

Chapter 1: Introduction

1.1 Background

The Popes Head Creek Watershed is one of the least developed watersheds in Fairfax County. On July 26, 1982, the Fairfax County Board of Supervisors approved a rezoning of more than 41,000 acres in the Occoquan Watershed in order to protect the Occoquan Reservoir, which supplies drinking water to the County. Land in the rezoned area is classified as Residential-Conservation (R-C) District, designating a maximum density of one dwelling unit per 5 acres. Eighty-six percent of the Popes Head Creek Watershed is located in this rezoned area.

The Popes Head Creek Watershed Management Plan provides strategies for protecting the watershed and mitigating adverse stream impacts that have occurred, such as stream bank erosion and poor water quality indicators.

The history of the County's watershed management began in the 1940s with the conversion of primarily agricultural land use to residential and commercial land uses. Stormwater infrastructure was constructed to quickly carry runoff away from the developed areas to the creeks and streams that serve as the principal drainage system for the County. Starting in 1972, onsite detention was required for new development to minimize the effects of increased runoff from development. In the early 1980s, water quality best management practices (BMPs) were required for new development in the southern areas of the County that drained to the Occoquan drinking water reservoir. BMPs were required for all new development in the County starting in 1993.

In the late 1970s, the County developed master drainage plans for all of the watersheds in the county, including the Popes Head Creek Watershed as part of the Occoquan Basins master drainage plan. This plan identified projects to solve problems including flooding, erosion, sedimentation, and other environmental problems projected through the year 2000. Recently, the county started a stream restoration and protection study and completed the *Fairfax County Stream Protection Strategy Baseline Study* (http://www.fairfaxcounty.gov/dpwes/environmental/sps_main.htm) in January 2001. This baseline study evaluated the condition of county streams and prioritized the watersheds for protection strategies. The stream protection strategy program is ongoing with further biological monitoring and assessment of stream condition.

Building on the recommendations from the *Stream Protection Strategy Baseline Study*, the County initiated a process to develop watershed management plans for the County's 30 watersheds over a period of five to seven years. The development of the watershed management plans includes a stream physical assessment of over 800 miles of stream; community involvement; modeling of the creeks and streams; and the development of goals, objectives, and strategies for addressing watershed issues.

1.2 Purpose

The primary reasons the *Popes Head Creek Watershed Management Plan* was developed can be summarized as follows:

1. To meet state and federal water quality standards by identifying strategies to prevent and remove pollution;
2. To support Virginia's commitment to the Chesapeake 2000 Agreement to restore the Chesapeake Bay;

3. To replace the currently out-dated watershed management plan through the use of new technologies; and,
4. To take a comprehensive approach in addressing multiple regulations, commitments, and community needs.

With input from the Popes Head Creek Citizen's Advisory Committee and other members of the community, this watershed management plan addresses these needs and requirements with a strategy for restoring and protecting the watershed. The Committee was composed of local community members from various interest groups, and represented environmental, business, and homeowner views and concerns. The Committee met with the Project Team regularly over 18 months to provide valuable local input and feedback. This public involvement process helped to ensure that the watershed plan will meet the specific needs and desires of the residents of the Popes Head Creek Watershed. The meeting minutes from all of the Citizen's Advisory Committee meetings can be found in Appendix A. The meeting minutes from all public workshops and reviews can be found in Appendix B.

1.3 Plan Organization

The *Popes Head Creek Watershed Management Plan* integrates environmental management, natural resource protection, and community goals to improve the watershed. It provides a guide that:

- Describes goals and objectives to support the vision for the watershed;
- Assesses the existing and future condition of the watershed;
- Sets forth strategies for addressing watershed issues; and
- Provides the county and the community with a management tool to make informed decisions regarding short term and long term actions in the watershed.

The watershed plan chapters contain the following information:

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| Chapter 1 | Background, purpose, and plan organization. |
| Chapter 2 | General watershed information, watershed history, land use and impervious cover, subwatershed and tributary information, and summary of existing reports and data. |
| Chapter 3 | Subwatershed characteristics, description of the storm drain infrastructure, stream geomorphology, stream quality, problem areas, and modeling results. |
| Chapter 4 | Plan vision, goals, objectives actions, and implementation strategies. |
| Chapter 5 | Policy recommendations and implementation strategies. |

Supplemental appendices include a glossary, public meeting minutes, and detailed descriptions of structural and non-structural proposed projects.