Chapter 1 - Introduction

1.0 Purpose

The purpose of comprehensive flood control management planning is to establish the need for flood control maintenance work, define structural alternatives, identify and consider potential impacts of in-stream flood control work on in-stream resources, and identify the river's floodway. (Skagit County, 1989)

The presence of fishery resources, primarily salmon and steelhead, is a key consideration in performing any flood hazard management activities in and around the waters of the State of Washington. The potential loss of fish habitat resulting from construction in and next to rivers has been a major concern. (Snohomish, 2009) Therefore, this plan will also focus on the importance of ecosystem restoration.

1.1 Scope and Organization

This document identifies watershed and flooding characteristics, flood hazard areas, flood storage and conveyance areas, flood hazard management options, and recommended actions. (Snohomish County, 2003)

The Skagit River CFHMP contains the following:

Chapter 1 lays out the purpose, scope and organization, and funding benefits of the Skagit River CFHMP.

Chapter 2 provides a description of the Skagit River Watershed including the Skagit and Samish Rivers.

Chapter 3 briefly explains the fundamentals of flooding, flood terminology, and the causes and types of flooding.

Chapter 4 contains information regarding flood warning and operations in the Skagit River Basin, including emphasis on Flood Awareness Week.

Chapter 5 contains federal, state, and local policies for floodplain, flood risk management, ecosystem protection, and restoration.

Chapter 6 gives a detailed account of the history of flooding in the Skagit River Basin.

Chapter 7 continues with historical flood management that has taken place in the Skagit River Basin.

Chapter 8 describes the interim and long-term flood management goals.

Chapter 9 reveals the flood management strategies best suited for the area, and the criteria with which they were selected.

Chapter 10 provides full evaluation of the flood management strategies selected.

Chapter 11 offers a recommended plan for flood management in the Skagit River Basin.

Appendix A...

Appendix B...

Appendix C...

1.2 Funding Benefits

The Washington State program to assist local jurisdictions in comprehensive planning and flood control maintenance is described in the state statute State Participation in Flood Control Maintenance, Revised Code of Washington (RCW) 86.26, enacted in 1951 and amended in 1984. Funds for flood management maintenance projects and preparation of comprehensive plans are available through the Flood Control Assistance Account Program (FCAAP). Procedural information relating to FCAAP and RCW 86.26 can be found in Administration of the Flood Control Assistance Account Program, Washington Administrative Code (WAC) 173- 145. (Snohomish, 2009)

The Washington State Department of Ecology (Ecology) distributes FCAAP grant money based on the amount appropriated by the State Legislature each biennium, and the eligibility of the applicant and the proposed project. Proposals are reviewed by several state agencies to ensure that appropriate resource issues and regulations are adequately addressed. (Snohomish, 2009)

Legislative appropriations for FCAAP grants have varied from no appropriations (during the years 1975 through 1985) to $4.0 million during the 2000 biennium. (Snohomish, 2009)

The following restrictions apply to the use of the FCAAP grants:

- Grants are limited to 50 percent of the total cost for non-emergency projects.
- The non-emergency FCAAP contribution is limited to $500,000 per county.
- Maximum emergency funds of $150,000 per county per biennium are available on a first come/first serve basis; and the state will fund up to 80 percent of the cost of emergency projects.
- Unused emergency funds ($500,000 total emergency fund) can be disbursed on a discretionary basis by Ecology.
- The state can fund 75 percent of the cost for comprehensive plans.

(Snohomish, 2009)

This plan follows state requirements regarding the preparation of flood hazard plans and conforms to the following procedures described in Revised Code of Washington (RCW) 86.26 and Washington Administrative Code (WAC) 173-145:

- Establish a citizen and agency participation process known as the Flood Control Zone District, which is made up of an Advisory Committee and three Technical Committees (Dike and Drainage Districts, Environmental, and Land Use);
- Set short-term and long-term goals and objectives for flood hazard management;
- Determine the need for and identify alternatives for flood hazard management measures;
- Evaluate alternative measures;
- Complete the draft Skagit River CFHMP and associated documentation;
- Submit the final Skagit River CFHMP to the Washington State Department of Ecology (Ecology);
- Hold a public hearing and adopt the Skagit River CFHMP; and,
- Notify Ecology that the Skagit River CFHMP was adopted.

Once Ecology has reviewed this plan, implementation actions will be eligible for state funding through the FCAAP. (Snohomish County, 2003)

1.3 Public Involvement

Because flood hazard management encompasses a broad spectrum of environmental, social/cultural, political, engineering and resource utilization issues, an explicit public decision-making process is needed to develop a recommended course of action. Citizen participation is essential to consider community concerns and to educate local residents on the fundamentals of responsible, effective flood hazard management. Planning must be a team effort which integrates community development regulations and environmental enhancement activities. (Ecology, 1991)

1.3.1 Skagit River General Investigation

A United States Army Corps of Engineers (Corps) reconnaissance study was conducted, resulting in a May 1993 Reconnaissance Report, identifying a Federal interest in conducting a feasibility level study to investigate flood damage reduction measures in the Skagit River basin. The Report identified the following as the alternative with Federal interest:

> Upgrading about 39 miles of existing river levees and providing about 11 new levees, five levee overflow segments, and about a mile of overbank widening (several hundred feet) between Burlington and Mount Vernon.

In July 1997, Skagit County and the Corps executed a Feasibility Cost Sharing Agreement (FCSA) to initiate feasibility studies. The original focus of the feasibility study, as scoped in the June 1997 Project Management Plan (PMP), was to formulate solutions to severe flooding problems in the study area. (USACE, 2009)

During execution of the early technical studies, the need for ecosystem restoration planning was identified to address new environmental challenges including recent listings of endangered species such as Puget Sound Chinook salmon and bull trout, and the potential listing of Coho salmon and steelhead in the near future. The Corps and Skagit County determined that the incorporation of ecosystem restoration features into the design of a flood damage reduction solution was desirable to developing an acceptable and responsible plan. The addition of ecosystem restoration as a secondary project purpose is consistent with Corps policy to insure compatibility between projects and the environment. The PMP was amended in 2004 to incorporate environmental restoration into the study plan. (USACE, 2009)

The feasibility phase of project development involves technical studies to assess the effectiveness, efficiency, acceptability, and completeness of a range of alternative solutions to serious flooding problems, potential early action flood damage reduction measures, and

ecosystem restoration opportunities in the study area. The implicit intent is that the recommended plan will have broad federal and non-federal support, will provide critically needed flood damage reduction benefits at an affordable cost in a reasonable time frame, will provide cost-effective ecosystem restoration benefits in the project area, and will subsequently be authorized and implemented. (USACE, 2009

Skagit County is the cost sharing local sponsor for this feasibility study. As the Corps of Engineers partner, the County has provided technical and project management support throughout the study process. Technical areas addressed by the County included real estate and survey support, development of design and costs for the evaluation of measures, public involvement, and development of alternative designs and costs. If a project is implemented, the local sponsor will be responsible for all necessary lands, easements, rights of way, relocations and disposal areas (LERRD) and rights of entry for the project site; as well as project operation and maintenance. (USACE, 2009)

There are many stakeholders associated with this project. The following stakeholders have had direct involvement in the study:

- Washington Department of Ecology
- Washington Department of Fish and Wildlife
- Washington Department of Natural Resources
- Washington Department of Transportation
- Salmon Recovery Funding Board
- Burlington Northern Santa Fe Railroad
- City of Anacortes
- City of Burlington
- City of Mount Vernon
- City of Sedro Woolley
- Town of Concrete
- Town of Hamilton
- Town of LaConner
- Town of Lyman
- Dike District 1
- Dike District 3
- Dike District 12

- Dike District 17
- Dike District 20
- Dike District 22
- Skagit County Flood Control Zone District
- Skagit River System Cooperative
- State Historic Preservation Office
- Padilla Bay National Estuarine Research Reserve
- National Marine Fisheries Service
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- Puget Sound Energy
- Seattle City Light
- The Nature Conservancy
- Skagit Watershed Council

(USACE, 2009)

1.3.2 Flood Control Committee

The Flood Control Committee (FCC) was established in 1980 to prepare and recommend an update of the Skagit River CFHMP...

1.3.3 Skagit River Impact Partnership

1.3.4 Flood Control Zone District

In 2007, Skagit County realized a broader spectrum of representatives was needed in updating the Skagit River CFHMP. Staff began implementing steps towards reestablishing the Flood Control Zone District (FCZD), which was created in 1970. By November of 2007, the FCZD became the official mechanism by which stakeholders could provide information and recommendations to the BCC.

The FCZD is made up of four committees: one advisory and three technical. The BCC, or FCZD Board of Supervisors oversees the FCZD Advisory Committee (AC) and County Engineer. The FCZD AC oversees the Dike and Drainage Districts Technical Committee

(DDTC), Environmental Technical Committee (ETC), and Land Use Technical Committee (LUTC). In turn, the County Engineer oversees county staff and consultants.

1.3.5 Mission, Goals and Objectives of the Flood Control Zone District

1.3.6 Additional Outreach Efforts

1.4 Plan Approval and Implementation

Following public comment on and revision of this draft plan, it will be forwarded to Ecology for its review and approval. The final plan will then be submitted to the Skagit County Board of Commissioners for its consideration and adoption. Once the final plan is adopted, implementation of prioritized actions will be initiated based on availability of funds from the FCAAP, County, and other sources. Full implementation of this plan will take time. It will involve the full participation of those who helped develop the plan and others. (Snohomish, 2003)

References:

Skagit County, State of Washington (1989). *Skagit County Comprehensive Flood Control Management Plan*. Skagit County, WA. Consulting Engineers: Brown and Caldwell.

Snohomish County, State of Washington (2003). *Draft Public Review Stillaguamish River Comprehensive Flood Hazard Management Plan*. Snohomish County, WA.

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United States Army Corps of Engineers (USACE)(2009). *Skagit River Flood Risk Management and Ecosystem Restoration Feasibility Study - Read Ahead Draft*. Skagit County, WA. Consulting Engineers: Tetra Tech.

Washington State Department of Ecology (Ecology) (1991). *Comprehensive Planning for Flood Hazard Management Guidebook*. Washington.