1.0 INTRODUCTION

The submission of this annual progress report to the Maryland Department of 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 stormwater management, long-term watershed monitoring, restoration and retrofit implementation, Geographic Information System (GIS) data, modeling studies, and public outreach activities in accordance with the requirements of the permit. 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 GIS capabilities, 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 discharge detection, spill response, erosion and sediment control, public outreach, road maintenance, and pesticide/herbicide use. Section 7, Watershed Restoration, presents a progress report on current and planned restoration projects. Detailed updates on restoration efforts in top priority watersheds (Lower Bush Creek, Ballenger Creek, Linganore Creek, and Bennett Creek) are provided. 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 activities undertaken to meet the Chesapeake Bay 2000 Agreement, existing total maximum daily loads (TMDLs) and the establishment of new TMDLs. Section 11 lists references. All sections of the document have been reproduced electronically on the accompanying CD.

Sixteen appendices have been included in this document. Contents of all appendices, except some public outreach materials and the public schools Integrated Pest Management plan 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 lists of GIS layers available to the County and under development. 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. Long-term water chemistry 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 including public meeting materials, road signage, brochures, 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 biological community data from Bush Creek, Ballenger Creek, Linganore Creek, and Bennett Creek. In Appendix M, the County's NPDES organizational budget and long-term CIP funding plan worksheets are provided. Appendix N contains procedures and templates for preparing stormwater pollution prevention plans, and an example of correspondence related to the termination of an industrial discharge permit. Appendix O contains an Integrated Pest Management plan for Frederick County public schools. Appendix P documents the CIP selection process for watershed retrofit and restoration projects. Appendix Q provides materials related to a recent survey of stream monitoring programs in Frederick County.