

SKAGIT COUNTY

SKAGIT RIVER FLOOD CONTROL COMMITTEE

Report and Recommendation for:

Lower Skagit River Basin

Floodway Designation

Board of Skagit County Commissioners

Howard Miller, Chairman  
Bud Norris, Commissioner  
Jerry Mansfield, Commissioner

September, 1981

August 31, 1981

TO: Board of Skagit County Commissioners

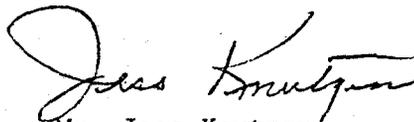
FROM: Skagit River Flood Control Committee

SUBJECT: Recommendation for Designation of the Floodway for the Lower  
Delta of the Skagit River

This report constitutes the final recommendation of the Skagit River Flood Control Committee with response to the request from the Board of Skagit County Commissioners for this Committee's recommendation of a floodway designation for the lower delta of the Skagit River.

The Committee will be happy to clarify or answer questions concerning this report at your convenience.

Respectfully submitted,



Mr. Jess Knutzen,  
Chairman

INTRODUCTION

## INTRODUCTION

In the fall of 1980, the Federal Emergency Management Agency (FEMA) informed the Board of Skagit County Commissioners that for Skagit County to be eligible for National Flood Insurance it would be necessary to designate a floodway for the lower delta of the Skagit River (Sedro Woolley downstream to the mouth of both forks).

Due to the arbitrary nature of designating a floodway through a delta area and the financial and social impact connected with such a designation, F.E.M.A. suggested that the local government accept this responsibility.

The recently formed Skagit River Flood Control Committee, although formed to study flood control alternatives, with its broad county-wide representation of diverse interests, appeared to meet the requirements for such a serious responsibility.

The Skagit River Flood Control Committee was requested to assume this task and did accept this responsibility.

This report is the recommendations of the Skagit River Flood Control Committee for the designation of a floodway for the lower delta of the Skagit River.

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SKAGIT RIVER FLOOD CONTROL COMMITTEE

MEMBERS

SKAGIT RIVER FLOOD CONTROL COMMITTEE

REPRESENTATIVES

CITIES:

Anacortes: Ken Moore 293-2211  
1908 - 22nd St.  
Anacortes, WA 98221

Mt. Vernon: Gwynne LeGro 336-3220  
815 Cleveland St.  
Mt. Vernon, WA 98273

Burlington: Arnold Hansen 757-6557  
1511 Peterson Rd.  
Burlington, WA 98233

LaConner: Donald Wright 466-3907  
508 Myrtle St.  
LaConner, WA 98257

Sedro Woolley: Steve Ladd 856-1100 or 855-1661  
Sedro Woolley City Hall  
Sedro Woolley, WA 98284

Concrete: John Thompson 826-3792  
3881 C So. Skagit Hwy.  
Sedro Woolley, WA 98284

Lyman: Louie Parker 826-3315  
110 S. Main St.  
Lyman, WA 98263

Hamilton: Stanley E. Zyskowski 826-3760  
P. O. Box 486  
291 Water St.  
Hamilton, WA 98255

DIKE DISTRICTS:

Fir Island: Robert Hulbert 466-3191  
2049 Dry Slough Rd.  
Mt. Vernon, WA 98273

Dike Dist. #1: Robert Dean, Jr. 424-3829  
1402 Calhoun Rd.  
Mt. Vernon, WA 98273

Dike Dist. #3: Owen Tronsdal 445-5442  
Conway, WA 98238

Dike Dist. #12: Gerald Mapes 856-0954  
1065 Sterling Rd.  
Sedro Woolley, WA 98284

Dike Dist. #17: Neil Hamburg 424-1591  
2332 Riverbend Rd.  
Mt. Vernon, WA 98273

Dike Dist. #20: George Dynes 424-6272  
2726 LaVenture Rd.  
Mt. Vernon, WA 98273

SPECIAL EFFECTED AREAS:

Nookachamps-Clear Lake:	Larry Kunzler	424-4314
	4801 Francis Rd.	
	Mt. Vernon, WA	98273
Allen-Samish:	Jess Knutzen	757-0413
	1183 Avon Allen Rd.	
	Burlington, WA	98233
Sterling:	Leonard Halverson	856-6362
	1398 Beaver Lake Rd.	
	Mt. Vernon, WA	98273
Rockport-Marblemount:	Doug Martin	873-4494
	P. O. Box 68	
	Rockport, WA	98283
South Skagit Highway:	Carl Vandersar	856-2151
	2695 So. Skagit Hwy.	
	Sedro Woolley, WA	98284

COUNTY COMMISSIONERS' DISTRICTS:

District #1:	William White	757-6939
	1124 Chuckanut Dr.	
	Burlington, WA	98233
District #2:	Richard Smith	424-6022
	1849 Dike Rd.	
	Mt. Vernon, WA	98273
District #3:	C. G. "Bud" Meyers	826-3301
	Lyman, WA	98263

SKAGIT RIVER FLOOD CONTROL COMMITTEE

SUB-COMMITTEE - FLOOD PLAIN MANAGEMENT

Arnold Hansen, Chairman

Larry Kunzler

Neil Hamburg

Steve Ladd

Stan Zyskowski

Ken Moore

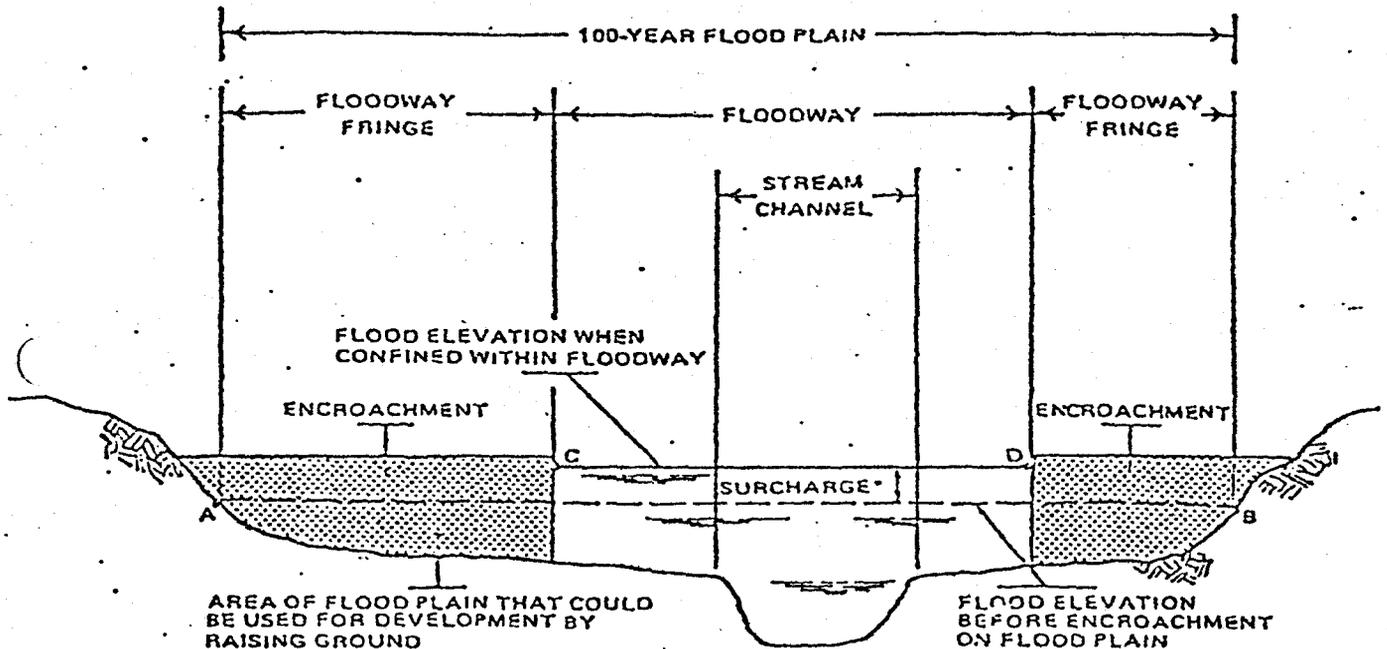
Bud Meyers

ALTERNATIVES

## ALTERNATIVES TO THE PROPOSAL

- A. EQUAL CONVEYANCE METHOD: By this method, the area of the 100-year (base) flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent flood plain areas, that must be kept free of encroachment in order that the base flood can be carried without substantial increases (equal to or less than 1.0 foot rise) in flood heights. The area between the floodway and the base flood boundary (special flood hazard area boundary) is termed the floodway fringe. This portion of the flood plain could be completely obstructed without increasing water-surface elevation of the base flood more than 1.0 foot at any point. These areas were computed on the basis of equal conveyance reduction from each side of the flood plain. That is, the passage of the base flood was computed from the center of the river channel. (See figure 3)

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water surface elevation of the 100-year flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown below in figure 3.



LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT.

LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT.

\*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FIA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE.

Figure 3. Floodway Schematic

- B. SPLIT FLOODWAY METHOD: This alternative calls for the splitting of the floodway to go around ineffective conveyance areas in the middle of or adjacent to the water course. More specifically, the floodway would follow the river channel as proposed by the equal conveyance (standard) method identified above, but not cover as great a lateral area. Instead, additional floodways would be created following the identified secondary drainage channels and combined with the river channel floodway would equal the conveyance areas of the standard method. This method would shift the restrictions of the floodway onto residents/property owners who would normally be within the floodway fringe. Thus, while this alternative does recognize existing topography and flooding conditions more so than the equal conveyance method, it would not reduce the potential adverse impacts to the human environment and to neighborhood cohesion identified during program development.
- C. NO ACTION ALTERNATIVE: Continued dependence on the city's and county's existing land use regulations, and zoning ordinances represents the no action alternative. This method is unacceptable as the existing zoning texts are not in conformance with the Flood Insurance Study FIS nor the minimum requirements of the NFIP. Thus, continued reliance on this method would defeat one of the primary objectives of the project; continued participation in the regular program of the NFIP.
- D. ENVIRONMENTAL PROTECTION ALTERNATIVE: This alternative consists of a permanent moratorium in the Study Area by adoption of zoning text and use districts amendments that would not allow any additional development. While this may be regarded as favorable by those desirous of wetland preservation, there are additional costs involved. For example, local government would be liable by residents/property owners for denying use of privately owned land; the taking issue. A compensation or buy-out program would have to be developed by local government to avoid law suits. Such a course of action is not feasible for local government.
- In addition, this alternative would not allow for future extension of utilities and transportation corridors. These public services are deemed necessary for the continued growth of the community.
- E. STATE MANAGEMENT ALTERNATIVE: This alternative proposes reliance upon two State programs, the State Flood Control Zone Act of 1935, as amended, and the State Shorelines Management Act of 1971, as amended. This program is not considered adequate primarily because the flood control district does not reflect the new Flood Insurance Study, the permit process would not be administered at the local level, and the State program does not adequately reflect local conditions.

The Shorelines Management Act of 1971 provides that no substantial development shall occur on shorelines of the state without a permit being issued. The Act further calls for local control of planning and implementation. This program is not considered adequate for flood plain management purposes because its intent and purpose is to regulate use and protect the quality of shorelines, not to prevent flood damage, and residential development is generally exempt from the permit system. In addition, whereas this is a state mandated program, the majority of the work is handled at the local level.

F. DENSITY FLOODPLAIN: This proposal is based upon the establishment of a maximum allowable density of development on the floodplain; the density floodplain method. It is assumed that approval by the Federal Insurance Administration (FIA) will be a determination on their part that this method (1) is appropriate for the type of flood plain encountered in the Skagit River delta, and (2) is compatible with upstream/downstream communities.

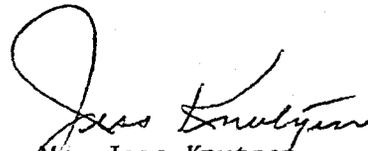
RECOMMENDATION

SKAGIT RIVER FLOOD CONTROL COMMITTEE'S  
RECOMMENDATIONS FOR FLOODWAY DESIGNATION  
OF THE LOWER DELTA OF THE SKAGIT RIVER

On August 20, 1981, in regular session, the Skagit River Flood Control Committee adopted the recommendations of the Sub-Committee for floodway designation by majority vote.

Therefore, it is the recommendation of the Skagit River Flood Control Committee that the floodway of the lower Skagit River delta be designated by the "Restricted Density Flood Plain" procedure, provided a Hydraulic Study reveals the undisturbed space reserved for flood flow is reasonable and within a range so as not to cause unreasonable hardship on the continued social and economic well-being of Skagit County. A copy of the Sub-Committee's report is attached.

Respectfully submitted,

  
Mr. Jess Knutzen,  
Chairman

M E M O

TO: Skagit River Flood Control Committee

DATE: August 20, 1981

FROM: Flood Plain Management and Flood Fight - Early Warning Sub-Committee

SUBJECT: Skagit River Floodway

The Flood Plain Management Sub-committee recommends the 100-year flood waters, in excess of those carried by the present Skagit River channel in the area downstream from the city of Sedro Woolley (estimated to be 90,000 c.f.s.) be accommodated by the "Restricted Density Flood Plain" procedure. We estimate approximately 25% of the flow area, perpendicular to an axis drawn from the Sedro Woolley railroad bridge to Burlington Hill and Burlington Hill to Hoag Hill, kept at its current elevation may accommodate the flood flow estimated.

We suggest development controls be applied to all property owners in the designated Flood Hazard Area encompassing the axis described.

Many restrictions presently applied in the cities' and county's zoning codes provide these controls. The higher density zones would require some additional management procedures.

In defense of the above procedure versus a specific floodway designation, we submit the following:

1. The area involved is a river delta providing no natural floodway. Unless the flood flows are directed by some artificial means (not likely in the near future), they will occur at any of many points along the river. Even full development at some future time outside a designated floodway would not serve to direct the flows into the floodway. Full development, in compliance with present zoning codes, would fall far short of 100 percent flow restrictions.
2. Designating a specific flow way with accompanying controls would in effect be confiscation of property. No floodway selection could be made without expensive property right purchases or legal exposures.
3. The suggested procedures effect all approximately equally, thereby maintaining wide interest in providing a more permanent solution to the flooding hazard.

Respectfully submitted,

Arnold Hansen, Chairman  
Larry Kunzler  
Neil Hamburg  
Steve Ladd  
Stan Zyskowski  
Ken Moore  
Bud Meyers

SUMMARY

## SUMMARY

It was with some reservation that the Committee accepted the responsibility of determining a floodway designation for the lower delta of the Skagit River.

The serious nature and long-range economic and social impact of determining such an arbitrary designation as required by the delta of the Skagit River was fully realized. All the alternatives have been reviewed to considerable length.

The "Restricted Density Flood Plain" concept would appear to carry the least adverse impact and is by far the most equitable.

The "Restricted Density Flood Plain" concept is a relatively untried method of floodway designation. It will be necessary to be firm and decisive to accomplish this type of floodway designation.

The unified support of all public officials, as well as the citizens of Skagit County, is necessary to achieve this concept.

One needs only to look at the alternative to realize the importance of this issue.