

ORDINANCE NUMBER 10 - 02
AMENDMENTS TO THE MASON COUNTY RESOURCE ORDINANCE

AN ORDINANCE amending the Mason County Resource Ordinance, Ordinance 77-93, Section 17.01.090 Frequently Flooded Areas, and the Mason County Flood Damage Prevention Ordinance, stating regulations which apply to Frequently Flooded Areas, under the authority of Chapters 36.70 and 36.70A RCW.

WHEREAS, the Board of County Commissioners held a public hearing on February 5, 2002, to consider the recommendations of the Planning Commission, the Mason County Department of Community Development, and citizens on the proposed amendments;

WHEREAS, the Mason County Planning Commission formulated its recommendations after a public hearing on January 30, 2002;

WHEREAS, these hearings were duly advertised public hearings;

WHEREAS, these amendments are intended to comply with the Orders of the Western Washington Growth Management Hearings Board, Case No. 95-02-0073;

WHEREAS, the Mason County Board of County Commissioners has approved findings of fact to support its decision as ATTACHMENT A;

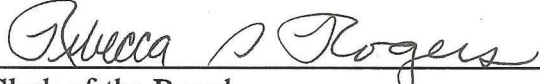
NOW, THEREFORE, BE IT HEREBY ORDAINED, that the Board of County Commissioners of Mason County hereby approves and ADOPTS the amendments to the Mason County Resource Ordinance, as amended, as described by ATTACHMENT B.

DATED this 5th day of February, 2002.

Board of County Commissioners
Mason County, Washington

ATTEST:

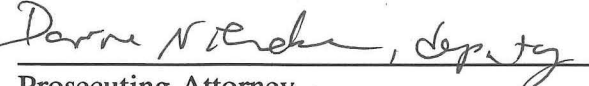

Herb Baze, ~~Chair~~ *Commr*


Clerk of the Board


Wesley E. Johnson, ~~Commissioner~~ *Chair*

APPROVED AS TO FORM:


Robert Holter, Commissioner


Prosecuting Attorney

**Mason County Board of Commissioners
February 5, 2002**

FINDINGS OF FACT

1. PROPOSED ACTION

Under consideration is a proposal to amend the Mason County Resource Ordinance regulations (Sec. 17.01.090 Frequently Flooded Areas and the Mason County Flood Damage Prevention Ordinance) intended to designate and protect frequently flooded areas in Mason County. These changes are proposed to update the county regulations and to address the concerns of the Western Washington Growth Management Hearings Board (Hearings Board) in case #95-2-0073 addressed in their Findings and Order, dated June 27, 2001.

2. PUBLIC PARTICIPATION

Mason County Department of Community Development held a public workshop in the Skokomish Valley on January 16, 2002 to present the set of maps illustrating the no-new-footprint zones and conditional build zones along the Skokomish River. A Mason County Planning Commission public hearing was held on January 30, 2002 and public testimony was received. A Mason County Board of Commissioners public hearing was held on February 5, 2002 to receive additional comments. In addition, public participation was provided through the SEPA review process to agencies and interested parties in January 2002, other telephone public comment by the property owners, and public testimony at the hearings.

Specific comments were received by the county as follows:

Limiting the maintenance of existing dikes in the Skokomish River Valley, repairing breaches in the dike that allow overflows to continue out of the river, limit to development of buildings and improvements associated with agricultural operations, and the mapping of some areas as no-new-footprint areas where flooding has not occurred since the property owner has lived on the property.

3. ENVIRONMENTAL REVIEW

A determination of non-significance (DNS) was issued by Mason County on January 14, 2002; no agency comments were received in response to this threshold determination and environmental checklist. After review of the comments received and consideration of the changes proposed since that issuance, it was determined by the Department of Community Development that no significant adverse impacts are expected from this action.

4. GROWTH MANAGEMENT HEARINGS BOARD COMPLIANCE - DISCUSSION

The Growth Management Hearings Board (GMHB), Case #95-2-0073, issued a Findings and Order on June 27, 2001, finding Ordinance No. 01-05 invalid and ordering Mason County to address several issues which were found not compliant with the GMA. The discussion of these issues was presented in the staff report for the February 5, 2002 public hearing and is summarized below:

1. *Formally adopt final map of frequently flooded areas.*

Since the GMHB order in June 2001, Mason County has had completed a series of six maps of the Skokomish River Valley floodplain, prepared by Skillings-Connolly professional engineers. Five of the maps illustrate different criteria of no-new-footprint area or setback and buffer distances from typed streams and wetlands in the Special Flood Risk Zone. A separate map, called Special Flood Risk Zone Map 1, portrays the composite of the five individual maps, and shows the no-new-footprint zones and conditional-build zones of the Special Flood Risk Zone in the Skokomish River valley. The maps are proposed to be incorporated into the revised regulations in their final format. These maps and the Flood Insurance Rate Map (FIRM) maps will be the official Frequently Flooded Areas and Flood Damage Prevention Ordinance maps.

2. *Provide a Skokomish River FFA map overlay delineating rural and resource area densities.*

Mason County has prepared a Skokomish River Special Flood Risk Zone Map 7 that shows the development density designations (1 dwelling unit / 5 acres; 1/ 10 acres; and 1/ 20 acres), and the long-term commercial and agricultural resource lands in the Skokomish River area. Also shown on this map are the limits of the Frequently Flooded Area and the conditional-build area in the vicinity of the Skokomish River.

3. *Include in the ordinance definition section (2.0) complete definitions of the categories in the legend of final map of frequently flooded area.*

The terms listed on the series of Special Flood Risk Zone maps are included in the definition section of the Mason County Flood Damage Prevention Ordinance. Definition of terms no longer part of the FDPO have been struck out of the text.

4. *Re-examine the avulsion interpretation zone areas noted by the Tribe to determine whether they should indeed be included in no-new-footprint zones.*

The use of the term avulsion risk is no longer used in the Frequently Flooded Areas section or in the Mason County Flood Damage Prevention Ordinance. The previous usage of the term avulsion risk and overbank flow paths was based upon anecdotal information, and not based upon measurements made through scientific engineering studies.

5. *Examine the base flood categories to determine whether they should be no-new-footprint areas and clearly demonstrate the reasons for the decision.*

The base flood definition for the FDPO and accompanying maps is the same: a flood having the

one percent chance of being equaled or exceeded in any given year, or the 100-year flood. The series of individual maps shows the different criteria that are being designated as no-new-footprint zones, and the composite map Special Flood Risk Zone Map 1 shows all of the criteria overlaid on one map product.

6. *Bring Shoreline Master Program and FWHCA ordinances into compliance and enumerate the functions and values protected by a compliant FFA ordinance.*

The Mason County Shoreline Master Program is not being revised at this time. A draft of the Mason County Resource Ordinance Fish and Wildlife Habitat Conservation Areas section is being reviewed by the Mason County Board of Commissioners. The Resource Ordinance establishes environmentally founded buffers and building setbacks from these critical areas which are greater than the current setbacks called for in the Shoreline Master Program. Thus, the more restrictive standards apply and provide greater protection of these resource values, and this information is subject to on-site verification.

7. *Establish a diking monitoring and regulation program that precludes individual homeowners from frustrating inspections, and provides for the inspection and monitoring of existing dikes.*

Section 5.4-5 on dikes, levees, and other water flow modification structures includes several revisions for clarification purposes and a new subsection on declaration of a emergency flood condition, making on-site inspections, determining the corrections or modification of existing banks and dikes, and maintaining records on the condition and structure of existing dikes.

8. *Provide a list of existing dikes.*

The Army Corps of Engineers has provided to Mason County an inventory of dikes located in the Skokomish River valley. The report notes the methods of the inventory, tables and maps of dikes inventoried, the past permitting of dikes, and the problems in gaining complete information of dikes, which affected the evaluation of dike conditions by study members.

5. GROWTH MANAGEMENT HEARINGS BOARD COMPLIANCE - FINDINGS

A. Mason County finds that these amendments and the provisions of this Section 17.01.090 of the Resource Ordinance are an important part of the implementation of GMA and county goals for environmental protection, specifically for frequently flooded areas.

B. Mason County finds that the proposed frequently flooded areas ordinance classifies floodplain areas of the county and regulates proposed development in these floodplain areas to protect the functions and values of those critical areas.

C. Mason County finds that the proposed frequently flooded area standards work together with other resource standards to provide adequate protection of value and function for frequently flooded areas.

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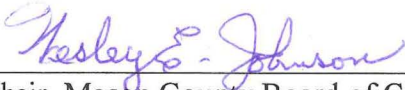
D. Mason County finds that the designation of floodplain areas and no new footprint zones provides a level of protection from flooding hazards that supports the goals of the Growth Management Act and incorporates Best Available Science in the development of the ordinance regulations and mapping.

E. Mason County finds that all of the issues stated in the Growth Management Hearings Board Findings and Order of June 27, 2001 have been addressed in the revisions made to the Mason County Resource Ordinance Sec. 17.01.090 Frequently Flooded Areas and the Mason County Flood Damage Prevention Ordinance.

6. CONCLUSIONS

The Board of County Commissioners finds that the ordinance revisions are consistent with the county-wide planning policies and finds that the proposed amendments balance the goals of the Mason County Comprehensive Plan and the goals of the Growth Management Act.

The Mason County Board of Commissioners hereby adopts the Findings of Fact for Ordinance No. 10 - 02, the proposed changes to the Mason County Resource Ordinance Sec. 17.01.090.



Chair, Mason County Board of Commissioners

2-5-02

Date

MASON COUNTY FLOOD DAMAGE PREVENTION ORDINANCE

SECTION 1.0

STATUTORY AUTHORIZATION, 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. 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.

1.2 PURPOSE

- 1.2-1 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. These flood losses 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.

Mason County has prepared this flood damage prevention ordinance to implement comprehensive flood control measures that are necessary for public health safety and welfare and that allow property owners to protect their property. Additional information about the Skokomish River valley has been developed through recent studies, and such data is relevant to this ordinance. 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 engineers Skillings-Connolly have completed the *Draft Lower South Fork and Upper Skokomish River Hydraulic and Geomorphic Analysis* (August 1997), the *Discussion of Skokomish River Valley Flood and Avulsion Hazards* (September 1997), and the *South Fork of the Skokomish River and Vance Creek Hydraulic and Geomorphic Analysis and Recommendations for Action* (June 1999, revised September 1999) that include the general documentation of the existence of flood hazard risk areas. Further studies in the Skokomish River floodplain are currently being undertaken under the authority of the Army Corps of Engineers.

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- 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.
 - (9) To allow individuals to protect their life, health, and property when it is done in accordance with all applicable laws and regulations.
 - (10) To 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) To provide for continued eligibility for FEMA Flood Insurance Program

1.3 METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance 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.

“ADMINISTRATOR” means the Director of the Mason County Department of Community Development or designee.

“APPEAL” means the right to request for a review of the Administrator’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. In Mason County, the designation of these areas on FIRM maps always includes the letter A. Areas of special flood hazard are designated as Frequently Flooded Areas.

“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.” In Mason County, the designation on FIRM maps always includes the letter A.

“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.

“CONDITIONAL-BUILD ZONE” means that area designated within the Special Flood Risk Zone as the areas outside of the no-new-footprint zones. This zone is mapped on Special Flood Risk Area Map 1, is based on best information available, and is subject to on-site verification.

“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.

“DEVELOPMENT PERMIT” see definition for “Permit” under this Ordinance.

“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 Ordinance, 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.

“EMERGENCY” means an unanticipated and imminent threat to public health, safety, or the environment which requires immediate action within a time period too short to allow for normal development permit application and review. All emergency development shall be consistent with all Mason County Development Regulations.

“ENGINEERING REPORTS” Reports compiled under this Ordinance 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.

“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. The term “manufactured home” does not include a “recreational vehicle”.

“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 density is not the same as residential density (often described in terms of dwelling units per area) as noted in the Mason County Development Regulations, Resource Ordinance, or other

county regulations.

“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, 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. See also Section 5.4-2 of this ordinance.

“ORDINARY HIGH WATER MARK” means on all lakes, streams, and tidal water that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on January 31, 1992, or as it may naturally change thereafter or as it may change thereafter in accordance with permits issued by local government or the State PROVIDED THAT in any areas where the ordinary high water mark cannot be found, the ordinary high water mark adjoining fresh water shall be the line of mean high water.

“OVERBANK SETBACK REQUIREMENT” means those areas designated within the Special Flood Risk Zone as the areas which include the variable distance from of the landward side of the toe of any dike or levee on the Skokomish River. This area is that in which structures are expected to be impacted by overtopping or failure of the dike or levee. These areas are shown on Special Flood Risk Zone Map 1, based on best information available, but are subject to on-site determination.

“PERMIT” means a written authorization from Mason County 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.

“REASONABLE USE EXCEPTION” means the public review process undertaken to allow a proposed development which is a reasonable use of a site and is consistent with the general

purposes of this Ordinance and the public interest.

“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 RISK ZONE” means the Zones A and A2 floodplain of the Skokomish River, Vance Creek and tributaries, as identified on Flood Insurance Rate Maps 530115 0175 D and 530115 0180 D, both dated December 8, 1998 or as amended.

“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.

“STREAMS” means those areas where surface waters flow sufficiently to produce a defined channel or bed. A defined channel or bed is an area which demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds and defined channel swales. The channel or bed need not contain water year round. This definition is not meant to include irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by salmon or used to convey streams naturally occurring prior to construction. For regulatory purposes under in this ordinance, once streams are identified, the streams are typed following DNR Water Types 1-5(WAC 222-16-030).

“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 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” refer to the definition in the Mason County Resource Ordinance.

Table of Acronyms Used in the Ordinance Sections

FEMA	Federal Emergency Management Agency
FIRM	Federal Insurance Rate Maps
NRCS	Natural Resources Conservation Service
RCW	Revised Code of Washington

SECTION 3.0
GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This ordinance shall apply to all areas of special flood hazard 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

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 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 Department of Community Development, Building I, 411 N. 5th St., Shelton, Washington.

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 Chapter 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, and for all development including fill and other activities, as set forth in the "DEFINITIONS." If no other county permit is required, a development permit shall be required.

4.1-2 Application for Development Permit

Application for a development permit shall be made on forms furnished by Mason County, which can be obtained from the Mason County Department of Community Development. Application materials may include but not be limited to plans in 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 ADMINISTRATOR

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

4.3 DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR

Duties of the Administrator 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 2.0. 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 Administrator 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, 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) to which the structure was flood-proofed, and
 - (ii) maintain the floodproofing certifications required in Section 4.1-2(3).
- (3) Maintain for public inspection all records pertaining to these ordinance provisions.

4.3-4 Alteration of Watercourses

- (1) Notify adjacent communities or property owners, and the Washington State Department of Ecology and Washington State Department of Fish and Wildlife, 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

Conduct field investigations where needed, to verify the 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 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 AND REASONABLE USE EXCEPTION

4.4-1 Appeal Board

- (1) The Board of County Commissioners, or Hearing Examiner as authorized, shall act as the Board of Appeals to hear and decide appeals and requests for variances from the requirements of this ordinance, as provided in Title 15, Mason County Code.
- (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 Administrator 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 section 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 Administrator 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 Section 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.

4.4-3 Reasonable Use Exception. Nothing in this ordinance is intended to preclude all reasonable use of property. An applicant for a development proposal may file a request for a reasonable use exception which shall be considered by Board of

- Commissioners at a public hearing. The reasonable use exception is not intended to allow residential development in designated floodways.
- (1) The Board of Commissioners may allow a use which is consistent with the general purposes of this ordinance and the public interest provided it meets the following criteria:
 - (i) There is no other reasonable use or feasible alternative to the proposed development with less impact on flood levels, critical areas, or resource lands; and
 - (ii) The proposed development does not pose a threat to the public health, safety or welfare on or off the site; and
 - (iii) The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant in creating the undevelopable condition after the effective date of the ordinance; and
 - (iv) The proposal is the minimum necessary while still allowing reasonable use of the site.
 - (2) Applications shall include the following information:
 - (i) A description of the areas of the site which are critical areas and/or resource lands or within setbacks required under the Mason County Resource Ordinance;
 - (ii) A description of the amount of the site which is within setbacks required by other County standards;
 - (iii) A description of the proposed development, including a site plan and topographic contour information adequate to determine flood depths on the site and property;
 - (iv) An analysis of the impact that the amount of development would have on the resource lands or critical areas;
 - (v) An analysis of whether any other reasonable use with less impact on the resource lands or critical areas is possible;
 - (vi) A design of the proposal so that the amount of development proposed as reasonable use will have the least impact practicable on the resource lands and/or critical areas;
 - (vii) An economic analysis establishing the respective present values of development allowed under these regulations without the reasonable use exception and with the requested exception or alternative exceptions.
 - (viii) Other information as the Administrator determines is reasonably necessary to evaluate the issue of reasonable use as it relates to the proposed development.
 - (3) Application process and review.
 - (i) The application shall be submitted to the Administrator along with fees established by ordinance for reasonable use exceptions.
 - (ii) Public notice shall be as provided in Title 15 for public hearings.
 - (iii) The Administrator shall prepare an analysis of the merits of the request and

- make recommendations to the Board of Commissioners.
- (4) Except when application from this ordinance would deny all reasonable use of a site, an applicant who seeks an exception from the regulations of the Ordinance shall pursue a variance as provided in this Section.
 - (5) The Administrator shall maintain the records of all reasonable use exceptions granted and report them to the Federal Insurance Administration upon request.

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);
- (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,
 - (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 2.0 of this Ordinance, 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.

5.1-5 Review of Building Permits

Where 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 designed 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 Section 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 have either 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:

- (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 improvement 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.

5.4.1 A Special Flood Risk Zone is hereby established for the Zones A and A2 floodplain of the Skokomish River, Vance Creek and tributaries (as identified by FIRM map Community Panels #530115-0175D and # 530115-0180D, both December 1998). The Special Flood Risk Zone is divided into two zones: No-new-footprint zones and conditional-build zones. These zones are shown on Special Flood Risk Zone Map 1.

5.4-2 No-New-Footprint Zones

- (1) No-new-footprint zones are hereby established for the Special Flood Risk Zone as follows:
 - (i) The Numbered No-New-Footprint Zones delineated in the *Skokomish*

River Comprehensive Flood Hazard Management Plan, February 1997, as Zones 1, 2, 3, & 4, and in the Draft Skokomish River Comprehensive Flood Hazard Management Plan April 1996, as Zone 1. These areas are shown on Special Flood Risk Zone Map 2.

- (ii) 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. These areas are shown on Special Flood Risk Zone Map 3, based on best information available, but are subject to on-site verification.
- (iii) All portions within the Special Flood Risk Zone, outside of the detailed study area, where the existing site elevation is more than 4 feet below the Base Flood Elevation, or where the flood velocity is estimated to exceed 5 feet per second. These areas are shown on Special Flood Risk Zone Map 4.
- (iv) All portions within the Special Flood Risk Zone within 200 feet of the ordinary high water of Skokomish River or Vance Creek. These areas are shown on Special Flood Risk Zone Map 5, based on best information available, but are subject to on-site verification.
- (v) All portions of the Special Flood Risk Zone within: 165 feet of a Stream Type 2 or 3; 115 feet of a Stream Type 4; and 90 feet of a Stream Type 5. These areas are shown on Special Flood Risk Zone Map 6, based on best information available, but are subject to on-site verification.
- (vi) All areas within the “overbank setback requirement,” which is a variable distance from the landward side of the toe of any dike or levee on the Skokomish River. This area is that in which structures are expected to be impacted by overtopping or failure of the dike or levee. These areas are shown on Special Flood Risk Zone Map 1, based on best information available, but are subject to on-site determination. To calculate the distance of the setback, the following formula is used:

$$D = ((H \times W) - W) \times 1.5 \quad [\text{note this equal to } D = 7.5H (H - 1)]$$

Where:

- D = the distance of the setback from the landward side of the levee where it is estimated the flood wave reduces to about one foot in depth.
- H = the height of the levee above representative ground levels adjacent to the levee on the upland side toe of the levee.
- W = the width of the levee breach, estimated as 5 times H.

(As an example, the setback (equal to “D”) is 90 feet when the height of the dike is 4 feet and the setback is 150 feet when the height of the dike is 5 feet.)

- (2) New residences and other 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 Ordinance.

5.4-3 Conditional-Build Zone.

The Conditional-build zone is hereby designated as those areas within the Special Flood Risk Zone, but outside of the no-new-footprint zones. This area is mapped in Special Flood Risk Zone Map 1, based on best information available, but are subject to on-site verification. New construction and substantial improvements may be allowed in the conditional-build zone where the following provisions are met:

- (1) 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 in accordance with other county regulations (such as Resource Lands), 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 Ordinance, and may require a report from an engineer which addresses the flood hazard risk to the proposed structure or to adjacent properties.
- (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:

The footprint of any proposed use or development regulated under this Ordinance 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 ½ 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

- (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.
- (2) Maintenance to existing legally established (constructed by past permits or historically occurring) 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 (as verified by a hydraulic engineer), and the maintenance 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.
- (3) If the Public Works Director finds an imminent flood threat to the public health, safety, and welfare exists based on:
 - (i) a flow capacity of 70% of the 100-year flood stage for the specific river or creek, or
 - (ii) a rainfall within the last 48 hours in excess of 4 inches, or
 - (iii) issuance of a flood warning by the National Weather Service for the specific area, or
 - (iv) a significant isolated blockage occurs such as a log jam or slide, that impacts the geography or water velocity such that an overflow bank path has or is likely to occur;then the Public Works Director may recommend to the Board of Commissioners that they declare an emergency flood condition, which shall then authorize the county to make on-site inspections on private property of dikes and other impediments as necessary, and to direct or design immediate or subsequent improvement, repair, removal, or modification to said dikes, levees, or other impediments, as subject to other regulations; and shall maintain a record of the condition and structure of said dikes.

Information on the condition of levees, dikes, or other structures ascertained from successive on-site inspections shall be maintained by the county for the purpose of updating and cataloging existing conditions as part of their ongoing flood and dike management program.
- (4) The Public Works Director shall report on the condition of the dikes to the Board of County Commissioners at the interval of once every two years.

- (5) 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 have been acquired.
- (6) Activities related to the repair, maintenance or construction of bank stabilization, dikes, levees or other related development are a permit required activity under Section 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.
- (75) Projects proposed by government agencies under this Section 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 Ordinance;
 - (iii) Project-specific engineering;
 - (iv) Public benefit;
 - (v) All applicable regulations.
- (8) All approved permits shall require the monitoring of performance which shall include, at a minimum, a post-construction inspection for compliance with the conditions of approval. Additional inspections may be required when recommended by the engineering report or the County Engineer. Monitoring shall be established as a condition of approval.

APPENDIX A

Adapted from: Comprehensive
Flood Hazard Management Plan

