

# Chapter 1 - Introduction

## Project Purpose

1.1

The purpose of this Plan is to provide a comprehensive storm water management plan for the City of Ferndale. The vicinity and study area map (Figure 1.1) on the following page shows the geographic coverage of this plan. This plan covers all areas within the City of Ferndale city limits and most of the areas within the urban growth boundary were included, where practicable.

The City of Ferndale has made a contractual loan agreement with the Department of Ecology for the production of a Comprehensive Stormwater Plan. The requirements of the plan are clearly defined in the said loan agreement in section 5 titled, "Scope of Work." The following plan addresses all required elements under section 5 of the loan agreement.

The loan defines Reichhardt and Ebe Engineering, Inc. as the Engineering Company of Record for this project. Dale Buys, PE of Reichhardt and Ebe Engineering, Inc. has been set apart as the Engineer of Record for the project.

## Project Objectives

1.2

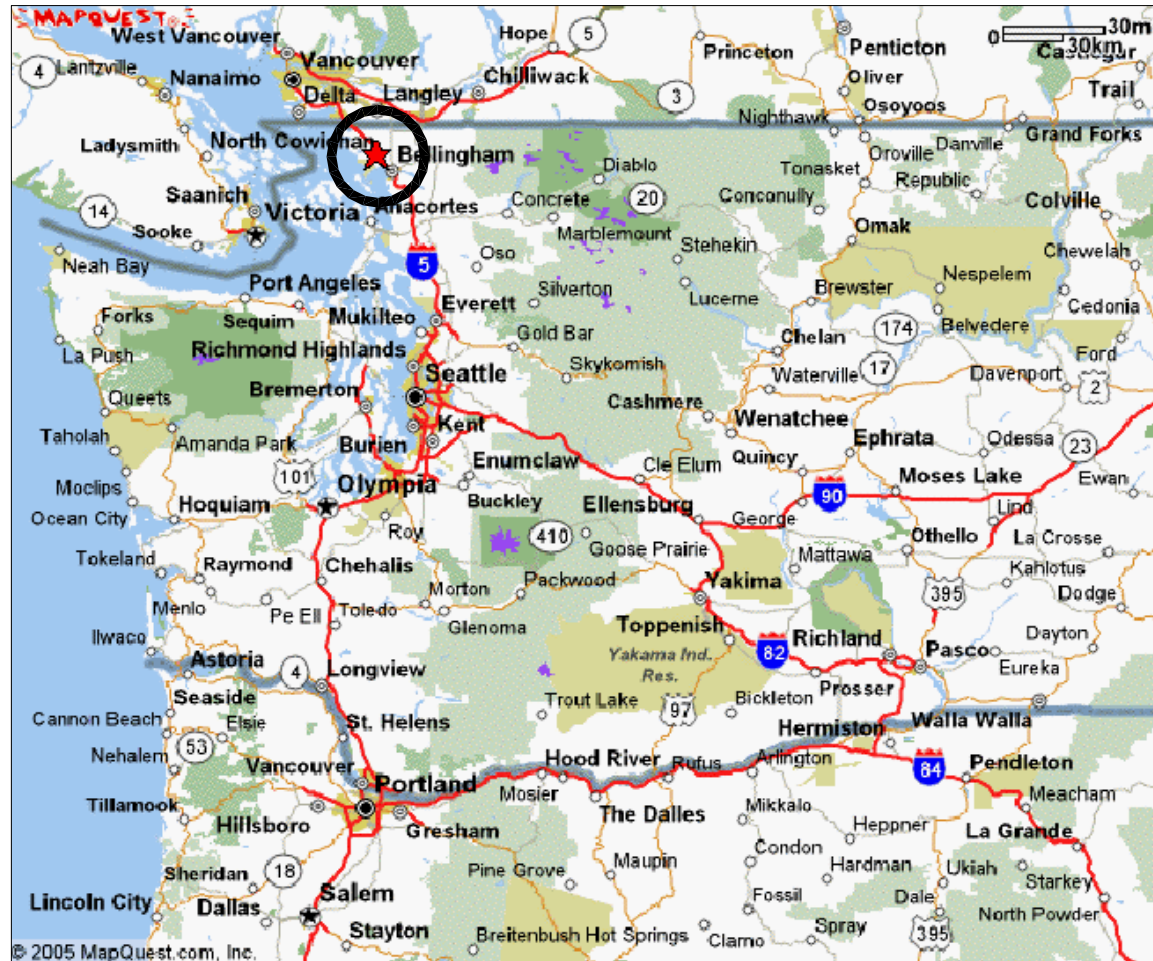
The primary objectives of the City of Ferndale Comprehensive Stormwater Plan are as follows:

- Change the City stormwater ordinance and development standards to reflect 2001 DOE standards and to provide for an illicit discharge ordinance.
- Analyze the existing storm drainage system
- Identify existing stormwater capacity and quality problems
- Analyze the future storm drainage system
- Identify future stormwater capacity and quality problems
- Prepare a capital improvements plan to correct problems
- Prepare a maintenance plan to maintain the storm system
- Emergency spill response plan
- Update the development and redevelopment review process
- Update the construction inspection process
- Prepare and initiate a public education and involvement process
- Review zoning and development standards to encourage low impact development
- Start a stormwater utility fee to fund an ongoing stormwater capital improvements and maintenance program.

# City of Ferndale Comprehensive Storm Plan Vacinity and Study Area

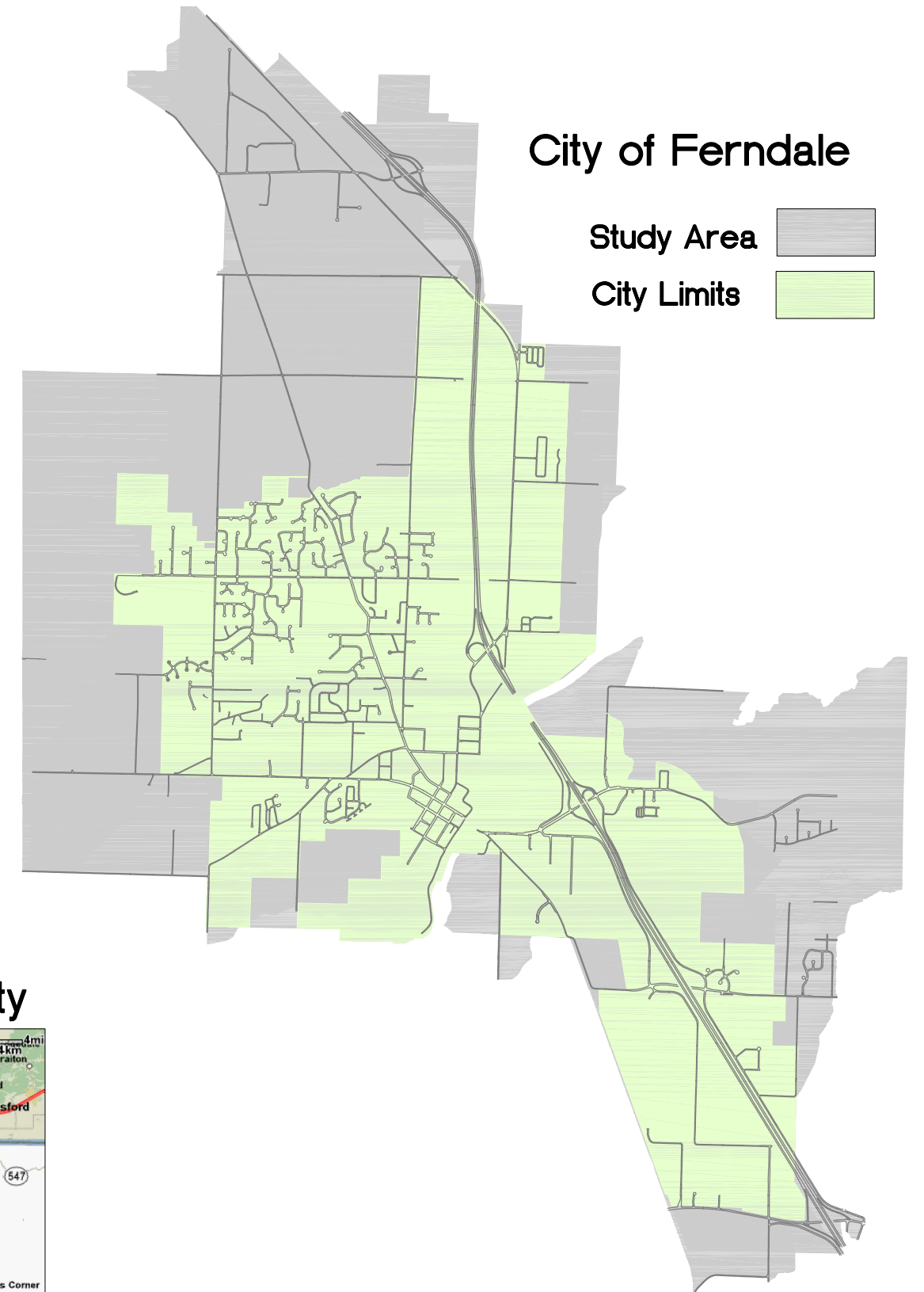
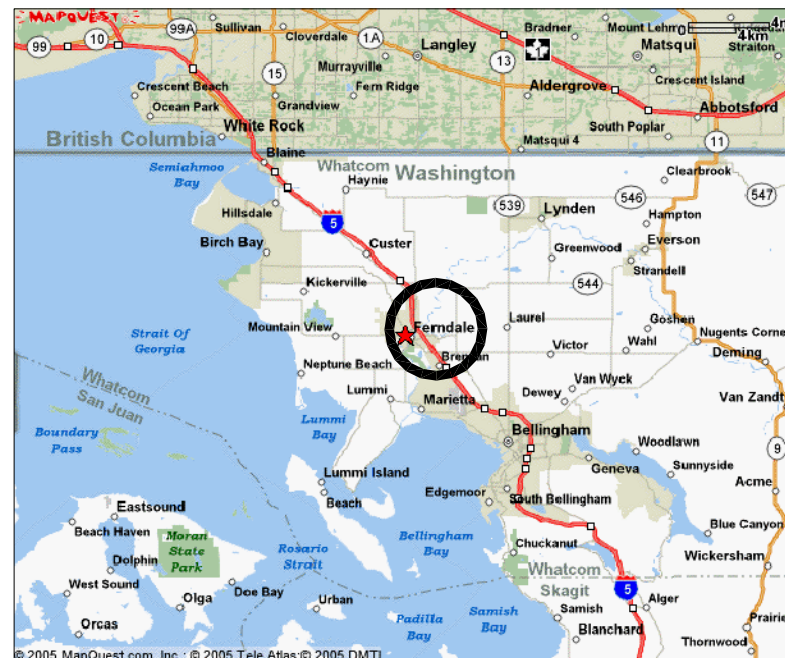
City of Ferndale

Location in State of Washington



Not to Scale

City of Ferndale  
Location in Whatcom County



City of Ferndale

- Study Area
- City Limits

Figure 1.1

Dave C. Bren

7-23-05

## **Project Recognition**

**1.3**

The following organizations provided technical support, digital data, and examples of watershed plans.

- City of Bellingham, Stormwater Section
- Whatcom County, Public Works Engineering
- Bellingham Technical College, Civil Engineering Technology and Survey Technology Programs
- Natural Resources Conservation Service, Lynden Office

The following organizations conducted the engineering calculations, graphic production, and technical writing for this plan:

- City of Ferndale, Public Works Department
- City of Ferndale, Planning and Building Services Department
- Reichhardt and Ebe Engineering, Inc.
- Bren Technical Services
- Osborn Consulting Incorporated

## **State and Federal Regulatory Authority Summary**

**1.4**

The City of Ferndale must comply with a number of state and federal regulations for stormwater discharge. The following provides a summary of these regulations:

### **Benefits to Regulatory Compliance – 1.4.1:**

1. **Access to Grants and Loans:** Staying within compliance will provide access to various grants and loans from the State.
2. **Avoidance of Fines:** Staying within compliance will help the City avoid various compliance fines that could be levied by the State.
3. **Avoidance of Law Suites:** Staying within compliance provides a measure of protection from private environmental damage law suites. It shows that the City is meeting the State standards to the best of its ability to protect the environment.
4. **Improving Water Body Habitat and Environment:** Staying within compliance will increase the quality of the many water bodies and wetlands throughout the City.

## **Federal Regulations Summary – 1.4.2:**

This Comprehensive Storm Plan was written to help the City of Ferndale comply with the following federal regulations.

1. **Endangered Species Act (ESA):** The Endangered Species Act became relevant to local stormwater programs in 1999 when the National Marine Fisheries Service (NMFS) listed as “threatened” several species of salmonid fish, including the Puget Sound Chinook salmon and Bull Trout that use streams and rivers draining into Puget Sound.

Under Section 4(d), the Endangered Species Act requires that activities of state and local governments, tribes, and private citizens be controlled so they do not lead to extinction of listed species.

2. **National Pollutant Discharge Elimination System (NPDES):** Congress amended the federal Clean Water Act (CWA) to address stormwater discharge and to further protect our nation’s streams, rivers, and beaches from polluted stormwater runoff.

Federal regulations established two phases for the stormwater permit program which require controls to reduce stormwater pollutant discharges to the maximum extent practicable. In 1990, the NPDES Phase I Rule was adopted, which addressed priority sources of pollutant runoff, including stormwater pollution from medium and large Municipal Separate Storm Sewer Systems (MS4s), industrial sources, and construction sites. In 1999, the Phase II rule was adopted which extended coverage of the NPDES program to certain "small" municipal separate stormwater sewer systems (MS4s) not covered under Phase I that are part of urbanized areas, plus construction activities of between one and five acres.

**A detailed explanation for each of these regulations can be found in Chapter 17 of this plan.**

### **State Regulations Summary – 1.4.3:**

This Comprehensive Storm Plan was written to help the City of Ferndale comply with the following state regulations.

1. **Puget Sound Water Quality Management Plan (PSWQMP):** The 2000 PSWQMP renews the original 1987 requirement for local governments in the Puget Sound region to implement municipal stormwater management programs.
2. **Ecology’s Stormwater Manual:** The PSWQMP also requires that in conjunction with the runoff control ordinances for new development and redevelopment, each jurisdiction shall adopt a stormwater management technical manual containing state-approved BMPs.
3. **Hydraulic Project Approval (HPA):** The Washington Department of Fish and Wildlife (WDFW) requires a Hydraulic Project Approval for construction activities that use, divert, obstruct, or change the natural flow or bed of any waters of the state (RCW 75.20.100). The purpose of the requirements, which are administered through the HPA permit process, is to protect fish habitat in stream channels, to prevent erosion, and to protect freshwater and nearshore marine aquatic life.
4. **Growth Management Act:** Enacted on July 1, 1990, the Growth Management Act is intended to manage growth in Washington’s fastest-growing counties through the adoption of local comprehensive land use plans and development regulations. A 1995 GMA amendment requires all counties and cities in Washington to include the best available science in developing policies and development regulations to protect the functions and values of **critical areas**.
5. **State Floodplain Regulations:** Chapter 86.16 RCW establishes statewide authority through regulations promulgated by Ecology for coordinating the floodplain management regulation elements of the National Flood Insurance Program (NFIP). Under Chapter 173-158 WAC, Ecology requires local governments to adopt and administer regulatory programs compliant with the minimum standards of the NFIP. Ecology provides technical assistance to local governments for identifying the location of the 100-year (base) floodplain.

**A detailed explanation for each of these regulations can be found in Chapter 17 of this plan.**