CITY OF MARYSVILLE
Marysville, Washington

ORDINANCE NO. 3151

AN ORDINANCE OF THE CITY OF MARYSVILLE, WASHINGTON, REPEALING MARYSVILLE MUNICIPAL CODE CHAPTER 22E.020 FLOODPLAIN MANAGEMENT, ADOPTING A NEW FLOODPLAIN MANAGEMENT CHAPTER 22E.020, AND AMENDING DEFINITIONS IN MARYSVILLE MUNICIPAL CODE SECTIONS 22A.020.020, 22A.020.030, 22A.020.060, 22A.020.070, 22A.020.090, 22A.020.130, 22A.020.140, 22A.020.190, 22A.020.200 AND 22A.020.230.

WHEREAS, the State Growth Management Act, Chapter 36.70A RCW mandates that cities periodically review and amend development regulations, including zoning ordinances and official controls; and

WHEREAS, RCW 36.70A.106 requires the processing of amendments to the City's development regulations in the same manner as the original adoption of the City's comprehensive plan and development regulations; and

WHEREAS, the State Growth Management Act requires notice and broad public participation when adopting or amending the City's comprehensive plan and development regulations; and

WHEREAS, the City, in reviewing and amending its development regulations has complied with the notice, public participation, and processing requirements established by the Growth Management Act, as more fully described below; and

WHEREAS, the City Council of the City of Marysville finds that from time to time it is necessary and appropriate to review and revise provisions of the City's municipal code and development code (MMC Title 22); and

WHEREAS, during a public meeting on February 11, 2020, the Planning Commission discussed changes to Marysville Municipal Code Chapter 22E.020 floodplain management amending Marysville Municipal Code Title 22 Unified Development Code, adopting a new Floodplain Management Chapter 22E.020 and amending definitions in Marysville Municipal Code Sections 22A.020.020, 22A.020.030, 22A.020.060, 22A.020.070, 22A.020.090, 22A.020.130, 22A.020.140, 22.020.190, and 22A.020.200; and

WHEREAS, the City of Marysville submitted the proposed development regulation revisions to the Washington State Department of Commerce as required by RCW 36.70A.106. The proposed development regulation revisions were received by the Washington State Department of Commerce on February 10, 2020, and processed with Material ID #2020-S-1187. No comments were received from State agencies; and

WHEREAS, a *SEPA Threshold Determination* was issued for the proposed amendments on February 13, 2020 under the *State Environmental Policy Act* under WAC 197-11-340(20) and there were no appeals;

WHEREAS, after providing notice to the public as required by law, the Marysville Planning Commission held a Public Hearing on March 10, 2020 regarding the proposed amendments to MMC Chapter 22A.020 and MMC Chapter 22E.020; and

WHEREAS, on March 10, 2020 the Planning Commission made a *Recommendation* to the City Council recommending (a) the adoption of the proposed amendments to repeal Marysville Municipal Code Chapter 22E.020 floodplain management, (b) adopting a new Floodplain Management Chapter 22E.020, and (c) adding and amending definitions in Marysville Municipal Code Sections 22A.020.020, 22A.020.030, 22A.020.060, 22A.020.070, 22A.020.090, 22A.020.130, 22A.020.140, 22.020.190, and 22A.020.200; and

WHEREAS, the City received written confirmation from the Department of Ecology (the "Department") that the City's proposed changes to the Floodplain Management Code are consistent with required changes as outlined in the *Washington State Model Floodplain Ordinance* and qualify for the *National Insurance Flood Program,* subject to the Department's Finding and Conclusions and the Department's Required Changes, which Required Changes are attached hereto as **Exhibit B**; and

WHEREAS, at a public meeting on June 8, 2020 the Marysville City Council reviewed and considered the Planning Commission's Recommendation to (a) repeal Chapter 22E.020 MMC, (b) adopt a new Floodplain Management Chapter 22E.020 MMC, and (c) add and amend definitions in Marysville Municipal Code Sections 22A.020.020, 22A.020.030, 22A.020.060, 22A.020.070, 22A.020.090, 22A.020.130, 22A.020.140, 22.020.190, and 22A.020.200.

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

Section 1. Chapter 22E.020 MMC, Floodplain Management, is hereby repealed in its entirety.

Section 2. A new MMC Title 22E.020, Floodplain Management, is hereby adopted as set forth in **Exhibit A**, attached hereto and incorporated herein by this reference.

Section 3. **22A.020.020 ("A" definitions)** is amended by adding or modifying the following definitions.

Alteration of Watercourse (floodplain management)" means any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

"Area of shallow flooding (floodplain management)"means a designated AO or AH zone on the flood insurance rate map (FIRM) with a one percent or greater annual chance of flooding. 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 (floodplain management)" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE). "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

Section 4. **22A.020.030 ("B" definitions)** is amended by adding the following definition.

"Base Flood Elevation or BFE (floodplain management)" means the elevation to which floodwater is anticipated to rise during the base flood.

Section 5. **22A.020.060 ("E" definitions)** is amended by adding the following definition.

Elevation Certificate means an administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

Section 6. **22A.020.070 ("F" definitions)** is amended by adding or modifying the following definitions.

"Flood or Flooding (floodplain management)" means:
(1) A general and temporary condition of partial or complete inundation of normally dry land areas from:
(a) The overflow of inland or tidal waters.
(b) The unusual and rapid accumulation or runoff of surface waters from any source.
(c) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.
(2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(a) of this definition.

"Flood Elevation Study (floodplain management)" means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

"Flood Insurance Rate Map or FIRM (floodplain management)" means the official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

"Floodplain or Flood Prone Area (floodplain management)" means any land area susceptible to being inundated by water from any source. See "Flood or flooding."

"Floodplain Administrator (floodplain management)" means the community official designated by title to administer and enforce the floodplain management regulations.

"Flood Proofing (floodplain management)" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. Flood proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

"Floodway (floodplain management)" 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. Also referred to as "Regulatory Floodway."

"Functionally Dependent Use (floodplain management)" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long term storage or related manufacturing facilities.

Section 7. **22A.020.090 ("H" definitions)** is amended by adding the following definitions.

"Highest Adjacent Grade (floodplain management)" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic Structure (floodplain management)" means any structure that is: Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(1) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(2) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

(3) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(a) By an approved state program as determined by the Secretary of the Interior, or

(b) Directly by the Secretary of the Interior in states without approved programs.

Section 8. **22A.020.130 ("L" definitions)** is amended by modifying the following definition.

"Lowest floor (floodplain management)" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, used 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 code (i.e. provided there are adequate flood ventilation openings).

Section 9. **22A.020.140 ("M" definitions)** is amended by adding the following definition.

"Mean Sea Level (floodplain management)" means for purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

Section 10. **22A.020.190 ("R" definitions)** is amended by adding the following definition.

"Reasonably safe from flooding" means development that is designed and built to be safe from flooding based on consideration of current flood elevation studies, historical data, high water marks and other reliable data known to the community. In unnumbered A zones where flood elevation information is not available and cannot be obtained by practicable means, reasonably safe from flooding means that the lowest floor is as least two feet above the Highest Adjacent Grade.

a. Where development is proposed in a floodway, an engineering analysis indicating no rise of the Base Flood Elevation; and
b. Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

Section 11. **22A.020.200 ("S" definitions)** is amended by adding the following definitions.

"Structure (floodplain management)" 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 improvement (floodplain management)" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:
(1) Any project for improvement of a structure to correct previously identified existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions; or
"historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."(2)

Section 12. **22A.020.230 ("V" definitions)** is amended by adding the following definition.

"Variance (floodplain management" means a grant of relief by a community from the terms of a floodplain management regulation.

Section 13. MMC 22A.010.160 is hereby amended to add the following reference to this adopted ordinance in order to track amendments to the City's Unified Development Code:

"**22A.010.160 Amendments.**
The following amendments have been made to the UDC subsequent to its adoption:

Ordinance	Title (description)	Effective Date
3151	Floodplain Management and Definition Amendments	June 16, 2020"

Section 10. **Severability**. If any section, subsection, sentence, clause, phrase or word of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality thereof shall not affect the validity or constitutionality of any other section, subsection, sentence, clause, phrase or word of this ordinance.

Section 11. **Corrections**. Upon approval by the city attorney, the city clerk or the code reviser are authorized to make necessary corrections to this ordinance, including scrivener's errors or clerical mistakes; references to other local, state, or federal laws, rules, or regulations; or numbering or referencing of ordinances or their sections and subsections

Section 12. **Effective Date**. Pursuant to RCW 90.58.090(7), this ordinance shall be effective fourteen (14) days from the date of the Department of Ecology's Written Notice of Final Action to the City.

PASSED by the City Council and APPROVED by the Mayor this 8th day of June, 2020.

CITY OF MARYSVILLE

By: _____
JON NEHRING, MAYOR

Attest:

By: Tina Brock
TINA BROCK, DEPUTY CITY CLERK

Approved as to form:

By: _____
JON WALKER, CITY ATTORNEY

Date of Publication: June 11, 2020

Effective Date: June 16, 2020

Exhibit A

Chapter 22E.020
FLOODPLAIN MANAGEMENT

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Article I. Purpose

22E.020.010 Statement of purpose.
It is the purpose of this chapter 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 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 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) Notify potential buyers that the property is in a Special Flood Hazard Area;
(8) To ensure that potential buyers are notified that property is in an area of special flood hazard;
(9) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; and
(10) Participate in and maintain eligibility for flood insurance and disaster relief.

Article II. General Provisions

22E.020.020 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the city of Marysville.

22E.020.030 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 Snohomish County and Incorporated Areas" dated June 19, 2020, as amended, with accompanying flood insurance rate maps (FIRM), as amended, is adopted by reference and declared to be a part of this chapter. The flood insurance study is on file at the Marysville Community Development Department, 80 Columbia Avenue, Marysville, Washington. The best available information for flood hazard area identification as outlined in MMC 22E.020.100(2) shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under MMC 22E.020.100(2).

22E.020.040 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. Violation of the provisions of this chapter 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 chapter or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than $1,000 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation.

22E.020.050 Abrogation and greater restrictions.

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

22E.020.060 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;
(3) Deemed neither to limit nor repeal any other powers granted under state statutes.

22E.020.070 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. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazard 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, 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 thereunder.

Article III. Administration

22E.020.080 Establishment of development permit.

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in MMC 22E.020.030. The permit shall be for all structures, including manufactured homes, as set forth in Chapter 22A.020 MMC, Definitions, and for all other development, including fill and other activities, also as set forth in Chapter 22A.020 MMC, Definitions. Application for a development permit shall be made on forms furnished by the building official 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;

(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 nonresidential structure meet the flood proofing criteria in MMC 22E.020.150; and

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

(5) Where a development is proposed in a floodway, an engineering analysis indicating no rise of the Base Flood Elevation.

(6)Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

22E.020.090 Designation of the building official.

The building official is appointed to administer and implement this chapter by granting or denying development permit applications in accordance with its provisions.

22E.020.100 Duties and responsibilities of building official.

Duties of the building official shall include, but not be limited to:

(1) Permit Review.

(a) Review all development permits to determine that the permit requirements of this chapter have been satisfied;

(b) 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;

(c) Review all development permits in the area of special flood hazard, except in the coastal high hazard area, to determine if the proposed development adversely affects the flood-carrying capacity of the area of special flood hazard. For the purposes of this chapter, "adversely affects" means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will increase the water surface elevation of the base flood more than one foot at any point;

(d) The site is reasonably safe from flooding;

(e) The proposed development is not located in the floodway. If located in the floodway assure no-rise encroachment provisions are met;

(f) Notify FEMA when annexations occur in the Special Flood Hazard Area.

(2) Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with MMC 22E.020.030, Basis for establishing the areas of special flood hazard, the building official 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 MMC 22E.020.150, Specific standards, MMC 22E.020.170, Manufactured homes, MMC 22E.020.180, Recreational vehicles, and MMC 22E.020.190, Floodways.

(3) Information to Be Obtained and Maintained.

(a) Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in subsection (2) of this section, obtain and record the actual 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;

(b) For all new or substantially improved flood proofed non-residential structures where base flood data is provided through the Flood Insurance Study (FIS), FIRM, or as required in subsection (2) of this section:

(i) Obtain, verify and record the actual elevation (in relation to mean sea level) to which the structure was flood proofed; and

(ii) Maintain the flood proofing certifications required in MMC 22E.020.080(3);

(c) Maintain for public inspection all records pertaining to the provisions of this chapter.

(d) Certification required by floodway encroachments in;

(e) Records of all variance actions, including justification for their issuance;

(f) Improvement and damage calculations.

(4) Alteration of Watercourses.

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

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

(5) Interpretation of FIRM Boundaries. Make interpretations, where needed, as to exact location of the boundaries of the areas of special flood hazard (for example, 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 as provided in MMC 22E.020.110.

Article IV. Variance Procedure

22E.020.110 Appeal board.

(1) The Hearing Examiner shall hear and decide appeals and requests for variances from the requirements of this chapter.

(2) The Hearing Examiner shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the building official in the enforcement or administration of this chapter.

(3) Those aggrieved by the decision of the Hearing Examiner, or any taxpayer, may appeal such decision to the Snohomish County superior court, as provided by law.

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

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

(b) The danger to life and property due to flooding or erosion damage;

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

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

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

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

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

(h) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

(i) The safety or access to the property in times of flood for ordinary emergency vehicles;

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

(k) 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.

(5) Generally, the only condition under which a variance from 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 subsections (4)(a) through (4)(k) of this section have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.

(6) Upon consideration of the factors of subsection (4) of this section and the purposes of this chapter, the city council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this chapter.

(7) The building official shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

22E.020.120 Conditions for variances.

(1) 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 the remainder of this section.

(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:

(a) A showing of good and sufficient cause;

(b) A determination that failure to grant the variance would result in exceptional hardship to the applicant;

(c) 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 MMC 22E.020.110(4), 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 do not pertain to the structure, its inhabitants, or 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.

(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 except MMC 22E.020.110(5), and otherwise complies with MMC 22E.020.130(1) and (2) of the general standards.

(7) 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.

Article V. Provisions for Flood Hazard Protection

22E.020.130 General standards.

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

(1) Anchoring.

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

(b) All manufactured homes shall be installed using methods and practices which minimize flood damage. For purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces;

(c) An alternative method of anchoring may involve a system designed to withstand a wind force of 90 miles per hour or greater. Certification must be provided to the building official that this standard has been met.

(2) Construction Materials and Methods.

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

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

(c) 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.

(3) Utilities.

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

(b) 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;

(c) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and

(d) The proposed water well shall be located on high ground that is not in the floodway (WAC 173-160-171).

(4) Subdivision Proposals and Development shall:

(a) Be consistent with the need to minimize flood damage;

(b) Have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;

(c) Have adequate drainage provided to reduce exposure to flood damage; and

(d) Where subdivision proposals and other proposed developments contain greater than 50 lots or 5 acres (whichever the lesser) base flood elevation data shall be included as part of the application.

22E.020.140 Review of building permits.

Where elevation data is not available either through the flood insurance study or from another authoritative source (MMC 22E.020.100(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 the highest adjacent grade in these zones may result in higher insurance rates.

22E.020.150 AE and A1-30 zones with Base Flood Elevations but no Floodways.
In areas with BFEs (but 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 community'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 community.

22E.020.160 Changes to Special Flood Hazard Area (SFHA).
If a project will alter the BFE or boundaries of the SFHA, then the project proponent shall provide the community with engineering documentation and analysis regarding the proposed change. If the change to the BFE or boundaries of the SFHA would normally require a Letter of Map Change, then the project proponent shall initiate, and receive approval of, a Conditional Letter of Map Revision (CLOMR) prior to approval of the development permit. The project shall be constructed in a manner consistent with the approved CLOMR.

If a CLOMR application is made, then the project proponent shall also supply the full CLOMR documentation package to the Floodplain Administrator to be attached to the floodplain development permit, including all required property owner notifications.

22E.020.170 Specific standards.
In all areas of special flood hazards where base flood elevation data has been provided as set forth in MMC 22E.020.030, Basis for establishing the areas of special flood hazard, or MMC 22E.020.100(2), Use of Other Base Flood Data, the following provisions are required:
(1) Construction or reconstruction of residential structures is prohibited within designated floodways or A; AE zones; and A1-30 zones except for:
(a) Repairs, reconstruction or improvements to a structure which do not increase the ground floor area; and
(b) Repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either:
(i) Before the repair, reconstruction or improvement is started; or
(ii) 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 shall not be included in the 50 percent.
(2) New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot above the base flood elevation.
(3) Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
(4) Nonresidential Construction
New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet the requirements of subsection (a)(i – v) or (b)(I – iv), below.

(a) New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet all of the following requirements:

(i) In AE and A1-30 zones or other A zoned areas where the BFE has been determined or can be reasonably obtained:

New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall have the lowest floor, including basement, elevated one foot or more above the BFE, or elevated as required by ASCE 24, whichever is greater. Mechanical equipment and utilities shall be waterproofed or elevated least one foot above the BFE, or as required by ASCE 24, whichever is greater.

(ii) If located in an AO zone, the structure shall meet the requirements in 44 CFR 60.3(c) 7, 8, and 11..

(iii) If located in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained, the structure shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

(iv) If located in a V, V1-30, or VE zone, the structure shall meet the requirements in 44 CFR 60.3(e)(2-8)..

(v) 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:

(A) Have a minimum of two openings with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.

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

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

(D) A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry and exit of flood waters.

Alternatively, a registered engineer or architect may design and certify engineered openings.

(b) If the requirements of subsection 1 are not met, then new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet all of the following requirements:

(i) Be dry 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 or dry flood proofed to the elevation required by ASCE 24, whichever is greater;

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

(iii) 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 22E.020.100(2);

(iv) Nonresidential structures that are elevated, not flood proofed, must meet the same standards for space below the lowest floor as described in MMC 22E.020.150(5);

Applicants who are flood proofing nonresidential buildings shall 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. Applicants who are flood proofing nonresidential buildings shall 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.

(v) All manufactured non-residential structures to be placed or substantially improved on sites shall be elevated on a permanent foundation such that the lowest floor of the manufactured building 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.

22E.020.180 Encroachments.
The cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than one foot at any point.

22E.020.190 Enclosed area below the lowest floor
If buildings are constructed or substantially improved with fully enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

22E.020.200 Manufactured homes.
(1) All manufactured homes to be placed or substantially improved on sites:
(a) Outside of a manufactured home park or subdivision;
(b) In a new manufactured home park or subdivision;
(c) In an expansion to an existing manufactured home park or subdivision; or
(d) In an existing manufactured home park or subdivision on which a manufactured home has incurred "subdivision damage" as the result of a flood; shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

(2) Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions shall be elevated so that either:
(a) The lowest floor of the manufactured home is elevated one foot above the base flood elevation; or
(b) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and is securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

22E.020.210 Recreational vehicles.
Recreational vehicles placed on sites are required to either:
(1) Be on the site for fewer than 180 consecutive days;
(2) 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
(3) Meet the requirements of MMC 22E.020.170 and the elevation and anchoring requirements for manufactured homes.

22E.020.220 Appurtenant Structures
Appurtenant Structures located in Zones A, AE, A1-30, AH and AO shall comply with the following:

(1) Appurtenant structures used solely for parking of vehicles or limited structures may be constructed such that the floor is below the BFE, provided the structure is designed and constructed in accordance with the following requirements:

(a) Use of the appurtenant structure must be limited to parking of vehicles or limited storage;

(b) The portions of the appurtenant structure located below the BFE must be build using flood resistant materials;

(c) The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement;

(d) Any machinery or equipment servicing the appurtenant structure must be elevated or flood proofed to or above the BFE;

(e) The appurtenant structure must comply with floodway encroachment provisions in Section 22E.020.230(1);;

(f) The appurtenant structure must be designed to allow for automatic entry and exit of flood waters in accordance with the 44 CFR 60.3(c)(2)1-5;);:);

(g) The structure shall have low damage potential;

(h) If the structure is converted to another use, it must be brought into full compliance with the standards governing such use, and

(i) The structure shall not be used for human habitation.

(2) Detached garages, storage structures, and other appurtenant structures not meeting the above standards must be constructed in accordance with all applicable standards in 44 CFR 60.3(c)(2)5-1). .)

22E.020.230 Floodways.

Located within areas of special flood hazard established in MMC 22E.020.030 are 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) Prohibit encroachments, including fill, new construction, substantial improvements, and other development, 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 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:

(a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and

(b) Repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either:

(i) Before the repair or reconstruction is started; or

(ii) 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 shall not be included in the 50 percent.

(3) For all substantially damaged residential structures, other than farmhouses, located in a designated floodway, the Floodplain Administrator may make a written request that the Department of Ecology assess the risk of harm to life and property posed by the specific conditions of the floodway. Based on analysis of depth, velocity, flood-related erosion, channel migration, debris load potential, and flood warning capability, the Department of Ecology may exercise best professional judgment in recommending to the local permitting authority repair, replacement, or relocation of a substantially damaged structure consistent

with WAC 173-158-076. The property owner shall be responsible for submitting to the local government and the Department of Ecology any information necessary to complete the assessment. Without a favorable recommendation from the department for the repair or replacement of a substantially damaged residential structure located in the regulatory floodway, no repair or replacement is allowed per WAC 173-158-070(1).

(4) Before the repair, replacement, or reconstruction is started, all requirements of the NFIP, the state requirements adopted pursuant to 86.16 RCW, and all applicable local regulations must be satisfied. In addition, the following conditions must be met:

(a) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway.

(b) A replacement residential structure is a residential structure built as a substitute for a legally existing residential structure of equivalent use and size.

(c) Repairs, reconstruction, or replacement of a residential structure shall not increase the total square footage of floodway encroachment.

(d) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the BFE.

(e) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood water into the system.

(f) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of flood water into the system and discharge from the system into the flood waters.

(g) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

(5) If subsection (1) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article V, Provisions for Flood Hazard Protection, of this chapter.

22E.020.240 Critical facility.

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 the level of the base flood elevation (100-year) 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 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 flood elevation shall be provided to all critical facilities to the extent possible.

22E.020.250 General requirements for other development

All development, including manmade changes to improved or unimproved real estate for which specific provisions are not specified in this ordinance or the state building codes with adopted amendments and any City of Marysville amendments, shall:

(1) Be located and constructed to minimize flood damage;

(2) Meet the encroachment limitations of this ordinance if located in a regulatory floodway;

(3) Be anchored to prevent flotation, collapse, or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the design flood;

(4) Be constructed of flood damage-resistant materials;

(5) Meet the flood opening requirements of Section 22E.020.170 and

(6) Have mechanical, plumbing, and electrical systems above the design flood elevation or meet the requirements of ASCE 24, except that minimum electric service required to address life safety and electric code requirements is permitted below the design flood

elevation provided it conforms to the provisions of the electrical part of building code for wet locations.

22E.020.260 Severability.
If any section, clause, sentence, or phrase of this chapter is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this chapter.

From: Radabaugh, David (ECY) <DRAD461@ECY.WA.GOV>
Sent: Monday, April 20, 2020 2:25 PM
To: Cheryl Dungan <CDungan@marysvillewa.gov>
Subject: [External!] RE: PC packet - Floodplain Management

External Email Warning! Use caution before clicking links or opening attachments.

Cheryl,

Thank you for the chance to review the draft ordinance. All and all, I really liked the ordinance. However, I do have a handful of comments:

1. The city should add or update the following definitions:

   Elevation Certificate: An administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate, and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

   Reasonably Safe from Flooding: Development that is designed and built to be safe from flooding based on consideration of current flood elevation studies, historical data, high water marks and other reliable data known to the community. In unnumbered A zones where flood elevation information is not available and cannot be obtained by practicable means, reasonably safe from flooding means that the lowest floor is at least two feet above the Highest Adjacent Grade.

2. MMC 22E.020.080 should also include:

   a. Where development is proposed in a floodway, an engineering analysis indicating no rise of the Base Flood Elevation; and
   b. Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

3. MMC 22E.020.130 should be updated to read:

   Subdivision Proposals and Development

   All subdivisions, as well as new development shall:
   1) Be consistent with the need to minimize flood damage;
   2) Have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
   3) Have adequate drainage provided to reduce exposure to flood damage.
   4) Where subdivision proposals and other proposed developments contain greater than 50 lots or 5 acres (whichever is the lesser) base flood elevation data shall be included as part of the application.

4. The standard for residential development is very good. However, the residential development standards should be included in the case of a variance approval.

5. What standards apply to the placement of a manufactured home? Is the intent of the code to treat manufactured homes as residential structures? If placement of manufactured homes is allowed in the Special Flood Hazard Area, then at a minimum,

   1) All manufactured homes 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*.
      This applies to manufactured homes:
      a) Outside of a manufactured home park or subdivision,
      b) In a new manufactured home park or subdivision,
      a) In an expansion to an existing manufactured home park or subdivision, or
      d) In an existing manufactured home park or subdivision on a site which a manufactured home has incurred "substantial damage" as the result of a flood; and
   2) Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions be elevated so that either:
      a) The lowest floor of the manufactured home is elevated one foot or more*
      b) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

6. The ordinance should include:

   AE and A1-30 Zones with Base Flood Elevations but No Floodways

   In areas with BFEs (when 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 community'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 community.

Please let me know if there are questions.

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