

City of Sumas 1996 PERF Application

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Department of Community, Trade, and Economic Development

Applicant: City of Sumas
PO Box 9
Sumas, WA 98295
(360)988-5711
(360)988-8855 fax

Contact: David Davidson
(360)676-8463 phone and fax

Background

Sumas is a small city (population 920) adjacent to the Canadian border in Whatcom County, Washington. The city has not always been this small. At the turn of the century, Sumas had a population of over 2,500 and was the hub of regional mining and timber industries. Three rail lines converged on town, and an area of over 500 acres was platted and developed. The twentieth century brought a decline in population due to the demise of the mining and timber industries, as well as a decrease in the number of buildings due to fire. The commercial/residential core now occupies an area of less than 200 acres, but the old plats remain. There are hundreds of vacant lots in Sumas, most at the periphery of the downtown core, but some scattered within the developed area. The attached map illustrates the situation.

There has been a surge in development in the past ten years. Commercial and industrial development has led the way. Businesses have sought to capitalize on the Canadian traffic that comes through town (Sumas is a 24-hour border crossing point). Industries capitalize on the road and rail facilities and on the abundant water supply. Investors have bought many of the vacant lots. Some lots have been consolidated into larger parcels, such as several dozen lots that underlie the Port of Bellingham's industrial park. Most lots remain in small-parcel ownership.

Sumas now receives a couple of development inquiries each week. This could be a period of exciting and rapid growth, except for one problem. Sumas is smack in the middle of a major flood channel, the one that handles the overflow from the Nooksack River. Over ninety percent of the buildings in Sumas are located within the 100-year floodplain, and perhaps fifty percent are located within the floodway. In the 1990 floods, water ran four feet deep through the downtown core, and total property damage exceeded \$2 million.

It's hard to describe how strongly the development environment is tainted by the issue of flooding. Not a proposal is made that is not an object of the residents' suspicions. "It will make the flooding worse at my house!" is the cry at every public hearing. And there is no easy way to settle the issue. The typical owner of a vacant lot is not capable of footing the bill for a site-specific hydraulic analysis, so there is no credible proof of what a project's impacts might be. Absent the data to settle the issue, many proposals are denied. Sumas is a classic example of the collision between property rights and environmental regulation.

1. Project Description

This project involves development of a city-wide computerized flood model that can be used to analyze the hydraulic impacts of development proposals. The model will then be used to prepare a

programmatic EIS that identifies areas targeted for development, specifies the amount of allowable development, and identifies areas targeted for conversion to open space.

- Methodology. This project will capitalize on the major flood-modeling program that is now underway in Whatcom County. In 1992, Whatcom County formed a Flood Control Zone District. The FCZD levied taxes and launched a multi-million dollar flood planning process. KCM engineering is responsible for generating a computerized flood plain model, and they began by developing detailed digital topographic maps based on aerial photography. Those maps are the starting data set for Sumas's project. Sumas will follow in KCM's and the County's footsteps and process the data as follows:
 - Merge several of the mile-square digital maps to create a continuous digital map of Sumas and its environs.
 - Analyze the digital topography and dissect the terrain into a series of grid cells, each cell sharing similar hydraulic characteristics.
 - Process the grid with finite-element surface water modeling software (FESWMS) developed at the University of Kentucky.
 - Overlay the model results on a user-friendly base map that shows visible features.
 - Load the model on a PC at city hall and develop a user manual showing how to conduct "what-if" analyses.

Sumas will then use the model to prepare a programmatic EIS and to amend development regulations. An advisory committee will help during this stage of the project. Preparation of the EIS will proceed as follows:

- Convene an advisory committee consisting of property owners, elected officials, and consultants (attorney, planner, engineer).
 - Develop the alternatives to be analyzed in the EIS (e.g., unregulated growth vs. creation of an open-space corridor along Johnson Creek).
 - Develop criteria with which to evaluate alternatives.
 - Run the model on each alternative and generate output.
 - Evaluate the alternatives and make selections.
 - Prepare and publish the EIS.
 - Develop performance standards for incorporation into the flood ordinance (e.g., allowable changes to flooding height and velocity at neighboring properties).
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- Strategies for success. Sumas has identified the following strategies that will be used during design and implementation of this proposal.