



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 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 2003 Annual Report was submitted in March 2004. Stormwater management, facility identification, sediment control, and enforcement activities have been further enhanced to meet permit requirements. The long-term monitoring program continued into its sixth year with the completion of pre-restoration monitoring in Bennett Creek, Linganore Creek, and Ballenger Creek. Development of public outreach activities and the Geographic Information System 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 second year. WRAS activities, including public meetings, workshops, and demonstration workshops, were expanded. 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 the County's successful efforts to develop Geographic Information System and NPDES databases to compile and analyze County-wide source identification information, as well as examples. This meets the permit requirements that by March 11, 2005, the County provide an exhibit of existing capabilities for Ballenger watershed and a schedule for the remainder of GIS data. 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 scoring, 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, progress summaries and updates of several stormwater management programs are presented, including illicit detection programs; spill response, erosion and sediment control programs; public outreach; road

maintenance activities; and pesticide/herbicide use. This section also includes an evaluation of these management programs. Section 7, Watershed Restoration, presents progress towards implementation of Watershed Restoration Action Strategies (WRAS) for both the Lower and Upper Monocacy watersheds, plus progress toward recommendations made in the assessments of 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 information on estimates of expected pollutant load reductions as a result of proposed management programs. Section 10, Special Programmatic Conditions, reports on the County's efforts to meet the Chesapeake Bay Program nutrient reduction goals in the Upper Potomac River. Section 11 lists references. All sections of the document have been reproduced electronically on the accompanying CD.

Fourteen appendices have been included in this document. Contents of all appendices, except public outreach materials, 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 not presented 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 information pertaining to the permitting of County-owned properties. Appendix O contains an Integrated Pest Management plan for Frederick County public schools.

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