National Park Service

Environmental Assessment

for

Frederick County Water and Wastewater Improvements

New Design Raw Water Main and McKinney Treated Effluent Outfall

November, 2006

Table Of Contents

EXECUTIVE SUMMARY

1.0 INTRODUCTION

1.1 The National Park Service and NEPA

2.0 PROJECT PURPOSE AND STATEMENT OF NEED

- 2.1 Background
 - 2.1.1 Purpose and Significance of Chesapeake and Ohio (C&O) Canal National Historical Park
- 2.2 Purpose of the New Design Raw Water Main and McKinney Treated Effluent Outfall Project
- 2.3 Need for New Design Water Transmission Main and McKinney Treated Effluent Outfall Project
- 2.4 Separate, but Related Actions

3.0 <u>ALTERNATIVES</u>

- 3.1 Alternative 1 No Build Alternative
- 3.2 Alternative 2
 - 3.2.1 Alternative 2 Design Considerations
- 3.3 Alternative 3

4.0 AFFECTED ENVIRONMENT

- 4.1 Wetlands
- 4.2 Waterways
- 4.3 Floodplains
- 4.4 Wildlife/Habitat
- 4.5 Rare, Threatened, Endangered, and Species of Special Concern
- 4.6 Forests
- 4.7 Cultural Resources
- 4.8 Indian Trust Resources
- 4.9 Ethnographic Resources
- 4.10 Aesthetics and Visual Resources
- 4.11 Socioeconomic Environment and Land Use
- 4.12 Community Facilities and Services
- 4.13 Environmental Justice
- 4.14 Air Quality
- 4.15 Agricultural Land
- 4.16 Soils, Geology and Topography
- 4.17 Greenways and Green Infrastructure

5.0 ENVIRONMENTAL CONSEQUENCES

- 5.1 Wetlands and Streams
- 5.2 Floodplains
- 5.3 Wildlife/Habitat
- 5.4 Rare, Threatened, Endangered, and Species of Special Concern
- 5.5 Forests
- 5.6 Cultural Resources
- 5.7 Aesthetics and Visual Resources
- 5.8 Socioeconomic Environment and Land Use

Table Of Contents (continued)

5.9	Air Quality	7
5.7	I III Quality	1

- 5.10 Soils, Geology, and Topography
- 5.11 Greenways and Green Infrastructure
- 5.12 Secondary Impacts and Cumulative Effects
- 5.13 Impacts to Visitor Use and Experience
- 5.14 Impacts to Park Operations
- 5.15 Agency Coordination
- 5.16 Summary of Environmental Consequences at C&O Canal National Historical Park
- 5.17 Statement of Impairment to Park Resources
- 5.18 Applicable Federal and State Regulations

6.0 <u>LIST OF PREPARERS</u>

7.0 REFERENCES

8.0 LIST OF ABBREVIATIONS

LIST OF APPENDICES

Appendix A: Technical System Requirements Appendix B: Interagency Correspondence

Appendix C: Statement of Findings EO 11988

Appendix D: List of Project Reviewers

LIST OF TABLES

- Table 1. Projected Water Distribution System Improvements
- Table 2. Background Data Sources
- Table 3. Environmental Consequences Matrix for C&O Canal National Historical Park

LIST OF FIGURES

- Figure 1: Vicinity Map
- Figure 2: Existing and Alternative 2 Water and Sewer Infrastructure within C&O Canal National Historical Park
- Figure 3: Existing and Alternative 3 Water and Sewer Infrastructure within C&O Canal National Historical Park
- Figure 4: National Wetland Inventory Map
- Figure 5: Floodplain Map
- Figure 6: Soil Survey Map
- Figure 7: Open Cut Crossing of C&O Canal