

APPENDIX E: Ordinance 2090 – Flood Hazard Areas

CITY OF SNOHOMISH

Snohomish, Washington

ORDINANCE 2090

AN ORDINANCE OF THE CITY OF SNOHOMISH, WASHINGTON, REPEALING CHAPTER 14.270 OF THE SNOHOMISH MUNICIPAL CODE AND ADOPTING FLOOD HAZARD AREA REGULATIONS SUBSTANTIALLY SIMILAR TO THOSE PREVIOUSLY CODIFIED AS CHAPTER 14.47 OF THE SNOHOMISH MUNICIPAL CODE.

WHEREAS, with the enactment of Ordinance 2083 on May 3, 2005, the City Council adopted new regulations for critical areas, including wetlands, critical aquifer recharge areas, floodplains, geologically hazardous areas, and habitat conservation areas; and

WHEREAS, the new floodplain regulations enacted by Ordinance 2083 are codified as Chapter 14.270 of the Snohomish Municipal Code (SMC); and

WHEREAS, the flood hazard regulations repealed by Ordinance 2083 were codified as Chapter 14.47 SMC; and

WHEREAS, the Federal Emergency Management Agency of the Department of Homeland Security (FEMA) has determined that Chapter 14.270 SMC as presently constituted does not satisfy minimum eligibility requirements related to the National Flood Insurance Program (NFIP) but that reenacting the City's flood hazard regulations contained in the former Chapter 14.47 SMC with some additional 2005 FEMA update amendments will satisfy minimum eligibility requirements related to the NFIP; and

WHEREAS, the City Planner acting as the City's SEPA Responsible Official has reviewed this Ordinance and has determined that a negative threshold determination under the State Environmental Policy Act is appropriate for the City's action in enacting revised flood hazard area regulations that are substantially similar to those in effect until May 12, 2005;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SNOHOMISH, WASHINGTON DO ORDAIN AS FOLLOWS:

Section 1. Repealer.

Chapter 14.270 of the Snohomish Municipal Code is hereby repealed.

Section 2. Adoption of Flood Hazard Area Regulations.

The provisions set forth in the attached Exhibit A are hereby adopted as the Flood Hazard Area regulations for the City of Snohomish and shall be codified as Chapter 14.270 of the Snohomish Municipal Code.

Section 3. Severability.

If any section, subsection, sentence, clause, phrase, or word of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or unconstitutionality of the remainder of this Ordinance.

Section 4. Effective date. This Ordinance shall take effect five days after the date of its publication by summary.

PASSED by the City Council and APPROVED by the Mayor this 16th day of August, 2005.

CITY OF SNOHOMISH

By _____
LIZ LOOMIS, Mayor

ATTEST:

By _____
TORCHIE COREY, City Clerk

Approved as to form:

By _____
GRANT K. WEED, City Attorney

Publish Date: August 20, 2005

Effective Date: August 25, 2005

Exhibit A
Chapter 14.270
FLOOD HAZARD AREAS

Sections

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14.270.010 Authority

The Constitution and Legislature of the State of Washington have delegated the responsibility to city governments to adopt regulations designed to promote the public health, safety, and general welfare of their citizenry.

14.270.020 Findings of Fact

- A. The flood hazard areas of the City of Snohomish are subject to periodic inundation, which may 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.

- B. These flood losses are caused 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 flood proofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

14.270.030 Purpose and Methods

A. Statement of Purpose

It is the purpose of this chapter to promote the public health, safety, and general welfare, reduce the cost of flood insurance, and minimize public and private losses due to flood conditions in specific areas by provisions designed:

1. To protect human life and health;
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 main, 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 to minimize future flood blight areas;
7. To help ensure that potential buyers are notified that property is in an area of special flood hazard; and
8. To help ensure that those who occupy areas of special flood hazard assume responsibility for their actions.

B. Methods of Reducing Flood Losses

In order to accomplish its purposes and to be consistent with the criteria set forth in Section 60 of the National Flood Insurance Program Regulations (NFIPR), this chapter includes 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 flood plains, stream channels, and protective barriers that help accommodate or channel floodwaters;
4. Controlling filling, grading, dredging, and other development that may increase flood damage; and
5. Preventing or regulating the construction of flood barriers that unnaturally divert floodwaters or may increase flood hazards in other areas.

14.270.040 Definitions (44 CFR 59.1)

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

Appeal: means a request for a review of the interpretation of any provision of this chapter or a request for a variance.

Area of Shallow Flooding: designated as **AO**, or **AH** Zone on the Flood Insurance Rate Map (FIRM). AO zones have base flood depths that range from one to three feet above the natural ground; a clearly defined channel does exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident. AO is characterized as sheet flow; AH indicates ponding, and is shown with standard base flood elevations.

Area of Special Flood Hazard: is the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.

Base Flood: means the flood having a one percent chance of being equaled or exceeded in any given year (also referred to as the "100-year flood." Designated on Flood Insurance Rate Maps by the letters A or V.)

Basement: means any area of the building having its floor sub-grade (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, and 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, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials located within the area of special flood hazard.

Elevation Certificate: means the official form (FEMA Form 81-31) used to track development and provide elevation information necessary to ensure compliance with state and federal floodplain management ordinances.

Elevated Building: means for insurance purposes, a non-basement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings, or columns.

Existing Manufactured Home Park or Subdivision: means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) and is completed before the effective date of the adopted floodplain management regulations.

Expansion to an Existing Manufactured Home Park or Subdivision: means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Flood or Flooding: means a general and temporary condition of partial or complete inundation of normally dry land areas from:

1. The overflow on 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 (FIS): means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Maps, and the water surface elevation of the base flood.

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.

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 Chapter. (i.e. provided there are adequate flood ventilation openings).

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 attached to the required utilities. 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.

New Construction: means structures for which the "start of construction" commenced on or after the effective date of this Chapter.

New Manufactured Home Park or Subdivision: means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of adopted floodplain management regulations.

Recreational Vehicle: means a vehicle,

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.

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 a 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 foundations 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 a 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 that 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.

Substantial Damage: means damage of any origin sustained by a structure whereby the 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;

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 purposes of the 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 can exclude:

1. Any project for improvement of a structure to correct pre-cited existing violations of state or local health, sanitary, or safety code specifications which have been previously identified by the local code enforcement official and which are the minimum 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 that permits construction in a manner that would otherwise be prohibited by this ordinance.

Water Dependent: means a structure for commerce or industry that cannot exist in any other location and is dependent on the water because of the intrinsic nature of its operations.

14.270.050 General Provisions (44 CFR 59.22 (a))

A. Lands to which this chapter applies

This chapter shall apply to all areas of special flood hazards and flood hazards within the jurisdiction of the City of Snohomish.

B. Basis For Establishing the Areas of Flood Hazard

The areas of flood hazard and special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Snohomish County" dated September 16, 2005, and any revisions thereto, with an accompanying Flood Insurance Rated Map (FIRM), and any revisions thereto, are hereby adopted by reference and declared to be a part of this ordinance. The flood Insurance Study and the FIRM are on file at City Hall, 116 Union Street, Snohomish, WA 98290.

C. Penalties for Noncompliance

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Chapter and other applicable regulations.

D. Interpretation

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

1. Considered as minimum requirements;

2. Liberally construed in favor of the governing body; and
3. Deemed neither to limit nor repeal any other powers granted under State statutes.

E. Warning and Disclaimer of Liability

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. However, larger floods can and will occur on rare occasions, and flood heights may be increased by man-made or natural causes. This chapter 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 chapter shall not create liability on the part of the City of Snohomish, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

14.270.060 Administration

A. Development Permit Required (*44 CFR 60.3 (b)(1)*)

A development permit is required before construction or development begins within any area of special flood hazard. 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."

B. Application for Development Permit

Application for a development permit shall be made on forms furnished by the City of Snohomish and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; 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 recorded on a current elevation certificate (FF 81-31) with Section B completed by the local official;
2. Elevation in relation to mean sea level to which any structure has been flood proofed;
3. Certification by a registered professional engineer or architect that the flood proofing methods for any non residential structure meet FEMA flood proofing criteria; and
4. Description of the extent to which a watercourse will be altered or relocated in the proposed development.

C. Designation of the Local Administrator (*44 CFR 59.22(b)(1)*)

The City Planner is the designated local administrator to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

D. Permit Review

1. The City Planner shall review all development permits to determine that the permit requirements of this chapter have been satisfied.
2. The City Planner shall review all development permits to determine that all necessary permits required in this chapter have been obtained from those Federal, State, or local governmental agencies from which prior approval is required. *(44 CFR 60.3 (a)(2))*
3. The City Planner shall review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of this chapter are met.

E. Use of Other Base Flood Data (In A and V Zones) *(44 CFR 60.3 (b)(4))*

When base flood elevation data has not been provided (in A or V Zones) in accordance with Section 14.270.050 B, Basis for Establishing the Areas of Flood Hazard, the City Planner 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 Sections 14.270.080 A through F of this Chapter.

F. Information to be Obtained and Maintained

1. Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in SMC 14.270.060 E, the City Planner shall 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. *(44 CFR 60.3 (b)(5)(i))* (The information shall be recorded on a current elevation certificate (FF 81-31) with Section B completed by the City Planner.)
2. For all new or substantially improved flood proofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in SMC 14.270.060 E, The City Planner shall:
 - i) Obtain and record the elevation (in relation to mean sea level) to which the structure was flood proofed *(44 CFR 60.3(b)(5)(ii))*
 - ii) Maintain the flood proofing certifications required by FEMA *(44 CFR 60.3(b)(5)(iii))*.
3. The City Planner shall maintain for public inspection all records pertaining to the provisions of this chapter. *(44 CFR 60.3(b)(5)(iii))*

G. Alteration of Watercourses *(44 CFR 60.3 (b)(6))*

1. The City Planner shall notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.

2. The City Planner shall require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

H. Interpretation of FIRM Boundaries

The City Planner shall provide interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (e.g. where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the National Flood Insurance Program (*44 CFR 59-76*).

I. Conditions for Variances

1. Generally, the only condition under which a variance from the elevation standard be issued is for new construction and substantial improvements to be erected on a small or irregularly shaped lot contiguous to and surrounded by lots with existing structures constructed below the base flood level. As the lot size increases the technical justification required for issuing the variance increases.
2. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
4. 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; and
 - 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, or conflict with existing local laws or ordinances.
5. 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 they 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 flood elevations should be quire rare.

6. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of flood proofing than watertight or dry-flood proofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria and otherwise complies with recommended FEMA General Standards.
7. Any applicant to whom a variance is granted shall be given written notice that the permitted structure will be build with its lowest floor below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk.
8. In the case of a conflict between the application of the variance provisions of this section and SMC 14.255.130, this section shall control.

14.270.070 General Standards for Flood Hazard Reduction

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

A. Anchoring (*44 CFR 60.3(a)(b)*)

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure. (*44 CFR 60.3 (a)(3)(i)*)
2. All manufactured homes shall 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. (*44 CFR 60.3(b)(8)*). *For more detailed information in application of this chapter, reference will be made to guidebook, FEMA-85, "Manufactured Home Installation in Flood Hazard Areas."*

B. 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. Locating such equipment below the base flood elevation may cause annual flood insurance premiums to be increased.

C. Utilities (*44 CFR 60.3(a)(5)(6)*)

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

2. Water wells shall be located on high ground that is not in the floodway*
3. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
4. Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding identified WAC 173-160-171.

D. Subdivision Proposals (*44 DFR 60.3(A)(4)(B)(3)*)

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 or eliminate flood damage;
3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage;
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).

E. Review of Building Permits (*44 CFR 60.3 (a)(3)*)

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (SMC 14.270.060E), 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 the highest adjacent grade in these zones may result in higher insurance rates.

14.270.080 Specific Standards for Flood Hazard Reduction (*44 CFR 60.3(c)(1)*)

In all areas of special flood hazards where base flood elevation data has been provided as set forth in this chapter, the following standards are required:

A. 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 the base flood elevation. (BFE)

**Minimum FEMA standards require the lowest floor to be elevated "to or above" the BFE; however, adding an additional foot of freeboard increases safety and can reduce insurance premiums by as much as 39 percent.*

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 floodwaters. 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 areas 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 if they permit the automatic entry and exit of floodwaters. Foundation vent standards required by the IBC/IRC outside the floodplain do not meet this standard and are subject to the City Building Official's review.

B. Nonresidential Construction (*44 CFR 60.3(c)(3)(4)*)

All 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 base flood elevation; or, together with attendant utility and sanitary facilities, shall:

1. Be flood proofed so that below one foot or more 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 load 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 as set forth in Section 14.270.060 F(2);
4. Nonresidential structures that are elevated, not flood proofed, must meet the same standards for space below the lowest floor as described in 14.270.080 A(2);
5. Applicants who are flood proofing nonresidential buildings should be notified that flood insurance premiums will be based on rates that are one foot below the flood proofed level (e.g. a building flood proofed to the base flood level will be rated as one foot below). Flood proofing the building an additional foot will reduce insurance premiums significantly.

C. Manufactured Homes (*44 CFR 60.3(c)(6)(12)*)

All manufactured homes in the floodplain to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured

home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

D. Recreational Vehicles (*44 CFR 60.3(c)(14)*)

All recreational vehicles placed on sites are required to either:

1. Be on the site for fewer than 180 consecutive days; or
2. Be fully licensed and ready for highway use, on wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or
3. Meet the requirements of SMC 14.270.080 C and the elevation and anchoring requirements for manufactured homes.

E. AE and A1-30 Zones with Base Flood Elevations but No Floodways (*44 CFR 60.3(c)(10)*)

In all areas with base flood elevations (but for which a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30 and AE on the City's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the City.

F. Floodways

Located within areas of special flood hazard established in Section 14.270.050 B are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris and increase erosion potential, the following provisions apply:

1. Encroachments, including fill, new construction, substantial improvements, and other development are prohibited, unless certification by a registered professional engineer is provided, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge, in which case all new construction and substantial improvements shall comply with all applicable standards for flood hazard reductions set forth in Sections 14.270.070 and 14.270.080. (*44 CFR 60.3(d)(3)*)
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 or reconstruction is started, or (B) if the structure has been damaged and is being restored, before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement

official and which are the minimum necessary to assure safe living conditions, or to structures identified as historic places, may be excluded from the 50 percent limitation. (WAC 173-158-070)

G. Critical Facilities Construction

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA, if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above BFE or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Flood proofing and sealing measures are required to ensure that toxic substances not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation are required to all critical facilities to the maximum extent possible.

14.270.090 Determination of Flood Insurance Risk

For the purpose of the determination of applicable flood insurance risk within Zone A on Snohomish's Flood Hazard Boundary Map, the City Planner shall:

- A. Require the applicant to furnish the elevation in relation to mean sea level of the lowest habitable floor including basement of all new or substantially improved structures, and whether or not such structures contain a basement.
- B. Require the applicant to furnish if the structure has been flood proofed, the elevation in relation to mean sea level to which the structure was flood proofed through a certified professional engineer or architect.
- C. Maintain a record of all such information in the City's address file system.

14.270.100 Floodplains as Critical Areas

- A. For the purpose of the City's Critical Areas regulations, as set forth in SMC 14.255, Floodplains are those areas that provide important flood storage, conveyance and attenuation functions and include all land within such areas that are subject to a one percent or greater chance of flooding in any given year.
- B. Floodplains shall be designated by the City Planner in accordance with WA 365-190-080(3).
 - 1. The City Planner shall use the "areas of special flood hazard" as identified on the Federal Emergency Management Administration's most current Flood Insurance Rate Map for the City as the indicator of where floodplains exist, unless more detailed, current, and convincing evidence indicates otherwise.
 - 2. Floodplains shall include, at a minimum, the 100-year floodplain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

- C. The City Planner may waive the critical areas report required SMC 14.255.080 for developments proposed in the floodplain, if the applicable permit application contains sufficient data to verify compliance with the substantive requirements, except for the following developments:
 - 1. Developments in the floodway, which is the area shown in the illustration that accompanies the definition of "floodplain" in SMC 14.100.020; and
 - 2. Developments that result in watercourse alteration.

- D. In addition to the requirements of SMC 14.255.050 and this chapter, the following requirements shall apply to floodplains:
 - 1. To the extent possible consistent with the development objective, all improvements shall be located on the non-floodplain portion of the site, if any, or on the highest ground on the site, as far as possible from the flood source.
 - 2. Alteration of natural watercourses, including side channels, tributaries, and channel migration zones, is to be avoided when feasible. If unavoidable, the City Planner shall notify adjacent communities, the Department of Ecology, the State Department of Fish and Wildlife, and FEMA prior to alteration. Any stream-bank stabilization shall consider the use soft armoring or best available armoring science.

14.270.110 Recordation

The City Planner shall record:

- A. The as-built elevation above mean sea level of the lowest habitable floor, including basement, of all new or substantially improved structures, and whether the structure contains a basement;
- B. Certificates of flood-proofing and flood elevation; and
- C. Permits and variances issued in accordance with this chapter.