

French Creek Watershed Management Plan Technical Supplement



March 2002



FRENCH CREEK WATERSHED
MANAGEMENT PLAN

TECHNICAL SUPPLEMENT

SNOHOMISH COUNTY PUBLIC WORKS
SURFACE WATER MANAGEMENT DIVISION
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The background of the page is decorated with numerous green oak leaves of various sizes and orientations, scattered across the white space. In the center, there is a white rectangular box with a thin black border containing the title and author information.

INTRODUCTION and SUMMARY

**Janet Carroll
Project Manager**

INTRODUCTION

This document represents a compilation of all technical reports prepared for the French Creek Watershed Management Committee. The committee used the information in these reports to identify watershed problems and to prepare and evaluate the watershed management recommendations contained in the French Creek Watershed Management Plan. The plan represents a substantial commitment on the part of the committee and Surface Water Management to address water quality and water resource problems and to define management strategies to correct and reduce the problems.

The French Creek Watershed Management Plan project is funded in part (75%) by a Centennial Clean Water Fund grant administered by the Washington State Department of Ecology. The matching funds for the grant are provided by French Creek Watershed Management Areas fees, which are administered by Snohomish County Public Works, Surface Water Management Division. Additional funding was also obtained for the studies. The following is a list of the various funding sources used to pay for watershed studies:

Centennial Clean Water Fund Grant and French Creek Watershed Management Area Fees

French Creek Watershed Characterization
French Creek Watershed Wetland Inventory
French Creek Watershed Riparian Function Assessment
Limiting Factors Analysis for the French Creek Watershed
French Creek Watershed Geologic Report
French Creek Simulation Report

Ecology Water Quality Grant

Snohomish County Ambient Water Quality Monitoring Program, Lower French Creek Watershed

Snohomish Conservation District

Inventory and Evaluation of Livestock Operations in the French Creek Watershed

U.S. Environmental Protection Agency, Region 10

Development of the French Creek Area Habitat Network

SUMMARY of STUDIES and REPORTS

Snohomish County Ambient Water Quality Monitoring Program, Lower French Creek Watershed, prepared by Kathy Thornburgh, June 1997

Water quality assessment monitoring was conducted in the lower watershed from May 1995 through March 1996. This report presents the results of the assessment monitoring which was designed to examine specific land use impacts over a one-year period, along with the results of long-term monitoring in the entire watershed since 1993. Five main nonpoint pollution problems are identified in the report, along with where these problems are greatest and recommended solutions that could be implemented through the watershed planning process.

Inventory and Evaluation of Livestock Operations in the French Creek Watershed, prepared by Ryan Bartelheimer, July 1997

A survey of livestock-based farms was completed for the French Creek watershed. This project involved inventorying farms for livestock type, acreage, proximity to wetlands/surface water, and types of potential water quality problems. Farms were also ranked as to their perceived potential to cause nonpoint pollution problems. Recommendations on methods to address the identified problems are included.

Development of the French Creek Area Habitat Network, prepared by Janet Carroll, October 1997

A habitat survey of the entire watershed was conducted to define vegetated corridors for fish, wildlife and recreation that connect large patches of public lands and impact as few landowners as possible. Funding and acquisition options, methods to involve the public and how to implement this pilot program are also described.

French Creek Watershed Characterization, prepared by Janet Carroll, Snohomish County Surface Water Management Division, October 1997

This report uses existing information to describe the biological, physical and cultural resources in the French Creek watershed. It also presents the results of water quality research conducted by The Tulalip Tribes and Snohomish County Surface Water Management. The report also identifies potential and known problems related to flooding and drainage, aquatic habitat, ground water and water quality.

French Creek Watershed Geologic Report, prepared by Kirk Bailey, Snohomish County Public Works, June 1998

Field surveys were conducted in 1997 and 1998 to investigate ground water and sedimentation movements, channel stability and erosion in this watershed. Also included are

recommendations for geologic hazards, channel stability, erosion, sediment transport and ground water.

French Creek Simulation Report, prepared by D.C. Beyerlein, P.E. and J. T. Brascher, Aqua Terra Consultants, June 1998

This report evaluates the hydrologic impacts of urbanization in the French Creek watershed using a computer-generated model and four various land use scenarios. Flood frequency, flow duration, velocity duration and average annual flow for each scenario are discussed.

French Creek Watershed Wetland Inventory, prepared by Paul Martin, Snohomish County Public Works, July 1998

Using existing data and field visits, wetlands in French Creek watershed were mapped and inventoried in this report. It includes brief details concerning size, type and wetland location.

Limiting Factors Analysis for the French Creek Watershed, prepared by Bob Aldrich, Snohomish County Surface Water Management Division, January 1999

An analysis was conducted to identify physical bottlenecks for the production of coho salmon in the floodplain, mainstem and tributaries of the French Creek system. The report discusses the main limiting factor for each section as well as management implications.

French Creek Watershed Riparian Function Assessment, prepared by Janet Carroll and John Jacobson, Snohomish County Surface Water Management Division, March 2000

This report examines the historical and current condition of the watershed's riparian area, including short-term large woody debris recruitment, shading, streambank stability and pollutant filtration. Various parameters affecting the riparian area's ability to function are assessed and rated. Priority areas for riparian enhancement projects are also listed.