may result in significant movement of stream bed material, disturbing the substrate and preventing reestablishment of the benthic community. Wiley et al. (1997) found that it could take 2-3 generations for an aquatic community to recover from such a hydrologic disturbance. In much of the creek, storm flows have eroded the stream channel and destroyed habitat.

The Plymouth Road site is the most impoverished of the eight study sites on Millers Creek, supporting on average of only four insect families. Of the sites with continuous flow data, it is also clear this is the flashiest site, with extremely low flows transformed into very high peak flows in a matter of minutes. Only one EPT family, the small minnow mayfly (Family Baetidae), was found during the three macroinvertebrate surveys. Sensitive families were not found at this location. The site at Baxter Road offers the best physical conditions yet still appears to support an impoverished population.

With the exception of the Glazier Road study site, insufficient data is available to assess the biological conditions at Millers Creek study sites. Preliminary data suggests an overall lack of EPT families and sensitive families. However, a sensitive family was found at Meadows, and two were found at the Narrow Gage Way study site. In addition, two families of winter stoneflies were found at the Narrow Gage Way site in 2003.