

1 Introduction

Montgomery County's Department of Environmental Protection (MCDEP) protects and enhances aquatic ecosystems through stormwater management and stream restoration projects to show the County's commitment to its natural resources and to comply with the County's National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer (MS4) Permit. The MS4 permit requires the County to take the necessary steps to capture more stormwater runoff from impervious surfaces (rooftops, driveways, roads, etc.) through stormwater management, and further enhance stream health by reducing/eliminating nutrients, sediment, and trash from entering streams. *Figure 1.1* is an example of a stream restoration project implemented by MCDEP. Monitoring the success and/or failures of the various restoration projects is crucial in determining how future projects will be designed and built to ensure a positive impact on the aquatic ecosystem. MCDEP conducts monitoring beyond the baseline requirements set forth by the regulatory agencies to ensure all the goals of the projects are met. *Figure 1.2* is an image of a restoration monitoring team sampling a restoration site for benthic macroinvertebrates, one of the parameters used to evaluate restoration effectiveness.

This report presents a brief background of individual restoration projects monitored in 2010, the data collected, the associated data analyses, and the effectiveness of each completed restoration project in meeting its project goals.



Figure 1.1 – The Results of a Successful Stream Restoration



Figure 1.2 – Stream Monitoring In Progress