



1.0 INTRODUCTION

The submission of this annual progress report to the Maryland Department of the Environment (MDE) fulfills requirements specified under the Frederick County National Pollutant Discharge Elimination System (NPDES) Permit No. MD0068357. This second-generation Phase I permit is effective from March 11, 2002 through its expiration date of March 11, 2007 and covers stormwater discharges from the municipal separate storm sewer system (MS4) in Frederick County.

Continuing progress has been made in developing the stormwater management program since the 2004 Annual Report was submitted in March 2005. Stormwater management, facility identification, sediment control, illicit discharge detection, and enforcement activities have been further enhanced to meet permit requirements. Stream monitoring continued into its seventh year with the resampling of long-term watershed monitoring stations in Peter Pan Run and Linganore Creek. Pre-restoration monitoring also took place at stations in Ballenger and Bennett Creeks. Public outreach activities and Geographic Information System (GIS) data have also continued to develop, meeting requirements of the permit. The field and modeling study of the effectiveness of the *2000 Maryland Stormwater Design Manual* continued into its third year. County-sponsored public outreach initiatives continued, particularly related to the County's Watershed Restoration Action Strategies (WRAS). NPDES funding remains adequate to meet the conditions of the permit.

The sections in this annual report follow specific sections presented under Part III, Standard Permit Conditions, of the County's NPDES Permit to document how required elements of the County's stormwater program are being implemented. Introduction to the document is presented in Section 1. Section 2, Permit Administration, provides names, functions, and contact information for all primary administrative and technical personnel and liaisons responsible for permit compliance, as well as an organizational chart. Section 3, Legal Authority, documents the recertification from the County Attorney that the County possesses the authority to perform NPDES-related activities. Section 4, Source Identification, presents an update on the County's continued GIS initiatives, such as orthophotography, infrastructure mapping, and data portability. Section 5, Discharge Characterization, discusses monitoring activities, such as the County's long-term physical, chemical, and biological monitoring program at Peter Pan Run and at a land use-specific Best Management Practice (BMP) outfall. Results of this program are presented, along with pollutant load estimates, biological and physical assessment data, and other related information. Field data, discussion, and model runs characterizing stream conditions for the *2000 Maryland Stormwater Design Manual* study are presented. In Section 6, Management Programs, the County presents progress summaries and updates of several permit management activities, such as illicit detection programs; spill response; erosion and sediment control programs; public outreach; road maintenance activities; and pesticide/herbicide use. Section 7, Watershed Restoration, presents progress in implementing WRAS evaluations and project planning for both the Lower and Upper Monocacy watersheds, plus assessments of restoration activities in Lower Bush Creek, Ballenger Creek, and Lower Linganore Creek. Details of

biological and physical monitoring in selected watersheds are provided. Section 8 covers program funding. Section 9, Assessment of Controls, provides estimates of expected pollutant load reductions based on BMP type. In Section 10, Special Programmatic Conditions, the County reports on its participation in the Upper Potomac Tributary Team and progress toward meeting the goals of the Chesapeake Bay 2000 Agreement, along with County activities related to the Lake Linganore TMDLs. Section 11 is a new section that contains the County's request for renewal of their NPDES permit. Section 12 lists references. All sections of the document have been reproduced electronically on the accompanying CD.

Fifteen appendices have been included in this document. Contents of all appendices, except public outreach materials, county funding data, GIS holdings, the public schools Integrated Pest Management plan, industrial discharge permit application materials, and Frederick County's Tree Re-enforcement project letter are also available on the CD, either in graphic files or database format. All database files are in an MDE-approved application format and have been included in their entirety on the CD. However, for the sake of brevity, only a few example pages from each of the larger databases have been included in the bound document. Appendix A presents Frederick County's Attorney Certification that confirms that the County has the authority to conduct the NPDES program. Appendix B contains summary tables of GIS layers available to the County. Appendix C includes examples from the County's NPDES databases, including the stormwater management (SWM) maintenance inspections master list, field screening reports, and screening for illicit connections. Also included are example certificates from the erosion and sediment control responsible personnel certification program. Long-term water quality monitoring data from the County's priority watershed are provided. All databases required for the NPDES submittal are presented here (abbreviated format in bound copy). Appendix D gives pollutant estimates for all municipal storm sewer outfalls in the County. Appendix E presents the methods for estimating pollutant loads from water chemistry monitoring at Peter Pan Run and Pond R Outfall. Appendix F contains field habitat, water quality, and biological data from Peter Pan Run. Appendix G shows additional cross-sectional and longitudinal survey information for the *2000 Maryland Stormwater Design Manual* study, supplementing the material in Section 5.2. In Appendix H, example field datasheets are provided for the County's erosion and sediment control quality assurance and quality control program. Appendix I contains public outreach materials information from County agencies, web pages, and clippings of local media coverage of NPDES-related activities. In Appendix J, examples of Highway Operations activities are presented in tabular form. The prioritized listing of County watersheds is found in Appendix K. Appendix L contains field habitat, water quality, and benthic macroinvertebrate data from Ballenger Creek, Linganore Creek, and Bennett Creek. In Appendix M, the County's long-term CIP funding plan worksheets are provided. Appendix N contains examples of permit applications and "No Exposure Certification for Exclusion from NPDES Storm Water Permitting" forms. Appendix O contains an Integrated Pest Management plan for Frederick County public schools. Appendix P presents the County's GIS master plan. Appendix Q contains a letter showing the accomplishments of the County's Tree Re-enforcement project.

