

CHAPTER ONE

Introduction

The Pierce County Water Programs Division within the Public Works and Utilities Department (Water Programs) is preparing a series of basin plans to address flooding, water quality and habitat problems in the major stream systems of the non-federal lands in the county. These plans update the county-wide *Storm Drainage and Surface Water Management Plan* developed in 1991 (Montgomery Engineers Inc., 1991). Each plan addresses in more detail the flooding, water quality and stream habitat problems in a particular basin. These plans incorporate the requirements of major regulations that have been enacted since the previous, county-wide 1991 plan, including the State Growth Management Act, NPDES requirements of the Clean Water Act, and the fish listings under the Federal Endangered Species Act. The basin plans will be implemented through Water Programs activities.

Water Programs is responsible for surface water management in unincorporated areas of the county. The Division plans, designs, permits, builds and maintains surface water management facilities. Property owners are charged a fee for surface water management services. Water Programs is also responsible for compliance with the stormwater quality management requirements of the federal Clean Water Act. Other related Water Programs responsibilities include river and levee maintenance, stream gauging and water quality monitoring, gathering of rainfall data, emergency response during floods, water supply planning and public education regarding stormwater quality and quantity.

This Basin Plan addresses the Muck Creek Basin. Muck Creek is located in the southwestern portion of the county and is the largest tributary to the lower Nisqually River. A vicinity map showing the Muck Creek Basin is found in Figure 1-1. This Plan consists of three major parts, as outlined below.

1.1 Basin Plan Organization

Part I is the Basin Characterization Report, which is covered in Chapters 1 through 5. The Basin Characterization Report describes environmental attributes throughout the Watershed including high quality stream reaches, associated wetlands, sensitive areas, and the Basin's abilities to support various fish species, especially those species listed or potentially subject to future listing under the Endangered Species Act. The Characterization identifies stream reaches and associated subbasins that do not meet State water quality standards, areas of localized flooding, and aquatic habitat segments that have been impacted or are threatened. The potential for environmental degradation throughout the Basin due to future land use changes is described qualitatively.

Part II is the Basin Plan Analysis (Chapters 6 through 8). Problems and potential solutions are reviewed for drainage/flooding, water quality and stream habitat. Part III covers the Basin Plan, itself, in Chapter 9. Finally, Part IV consists of a supplemental Environmental Impact Statement (EIS) of the Plan in Chapter 10. The EIS supplements information from the EIS on the original 1991 plan.

The Basin Plan outlines a set of goals for preservation and restoration of the Basin's environmental water resources. These goals will be translated into a comprehensive list of Basin needs and action recommendations, including projects, programs, and policies to address the water quality, flooding, and habitat problems identified in the Plan.

These action recommendations direct Pierce County's future surface water management capital improvement projects, water resource protection programs, and public education programs in the Muck Creek Basin.

The Basin Characterization and Basin Plan are the first two phases of the planning process. Following adoption of the Basin Plan, a third implementation phase will occur. This implementation phase will include a long-term monitoring process. The monitoring will analyze the progress of the capital improvement plan implementation and the effectiveness of capital improvement projects. It will also look at stream and Basin characteristics, and serve to identify potential modifications to the plan that might better serve to meet plan objectives.

1.2 Statement of Purpose

The stated purpose of the Muck Creek Basin Plan is to create a comprehensive approach to reducing flood hazards, improving fish and wildlife habitat, and improving water quality throughout the Basin by updating the Pierce County Storm Drainage and Surface Water Management Plan.

Much has happened since the development of the County's Storm Drainage and Surface Water Management Master Plan (refer to Section 2.1) more than 10 years ago. There has been a growing emphasis on the protection of streams, wetlands and other environmentally sensitive areas. In the early 1990s the State Growth Management Act led to the protection of environmentally sensitive areas, such as wetlands and streams, and a requirement for protection of adjacent buffer areas. In 1995, the Washington State Department of Ecology issued an NPDES municipal stormwater permit to Pierce County requiring water quality protection under the federal Clean Water Act. In the late 1990s the federal government listed Chinook salmon, bull trout and other fish species under the Endangered Species Act. This has resulted in further scrutiny of development regulations and increased stormwater control measures. Emerging trends, such as low-impact development, show promise in limiting the impacts of growth and development.

Muck Creek supports an important run of chum salmon in its lower reaches. It is a primarily rural Basin, but the stream has been impacted by widespread grazing and agricultural activities. The northeastern portion of the Basin lies on the southern fringe of a rapidly growing area of Pierce County. The widely scattered drainage and flooding problems typical of a rural Basin could intensify with increased development. Many of the stream reaches and much of the main stem of Muck Creek flow intermittently, drying out during the late summer and early fall. There is concern that additional development in the Basin may further aggravate this situation. This basin planning process reviews and addresses Basin problems and recommends development strategies that facilitate growth in a manner compatible with preservation and enhancement of the water resources and aquatic habitat of the Muck Creek stream system and to ensure that flood control and water quality issues within the Basin are addressed.

1.3 Goals and Objectives

When Pierce County’s planning process for Basin Plans was developed, a purpose statement along with goals and objectives for the Plans were established. Those goals and objectives are included as “Appendix O” of this document. In summary, the goals are intended to achieve the Plan purpose. Simply restated, they are to reduce flooding, improve habitat, improve water quality, ensure responsible use of public resources, and to provide guidance for new development.