ORDINANCE NUMBER 16-00

AMENDMENTS TO THE MASON COUNTY FLOOD DAMAGE PREVENTION ORDINANCE, AND FREQUENTLY FLOODED AREAS AND DEFINITIONS CHAPTERS OF THE MASON COUNTY RESOURCE ORDINANCE

AN ORDINANCE amending Mason County's Flood Damage Prevention Ordinance, and Frequently Flooded Areas Chapter17.01.090 and Defininitions Chapter 17.01.240 of the Resource Ordinance, under the authority of Chapters 36.70 and 36.70A RCW.

WHEREAS, the Board of County Commissioners held public hearings on January 11, 2000, February 15, 2000 and February 24, 2000 to consider recommendations of the Planning Commission, the Mason County Planning Department and citizens on the proposed amendments; the board provided for public comment on proposed revisions which were under consideration;

WHEREAS, the Mason County Planning Commission formulated its recommendation after a public hearing on November 15, 1999;

WHEREAS, these hearings were duly advertised public hearings;

WHEREAS, these amendments are intended to comply with the Orders of Western Washington Growth Management Hearings Board, Case No.: 95-2-0073;

WHEREAS, the Mason County Board of County Commissioners has approved findings of fact to suport its decision as **Attachment A**;

NOW, THEREFORE, BE IT HEREBY ORDAINED, that the Board of County Commissioners of Mason County hereby approves and ADOPTS the amendments to the following regulations: the Flood Damage Prevention Ordinance as amended, as **ATTACHMENT B**, the Frequently Flooded Areas Chapter 17.01.090 of the Resource Ordinance as amended, as **ATTACHMENT C**, and the Definitions Chapter 17.01.240 of the Resource Ordinance, as amended, as **ATTACHMENT D**.

DATED this 24th day of February, 2000.

Board of County Commissioners
Mason County, Washington

Absent 2/24/00
John A Bolender, Chair

Mary Jo Cady
Mary Jo Cady, Commissioner

Cynthia Olsen
Cynthia D Olsen, Commissioner

ATTEST

Rebecca S Rogers
Clerk of the Board

APPROVED AS TO FORM:

David B. St Pierre
Deputy Prosecuting Attorney

Attachment A

ORDINANCE NO. 16-00

Mason County Board of County Commissioners
Flood Damage Prevention Ordinance Amendments, and
Frequently Flooded Areas and Definitions Chapter of Resource Ordinance Amendments

Findings of Fact

1.
Under consideration is a proposal to amend Mason County's Flood Damage Prevention Ordinance (FDPO), and Frequently Flooded Areas (FFA) and Definitions chapters of the Resource Ordinance. Revisions to regulations governing development in Mason County's frequently flooded areas are necessary to: meet the requirements of the Western Washington Growth Management Hearings Board order in case #95-2-0073; complete the update of Skokomish Valley floodplain regulations following adoption of the *Skokomish River Comprehensive Flood Hazard Management Plan (CFHMP)* in December of 1996; to incorporate additional floodplain studies completed for the Skokomish River and tributaries frequently flooded areas by Skillings-Connolly, for consistency with Federal Emergency Management Authority (FEMA) regulations, and Washington State's Model Ordinance for floodplain administration; and to consolidate the bulk of Mason County's frequently flooded areas regulations into a single document.

2.
The county performed a substantial public participation process with public workshop, hearings, and received substantial verbal and written public and agency comment. Further information on comment and the review process is provided within the record.

A State Environmental Policy Act Determination of Nonsignificance was issued on these amendments on November 8, 1999. The comment period ended on November 22, 1999. The Department of Community Development determined that the changes to the proposal improved environmental protections, and will not cause significant adverse environmental impact.

A Planning Commission (PC) public workshop was held on November 8, 1999. On November 15, 1999 held a public hearing, considered the testimony along with the record before it, approved findings of fact and recommended amendments to go forward to the Board of County Commissioners.

3. The Board of County Commissioners held several public hearings to consider testimony, along with the record before it. While the January 4, 2000 hearing did not include presentation of the staff report due to commissioner illness, public testimony was heard on that date, and at subsequent public hearings on January 11 2,000, and February 15, 2000. On that date the commissioners closed the hearing to verbal testimony, but provided that written clarification would still be considered. In public hearing on February 24, 2,000 the Commissioners further considered and adopted amendments to the regulations governing frequently flooded areas.

4. Public comment on the proposed November 15 1999 draft focused on concerns over regulatory restriction of property rights, the ongoing need for further study, and recommendations for modifications to the draft. Agency comment focused on regulatory consistency issues. Letters/comments included those from The Agricultural Community of the Skokomish Valley (alternate draft ordinance) dated November 2, 1999, letter from Moiyra Dehee and Tom Schreiber dated November 15, 1999, Department of Ecology (DOE) letter dated November 12, 1999, and Department of Community Trade and Economic Development letter dated November 11, 1999.

Following recommended amendments adopted by the PC on November 15, 1999, further agency comment was received relating to the PC recommended addition of a transfer of development rights provision for portions of the Skokomish River FFA. DOE and FEMA considered this would invalidate the extensive hydraulic analysis already performed for the Skokomish River FFA within the CFHMP.

Further public comment and testiminy was received, including testimony in hearings, and letters from the Skokomish Tribe dated January 4, 2000, Moiyra Dehee and Tom Schreiber dated January 3, 2000, Shelloy Johnson dated January 11, 2000, Evan Tozier, dated January 11, 2000.

Consideration of scientific study, further analysis, requests for clarification language, and comments received from the public and agencies was used in developing the February 24, 2000 draft. Ultimately the determination was made not to include development rights transfers due to concerns that the original hydraulic study completed for the Skokomish River valley was based on complex hydraulic modelling which used the initially proposed (and retained) 3% footprint limit.

5.

CONSOLIDATION OF FREQUENTLY FLOODED AREAS REGULATIONS

Discussion

In the administration of the previous regulations, it was determined that it was necessary to update regulations governing development in frequently flooded areas, incorporating the findings of best available science to date, to consolidate the bulk of regulations governing development in frequently flooded areas of Mason County into one document, and to include certain development provisions currently administered within temporary resolutions previously adopted by the County. Revisions were also necessary to accommodate the provisions of studies completed to date.

It was determined that the Flood Damage Prevention Ordinance would continue to be the guiding document regulating development in the frequently flooded areas of Mason County, with language contained in other documents moved into the FDPO, and further revisions made accordingly. The FFA chapter of the Resource Ordinance is retained in its consolidated form, with definition amendments, and referenced to the FDPO.

Findings

The revised regulations address the need to provide regulatory information from a consolidated source, and incorporate the most recent study information available for information needs and site analysis.

6.

USE OF BEST AVAILABLE SCIENCE, AND PROTECTION OF THE FUNCTIONS AND VALUES OF THE SKOKOMISH RIVER FREQUENTLY FLOODED AREAS

Discussion

Several earlier scientific studies and floodplain analyses have been completed for the Skokomish River frequently flooded area, by engineering firms with expertise in this field. These include *Skokomish River Comprehensive Flood Hazard Management Plan (CFHMP)* by KCM (adopted December 30, 1996, final plan February 1997), *Lower South Fork and Upper Skokomish River Hydraulic and Geomorphic Analysis* by Skillings-Connolly (August 15, 1997), and *Discussion of Skokomish River Valley Flood and Avulsion Hazards* by Skillings-Connolly (September 15, 1997).

In the administration of previous regulations it was determined that further scientific analysis was necessary for the frequently flooded areas of the Skokomish River and tributaries. The county retained Skillings-Connolly. The *South Fork Skokomish River and Vance Creek Hydraulic and Geomorphic Analysis* by Skillings-Connolly (June 1999, revised September 29, 1999) provides their analysis. Avulsion risk was evaluated, and ecommendations were made including the continuation of current regulatory provisions and consider further regulations. No new footprint zones and further stream setback provisions were incorporated within the revised FDPO, with provisions relating to zones mapped by previous studies as well as the most recent research.

Further analysis of digital terrain topographical maps for the Skokomish River FFA also showed that the relationship between existing grade elevations and base flood elevations was not a constant one, resulting in certain areas with the potential for deeper floodwaters. It was concluded that areas where site elevation was more than two feet lower than the base flood elevation would be treated as "no-new- footprint zones."

Regulatory provisions for stream buffers generally reflect the intended purpose of the particular ordinance, and are not intended to exclude, undermine or abrogate the provisions of other applicable regulatory buffers. Thus buffer provisions of Fish and Wildlife Habitat Conservation Area (FWHCA) buffers will apply within the Frequently Flooded Areas regulations. Within Section 5.4 of the FDPO, buffers of 200 feet apply to type 1 streams in the Special Flood Risk

Area; reference is also provided into buffer requirements for all other regulations. Potential impacts to fish and riparian habitat have been included in criteria for consideration within variance review.

Findings

The main purpose of the FDPO is to provide regulatory guidance for development in FFA's. Inclusion of the findings and recommendations of scientific study enhances and further clarifies the regulations. Setback provisions for the Skokomish River and tributaries are addressed within the FDPO and referenced to other documents. In addition regulations which specifically address fish and wildlife habitat and riparian protections are contained within specific chapters of the Resource ordinance. Revisions balance the need to focus the FDPO on development regulations, while acknowledging that consideration to and application of other regulatory provisions also apply.

7.

CONSERVATION OF PRODUCTIVE AGRICULTURAL LAND THROUGH DENSITY PROVISIONS AND DISCOURAGING OF INCOMPATIBLE USES

Discussion

Provisions for the conservation of productive agricultural land are intended to protect that use through density provisions, and discouraging of incompatible uses. In Mason County, these provisions are to be found in several of the County's regulatory documents. The Mason County Comprehensive Plan (existing, and as updated through the county's ongoing regulatory revision process), establishes the overall planning basis for the designation and protection of agricultural lands. Agricultural lands are designated, and density is provided for within the Agricultural Lands chapter of the Resource Ordinance. In addition, the FDPO contains provisions for a maximum allowable density of 3% within the Detailed Study Area Zone A2 of the Skokomish River and tributaries. During the regulatory adoption process, extensive verbal and written comment was received relating to density provisions within the FDPO.

Findings

While the primary purpose of the FDPO is related to regulation of floodplain development, density provisions within the Skokomish River floodplain contribute to consolidation of scale of development. Specific regulations addressing agricultural lands density is to be found within the Agricultural Lands chapter of the resource ordinance. Thus the combination appears to be a proper balancing of the diverse goals of the Growth Management Act.

8.

MONITORING OF DIKE CONSTRUCTION AND IMPROVEMENTS TO ENSURE COMPLIANCE WITH REGULATONS

Discussion

Mason County already administers regulations for development which provide for processes for project application, review, approval, and monitoring occur through inspection. These include

adopted building codes, the Resource Ordinance, and the Shoreline Master Program, each with requirements for permit application, review, conditions (project requirements), and inspections administered through structure construction inspections. Over and above the provisions to be found in other regulations, specific language was added to the FDPO. In particular, Section 5.4-5 provides for review and inspection of activities related to the repair, maintenance and construction of bank stabilization, levees or other related development.

Findings
The addition of language within the FDPO adds further provisions for ongoing review and inspection, providing a proper balancing of diverse goals, public interests, and individual rights.

9.
INCLUSION OF PROVISIONS WHICH ADDRESS AVULSION RISK
Discussion
To date, Mason County has overseen the execution of floodplain analysis by KCM: *Skokomish River Comprehensive Flood Hazard Management Plan*, and three studies completed by Skillings-Connolly as follows: *Draft Lower South Fork and Upper Skokomish River Hydraulic and Geomorphic Analysis* (August 1997), *Discussion of Skokomish River Valley Flood and Avulsion Hazards* (September 1997), and the recently completed *South Fork of the Skokomish River and Vance Creek Hydraulic and Geomorphic analysis and Recommendations for Action* (June 199, revised September 1999). In evaluating the application of floodplain avulsion risk provisions within the FDPO, the Planning Commission requested that staff provide additional detail of the regulatory review process. This was added to the November 15, 2000 draft within Section 5.4-2 (1)(iv) as subsection (a) and (b), and recommended by the Planning Commission for adoption. The addition provides clarification that both avulsion-related studies to date, combined with site review by the county engineer, shall be used to determine if further scientific study is required to support the development proposal. In review of proposed revisions, the Board of County Commissioners considered extensive scientific material, and written and verbal public testimony, and determined that studies support the inclusion of regulations which address avulsion risk in the floodplain of the Skokomish River, Vance Creek and tributaries. Sections and language addressing several types of No New Footprint Zones were added.

Findings
The Board finds that the proposed regulations provide that review of avulsion risk will be conducted in execution of floodplain regulations, based on both existing and continued scientific study.

10.
REGULATORY PROVISIONS WHICH CURTAIL CONSTRUCTION IN FLOODWAYS
Discussion
Provisions for continued eligibility for the FEMA Flood Insurance program include specific prohibitions on encroachments into the floodway. This language is included within, and applied

as part of the FDPO. Repair and/or reconstruction of damaged structures is limited to specific provisions which are clearly addressed. In addition, and outside the actual mapped floodway, density provisions in the Skokomish River density floodplain limit development to a 3% footprint with setbacks which center development on lots. These provisions further minimize development beyond the FEMA mapped floodway.

Findings

In reviewing the scientific data, floodplain regulations, input from the public and agencies, and material provided by the Department of Community Development, the Board of County Commisisoners made the decision to uphold the prohibitions and specific limitations on encroachment in the floodway, and include further provisions addressing development scale and location outside the floodway, within the density floodplain of theSkokomish River.

11.

The board finds that the proposed amendments balance the goals of the Mason County Comprehensive Plan and the goals of the Growth Management Act, and are consistent with FEMA and Department of Ecology provisions for regulations governing development in floodplains.

From the preceding findings, it is concluded amendments to the Mason County Flood Damage Prevention Ordinance, and Frequently Flooded Areas and Definitions Chapters of the Resource Ordinance, as herein proposed, should be adopted.

Mary Jo Cady

Cathie Olsen

Chair, Mason County Board of County Commissioners

2/24/00

Date

ATTACHMENT B

MASON COUNTY FLOOD DAMAGE PREVENTION ORDINANCE

SECTION 1.0
STATUTORY AUTHORIZATION, ~~FINDINGS OF FACT~~, PURPOSE, AND OBJECTIVES

1.1 STATUTORY AUTHORIZATION

The Legislature of the State of Washington has delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. ~~Regulations for the Skokomish River Valley set forth in section 5.4 are interim pending on the completion of a Skokomish River Watershed Flood Control Comprehensive Plan.~~ RCW 36.70A.060 and RCW 36.70A.170 provides for the designation and regulation of Frequently Flooded Areas, and RCW 86.16 provides for the administration of national flood insurance program regulation requirements by local governments. This ordinance as adopted and amended shall be known as the Mason County Flood Damage Prevention Ordinance. ~~Therefore, the Board of Mason County Commissioners, Washington does ordain as follows:~~

1.2 PURPOSE ~~FINDINGS OF FACT~~

1.2-1~~(1)~~Background: The flood hazard areas of Mason County are subject to periodic inundation which can result in loss of life and property, health, and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

~~(2)~~ These flood losses ~~are caused~~ could be exacerbated by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

~~(3)~~ ~~Current methods of flood control, particularly in the Skokomish Valley, have proven unsatisfactory to local residents and governmental agencies.~~ The *Skokomish River Comprehensive Flood Hazard Management Plan, February 1997* was adopted and contains a hydraulic study and recommendations for density based floodplain development regulations in the Skokomish River Valley. The *Draft Lower South Fork and Upper Skokomish River Hydraulic and Geomorphic Analysis* by Skillings-Connolly (August 1997, *Discussion of Skokomish River Valley Flood and Avulsion Hazards* by Skillings-Connolly (September 1997), and the *South Fork of the Skokomish River and Vance Creek Hydraulic and Geomorphic Analysis and Recommendations for Action* by Skillings-Connolly (June 1999, revised September 1999) have been completed and include general documentation of the existence of avulsion risk areas. Further studies in the Skokomish

River floodplain are currently being undertaken under the authority of the Army Corps of Engineers. Comprehensive flood control measures are necessary for public health safety and welfare and ~~to satisfy governmental concerns but which will at the same time~~ allow property owners to protect their property.

~~1.3 STATEMENT OF PURPOSE~~

1.2-2 It is therefore the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

(1) To protect human life, health and property;

(2) To minimize expenditure of public money and costly flood control projects;

(3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) To minimize prolonged business interruptions;

(5) To minimize damage to public facilities and utilities such as water and gas mains, electric telephone and sewer lines, streets, and bridges located in areas of special flood hazard;

(6) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;

(7) To ensure that potential buyers are notified that property is in an area of special flood hazard; and

(8) To ensure that those who occupy the areas of special flood hazard participate, along with government, in assuming responsibility for their actions. ~~while at the same time permitting those who occupy such areas the ability to responsibly protect their property without arbitrary and recriminating governmental action.~~

(9) To allow individuals to protect their life, health, and property when it is done in accordance with all applicable laws and regulations.

(10) Implement applicable recommendations of *Skokomish River Comprehensive Flood Hazard Management Plan, Draft Lower South Fork and Upper Skokomish River Hydraulic and Geomorphic Analysis, Discussion of Skokomish River Flood and Avulsion Hazards* and *South Fork of the Skokomish River and Vance Creek Hydraulic and Geomorphic Analysis and Recommendations for Action.*

(11) Provide for continued eligibility for FEMA Flood Insurance Program

1.3 ~~4~~ METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance ~~includes~~ provides regulatory methods and provisions for:

(1) Restricting or prohibiting uses which are dangerous to health, safety, and property

due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Controlling the alteration of natural floodplains, stream channels, and natural protection barriers, which help accommodate or channel flood waters;

(4) Controlling filling, grading, and other development which may increase flood damage; and

(5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

(6) Controlling excessive erosion by constructing sound erosion control structures and obtaining appropriate permits and exemptions from all applicable local, state, and federal jurisdictions.

(7) Implementing the recommendations of adopted flood hazard studies and plans.

SECTION 2.0
DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"A-ZONE" or "ZONE A" means those areas shown on the Federal Insurance Rate Maps (FIRM) as that area of land within the floodplain which would be inundated by the 100-year flood.

"ACCESSORY STRUCTURE" means nonresidential structures such as detached garages, sheds, garden buildings, pole buildings, and barns which are considered normal for farming and ranching activities.

"APPEAL" means the right to request for a review of the Director of ~~General Services~~ Community Development's interpretation of any provision of this ordinance or a request for a variance.

"AREA OF SHALLOW FLOODING" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.

"AREA OF SPECIAL FLOOD HAZARD" means the land in the floodplain within a community subject to a one percent or greater chance of flooding on any given year. Designation on maps

always includes the letters A or V. Areas of special flood hazard are designated as Frequently Flooded Areas.

"AVULSION" means a sudden cutting off of land by flood, currents, or change in course of a body of water.

"AVULSION RISK AREAS" include those areas generally identified in reports by Skillings-Connolly as referenced in Section 1.2 of this chapter, and later studies, having the potential for avulsion, which are related to the mapped floodplain of the Skokomish River, Vance Creek and tributaries. Floodplain-related Avulsion risk areas are also designated in the Frequently Flooded Areas chapter of the Mason County Resource Ordinance. Field confirmation shall be required and documented within engineering reports completed under Section 5.4.

"BASE FLOOD" means the flood having a (1) percent chance of being equaled or exceeded in any given year. Also referred to as the "100-year flood." Designation on maps always includes the letters A or V.

"BASEMENT" means any area of the building having its floor subgrade (below ground level) on all sides.

"BREAKAWAY WALL" means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

"CRITICAL FACILITY" means a facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use, or store hazardous materials or hazardous waste.

"DEVELOPMENT" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, diking, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. The area contained within ring levees is considered to be part of the development area due to its impact on flood waters. ~~within the area of special flood hazard~~.

"DEVELOPMENT PERMIT" see definition for "Permit" under this chapter.

"DETAILED STUDY AREA" generally means that portion of the mapped floodplain for which FEMA has performed a detailed study. Within Special Flood Risk Zone section 5.4-4 of this Chapter, the Zone A2 floodplain of the Skokomish River and tributaries is referred to as the

"Detailed Study Area."

"ELEVATED BUILDING" means for insurance purposes, a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

"ENGINEERING REPORTS" Reports compiled under this chapter to address flood-related issues shall be by an engineer licensed in the state of Washington with knowledge and experience in hydrology. The method and rigor of all investigation, analysis and design shall be in accordance with current generally accepted engineering standards. Reports which address avulsion risk areas shall include an avulsion risk analysis.

"FLOOD" or "FLOODING" means a general and temporary condition of partial or complete inundation of normally dry land areas from:
(1) The overflow of inland or tidal waters and/or
(2) The unusual and rapid accumulation of runoff of surface waters from any source.

"FLOOD INSURANCE RATE MAP (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"FLOOD INSURANCE STUDY" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

"FLOOD PROOFING" means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

"FLOOD PROTECTION ELEVATION" means one foot above the base flood elevation.

"FLOODWAY" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"FOOTPRINT" means the total area of the first floor of a structure, regardless of how the structure is supported, or the total perimeter of any development other than a structure.

"FREQUENTLY FLOODED AREAS" are critical areas designated by Mason County in its Resource Ordinance.

"LOT" means a designated parcel, tract, or area of land established by plat, subdivision or as otherwise permitted by law, to be used, developed or built upon as a unit.

"LOWEST FLOOR" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area is not considered a building's lowest floor, PROVIDED that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance found at Section 5.2-1(2).

"MANUFACTURED HOME" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. ~~For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.~~ The term "manufactured home" does not include a "recreational vehicle".

"MANUFACTURED HOME PARK OR SUBDIVISION" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"MAXIMUM ALLOWABLE DENSITY" means the percentage of the total area of any lot located in the Detailed Study Area of the Skokomish River floodplain, regardless of the size of the lot, which all new development and substantial improvements shall not exceed.

"MAXIMUM ALLOWABLE OBSTRUCTION" means the maximum obstruction of a structure allowable in the Detailed Study Area Zone A2 floodplain of the Skokomish River, to be calculated as described herein.

"NEW CONSTRUCTION" means structures for which the "start of construction' commenced on or after the effective date of this ordinance.

"NO NEW FOOTPRINT ZONE" is the general term used to identify those areas within the floodplains of the Skokomish River and Vance Creek and tributaries, and associated avulsion risk areas, where new construction following the effective date of this ordinance is restricted due to the occurrence of high flood hazards. Repair and substantial improvement shall be allowed contingent on conditions described herein. Maps delineating No New Footprint Zones 1-4 and No New Footprint Zone 1A, and overbank flow paths, are attached hereto as Exhibit A, Exhibit B and Exhibit C. Site-specific locations of avulsion risk areas and overbank flow paths shall be subject to confirmation in engineering reports completed under the authority of this chapter. See also Section 5.4-2 of this ordinance.

"OVERBANK FLOW PATHS" The *Skokomish Comprehensive Flood Hazard Management Plan, February 1997* by KCM identified overbank flow paths on the map dated February 21, 1997 entitled "Flood Hazard Areas, Recommended Acquisitions," and attached hereto as Exhibit C.

"PERMIT" means a written authorization from ~~the~~ Mason County ~~Department of General Services~~ for any construction or development activity on all lands regulated by this ordinance. Such permits shall include but are not limited to excavation and grading, permits for fills and excavations under Chapter 70 of the Uniform Building Code, shoreline permits for developments regulated by the Mason County Shoreline Master Program, building permits for all structures under the Uniform Building Code or Title 14, Mason County Code, or written authorization for development under this Ordinance.

"PERSON" means any individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or any agency of the state or local government unit however designated.

"RECREATIONAL VEHICLE" means a vehicle which is:

(1) Built on a single chassis;
(2) 400 square feet or less when measured at the largest horizontal projection;
(3) Designed to be self-propelled or permanently towable by a light duty truck; and
(4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

~~"SPECIAL FLOOD HAZARD AREA" means an area subject to a base or 100 year flood; areas of special flood hazard are shown on the flood insurance rate map as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, and V.~~

"SPECIAL FLOOD RISK ZONE" means ~~that area of~~ the Zone A floodplain of the Skokomish River, Vance Creek and tributaries, and the Detailed Study Area Zone A2 floodplain of the Skokomish River and tributaries, as identified Flood Insurance Rate Maps 530115 0175 D and 530115 0180 D, both dated December 8, 1998 or as amended, including avulsion risk areas. ~~Valley identified by the Federal Emergency Management Agency in the scientific study entitled "The Flood Insurance Study for Unincorporated Areas Mason", Community Panel Number 530115 0180, Detailed Study Area.~~

"START OF CONSTRUCTION" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the

stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not the alteration affects the external dimensions of the building.

"STRUCTURE" means a walled and roofed building including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

"SUBSTANTIAL DAMAGE" means damage of any origin sustained by a structure whereby cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
"SUBSTANTIAL IMPROVEMENT" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(1) Before the improvement or repair is started, or
(2) If the structure has been damaged and is being restored, before the damage occurred. For the purpose of this definition "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

The term does not, however, include either:

(1) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official, and which was in existence prior to the damage event or improvement, and which are solely necessary to assure safe living conditions, or
(2) Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places.

"VARIANCE" means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

"WATER DEPENDENT" means a ~~structure -for commerce or industry which cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operation.~~ use which cannot exist in other than a water front location and is dependent on the water by reason of the intrinsic nature of its operations. Examples include but are not limited to cargo terminal loading areas, barge loading , ship building, repair, servicing and dry docking,

aquaculture, log booming, dams for domestic/industrial water supply, flood control and/or hydroelectric production; water diversion structures and facilities for water supply, irrigation and/or fisheries enhancement; flood water and drainage pumping plants and facilities; hydroelectric generating facilities and appurtenant structures; and structural and non-structural flood damage reduction facilities, and stream bank stabilization structures and practices.

"WETLANDS" ~~means those lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface of the land is covered by shallow water. Wetlands have the following three characteristics:~~

~~(1) at least periodically, the land supports predominately hydrophytes; and~~
~~(2) the substrate is predominately undrained hydric soil; and~~
~~(3) the substrate is non-soil and is saturated with water or covered by shallow water for some time during the growing season of each year.~~
refer to the definition in the Mason County Resource Ordinance.

SECTION 3.0
GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This ordinance shall apply to all areas of special flood hazard and avulsion risk areas within the jurisdiction of Mason County. These lands are designated as Frequently Flooded Areas by the Mason County Resource Ordinance pursuant to RCW 36.70A.

3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

(1) The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for the Mason County" dated ~~February 5, 1987~~ May 17, 1988, and revised December 8, 1998, with accompanying Flood Insurance Maps, and any subsequent amendments thereto, is hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at the Mason County Planning Department, Building I, 411 N. 5th St., Shelton, Washington.

(2) Floodplain related avulsion risk areas as defined in Section 2.0, indentified under the provisions of Section 5.4 of this Chapter.

3.3 PENALTIES FOR NONCOMPLIANCE

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than $1,000 imprisoned for not more than 60 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent Mason County from taking such other lawful action as is necessary to prevent or remedy any violation. The Mason County Development Code section 15.13 provides for enforcement of violations to permits.

3.4 ABROGATION AND GREATER RESTRICTIONS

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be:

(1) Considered as a minimum requirements;

(2) Deemed neither to limit nor repeal any other powers granted under State statutes.

3.6 WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Mason County, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

SECTION 4.0
ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT

4.1-1 Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.2. The permit shall be for all structures including manufactured homes, as set forth in the "DEFINITIONS," and for all development including fill and other activities, also as set forth in the "DEFINITIONS." If no other county permit is required, a floodplain permit shall be required.

4.1-2 Application for Development Permit

Application for a development permit shall be made on forms furnished by ~~the Director of General Services~~ Mason County, which can be obtained from the Mason County Planning Department and/or Permit Assistance Center. Application materials ~~and~~ may include but not be limited to plans in ~~duplicate~~ triplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question and existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(1) Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

(2) Elevation in relation to mean sea level to which any structure has been floodproofed;

(3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 5.2-2; and

(4) Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

4.2 DESIGNATION OF THE PLANNING DIRECTOR ~~OF GENERAL SERVICE~~

The Planning Director ~~of General Services~~ is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions. The Planning Director may consult with other departments and/or agencies with expertise to assist in permitting decisions.

4.3 DUTIES AND RESPONSIBILITIES OF THE PLANNING DIRECTOR ~~OF GENERAL SERVICES~~

Duties of the Planning Director ~~of General Services~~ shall include, but not be limited to:

4.3-1 Permit Review

(1) Review all development permits to determine that the permit requirements of this ordinance have been satisfied.

(2) Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.

(3) Review all development permits to determine if the proposed development is located in the floodway, or special flood risk zone as defined in Section 2. If located in the floodway, assure that the provisions of Section 5.3 are met. If located in a special flood risk zone, assure that the provisions of Section 5.4 are met.

(4) Review applications for emergency permits. An emergency shall be defined as set forth in WAC 173.27.040 (2)d, which includes the following language: *"Emergency construction necessary to protect property from damage by the elements. An "emergency" is an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time too short to allow full compliance with this chapter. Emergency construction does not include development of new permanent protective structures where none previously existed. Where new protective structures are deemed by the administrator to be an appropriate means to address the emergency situation, upon abatement of the emergency situation, the new structure shall be removed or any permit which would have been required, absent an emergency, pursuant to chapter 90.58 RCW of these regulations or the local master program, shall be obtained."*

4.3-2 Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with Section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Planning Director ~~of General Services~~ shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer Section 5.2, SPECIFIC STANDARDS, ~~and~~ 5.3 FLOODWAYS, and 5.4 SPECIAL FLOOD RISK ZONE.

4.3-3 Information to be Obtained and Maintained

(1) Where base flood elevation data is provided through the Flood Insurance Study or required as in Section 4.3-2, obtain and record the actual (as-built) elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures, and whether or not the structure contains a basement.

(2) For all new or substantially improved floodproofed structures:
   (i) verify and record the actual elevation (in relation to mean sea level), and
   (ii) maintain the floodproofing certifications required in Section 4.1-2(3).

(3) Maintain for public inspection all records pertaining to the provisions of this ordinance.

4.3-4 Alteration of Watercourses

(1) Notify adjacent communities and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

(2) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

4.3-5 Interpretation of FIRM Boundaries

~~Make interpretations~~ Conduct field investigations where needed, ~~as~~ to verify the ~~exact~~ location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). Following a field investigation , if ~~T~~the person contesting the location of the boundary still does not agree with the interpretation, they shall be given a reasonable opportunity to appeal the interpretation as provided in Section 4.4. However, if it is clear from examining the FIRM map that the subject property or development is located within the area of special flood hazard, the person contesting the location of the boundary shall apply to FEMA for a map amendment.

4.4 VARIANCE PROCEDURE

4.4-1 Appeal Board

(1) The Board of County Commissioners shall act as the Board of Appeals to hear and decide appeals and requests for variances from the requirements of this ordinance.

(2) The Board of Appeals shall hear and decide appeals when it is alleged there is an

error in any requirement, decision, or determination made by the Planning Director ~~of General Services~~ in the enforcement or administration of this ordinance.

(3) Those aggrieved by the decision of the Board of Appeals, or any taxpayer, may appeal such decision to the Superior Court, as provided in RCW Chapter 36.70.

(4) In passing upon such applications, the Board of Appeals shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:

(i) the danger that materials may be swept onto other lands to the injury of others;

(ii) the danger to life and property due to flooding or erosion damage;

(iii) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(iv) the importance of the services provided by the proposed facility to the community;

(v) the necessity to the facility of a waterfront location, where applicable;

(vi) the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

(vii) the compatibility of the proposed use with the existing and anticipated development;

(viii) the relationship of the proposed use to the comprehensive plan and flood plan management program for that area;

(ix) the safety of access to the property in times of flood for ordinary and emergency vehicles;

(x) the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and

(xi) the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(xii) the potential impacts to fish and riparian habitat, as provided for within the Fish and Wildlife Habitat Conservation Areas chapter of the Resource Ordinance.

(5) Upon consideration of the factors of Section 4.4-1(4) and the purposes of this ordinance, the Board of Appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

(6) The Planning Director ~~of General Services~~ shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

4.4-2 Conditions for Variances

(1) Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with

existing structures constructed below the base flood level, providing items (i-xi) in Section 4.4-1(4) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.

(2) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in this section.

(3) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.

(4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(5) Variances shall only be issued upon:

- (i) a showing of good and sufficient cause;
- (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant;
- (iii) a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in Section 4.4-1(4), or conflict with existing local laws or ordinances.

(6) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

(7) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except 4.4-2(1), and otherwise complies with Sections 5.1-1, 5.1-2 and 5.1-3 of the GENERAL STANDARDS.

(8) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

SECTION 5.0
PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 GENERAL STANDARDS

In all areas of special flood hazards, the following standards are required:

5.1-1 Anchoring

(1) All new construction and substantial improvements shall be anchored to prevent flotation collapse, or lateral movement of the structure.

(2) All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).

5.1-2 Construction Materials and Methods

(1) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

(2) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

(3) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

5.1-3 Utilities

(1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

(2) The proposed water well shall be located on high ground that is not in the floodway. It shall be protected from a one hundred year flood and from any surface or subsurface drainage capable of impairing the quality of the ground water supply (WAC 173-160-171);

~~(2)~~(3) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and,

~~(3)~~(4) On-site waste disposal systems shall be located to avoid impairment to them or

contamination from them during flooding.

5.1-4 Subdivision Proposals

(1) All subdivision proposals shall be consistent with the need to minimize flood damage;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and,

(4) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

(5) Proposals for Subdivisions or Boundary Line Adjustments shall not result in any lot which is nonconforming to the provisions of this ordinance.

(6) Subdivisions located entirely within a floodplain shall not be allowed increased density through a Performance Subdivision as described in Title 16. A performance subdivision may be used for parcels located partially within a floodplain provided all allowed building areas are located outside the floodplain, and all other regulatory provisions are met. When feasible, lots shall be clustered to locate subdivisions outside the floodplain.

(7) For proposed subdivisions of land within the Special Flood Risk Zone of the Skokomish River, Vance Creek and tributaries as defined in Section 2 of this chapter, all the following provisions shall also apply:

(i) Subdivision proposals shall meet the development provisions of this Ordinance, including provisions of Section 5.4; and

(ii) proposed development sites shall be on the highest ground available; and

(iii) engineering reports for the site under Section 5.4 shall include certification that the private road access from public right-of-way to the development site is not in an avulsion risk area. This provision shall also apply to proposals where the development sites are outside the floodplain, but access is through the floodplain, unless it can be shown that an alternate access outside the floodplain is available and can be developed for the proposed use.

5.1-5 Review of Building Permits

Were elevation data is not available either through the Flood Insurance Study or from another authoritative source (Section 4.3-2), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding.

The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

5.2 SPECIFIC STANDARDS

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or Section 4.3-2, Use of Other Base Flood Data, the following provisions are required:

5.2-1 Residential Construction

(1) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation.

(2) Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designated to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

(i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.

(ii) The bottom of all openings shall be no higher than one foot above grade.

(iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

5.2-2 Nonresidential Construction

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

(1) Be floodproofed so that below one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(3) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of

the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 4.3-3(2).

(4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in 5.2-1(2).

(5) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building floodproofed to one foot above the base flood level will be rated as the base flood level).

5.2-3 Accessory Structures

Construction or substantial improvement of accessory structures, as defined in section 2.0, shall either have the lowest floor elevated one foot or more above the level of the base flood elevation; or must meet the following criteria:

(1) A minimum of two openings having a total net area of not less than one square foot of enclosed area subject to flooding shall be provided.

(2) The bottom of all openings shall be no higher than one foot above grade.

(3) Openings may be equipped with screens, louvers, or other coverings provided they may permit the automatic entry and exit of flood waters.

(4) Structures shall not be designed for human habitation.

(5) Structures shall be firmly anchored to prevent flotation which may result in damage to other structures.

(6) Service facilities such as electrical and heating equipment shall be elevated or floodproofed.

5.2-4 Critical Facility

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the base floodplain. Construction of new critical facilities shall be permissible within the base floodplain if no feasible alternative site is available. Critical facilities constructed within the base floodplain shall have the lowest floor elevated to three feet or more above the level of the base flood elevation at the site. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into flood waters. Access routes elevated to or above the level of the base floodplain shall be provided to all critical facilities to the extent possible.

5.2-5 Manufactured Homes

All manufactured homes to be placed or substantially improved within Zones A1-30, AH, and AE

on the community's FIRM shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of section 5.1-1(2).

5.2-6 Recreational Vehicles

Recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's FIRM shall either:

(i) Be on site for fewer than 180 consecutive days;

(ii) Be fully licensed and ready for highway use, on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

(iii) Meet the requirements of 5.2-3 above and the elevation and anchoring requirements for manufactured homes.

5.3 FLOODWAYS

Located within areas of special flood hazard established in Section 3.2 are the areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply ~~except to the zone of special flood risk, Skokomish River Valley as defined in section 2.0~~:

(1) Encroachments are prohibited including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(2) Construction or reconstruction of residential structures is prohibited within designated floodways, except for (i) repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and (ii) repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either, (A) before the repair, reconstruction, or repair is started, or (B) if the structure has been damaged, and is being restored, before the damage occurred. Work done on structures to comply with existing health, sanitary, or safety codes which have been identified by the local code enforcement official and which was in existence prior to the damage event or improvement or to structures identified as historic places shall not be included in the 50 percent.

(3) If Section 5.3(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 5.0, PROVISIONS FOR FLOOD HAZARD REDUCTION.

5.4 SPECIAL FLOOD RISK ZONE - FLOODPLAIN OF THE SKOKOMISH RIVER, VANCE CREEK AND TRIBUTARIES, INCLUDING AVULSION RISK AREAS ~~VALLEY INTERIM REGULATIONS~~

~~This section shall apply to that area of the Skokomish River Valley identified by the Federal Emergency Management Agency in the scientific study entitled "The Flood Insurance Study for unincorporated areas Mason County, Community Panel number 5301150180, Detailed Study Area. It sets forth INTERIM REGULATIONS that shall apply to this designated area. These interim regulations shall be replaced using a comprehensive planning process which recognizes the role of diking in flood control management efforts. Interim shall be defined as that period of time between the adoption of this ordinance and the adoption of a Skokomish River Watershed Flood Control Comprehensive Plan and subsequent amendments to these regulations. The following regulations and construction standards shall apply to the special flood risk zone:~~

~~(1) New construction and substantial improvements of residential and nonresidential structures within the special flood risk zone shall have the lowest floor elevated one foot or more above the base flood elevation and shall be constructed according to the standards provided in subsections 5.1, 1-5, and 5.2, 1-4.~~

(Sections (2) through (4) have been moved to section 5.4-5 (1) through (3)

~~(5) Any fill that is allowed in the special flood risk zone shall be confined to the actual building site, other means of elevating structures shall be encouraged such as posts, piles and stem walls.~~

~~(6) Solid road fills perpendicular to the flow of water are prohibited in the special flood risk zone. The graveling of driveways and other access roads is exempt.~~

~~(7) To the extent feasible fills shall be compensated by cuts or extraction of like amounts of materials to alleviate the effect of the fill.~~

~~(8) The highest portion of any lot shall be utilized as the building site. Lots partially in the special flood risk zone must comply with the regulations for the special flood risk zone.~~

~~(9) Whenever feasible, new structures shall be located in the hydraulic shadow of the existing structures.~~

~~(10) Fill for the elevation of structures shall be prohibited unless certification by a registered professional engineer or architect is provided demonstrating that the fill shall not result in any increase in flood levels during the occurrence of the base flood discharge.~~

5.4.1 A Special Flood Risk Zone is hereby established for the Zone A floodplain of the Skokomish River, Vance Creek and tributaries, and the Detailed Study Area Zone A2 floodplain of the Skokomish River and tributaries, and avulsion risk areas, as defined in Section 2.0.

5.4-2 No New Footprint Zones

(1) No new footprint zones are hereby established for the Special Flood Risk Zone as follows:

(i) No New Footprint Zones delineated in the *Skokomish River Comprehensive Flood Hazard Management Plan, February 1997,* as Zones 1, 2, 3, & 4, attached hereto as Exhibit "A",

(ii) Zone 1A, which was originally delineated in the *Draft Skokomish River Comprehensive Flood Hazard Management Plan April 1996,* attached hereto as Exhibit "B".

(iii) All portions of the Detailed Study Area Zone A2 floodplain of the Skokomish River and tributaries where the existing site elevation is more than 2 feet below the Base Flood Elevation as identified by FIRM map and as certified by a licensed engineer or surveyor.

(iv) All avulsion risk areas, and all overbank flow paths shown in exhibit C. Engineering reports shall be required for site-specific field confirmation and documentation as necessary. The following information shall be used to determine if an engineering report is necessary:

(a) Avulsion-related studies completed to date; and

(b) Site review and consultation with a county engineer to assess applicability of studies to the site for determining if this is in or alongside a potential avulsion area, or if an engineering report is required for a determination.

(2) New construction shall not be allowed in No New Footprint Zones. Repair and substantial improvement may be allowed, providing that the following conditions are achieved:

(i) The area of the footprint(s) of the structure(s) following reconstruction shall be no greater than the area(s) of the footprint(s) prior to reconstruction. A footprint is defined as the total area of the first floor of a structure, regardless of how the structure is supported.

(ii) Any substantial improvement of the structure shall also meet the general standards presented in this chapter.

5.4-3 (1) New construction and substantial improvements may be allowed within the Special Flood Risk Area where the following provisions are met:

(a) The structure is at least 200 feet from the Ordinary High Water Mark of a stream or river, provided that if setback is from type 2 - 5 streams and all other provisions of this ordinance are met, where a proposed development location is supported by an avulsion risk engineering report, the minimum setback sould be as provided for within other applicable regulations, and

(b) The proposed development is not in a No New Footprint Zone as defined in

Section 5.4-2. A report from a professional engineer as defined in Section 2.0 has determined that the proposed development is not within an avulsion risk area or overbank flow paths; and

(c) if located within the Detailed Study Area Zone A2 floodplain of the Skokomish River and tributaries, the development meets the requirements of Section 5.4-4:

(2) All new construction and substantial improvements shall also meet the GENERAL STANDARDS presented in Section 5.1 and SPECIFIC STANDARDS presented in Sections 5.2-1 through 5.2-6.

5.4-4 Within the Detailed Study Area Zone A2 floodplain of the Skokomish River and tributaries (referred to below as the "Detailed Study Area"), new construction and substantial improvements may be allowed where not otherwise prohibited and all of the following provisions are met:

(1) Location: All new construction and substantial improvements shall be located on the highest existing ground available. The Administrator, on a case-by-case basis may allow development on areas other than the highest existing ground available when it can be demonstrated that such location will not increase the flood hazards to the structure or adjacent properties. In making a determination the Administrator shall consider the size of the parcel, proposed access locations, proximity to other structures and any conflicts with setback requirements of this chapter, and may require a report from an engineer which addresses the flood hazard risk.

(2) Maximum Allowable Density for all development on a lot in the Detailed Study Area: To assure that new development and substantial improvements combined with existing development, will not cause a cumulative increase in the base flood elevation of more than one half (0.5) foot, all new development and substantial improvements shall be limited as follows:

(i) The footprint of any proposed use or development regulated under this chapter that will displace flood waters, combined with existing development, shall not exceed three (3) percent of the land area of that portion of the lot located in the Detailed Study Area.

(3) Maximum Allowable Obstruction for all development in the Detailed Study Area:

(a) The maximum width (sum of widths) of all existing and proposed structures and other development shall not exceed seventeen (17) percent of the length of the line drawn perpendicular to the known flood water flow direction at the point where the development(s) is located. The length of said line shall not extend beyond the property boundary or the edge of

the Detailed Study Area, whichever is less.

(b) Where structures are to be constructed on adjacent parcels five (5) acres or less in size, the building setback shall be 41.5 percent of the line drawn perpendicular to the known flood water flow direction at the point where the development(s) is located. For example, for a 2 1/2 acre square parcel (i.e. 330 x 330 ft), with the flood flow perpendicular to the property lines, the building setback would be 137 feet with the maximum allowable width or sum of widths being 56 feet. See Appendix A for example drawing.

(c) Setback requirements for development on parcels larger than five (5) acres shall be evaluated on a case-by-case basis to determine reasonable setbacks that allow for the safe conveyance of flood waters without increasing flood hazards or risks to surrounding properties. The Administrator shall consider the following in making a setback determination:

(i) the proximity of the proposed structure to existing and anticipated development;

(ii) the width of proposed structure perpendicular to flood water flow;

(iii) topography of the site and surrounding area;

(iv) effect of proposed structure on flood water levels in the immediate area such as backwater effects and redirection;

(v) the existing and potential development along the cross-section line perpendicular to flood water flow as it relates to the maximum allowable obstruction of seventeen (17) percent.

(4) Orientation: All new construction and substantial improvements are required to minimize the cross-sectional area perpendicular to known flood water flow patterns. Determination of flood water flow direction for such orientation shall be based upon topographical and historical flood data on file with the administrative official. When such information is not available, such orientation of the greatest cross-sectional area shall be in an upstream-downstream direction at a right angle to a line drawn along the shortest distance from the midpoint of the river channel through the midpoint of the lot.

5.4-5 Dikes, Levees and Other Water Flow Modification Structures

~~(2)~~(1) Areas where flood water releases and overflows from the main Skokomish River channel shall not be modified, meaning levied or diked, in any manner which would result in increased stream flow in the main channel. ~~until these regulations are amended in accordance with an adopted Skokomish Watershed Flood Control Comprehensive Plan.~~

~~(3)~~(2) Maintenance to existing legally established levees, dikes, and other water flow modification structures shall be permitted with appropriate approvals from all affected agencies provided that the maintenance does not result in increased stream flow within the main channel, and is consistent with provisions and recommendations of the adopted Skokomish River Comprehensive Flood Hazard Management Plan. Emergency alterations to dikes and levees necessary for the protection of human life and property shall be permitted as provided for within the applicable regulatory permit processes.

~~(4)~~(3) Alterations to dikes and levees, and bank stabilization efforts that would prevent legitimate potential emergency situations shall be permitted, PROVIDED that all affected agencies have been notified and appropriate permits ~~approvals~~ have been acquired.

(4) Activities related to the repair, maintenance or construction of bank stabilization, dikes, levees or other related development are a permit required activity under Chapter 4.1 of this ordinance, are subject to all provisions for development standards within this ordinance, and shall provide for appropriate inspections during and following construction and/or repair. Construction shall meet NRCS standards, as recommended within the *Skokomish River Comprehensive Flood Hazard Management Plan,* or as revised.

(5) Projects proposed by government agencies under this chapter as recommended within the *Skokomish River Comprehensive Flood Hazard Management Plan*, or *Skillings and Connolly* studies dated September 1997, and September 1999, shall be evaluated on a case-by-case basis. The Administrator shall include the following considerations in making an evaluation:

(i) Recommendations of applicable study;
(ii) Provisions of this chapter;
(iii) Project-specific engineering;
(iv) Public benefit;
(v) All applicable regulations.

~~SECTION 6.0~~
~~COUNTYWIDE WETLANDS MANAGEMENT~~
~~FOR FLOOD DAMAGE PREVENTION~~

~~To the maximum extent possible, developments shall be reviewed to avoid the short and long term adverse impacts associated with the destruction or modification of wetlands, especially those activities which limit or disrupt the ability of the wetland to alleviate flooding impacts. The following process should be implemented:~~

~~(1) Review proposals for development within base floodplains for their possible impacts on wetlands located within the floodplain.~~

~~(2) Ensure that development activities in or around wetlands do not negatively affect public safety, health, and welfare by disrupting the wetlands' ability to reduce flood and storm drainage.~~

~~(3) Ensure areas accustomed to or previously used for agriculture, silviculture, and ranching activities such as plowing, seeding, cultivating, minor drainage, or upland soil and conservation practices where proven feasible are exempted from this section.~~

~~(4) Request technical assistance from the Department of Ecology in identifying wetland areas. Existing wetland map information from the National Wetlands Inventory (NWI) can be used in conjunction with the community's FIRM to prepare an overlay zone indicating critical wetland areas deserving special attention.~~

~~ADDENDUM~~

~~GOALS AND OBJECTIVE SO THE SKOKOMISH RIVER VALLEY RESIDENTS~~

~~Residents and property owners of the Skokomish River Valley have met in numerous community meetings and by majority agreement have identified the following goals and objectives that are to be adequately addressed in the Skokomish River Watershed Flood Control Comprehensive Plan. These goals and objectives as well as other comments and concerns have been recognized and incorporated into this ordinance.~~

~~(1) To maintain the river in its present channel in a way as to alleviate flooding conditions throughout the valley resulting in reduced flood damages to all existing structures.~~

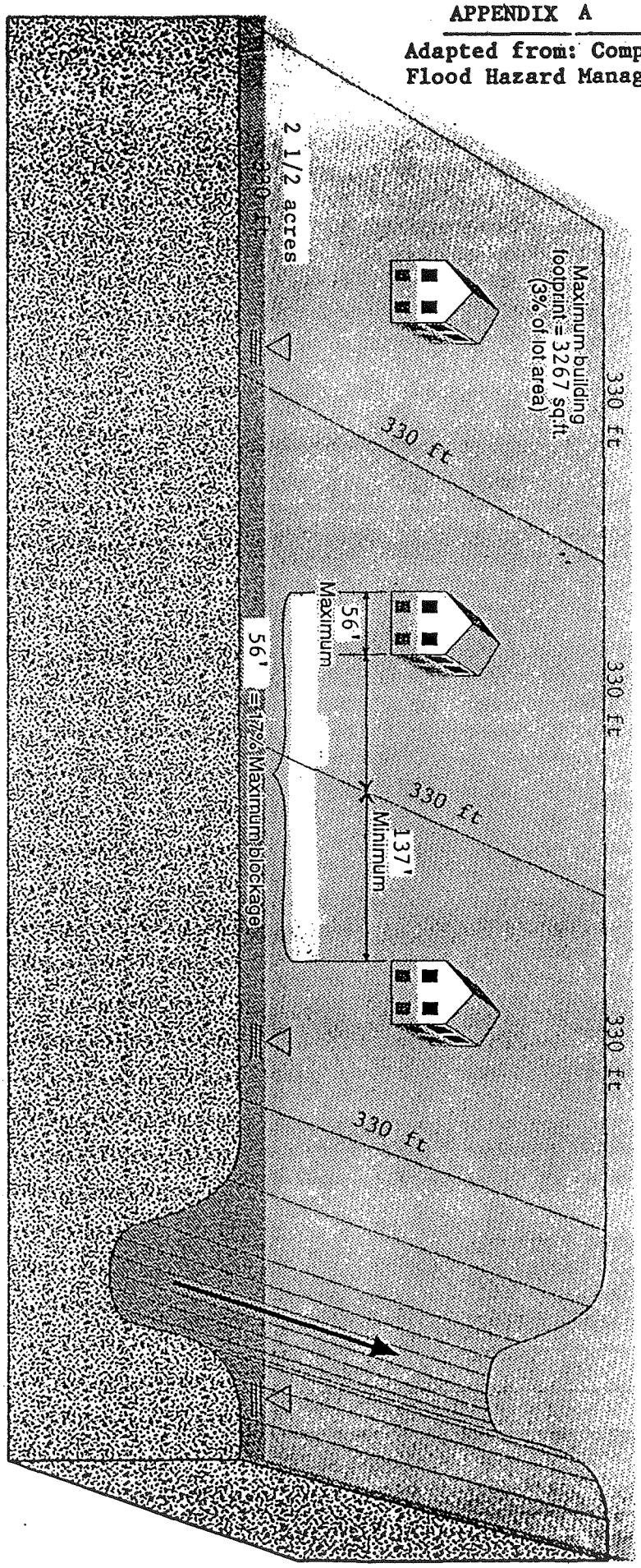
~~(2) To protect stream banks with approved stabilization methods that control excessive erosion resulting in decreased sediment and gravel accumulation within the river channel.~~

~~(3) To perform proper river channel maintenance including the maintenance of dikes, drainage ditches, and potential flow obstructions resulting in reduced flood damages.~~

~~(4) To maintain and enhance fish and wildlife habitat.~~

APPENDIX A

Adapted from: Comprehensive Flood Hazard Management Plan



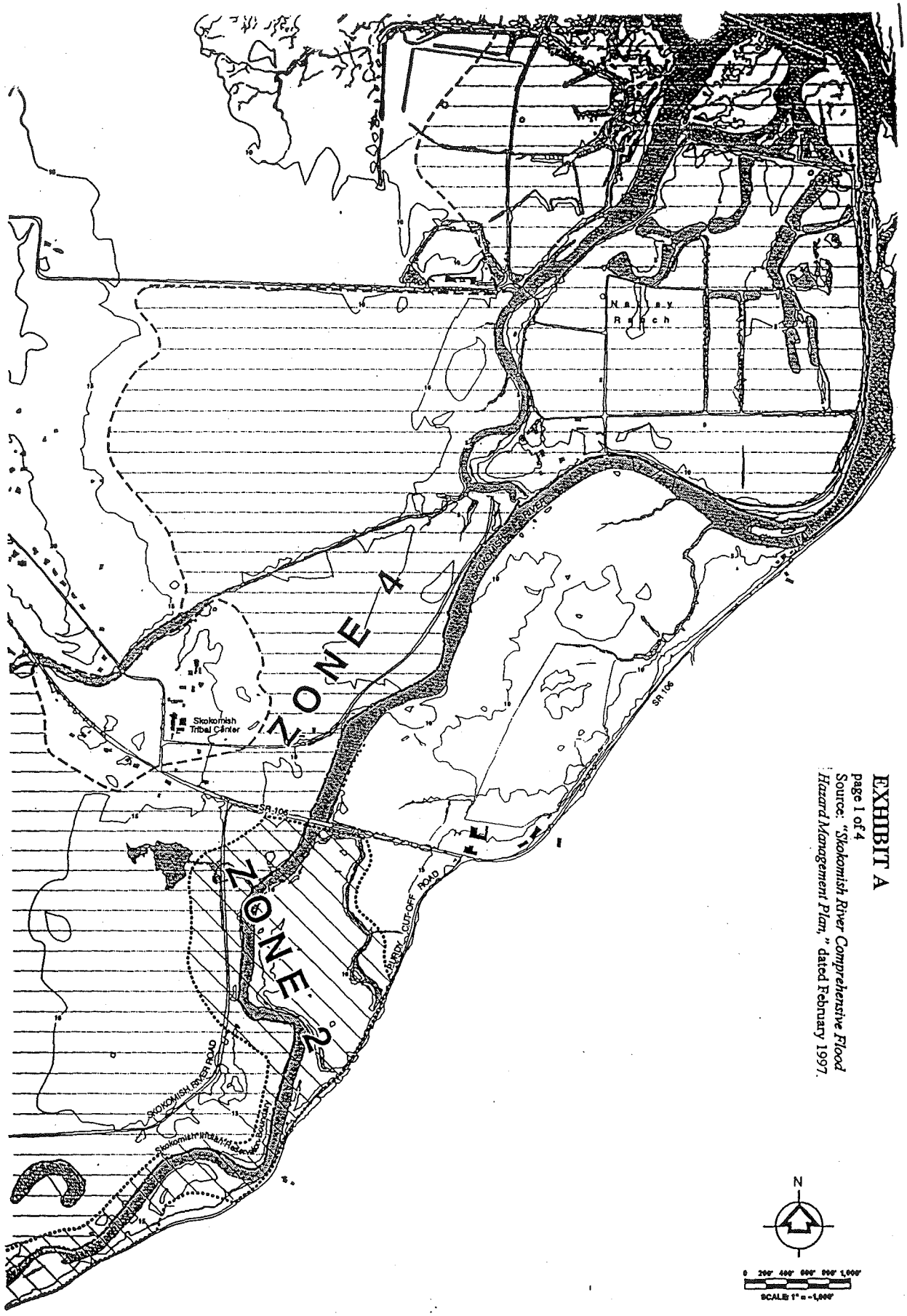
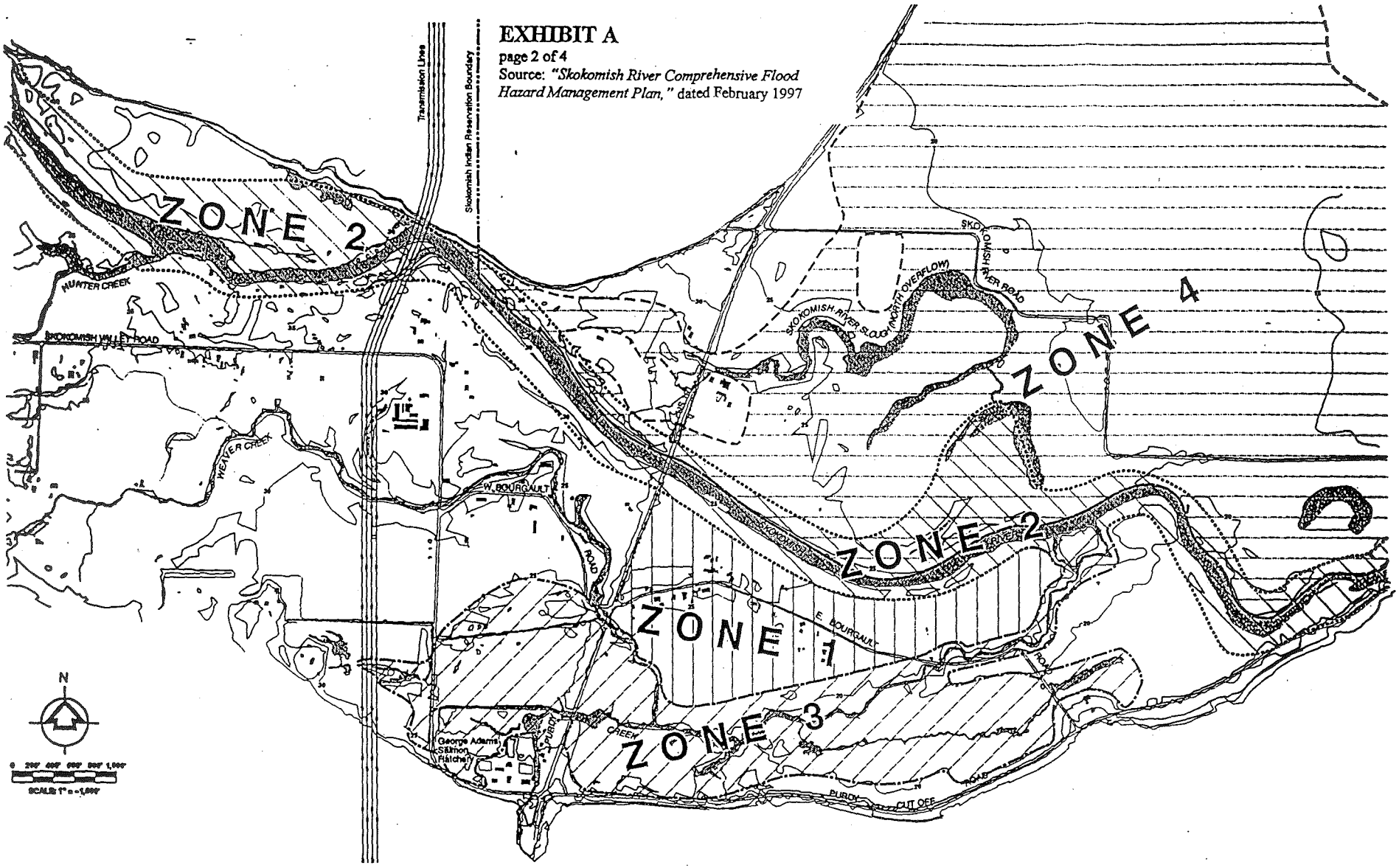


EXHIBIT A
page 1 of 4
Source: "*Skokomish River Comprehensive Flood Hazard Management Plan,*" dated February 1997.

KCM 1917 First Avenue Seattle, Washington 98101	Mason County SKOKOMISH RIVER COMPREHENSIVE FLOOD HAZARD MANAGEMENT PLAN	Figure 6-13a. "NO-NEW-FOOTPRINT" ZONES— RIVER MOUTH/RESERVATION VICINITY



KCM
177 First Avenue
Seattle, Washington 98101

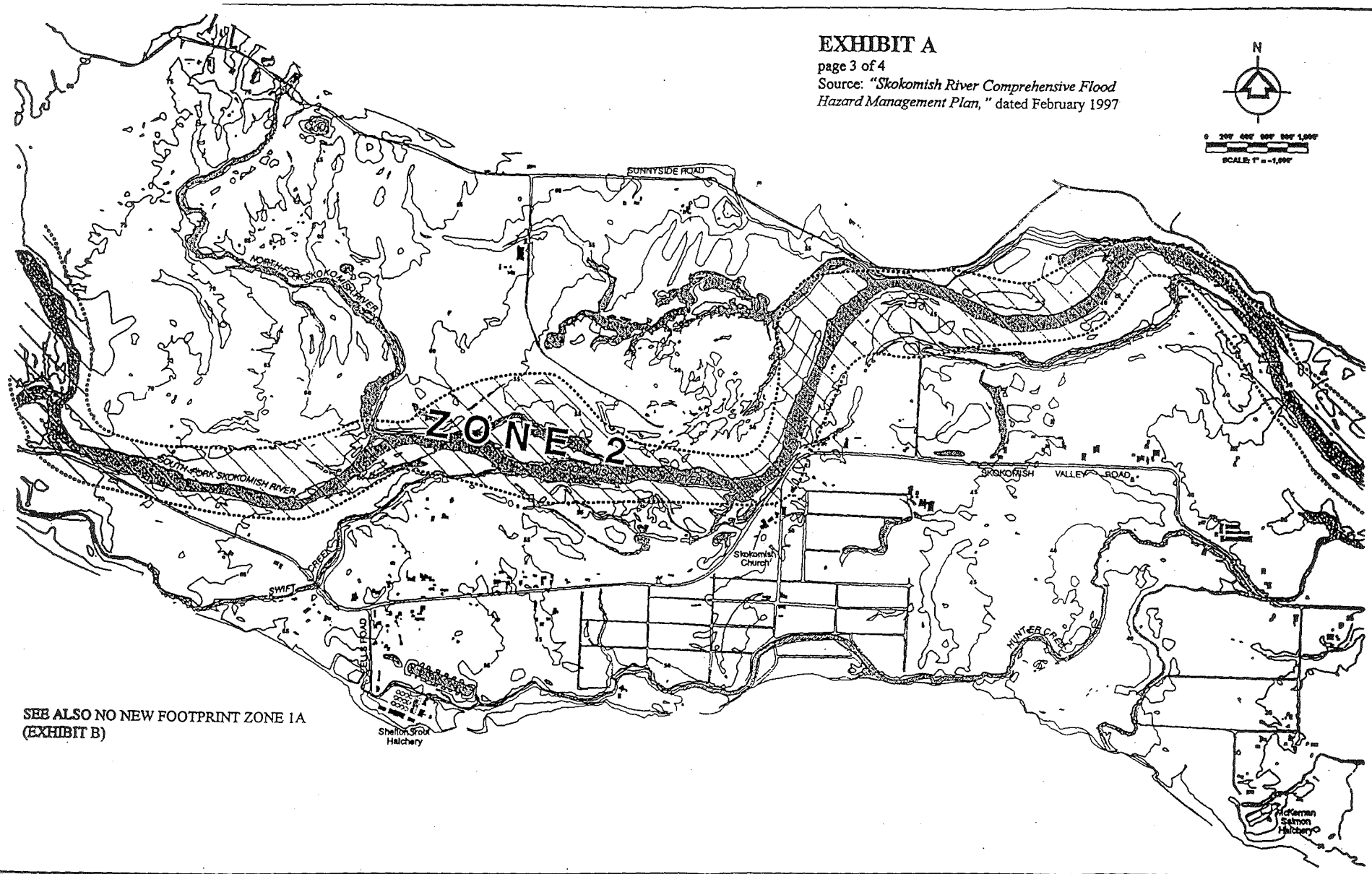
Mason County
SKOKOMISH RIVER COMPREHENSIVE FLOOD
HAZARD MANAGEMENT PLAN

Figure 6-13b.
"NO-NEW-FOOTPRINT" ZONES—
WEAVER/PURDY CREEK VICINITY

EXHIBIT A

page 3 of 4

Source: *"Skokomish River Comprehensive Flood Hazard Management Plan,"* dated February 1997

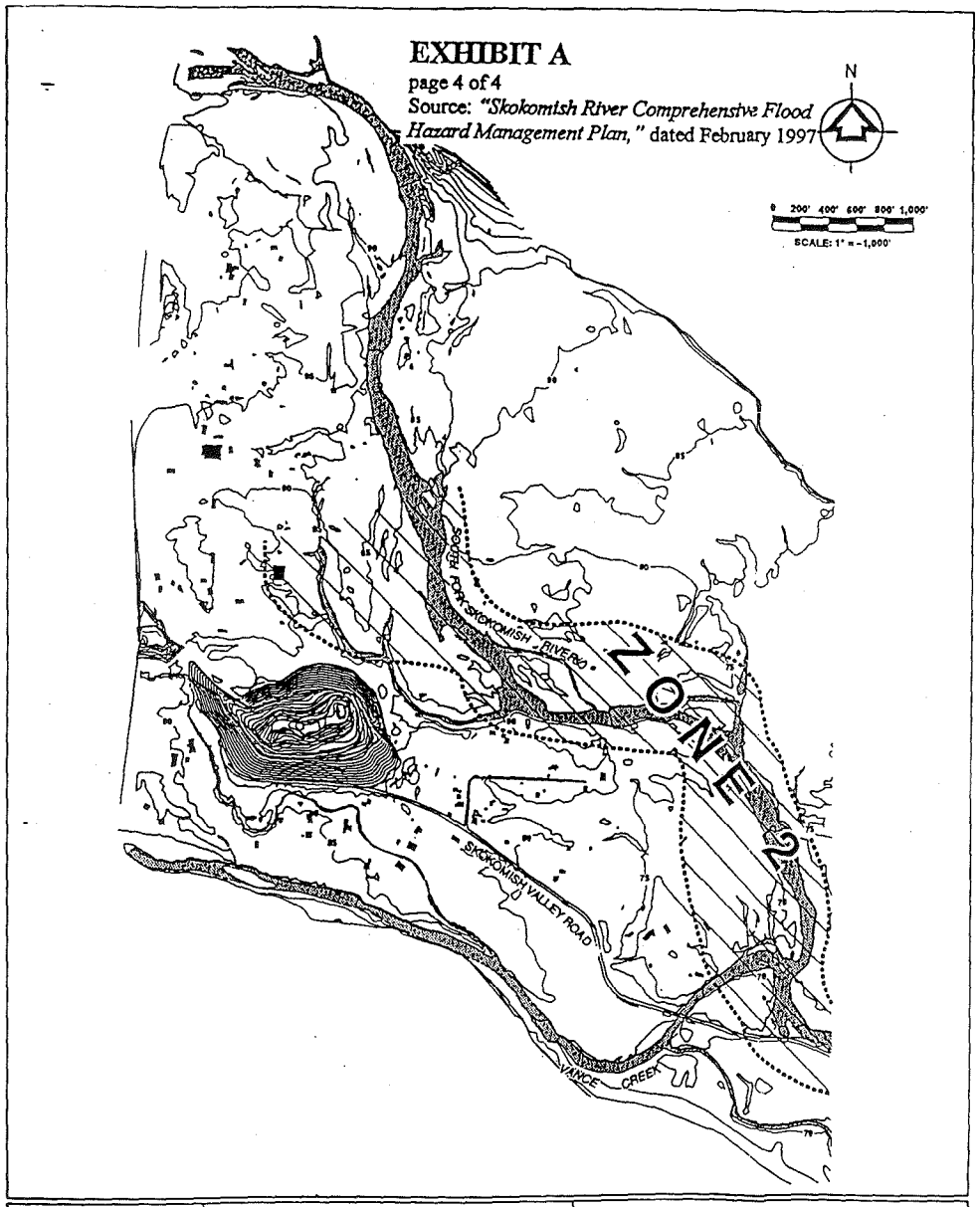


SEE ALSO NO NEW FOOTPRINT ZONE 1A (EXHIBIT B)

KCM
917 First Avenue
Seattle, Washington 98101

Mason County
SKOKOMISH RIVER COMPREHENSIVE FLOOD HAZARD MANAGEMENT PLAN

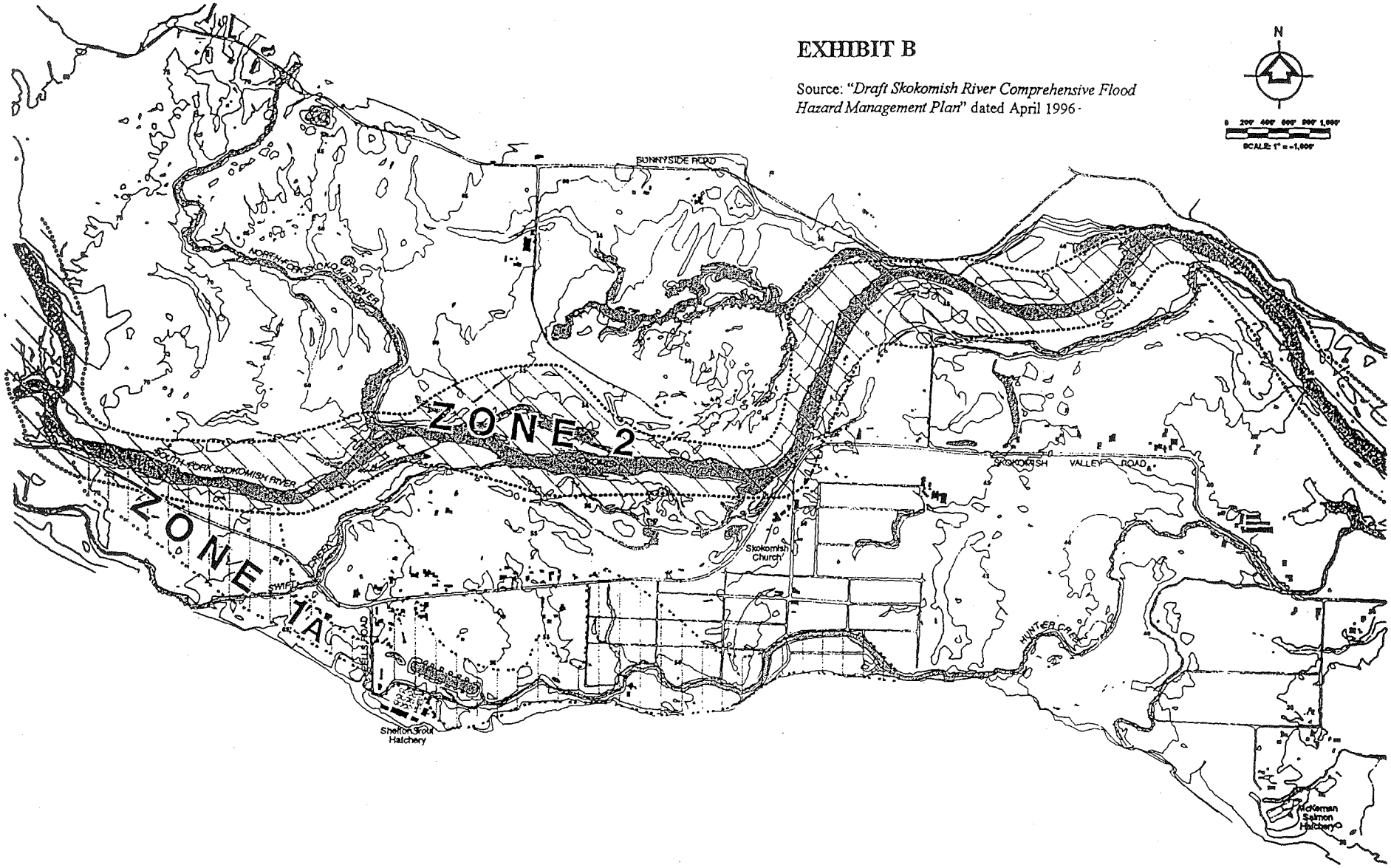
Figure 6-13c.
"NO-NEW-FOOTPRINT" ZONES—HUNTER CREEK VICINITY



KCM 1917 First Avenue Seattle, Washington 98101	Mason County SKOKOMISH RIVER COMPREHENSIVE FLOOD HAZARD MANAGEMENT PLAN	Figure 6-13d. "NO-NEW-FOOTPRINT" ZONES—FIVE MILE CORNER/VANCE CREEK VICINITY

EXHIBIT B

Source: "*Draft Skokomish River Comprehensive Flood Hazard Management Plan*" dated April 1996



KCM
117 First Avenue
Seattle, Washington 98101

Mason County
SKOKOMISH RIVER COMPREHENSIVE FLOOD
HAZARD MANAGEMENT PLAN

Figure 6-13c , source: 1997 draft
"NO-NEW-FOOTPRINT" ZONES—HUNTER CREEK VICINITY

17.01.090 FREQUENTLY FLOODED AREAS

The purpose of this Section is to prevent the potential for further aggravation of flooding problems and to guide development in areas vulnerable to flooding.

A. CLASSIFICATION

The following shall be classified Frequently Flooded Areas:

Frequently Flooded Areas are identified by the Federal Emergency Management Agency as those areas within the 100 year floodplain in a report entitled "The Flood Insurance Study for Mason County" dated May 17, 1988, and revised December 8, 1998, with accompanying Flood Insurance Rate Maps, and any subsequent amendments thereto, and should be utilized as a guide to development.

The Skokomish River and floodplain as shown in the *Comprehensive Flood Hazard Management Plan* for the Skokomish River, February 1997.

Avulsion risk areas as identified under the provisions of the Mason County Flood Damage Prevention Ordinance.

B. DESIGNATION

Lands of Mason County meeting the classification criterion for Frequently Flooded Areas are hereby designated, under RCW 36.70A.060 and RCW 36.70A.170, as Frequently Flooded Areas requiring immediate protection from incompatible land uses.

C. LAND USE

1. Land uses in Frequently Flooded Areas shall be in compliance with the applicable provisions and requirements of all ordinances as referenced in Section 17.01.050, or as amended and updated. ~~All uses and activities within Frequently Flooded Areas are subject to the following Development Standards~~.

2. Permitted Uses in the Belfair Urban Growth Area

Hereafter all buildings, structures, or parcels of land within frequently flooded areas shall only be used for the following unless otherwise provided for in this ordinance:

a. Agriculture and aquaculture practices;

b. Forest practices;

c. Outdoor recreation and parks;

d. Single-family residential limited to 1 dwelling unit per acre.

3. The following uses within Frequently Flooded Areas are subject to conditional use permits:

a. Radio and transmission towers, resource based industries, schools, trailer-mix concrete plants, sawmills, marinas, fire stations, fuel storage tanks, and commercial outdoor recreation.

b. Other uses and activities determined by the Director and the Health Director that are likely to pose a threat to public health, safety, and general welfare if located within a frequently flooded area.

D. DEVELOPMENT STANDARDS

Mason County Flood Damage Prevention Ordinance provides specific regulations and permit requirements for development conducted within the frequently flooded areas of Mason County.

~~Development in Frequently Flooded Areas must be in compliance with ordinances as referenced to in Section 17.01.050, and shall conform to the following standards:~~

~~1. Cluster Subdivisions~~

~~When feasible, lots shall be clustered to locate development outside of the frequently flooded areas.~~

~~2. Density Bonuses~~

~~Subdivisions located entirely within a frequently flooded area shall not be allowed increased density through a Performance Subdivision as described in Title 16, Chapter 16.22. A Performance Subdivision may be used for parcels located partially within a frequently flooded area provided all allowed building areas are located outside of frequently flooded areas.~~

~~3. Except where specific fill criteria is provided, such as the Skokomish River density flood fringe, fill shall only be used if no reasonable alternative is available such as elevating on piles, poles, or walls.~~

~~4. Skokomish River Density Flood Fringe~~

~~a. A Density Flood Fringe is hereby established for the Skokomish River and floodplain as studied in the Comprehensive Flood Hazard Management Plan for the Skokomish River, February 1997. A map of the Density Flood Fringe is attached hereto as Exhibit "B" and made a part of this code by reference. All development within the Density Flood Fringe shall comply with the following provisions:~~

~~(1) Location: All new construction and substantial improvements are required to be located on the highest existing ground available. The Administrator, on a case-by-case basis may allow development on areas other than the highest existing ground available when it can be demonstrated that such location will not increase the flood hazards to the structure or adjacent properties. In making a determination the Administrator shall consider the size of the parcel, proposed access locations, proximity to other structures and any conflicts with the setback requirements in Section 4.a(5).~~

~~(2) All new construction and substantial improvements shall meet the general standards presented in Section 5.1 and specific standards presented in Sections 5.2-1 through 5.2-5 of the Flood Damage Prevention Ordinance No. 59-91.~~

~~(3) Maximum Allowable Density: To assure that new construction and substantial improvements, combined with any existing development will not cause a cumulative increase in the base flood elevation of more than one half (0.5) foot, all such new construction and substantial improvements shall be limited as follows:~~

~~The footprint of any use or development permitted by this chapter that will displace floodwaters shall not exceed three (3) percent of the land area of that portion of the lot located in the density flood fringe.~~

~~(4) Maximum Allowable Obstruction: The maximum width (sum of widths) of all new construction, substantial improvements or other development shall not exceed seventeen (17) percent of the length of the line drawn perpendicular to the known flood water flow direction at the point where the development(s) is located. The length of said line shall not extend beyond the property boundary or the edge of the density flood fringe area, whichever is less.~~

~~(5) Where structures are to be constructed on adjacent parcels five (5) acres or less in size, the building setback shall be 41.5 percent of the line drawn perpendicular to the known flood water flow direction at the point where the development(s) is located. For example, for two adjacent five acre square parcels, with the flood flow perpendicular to the property lines, the building setback would be 193.8 feet with the maximum allowable width of 80 feet.~~

~~Setback requirements for development on parcels larger than five (5) acres shall be evaluated on a case-by-case basis to determine reasonable setbacks that allow for the safe conveyance of floodwaters without increasing flood hazards or risks to surrounding properties. The Administrator shall consider the following in making a setback determination:~~

~~(i) the proximity of the proposed structure to existing and anticipated development;~~

~~(ii) the width of proposed structure perpendicular to flood water flow;~~

~~(iii) topography of the site and surrounding area;~~

~~(iv) effect of proposed structure on floodwater levels in the immediate area such as backwater effects and redirection;~~

~~(v) the existing and potential development along the cross-section line perpendicular to flood water flow as it relates to the maximum allowable obstruction of seventeen (17) percent.~~

~~(6) No new footprint zones: A map of no new footprint zones, which were delineated in the Skokomish River Comprehensive Flood Hazard Management Plan and correspond to areas of high flood hazards, is attached hereto as Exhibit "A" and made a part of this code by reference. New construction shall not be allowed in these areas. Reconstruction shall be allowed, providing that the following conditions are achieved:~~

~~(i) The area of the footprint of the structure following reconstruction shall be no greater than the areas of the footprint prior to reconstruction.~~

~~(ii) Any substantial improvement of the structure shall meet the general standards presented in Section 5.1-2 through 5.2-5 of the Flood Damage Prevention Ordinance No. 59-91.~~

~~(7) Orientation: All new construction and substantial improvements are required to minimize the cross-sectional area perpendicular to known floodwater flow patterns. Determination of floodwater flow direction for such orientation shall be based upon topographical and historical flood data on file with the administrative official. When such information is not available, such orientation of the greatest cross-sectional area shall be in an upstream-downstream direction at a right angle to a line drawn along the shortest distance from the midpoint of the river channel through the midpoint of the lot.~~

~~(8) In the event development on a lot does not fully utilize the maximum allowable lot coverage of 3%, the development rights for the remaining area shall not be transferrable.~~

ATTACHMENT D

Revisions to Chapter 17.01.240 DEFINITIONS as follows:

~~**Density Flood Fringe**: An alternative approach to regulating floodplain development whereby the *density* of development is restricted so that when ultimate development occurs, an insignificant increase in flood stage above that of natural conditions occurs. Within this ordinance, the density flood fringe approach is applied to the Skokomish River and floodplain.~~

~~**Development**: Any man-made change to improved or unimproved real estate including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations located within the area of special flood hazard or the density flood fringe. (Note: This definition only applies to Section 17.01.090).~~

Frequently Flooded Areas: Lands in the floodplain subject to a one percent or greater chance of flooding in any given year, <u>including floodplain related areas of avulsion risk</u>. These areas include, but are not limited to, streams, rivers, lakes, coastal areas, wetlands and the like.

~~**Maximum Allowable Density**: Means the percentage of the total area of any lot located in a density flood fringe, regardless of the size of the lot, which all new development and substantial improvements shall not exceed.~~

~~**Maximum Allowable Obstruction**: The maximum obstruction of a structure allowable in a density flood fringe, to be calculated as described herein.~~

~~**No-New Footprint Zone**: An area within a density flood fringe where new construction following the effective date of this ordinance is restricted due to the occurrence of high flood hazards. Reconstruction shall be allowed contingent on conditions described herein.~~