MONROE PLANNING COMMISSION

SUBJECT:	*DISCUSSION – CA2020-01, Floodplain Regulations Code Amendment*

DATE:	DEPT:	CONTACT:	PRESENTER:	ITEM:
04/13/2020	Community Development	Anita Marrero	Anita Marrero	Old Business # 1

Discussion: 03/09/2020, 04/13/2020
Public Hearing:

Attachments:
1. National Flood Insurance Program Flood Damage Prevention Ordinance Washington Model (Revised 12/09/2019)
2. Monroe Flood Ordinance Ecology Revisions
3. Revised FEMA FIRM Maps

REQUESTED ACTION: No action required. Discussion only. Planning Commission to ask questions, if any. A public hearing will be tentatively scheduled for the next Planning Commission meeting (April 27, 2020).

POLICY CONSIDERATIONS

***This subject matter is both necessary and routine as FEMA has not extended their deadline of June 19, 2020. In order to meet this deadline, staff needs to move forward and conduct a public hearing at the April 27th Planning Commission meeting. Ordinances require two (2) readings at council, therefore it is essential for the Planning Commission to issue their recommendation to council in order to have sufficient time to review and approve the ordinance before the June 19th deadline.**

On December 19, 2019, the Federal Emergency Management Agency (FEMA) sent the City correspondence relating to the new Snohomish countywide Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) that will become effective for the City of Monroe on June 19, 2020. In the FEMA correspondence, it was noted that:

It must be emphasized that all the standards specified in Paragraph 60.3(d) of the NFIP regulations must be enacted in a legally enforceable document. This includes the adoption of the effective FIRM and FIS report to which the regulations apply and the modifications made by this map revision.

The City is required to adopt both the updated FIRMs and to update the flood damage prevention ordinance in order to remain in good standing with the National Flood Insurance Program (NFIP).

DESCRIPTION/BACKGROUND

NFIP is a national program that provides affordable insurance and also encourages communities to adopt and enforce flood damage prevention regulations. While participation is voluntary, the City's participation in the NFIP program allows the City, property owners, businesses, and renters in flood-prone areas to obtain insurance and disaster assistance. Monroe has been a NFIP community since 1987.

Communities that adopt higher standards under the Community Rating System (CRS) are also able to benefit from reduced flood insurance premiums. The City has been a participant of CRS since 1991. Monroe has a Class 5 rating which entitles residents in Special Flood Hazard Areas (SFHAs) to a 20 percent discount on their flood insurance premiums and those outside the SFHAs are entitled to a 5 percent discount.

Washington State identified Snohomish County as a priority for FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) program based on population at risk to hazards, recent events, and community interest. FEMA has been in the process of updating the FIRMs for Snohomish County since 2006. FEMA is in the final stages of this update. Each flood-prone community participating in the NFIP is given six (6) months to complete adoption of the updated FIRMs and a flood damage prevention ordinance that complies with the Washington Model Flood Damage Prevention Ordinance (Attachment 1). Ecology provided comments on the updates required of the City of Monroe on January 16, 2020 (Attachment 2).

FISCAL IMPACT

N/A

TIME CONSTRAINTS

The code must be adopted by June 19, 2020 as a condition of continued eligibility in the National Flood Insurance Program (NFIP).

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD DAMAGE PREVENTION ORDINANCE
WASHINGTON MODEL (REVISED 12/09/2019)

Close to 300 towns, cities, counties, and tribes within the State of Washington participate in the National Flood Insurance Program (NFIP). As a condition of participation in the NFIP, communities are required to adopt and enforce a flood hazard reduction ordinance that meets the minimum requirements of the NFIP; however, there are occasionally additional requirements identified by state law that are more restrictive. In these cases, the Federal Emergency Management Agency (FEMA) will require that communities meet those standards as well.

This model identifies the basic requirements and cross references them to appropriate Code of Federal Regulations (CFR), Revised Code of Washington (RCW), or Washington Administrative Code (WAC) requirements. It also encourages community officials to consider the direct insurance implications of certain building standards that, if adopted, can reduce (or increase) annual flood insurance premiums for local citizens. This ordinance, as developed by FEMA and the Washington Department of Ecology, supersedes previous versions and includes all the minimum standards required as a condition of participation in the NFIP. It will be used by FEMA and state staff as the basis for providing technical assistance and compliance reviews during the Community Assistance Contact (CAC) and Community Assistance Visit (CAV) process to ensure federal and state law are met.

The model identifies the basic minimum federal and state regulation requirements that must be contained in local flood regulations, as well as suggestions for stronger measures, but notes these measures are *recommended*, not required. Additionally, it outlines several specific floodplain development practices and regulations that can reduce insurance premium. Adopting this model flood hazard reduction ordinance verbatim can ensure compliance with FEMA; however, *it should be emphasized that its adoption is not a mandatory requirement per NFIP regulation.* Some sections of this document are included for clarity and are not required by federal or state law. For instance, as indicated in SECTION 1: STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES, it is not mandatory to adopt this entire section, but by doing so, it will make your community's ordinance more legally enforceable.

Certain commentary is highlighted in the model ordinance. The highlighted commentary does not need to be included in the local ordinances.

Please note: Section 1612.4 of the 2015 International Building Code (IBC) and Section 1612.2 of the 2018 International Building Code incorporate the design and construction standards of ASCE 24 published by the American Society of Civil Engineers. ASCE 24-14 tables 1-1, 2-1, 4-1, and 6-1 contain specific building elevation requirements which

exceed minimum NFIP standards.

Please Note: RCW 86.16.190 requires that:

> *Local governments that have adopted floodplain management regulations pursuant to this chapter shall include provisions that allow for the establishment of livestock flood sanctuary areas at a convenient location within a farming unit that contains domestic livestock. Local governments may limit the size and configuration of the livestock flood sanctuary areas, but such limitation shall provide adequate space for the expected number of livestock on the farming unit and shall be at an adequate elevation to protect livestock. Modification to floodplain management regulations required pursuant to this section shall be within the minimum federal requirements necessary to maintain coverage under the national flood insurance program.*

While state law requires that local governments make provision for critter pads, it is extremely important to note that RCW 86.16.190 does not relax NFIP standards, including the no rise standard in floodways, in any way.

This document may also serve as a foundation upon which communities can craft their own additional measures. The ordinance can be modified to accommodate local standards, provided they are not less restrictive than the minimum standards identified in this model. Areas on the model that exceed those minimum standards are clearly marked. The model ordinance is in a modular format.

Appendix A: Ordinance Standards for Communities with Shallow Flooding Identified as AO zones on Flood Insurance Rate Maps (FIRMs). These standards are mandatory in communities that have mapped AO zones.

Appendix B: Ordinance Standards for Communities with Coastal Flooding Identified as V zones on Flood Insurance Rate Maps (FIRMs). These standards are mandatory in communities that have mapped V or VE zones.

NOTE: A community may wish to use a numbering system that differs from this model ordinance. In such cases, special care should be taken to correctly identify internal code citations within the Flood Damage Prevention Ordinance.

Section 1.0 - Statutory Authorization, Findings of Fact, Purpose, and Objectives *(Not mandatory to adopt section 1.0)*

1.1 Statutory Authorization

The Legislature of the State of Washington has delegated the responsibility to local communities to adopt floodplain management regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the **{Decision Making Body}** of **{Community Name}**, does ordain as follows:

1.2 Findings of Fact

The flood hazard areas of {Community Name} 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.

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

1.3 Statement of Purpose

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

1) Protect human life and health;

2) Minimize expenditure of public money for costly flood control projects;

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

4) Minimize prolonged business interruptions;

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

6) Help maintain a stable tax base by providing for the sound use and development

of flood hazard areas so as to minimize blight areas caused by flooding;

7) Notify potential buyers that the property is in a Special Flood Hazard Area;

8) Notify those who occupy flood hazard areas that they assume responsibility for their actions; and

9) Participate in and maintain eligibility for flood insurance and disaster relief.

1.4 Methods of Reducing Flood Losses

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

1) Restricting or prohibiting development that is 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 development vulnerable to floods be protected against flood damage at the time of initial construction;

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

4) Controlling filling, grading, dredging, and other development, which 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.

Section 2.0 – Definitions *(44 CFR 59.1, not mandatory to adopt all definitions as shown. However, definitions needed for implementation of NFIP standards in a specific community can be required in the community's Flood Damage Prevention Ordinance.)*

Terms with 1 asterisk trigger a specific minimum requirement and must be adopted. Unless specifically defined below, terms or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance the most reasonable application.

***Alteration of watercourse:** Any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

Appeal: A request for a review of the interpretation of any provision of this ordinance or a request for a variance.

***Area of shallow flooding:** A designated zone AO, AH, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. Also referred to as the sheet flow area.

***Area of special flood hazard:** The land in the floodplain within a community subject to a 1 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".

ASCE 24: The most recently published version of ASCE 24, Flood Resistant Design and Construction, published by the American Society of Civil Engineers.

***Base flood:** The flood having a 1% chance of being equaled or exceeded in any given year (also referred to as the "100-year flood").

***Base Flood Elevation (BFE):** The elevation to which floodwater is anticipated to rise during the base flood.

***Basement:** Any area of the building having its floor sub-grade (below ground level) on all sides.

Building: See "Structure."

Building Code: The currently effective versions of the International Building Code and the International Residential Code adopted by the State of Washington Building Code Council.

Breakaway wall: 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.

Coastal High Hazard Area: An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources. The area is designated on the FIRM as zone V1-30, VE or V.

Critical Facility: 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:** 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: 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).

Elevated Building: 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.

Essential Facility: This term has the same meaning as "Essential Facility" defined in ASCE 24. Table 1-1 in ASCE 24-14 further identifies building occupancies that are essential facilities.

Existing Manufactured Home Park or Subdivision: 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 before the effective date of the floodplain management regulations adopted by the community.

Expansion to an Existing Manufactured Home Park or Subdivision: 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).

Farmhouse: A single-family dwelling located on a farm site where resulting agricultural products are not produced for the primary consumption or use by the occupants and the farm owner.

***Flood or Flooding**:

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:** 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 (FIRM):** 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:** Any land area susceptible to being inundated by water from any source. See "Flood or flooding."

***Floodplain administrator:** The community official designated by title to administer and enforce the floodplain management regulations.

Floodplain management regulations: Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other application of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

***Flood proofing:** 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:** 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 a designated height. Also referred to as "Regulatory Floodway."

***Functionally dependent use:** 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.

***Highest adjacent grade:** The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

***Historic structure:** Any structure that is:

1) 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;

2) 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;

3) 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

4) 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.

***Lowest Floor:** The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance (i.e. provided there are adequate flood ventilation openings).

Manufactured Home: 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: A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

***Mean Sea Level:** 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.

New construction: For the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial Flood Insurance Rate Map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, “new construction” means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

One-hundred-year flood or **100-year flood:** See "Base flood."

New Manufactured Home Park or Subdivision: 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 adopted by the community.

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 date 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.

***Recreational Vehicle: 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, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or 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:** For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

***Substantial Damage:** 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:** 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

2) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

***Variance:** A grant of relief by a community from the terms of a floodplain management regulation.

Water surface elevation: The height, in relation to the vertical datum utilized in the applicable flood insurance study of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

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

Section 3.0 – General Provisions

3.1 Lands to Which This Ordinance Applies *(44 CFR 59.22(a))*

This ordinance shall apply to all special flood hazard areas within the boundaries of **{Community Name}**.

3.2 Basis for Establishing the Areas of Special Flood Hazard

The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study (FIS) for **{exact title of study}"** dated **{date},** and any revisions thereto**,** with accompanying Flood Insurance Rate Maps (FIRMs) dated **{date}**, and any revisions thereto**,** are hereby adopted by reference and declared to be a part of this ordinance. The FIS and the FIRM are on file at **{community address}**.

The best available information for flood hazard area identification as outlined in Section 4.3-2 shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under Section 4.3-2.

Note: *In some communities, the phrase "and any revisions thereto" is not considered legally binding and should not be adopted.*

3.3 Compliance

All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.

3.4 Penalties For Noncompliance

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions), shall constitute a misdemeanor. Any person who violates this

ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than _____ or imprisoned for not more than __ 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 _____ from taking such other lawful action as is necessary to prevent or remedy any violation.

3.5 Abrogation and Greater Restrictions

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

3.6 Interpretation (Not mandatory)

In the interpretation and application of this ordinance, 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.

3.7 Warning And Disclaimer of Liability *(Not mandatory)*

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

3.8 Severability

This ordinance and the various parts thereof are hereby declared to be severable. Should any Section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the Section so declared to be unconstitutional or invalid.

Section 4.0 – Administration

4.1 Establishment of Development Permit

4.1-1 Development Permit Required *(44 CFR 60.3(b)(1))*

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 3.2. The permit shall be for all structures including manufactured homes, as set forth in the "Definitions," and for all development including fill and other activities, also as set forth in the "Definitions."

4.1-2 Application for Development Permit

Application for a development permit shall be made on forms furnished by the Floodplain Administrator 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 with Section B completed by the Floodplain Administrator.

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

3) Where a structure is to be floodproofed, certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet floodproofing criteria in Section 5.2-2;

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

5) Where a structure is proposed in a V, V1-30, or VE zone, a V-zone design certificate;

6) Where development is proposed in a floodway, an engineering analysis indication no rise of the Base Flood Elevation, and

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

Note: The format of section 4.1-2 is not mandatory but the elevation information in subsection 1 and the information in subsections 2 through 7 is mandatory. Elevation Certificates are not mandatory outside of Community Rating System communities but highly recommended.

4.2 Designation of the Floodplain Administrator *(44 CFR 59.22(b)(1))*

The **{job title of the appropriate administrative official}** is hereby appointed to administer, implement, and enforce this ordinance by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

4.3 Duties & Responsibilities of the Floodplain Administrator

Duties of the (*Floodplain Administrator*) shall include, but not be limited to:

4.3-1 Permit Review

Review all development permits to determine that:

1) The permit requirements of this ordinance have been satisfied;

2) All other required state and federal permits have been obtained;

3) The site is reasonably safe from flooding;

4) The proposed development is not located in the floodway. If located in the floodway, assure the encroachment provisions of Section 5.4-1 are met;

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

4.3-2 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 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer Sections 5.2, SPECIFIC STANDARDS, and 5.4 FLOODWAYS.

4.3-3 Information to be Obtained and Maintained *(The following language is required and should be adopted verbatim per 44 CFR)*

1) Where base flood elevation data is provided through the FIS, FIRM, or required as in Section 4.3-2, obtain and maintain a record of 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) and (iii))*

2) Obtain and maintain documentation of the elevation of the bottom of the lowest horizontal structural member in V or VE zones. *(44 CFR 60.3(e)(2)(i) and (ii))*

3) For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in Section 4.3-2:

   a) Obtain and maintain a record of the elevation (in relation to mean sea level) to which the structure was floodproofed. *(44 CFR 60.3(b)(5)(ii))*

   b) Maintain the floodproofing certifications required in Section 4.1-2(3). *(44 CFR 60.3(b)(5)(iii))*

4) Certification required by Section 5.4.1 {or the numbering system used by the community} (floodway encroachments). *(44 CFR 60.3(d)(3))*

5) Records of all variance actions, including justification for their issuance. *(44 CFR 60.6(a)(6))*

6) Improvement and damage calculations.

7) Maintain for public inspection all records pertaining to the provisions of this ordinance. *(44 CFR 60.3(b)(5)(iii))*

4.3-4 Alteration of Watercourse

Whenever a watercourse is to be altered or relocated:

1) Notify adjacent communities and the Department of Ecology prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administrator through appropriate notification means. *(44 CFR 60.3(b)(6))*

2) Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained. *(44 CFR 60.3(b)(7))*

4.3-5 Interpretation of FIRM Boundaries *(This section is not required, but if the Local Administrators are performing this task on a regular basis, it should be adopted.)*

Make 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 NFIP (44 CFR 59-76).

4.3-6 Review of Building Permits *(44 CFR 60.3(a)(3))*

Where elevation data is not available either through the FIS, FIRM, or from another authoritative source (Section 4.3-2), applications for floodplain development 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 habitable buildings at least two feet above the highest adjacent grade in these zones may result in higher insurance rates.)

4.3-7 Changes to Special Flood Hazard Area

1) 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.

2) 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.

Section 5.0 – Provisions for Flood Hazard Reduction

5.1 General Standards *(Section 5.0 is required)*

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

5.1-1 Anchoring *(44 CFR 60.3(a) and (b))*

1) All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads including the effects of buoyancy. (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, refer to guidebook, FEMA-85, “Manufactured Home Installation in Flood Hazard Areas.”

5.1-2 Construction Materials and Methods *(44 CFR 60.3(a)(3)(ii-iv))*

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

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

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

5.1-3 Storage of Materials and Equipment

1) The storage or processing of materials that could be injurious to human, animal, or plant life if released due to damage from flooding is prohibited in special flood hazard areas (recommended).

2) Storage of other material or equipment may be allowed if not subject to damage by floods and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.

5.1-4 Utilities *(44 CFR 60.3(a)(5) and (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 (WAC 173-160-171);

3) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and 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.

5.1-5 Subdivision Proposals and Development *(44 CFR 60.3(a)(4) and (b)(3))*

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.

5.2 Specific Standards *(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 Section 3.2, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, or Section 4.3-2, USE OF OTHER BASE FLOOD DATA. The following provisions are required:

5.2-1 Residential Construction *(44 CFR 60.3(c)(2)(5))*

1) 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 residential structure shall have the lowest

floor, including basement, elevated one foot or more above the BFE. Mechanical equipment and utilities shall be waterproof or elevated least one foot above the BFE.

2) New construction and substantial improvement of any residential structure in an AO zone shall meet the requirements in Appendix A.

3) New construction and substantial improvement of any residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

4) New construction and substantial improvement of any residential structure in a V, V1-30, or VE zone shall meet the requirements in Appendix B.

5) 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 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.

5.2-2 Nonresidential Construction *(44 CFR 60.3(c)(3) and (4))*

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall meet the requirements of subsection 1 or 2, below.

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

   a) 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.

   b) If located in an AO zone, the structure shall meet the requirements in Appendix A.

   c) 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.

   d) If located in a V, V1-30, or VE zone, the structure shall meet the requirements in Appendix B.

   e) 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) 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.
      ii) The bottom of all openings shall be no higher than one foot above grade.
      iii) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.
      iv) 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.

2) 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:

   a) Be dry floodproofed 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 floodproofed to the elevation required by ASCE 24, whichever is greater;

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

   c) Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 4.3-3(2);

   d) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in 5.2-1(5);

Note: Applicants who are floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one foot below). Floodproofing the building an additional foot will reduce insurance premiums significantly.

5.2-3 Manufactured Homes *(44 CFR 60.3(c)(6)(12))*

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.
   (If the above phrase is applied to all manufactured homes in the floodplain, then the remaining verbiage is not necessary to adopt.)
   This applies to manufactured homes:

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 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 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 be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

5.2-4 Recreational Vehicles *(44 CFR 60.3(c)(14))*

1) Recreational vehicles placed on sites are required to either:

2) Be on the site for fewer than 180 consecutive days, or

3) 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

Meet the requirements of 5.2-3 above.

5.2-5 Enclosed Area Below the Lowest Floor

If buildings or manufactured homes 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.

5.2-6 Appurtenant Structures (Detached Garages & Small Storage Structures)

For A Zones (A, AE, A1-30, AH, AO):

1) Appurtenant structures used solely for parking of vehicles or limited storage 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 built 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 floodproofed to or above the BFE;

    e) The appurtenant structure must comply with floodway encroachment provisions in Section 5.4-1;

    f) The appurtenant structure must be designed to allow for the automatic entry and exit of flood waters in accordance with Section 5.2-1(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 Section 5.2-1.

3) Upon completion of the structure, certification that the requirements of this section have been satisfied shall be provided to the Floodplain Administrator for verification.

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

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.

5.4 Floodways *(Note the more restrictive language for floodway development per RCW 86.16)*

Located within areas of special flood hazard established in Section 3.2 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:

5.4-1 No Rise Standard

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 encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge. (44 CFR 60.3(d)(3))

5.4-2 Residential Construction in Floodways

Construction or reconstruction of residential structures is prohibited within designated floodways, except for (i) repairs, reconstruction, or improvements to a structure that 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 that have been identified by the local code enforcement official and that are the minimum necessary to assure safe living conditions, or to structures identified as historic places, may be excluded in the 50 percent.

1) Replacement of Farmhouses in Floodway

Repairs, reconstruction, replacement, or improvements to existing farmhouse structures located in designated floodways and that are located on lands designated as agricultural lands of long-term commercial significance under RCW 36.70A.170 may be permitted subject to the following:

a) The new farmhouse is a replacement for an existing farmhouse on the same farm site;
b) There is no potential building site for a replacement farmhouse on the same farm outside the designated floodway;
c) Repairs, reconstruction, or improvements to a farmhouse shall not increase the total square footage of encroachment of the existing farmhouse;
d) A replacement farmhouse shall not exceed the total square footage of encroachment of the farmhouse it is replacing;
e) A farmhouse being replaced shall be removed, in its entirety, including foundation, from the floodway within ninety days after occupancy of a new farmhouse;
f) For substantial improvements and replacement farmhouses, the elevation of the lowest floor of the improvement and farmhouse respectively, including basement, is a minimum of one foot higher than the BFE;
g) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood waters into the system;
h) 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; and
i) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

2) Substantially Damaged Residences in Floodway

a) 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).

b) 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:

   i) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway.
   ii) A replacement residential structure is a residential structure built as a substitute for a legally existing residential structure of equivalent use and size.
   iii) Repairs, reconstruction, or replacement of a residential structure shall not increase the total square footage of floodway encroachment.
   iv) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the BFE.
   v) New and replacement water supply systems are designed to eliminate or minimize infiltration of flood water into the system.
   vi) 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.
   vii) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

5.4-3 All Other Building Standards Apply in the Floodway

If Section 5.4-1 is satisfied or construction is allowed pursuant to section 5.4-2, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Section 5.0, Provisions For Flood Hazard Reduction.

5.5 General Requirements for Other Development *(Optional Provision)*

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 **{community name}** 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 5.2-1(5), 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.

5.6 Critical Facility (Optional Provision)

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the 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. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the BFE shall be provided to all critical facilities to the extent possible.

5.7 Livestock Sanctuaries

Elevated areas for the for the purpose of creating a flood sanctuary for livestock are allowed on farm units where livestock is allowed. Livestock flood sanctuaries shall be sized appropriately for the expected number of livestock and be elevated sufficiently to protect livestock. Proposals for livestock flood sanctuaries shall meet all procedural and substantive requirements of this chapter.

Note: To be “elevated sufficiently to protect livestock” typically means to be elevated at least one foot above the BFE.

Section 6.0 - Variances

The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the **{governing body}** to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the Base Flood Elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

6.1 Requirements for Variances

1) Variances shall only be issued:

   a) Upon 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;

   b) For the repair, rehabilitation, or restoration of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure’s continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure;

c) Upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;

d) Upon a showing of good and sufficient cause;

e) Upon a determination that failure to grant the variance would result in exceptional hardship to the applicant;

f) Upon a showing that the use cannot perform its intended purpose unless it is located or carried out in close proximity to water. This includes only facilities defined in Section 2.0 {or the numbering system used by the community} of this ordinance in the definition of "Functionally Dependent Use."

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

3) Generally, variances may be issued 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 BFE, provided the procedures of Sections 4.0 and 5.0 {or the numbering system used by the community} of this ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

6.2 Variance Criteria

In considering variance applications, the **{Governing Body}** shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

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

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

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

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

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

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

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

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

9) The safety of access to the property in time of flood for ordinary and emergency vehicles;

10) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and,

11) 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, water system, and streets and bridges.

6.1 Additional Requirements for the Issuance of a Variance

1) Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:

   a) The issuance of a variance to construct a structure below the BFE will result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage, and

   b) Such construction below the BFE increases risks to life and property.

2) The Floodplain Administrator shall maintain a record of all variance actions, including justification for their issuance.

3) The Floodplain Administrator shall condition the variance as needed to ensure that the requirements and criteria of this chapter are met.

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

APPENDIX A
STANDARDS FOR SHALLOW FLOODING AREAS (AO ZONES)
(44 CFR 60.3(c)7, 8 and 11)

Shallow flooding areas appear on FIRMs as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In addition to other provisions in this code, the following additional provisions also apply in AO zones:

1. New construction and substantial improvements of residential structures and manufactured homes within AO zones shall have the lowest floor (including basement and mechanical equipment) elevated above the highest adjacent grade to the structure, one foot or more above***** the depth number specified in feet on the community's FIRM (at least two feet above the highest adjacent grade to the structure if no depth number is specified).

2. New construction and substantial improvements of nonresidential structures within AO zones shall either:

    a) Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, one foot or more above* the depth number specified on the FIRM (at least two feet if no depth number is specified); or

    b) Together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer, or architect as in section 5.2-2(3).

3. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

4. Recreational vehicles placed on sites within AO zones on the community's FIRM either:

    a) Be on the site for fewer than 180 consecutive days, or

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

c) Meet the requirements of subsections (1) and (3) above and the anchoring requirements for manufactured homes (Section 5.1-1(2)).

APPENDIX B
STANDARDS FOR COASTAL HIGH HAZARD AREAS (V ZONES)
44 CFR 60.3(e)(2 – 8)

Located within areas of special flood hazard established in Section 3.2 are Coastal High Hazard Areas, designated as zones V1-30, VE, and/or V. These areas have special flood hazards associated with high velocity waters from surges and, therefore, in addition to meeting all provisions in this ordinance, the following provisions shall also apply:

1. All new construction and substantial improvements in zones V1-30 and VE (V if base flood elevation data is available) on the community's FIRM shall be elevated on pilings and columns so that:

    a) Elevation:

        i) Residential Buildings

        The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated one foot or more above the base flood level.

        ii) Nonresidential buildings

        The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated one foot or more above the base flood level or meets the elevation requirements of ASCE 24, whichever is higher; and

    b) The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).

    A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of subsections (1)(a)(i) and (2)(a)(ii).

2. Obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new

and substantially improved structures in zones V1-30, VE, and V on the community's FIRM and whether or not such structures contain a basement. The (Floodplain Administrator) shall maintain a record of all such information.

3. All new construction within zones V1-30, VE, and V on the community's FIRM shall be located landward of the reach of mean high tide.

4. Provide that all new construction and substantial improvements within zones V1-30, VE, and V on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the design proposed meets the following conditions:

   a) Breakaway wall collapse shall result from water load less than that which would occur during the base flood; and

   b) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).

   If breakaway walls are utilized, such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

5. Prohibit the use of fill for structural support of buildings within zones V1-30, VE, and V on the community's FIRM.

6. Prohibit man-made alteration of sand dunes within zones V1-30, VE, and V on the community's FIRM which would increase potential flood damage.

7. All manufactured homes to be placed or substantially improved within zones V1-30, V, and VE on the community's FIRM 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 “substantial damage” as the result of a flood; shall meet the standards of paragraphs (1) through (6) of this section and manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within zones V1-30, V, and VE on the FIRM shall meet the requirements of Section 5.2-3.

8. Recreational vehicles placed on sites within V or VE zones on the community’s FIRM shall either:

a) Be on the site for fewer than 180 consecutive days, or

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

c) Meet the requirements of subsections (1) and (3) above and the anchoring requirements for manufactured homes (Section 5.1-1(2)).

Chapter 14.01
FLOOD HAZARD AREA REGULATIONS

Sections:

14.01.010 Findings of fact.
14.01.020 Statement of purpose.
14.01.030 Methods of reducing flood losses.
14.01.040 Land to which this chapter applies.
14.01.050 Basis for establishing the areas of special flood hazard.
14.01.060 Interpretation.
14.01.070 Abrogation and greater restrictions.
14.01.080 Warning and disclaimer of liability.
14.01.090 Definitions.
14.01.100 Special flood hazard area development permits.
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14.01.010 Findings of fact.

A. The flood hazard areas of Monroe are subject to periodic inundation that results 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 that 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. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.020 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:

A. To protect human life and health;

B. To minimize expenditure of public money and costly flood -control projects;

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

D. To minimize prolonged business interruptions;

E. 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;

F. 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;

G. To ensure that potential buyers are notified that property is in an area of special flood hazard; and

H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; and

I. Participate in and maintain eligibility for flood insurance and disaster relief.

Commented [GM(1]: Recommended addition.

14.01.030 Methods of reducing flood losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

A. Restricting or prohibiting uses that are dangerous to health, safety, and property due to water or erosion hazards, or that result in damaging increases in erosion or in flood heights or velocities;

B. Requiring that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;

C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers that help accommodate or channel floodwaters;

D. Controlling filling, grading, dredging, and other development that may increase flood damage; and

E. Preventing or regulating the construction of flood barriers that will unnaturally divert flood waters or may increase flood hazards in other areas. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.040 Land to which this chapter applies.

This chapter shall apply to all areas of special flood hazard within the jurisdiction of the city of Monroe. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.050 Basis for establishing the areas of special flood hazard.

The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study (FIS) for Snohomish County, WA and Incorporated Areas" dated June 19, 2020 and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRMs) dated June 19, 2020, and any revisions thereto, are hereby adopted by reference and declared to be a part of this ordinance.

The FIS and the FIRM are on file at 806 West Main Street, Monroe, Washington.

The best available information for flood hazard area identification as outlined in MMC 14.01.120(B) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under MMC 14.01.120(B).

Commented [GM(2]: Must adopt entire Snohomish County FIS and FIRM's, can no longer just reference the applicable FIRM panels.

~~Areas of special flood hazard for portions of the city of Monroe covered by map panels 1100, 1377, 1380, and 1385 identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Rate Study for Snohomish County, Washington and Incorporated Areas," dated November 8, 1999, with accompanying Flood Insurance Rate Maps (FIRMs), are adopted by reference and declared to be a part of this chapter.~~

~~Areas of special flood hazard for portions of the city of Monroe covered by map panels 1070, 1357, 1360, and 1376 identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Snohomish County, Washington and Incorporated Areas," dated September 16, 2005, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRMs), are adopted by reference and declared to be a part of this chapter. The Flood Insurance Studies shall be on file in the office of the city engineer, 806 West Main Street, Monroe, Washington.~~ ~~(Ord. 018/2017 § 2; Ord. 004/2006 § 2; Ord. 021/2005 § 1)~~

14.01.060 Compliance and Interpretation.

A. ~~–~~All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.

B. In the interpretation and application of this chapter, all provisions shall be:
~~A~~1. Considered as minimum requirements;
2.~~B~~. Liberally construed in favor of the governing body;
3~~C~~. Deemed neither to limit nor repeal any other powers granted under state statutes. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.070 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 any other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.080 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 may occur. Flood heights may be increased by manmade 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 damage. This chapter shall not create liability on the part of the city, any elected and appointed official or any employee thereof, or the Federal Insurance Administration, for flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.090 Definitions.

Unless specifically defined in this section, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this chapter it's most reasonable application.

"Alteration of watercourse" means any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

"Appeal" means a request for a review of the interpretation of any provision of this chapter or a request for a variance pursuant to MMC 14.01.170.C.

"Area of shallow flooding" means a designated zone AO ~~or~~, AH ~~Zone on the~~, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM~~). The base flood depths range from~~) with a one percent or greater annual chance of flooding to an average depth of one to three feet~~;~~ where a clearly defined channel does not exist~~;~~, where the path of flooding is unpredictable, and ~~indeterminate; and,~~where velocity flow may be evident. ~~AO~~ Such flooding is characterized ~~as~~ by ponding or sheet flow ~~and AH indicates ponding~~. Also referred to as the sheet flow area.

"Area of special flood hazard" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. ~~Designation on effective maps always includes the letter A or~~ It is shown on the Flood Insurance Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR ~~.~~The term "special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard."

"ASCE 24" means the most recently published version of ASCE 24, Flood Resistant Design and Construction, published by the American Society of Civil Engineers.

Commented [GM(3]: Recommended addition.

"Base flood" means the flood having a one percent chance of being equaled or exceeded in any given year~~.~~ ~~Also~~ (also referred to as the "~~one hundred~~100-year flood." Designation on maps always includes the letters A or V.

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

"Basement" means any area of the building having its floor sub-grade~~,~~ (below ground level~~,~~) on all sides.

"Building": See "Structure."

Commented [GM(4]: Recommended addition.

"Building Code" means the currently effective versions of the International Building Code and the International Residential Code adopted by the State of Washington Building Code Council.

Commented [GM(5]: Recommended addition.

"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.

Commented [GM(6]: Recommended addition.

"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 manmade 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. "Development" also means subdivision of a parcel or parcels into two or more lots located within the area of special flood hazard.

"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).

"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.

Commented [GM(7]: Recommended addition.

"Essential Facility": See "Essential Facility" defined in ASCE 24. Table 1-1 in ASCE 24-14 further identifies building occupancies that are essential facilities.

Commented [GM(8]: Recommended addition.

"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) is completed before the effective date of the floodplain management regulations adopted by the community.

Commented [GM(9]: Recommended addition.

"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).

Commented [GM(10]: Recommended addition.

"Farmhouse" means a single-family dwelling located on a farm site where resulting agricultural products are not produced for the primary consumption or use by the occupants and the farm owner.

Commented [GM(11]: Recommended addition.

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

1.

a) ~~1.~~ The overflow of inland or tidal waters~~; and/or~~.

b) ~~2.~~ The unusual and rapid accumulation ~~of~~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" 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 (FIRM)" means the official map of a community, on which the Federal Insurance ~~Administration~~Administrator has delineated both the areas of special flood hazards 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)."

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

"Floodplain or flood-prone area" means any land area susceptible to being inundated by water from any source. See "Flood or flooding."

"Floodplain administrator" means the community official report provided by designated by title to administer and enforce the floodplain management regulations.

"Floodplain management regulations" means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other application of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Commented [GM(12]: Recommended addition.

"Flood proofing" 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" 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.~~a designated height. Also referred to as "Regulatory Floodway."

"Functionally dependent use" 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.

"Highest adjacent grade" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"Historic structure" means any structure that is:

1) 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;

2) 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;

3) 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

4) 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.

"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 ~~nonelevation~~non-elevation design requirements of this chapter found in MMC 14.01.130 (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 connected to the required utilities. For floodplain management purposes, the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles. The term "manufactured home" does not include a "recreational vehicle."

"Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

~~O. "New construction" means structures for which the "start of construction" commenced on or after the effective date of the ordinance codified in this chapter.~~

"Mean Sea Level" 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.

"New construction" means for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial Flood Insurance Rate Map or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

"One-hundred-year flood or 100-year flood": See "Base flood."

New manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for 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.

"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 date 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.

"Recreational vehicle" means a vehicle:

1. Built on a single chassis;
2. Four hundred 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, rehabilitation, addition, placement, or other improvement was within one hundred eighty days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For 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, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

"Substantial damage" means damage of any origin sustained by a structure for which the cost of restoration to it's before damaged condition would equal or exceed fifty percent of the ~~assessed~~market value of the structure before the damage occurred.

"Substantial improvement" means any repair, reconstruction, ~~or~~ rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty percent of the ~~assessed~~market value of the structure~~, either:~~

~~1. Before the improvement or repair is started; or~~

~~2. If the structure has been damaged and is being restored,~~ before the ~~damage occurred. For the purposes~~"start of ~~this definition "~~construction" of the improvement. This term includes structures which have incurred "substantial ~~improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part~~damage," regardless of the ~~building commences, whether or not that alteration affects the external dimensions of the structure.~~

actual repair work performed. The term does not, however, include either:

1) ~~1.~~ Any project for improvement of a structure to correct ~~precited~~ previously identified existing violations of state or local health, sanitary, or safety code specifications ~~which~~that have been ~~previously~~ identified by the local code enforcement official and ~~which~~that are the minimum necessary to assure safe living conditions; or

2) ~~2.~~ Any alteration of a "historic structure ~~listed on~~," provided that the ~~National Register of Historic Places or~~alteration will not preclude the structure's continued designation as a ~~State Inventory of Historic Places.~~"historic structure."

"Variance" means a grant of relief by a community from the ~~requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.~~terms of a floodplain management regulation.

"Water surface elevation" means the height, in relation to the vertical datum utilized in the applicable flood insurance study of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

Commented [GM(13]: Recommended addition.

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

(Ord. 018/2017 § 3; Ord. 033/2008 § 3; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.100 Special flood hazard area development permits

A. A special flood hazard area development permit shall be obtained before construction or development begins within any area of special flood hazard established in MMC 14.01.050. A special flood hazard area development permit shall be required for all structures, including the placement of manufactured homes.

B. Application for a special flood hazard area development permit shall be made on forms furnished by the floodplain manager 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 ~~North American Vertical Datum of 1929~~ mean sea level, of the lowest floor (including the basement) of all structures;

2. Elevation in relation to ~~North American Vertical Datum of 1929~~ mean sea level to which any structure has been floodproofed;

3. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in MMC 14.01.130(B)(2);

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

5. Base flood elevation data; ~~and~~

6. Floodway data, including engineering analysis indicating no rise of the BFE where development is proposed in a floodway; and~~.~~

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

C. The total fee for the application shall be as established by the city council by periodic resolution. The application form must be completed and submitted with the application fee before issuance of the special flood hazard area development permit will be considered. (Ord. 033/2018 § 7; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.110 Floodplain manager – Authority.

The mayor shall appoint a floodplain manager to administer and implement this chapter by granting or denying special flood hazard area development permits in accordance with its provisions. (Ord. 033/2018 § 8; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.120 Floodplain manager – Duties and responsibilities.

Duties of the floodplain manager shall include, but not be limited to:

A. *Permit Review.*

1. Review all permit applications to determine that the special flood hazard area development permit requirements of this chapter have been satisfied.

2. Review all special flood hazard area development permit applications to determine that all necessary permits have been obtained from those governmental agencies from which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

3. Review all special flood hazard area development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of MMC 14.01.150 are met.

4. Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in an area of special flood hazard, all new construction and substantial improvements shall (a) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, (b) be constructed with materials resistant to flood damage, (c) be constructed by methods and practices that minimize flood damages, and (d) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

5. Review subdivision proposals and other new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in an area of special flood hazard, any such proposals shall be reviewed to assure that (a) all such proposals are consistent with the need to minimize flood damage within the area of special flood hazard, (b) all public utilities and facilities, such as sewer, gas, electrical, and water systems, are located and constructed to minimize or eliminate flood damage, and (c) adequate drainage is provided to reduce exposure to flood hazards.

6. Notify FEMA when annexations occur in the Special Flood Hazard Area.

B. *Use of Other Base Flood Data.* When base flood elevation data has not been provided in accordance with MMC 14.01.050, Basis for establishing the areas of special flood hazard, the floodplain manager obtains, reviews, and reasonably utilizes any base flood elevation and floodway data available from a federal, state or other source, in order to administer MMC 14.01.130, 14.01.140 and 14.01.150.

C. *Information To Be Obtained and Maintained.*

1. Where base flood elevation data is provided through the Flood Insurance Study or required as in subsection (B) of this section, obtain and record the actual elevation (in relation to ~~North American Vertical Datum of 1929~~ mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

2. For all new or substantially improved floodproofed structures:

a. Verify and record the actual elevation in relation to ~~North American Vertical Datum of 1929~~ mean sea level to which the structure was floodproofed; and

b. Maintain the floodproofing certifications required in MMC 14.01.100.

3. Certification required by the encroachment provisions found at MMC 14.01.150.

4 .Records of all variance actions, including justification for their issuance.

5. Improvement and damage calculations.

~~3~~6. Maintain for public inspection all records pertaining to the provisions of this chapter.

D. *Alteration of Watercourses.*

1. The floodplain manager 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. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

E. *Interpretation of FIRM Boundaries.* The floodplain manager shall make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in MMC 14.01.170. (Ord. 033/2018 § 9; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

F. *Changes to Special Flood Hazard Area.*

1. 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.

2. 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.

Commented [GM(14]: Recommended additions.

14.01.130 General standards.

A. In all areas of special flood hazards, the following provisions 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 must 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, and those listed in FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook. The anchoring requirement is in addition to applicable requirements for resisting wind forces.

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 floodwaters into the system.

b. Water wells shall be located outside of the floodway.

c. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.

d. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

4. *Subdivision Proposals.*

a. All subdivision proposals shall be consistent with the need to minimize flood damage.

b. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.

d. 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 development which contain at least fifty lots or five acres (whichever is less).

5. *Storage of Materials and Equipment*

a. The storage or processing of materials that could be injurious to human, animal, or plant life if released due to damage from flooding is prohibited in special flood hazard areas

b. Storage of other material or equipment may be allowed if not subject to damage by floods and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.

Commented [GM(15]: Recommended addition.

6. *Review of Building Permits.* Where elevation data is not available either through the Flood Insurance Study or from another authoritative source, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high-water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

B. In all areas of special flood hazards where base flood elevation data has been provided as set forth in MMC 14.01.050 or 14.01.120(B), the following provisions are required:

1. *Residential Construction.*

a. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above base flood elevation. Mechanical equipment and utilities shall be waterproofed or elevated at least one foot above base flood elevation.

b. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and that are subject to flooding 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. Provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;

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

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

iv. 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 floodwaters.

c. New construction and substantial improvements of any residential structure in an Unnumbered A zone for which a BFE is not available and cannot be reasonably obtained shall be reasonably safe from flooding, but in all cases the lowest floor shall be at least two feet above the Highest Adjacent Grade.

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

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

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

c. Have a certification 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 section based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the city engineer;

d. Nonresidential structures that are elevated, but not floodproofed, must meet the same standards for space below the lowest floor as described in subsection (B)(1) of this section;

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

f. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding 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 meet or exceed the following minimum criteria:

i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding, and

ii. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

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

iv. 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 floodwaters.

g. For all new construction and substantial improvement 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.

3. *Manufactured Homes.*

a. All manufactured homes that are placed or substantially improved ~~within zones A1-30, AH, and AE on the community's FIRM~~ on sites that are:

Commented [GM(16]: Removed to apply to all special flood hazard zones, consistent with residential/non-residential development sections.

i. Outside of a manufactured home park or subdivision;

ii. In a new manufactured home park or subdivision;

iii. In an expansion to an existing manufactured home park or subdivision; or

iv. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial 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 to 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.

b. All manufactured homes that are placed or substantially improved on sites in an existing manufactured home park or subdivision ~~within Zones A1-30, AH, and AE on the community's~~

~~FIRM~~ that are not subject to the provisions of subsection (B)(3)(a) of this section must be elevated so that either:

i. The lowest floor of the manufactured home is elevated one foot or more~~at or~~ above the base flood elevation; or

ii. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

4. *Recreational Vehicles.*

a. Recreational vehicles placed on sites ~~within Zones A1-30, AH, and AE on the community's FIRM~~are required to either:

i. Be on the site for fewer than one hundred eighty consecutive days;

ii. Be fully licensed and ready for highway use; or

iii. Meet the permit requirements of MMC 14.01.100 and the elevation and anchoring requirements for "manufactured homes" in subsection (B)(3) of this section.

b. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions. (Ord. 018/2017 § 4; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

5. *Enclosed Area Below the Lowest Floor.* If buildings or manufactured homes 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.

14.01.140 Critical facility.

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

Commented [GM(17]: Removed to apply to all special flood hazard zones, consistent with residential/non-residential development sections.

Commented [GM(18]: Removed to apply to all special flood hazard zones, consistent with residential/non-residential development sections.

released into floodwaters. Access routes elevated to or above the level of the special flood hazard area shall be provided to all critical facilities to the extent possible. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.150 Floodways.

Within areas of special flood hazard established in MMC 14.01.050 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway 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 when combined with all other existing and anticipated development would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.

B. Construction or reconstruction of residential structures is prohibited within designated floodways, except for:

1. Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area;

2. Repairs, reconstruction or improvements to a structure, the cost of which does not exceed fifty 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; and

3. Work done on structures to comply with existing health, sanitary or safety codes or to structures identified as historic places.

C. If subsection (A) of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of MMC 14.01.130(A).

D. In areas with base flood elevations (but in 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 community's Flood Insurance Rate Map, 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.

E. The flood carrying capacity within the altered or relocated portion of any watercourse shall be maintained. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.155 Density fringe areas.

Development within areas designated as density fringe areas within the city of Monroe will be regulated the same as other areas of special flood hazard located within floodways. (Ord. 018/2017 § 5)

14.01.160 Variances.

A. The issuance of a variance is for floodplain management purposes only. Insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance.

B. The hearing examiner, after examining the applicant's hardships, shall approve or disapprove a request for a variance. Procedures for the granting of variances by the hearing examiner are as follows:

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

2. 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, and

   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, or conflict with existing local laws or ordinances;

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

4. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure;

5. Variances are generally limited to a lot size less than one-half acre; as the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases. Variances may be

issued 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, in conformance with the procedures of this subsection and subsections (B)(1) and (2), (C) and (D) of this section;

6. Variances may be issued for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use; provided, that:

a. The criteria of this subsection and subsections (B)(1), (2), (3) and (5) of this section are met, and

b. The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

C. The floodplain manager shall notify the applicant in writing that:

1. The issuance of a variance to construct a structure below the base flood level may result in increased premium rates for flood insurance up to amounts as high as twenty-five dollars for one hundred dollars of insurance coverage; and

2. Such construction below the base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions as required in subsection (D) of this section.

D. The floodplain manager shall:

1. Maintain a record of all variance actions, including justification for their issuance; and

2. Report such variances issued in the city's annual or biennial report submitted to the Federal Insurance Administrator.

E. The Federal Insurance Administrator may review the hearing examiner's findings justifying the granting of variances, and if that review indicates a pattern inconsistent with the objectives of sound floodplain management, the Federal Insurance Administrator may take appropriate action under 44 CFR 59.24(b).

F. The variance criteria above are meant to incorporate the federal requirements for variances as specified in 44 CFR 60.6 as now or hereafter amended. To the extent that requirements of this section or MMC 14.01.170 conflict with or omit requirements of 44 CFR 60.6 as now or hereafter amended, the terms of 44 CFR 60.6 shall govern. (Ord. 033/2018 § 10; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.170 Appeals procedures.

A. *Administrative Appeals.*

1. The hearing examiner shall have the authority to hear and decide appeals from any order, requirement, permit, decision or determination made by the floodplain manager or designee in the administration and enforcement of provisions of this title.

2. Appeals from the floodplain manager's order, requirement, permit, decision, or determination may be taken to the hearing examiner by any person aggrieved. The appeal shall be filed in writing, in duplicate, in original form with the city clerk within ten days of the date of the action being appealed. Upon filing an appeal, a place and time for the hearing not more than thirty days from such notice of appeal shall be set by the hearing examiner.

3. The hearing examiner may, in conformity with this title or other applicable ordinances, reverse or affirm, wholly or in part, or modify the order, requirement, decision or determination appealed from, and may rule on the order, requirement, decision or determination as necessary. To that end, the hearing examiner shall have all the power of the officer from whom the appeal is taken, insofar as the decision on the particular issue is concerned.

4. The decision of the hearing examiner on an administrative appeal shall be final and conclusive.

B. *Appeal of Variances.*

1. There shall be no administrative appeal of the hearing examiner's decision on a requested variance under this chapter.

2. The floodplain manager shall maintain the records of all variances granted under this chapter and shall report any variances to the Federal Insurance Administrator upon request.

C. *Judicial Appeal.* Appeals from the final decision of the hearing examiner under this chapter shall be made to Snohomish County superior court in accordance with Chapter 36.70C RCW. (Ord. 033/2018 § 11; Ord. 011/2017 § 2; Ord. 004/2006 § 2; Ord. 021/2005 § 1)

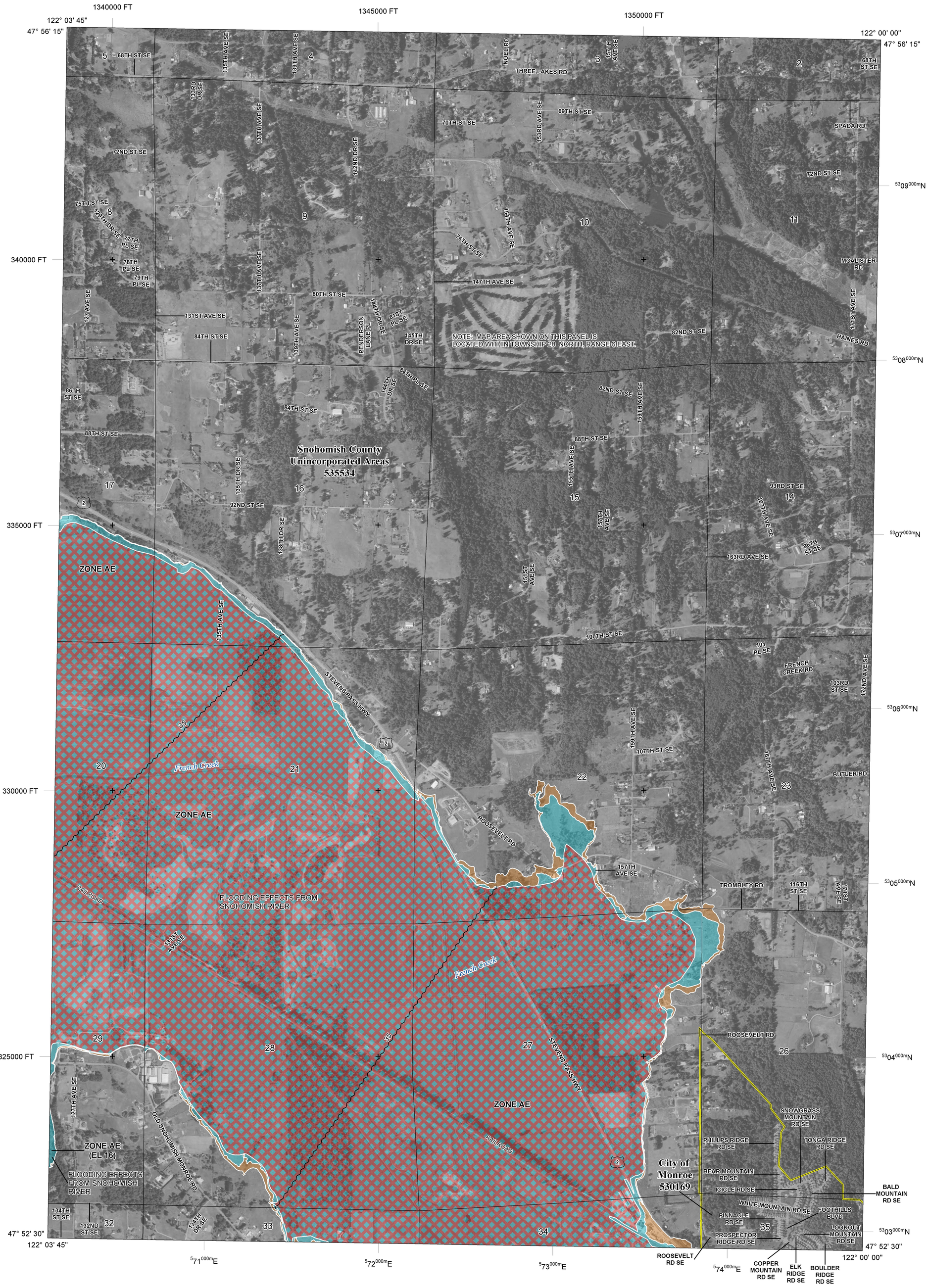
14.01.180 Penalties for noncompliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance to the terms of this chapter and other applicable regulations. Violation of the provisions of this chapter (including violations of conditions and safeguards established in connection conditions) shall constitute a misdemeanor as defined in RCW 9A.20.010. Violators shall pay all costs and expenses involved in the case. Nothing contained in this chapter shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation. (Ord. 004/2006 § 2; Ord. 021/2005 § 1)

14.01.190 Severability.

This chapter and the various parts thereof are hereby declared to be severable. Should any Section of this chapter be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the chapter as a whole, or any portion thereof other than the Section so declared to be unconstitutional or invalid.

~~If any section, sentence, clause or phrase of this chapter should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this chapter. (Ord. 018/2017 § 6)~~



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

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- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*

OTHER AREAS
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GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike, or Floodwall
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OTHER FEATURES
- E 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- 8 — Coastal Transect
- Coastal Transect Baseline
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- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

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Density Fringe Area

SCALE

N

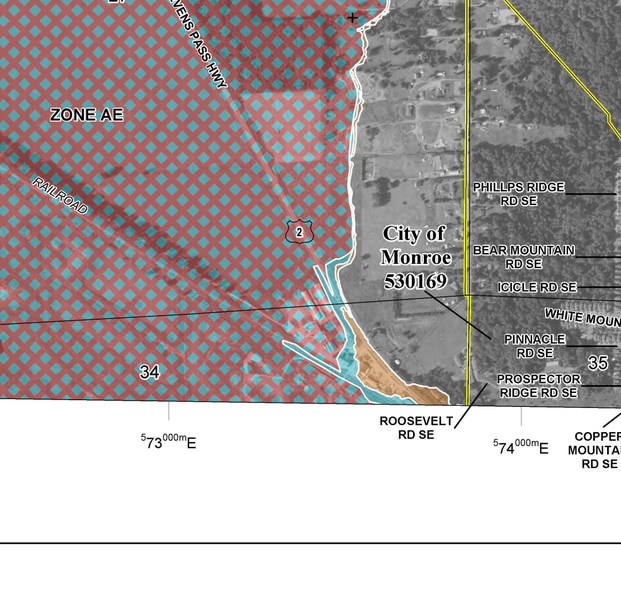
Map Projection:
NAD 1983 StatePlane Washington North FIPS 4601 Feet;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 255 510 1,020 Meters

PANEL LOCATOR



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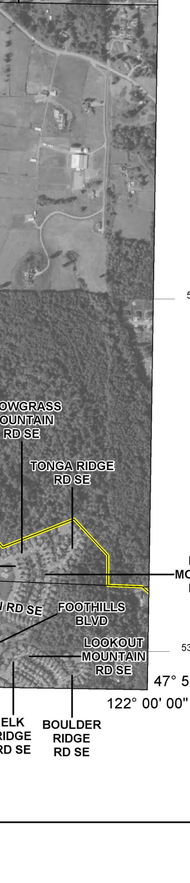


NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1070 OF 1575

FEMA

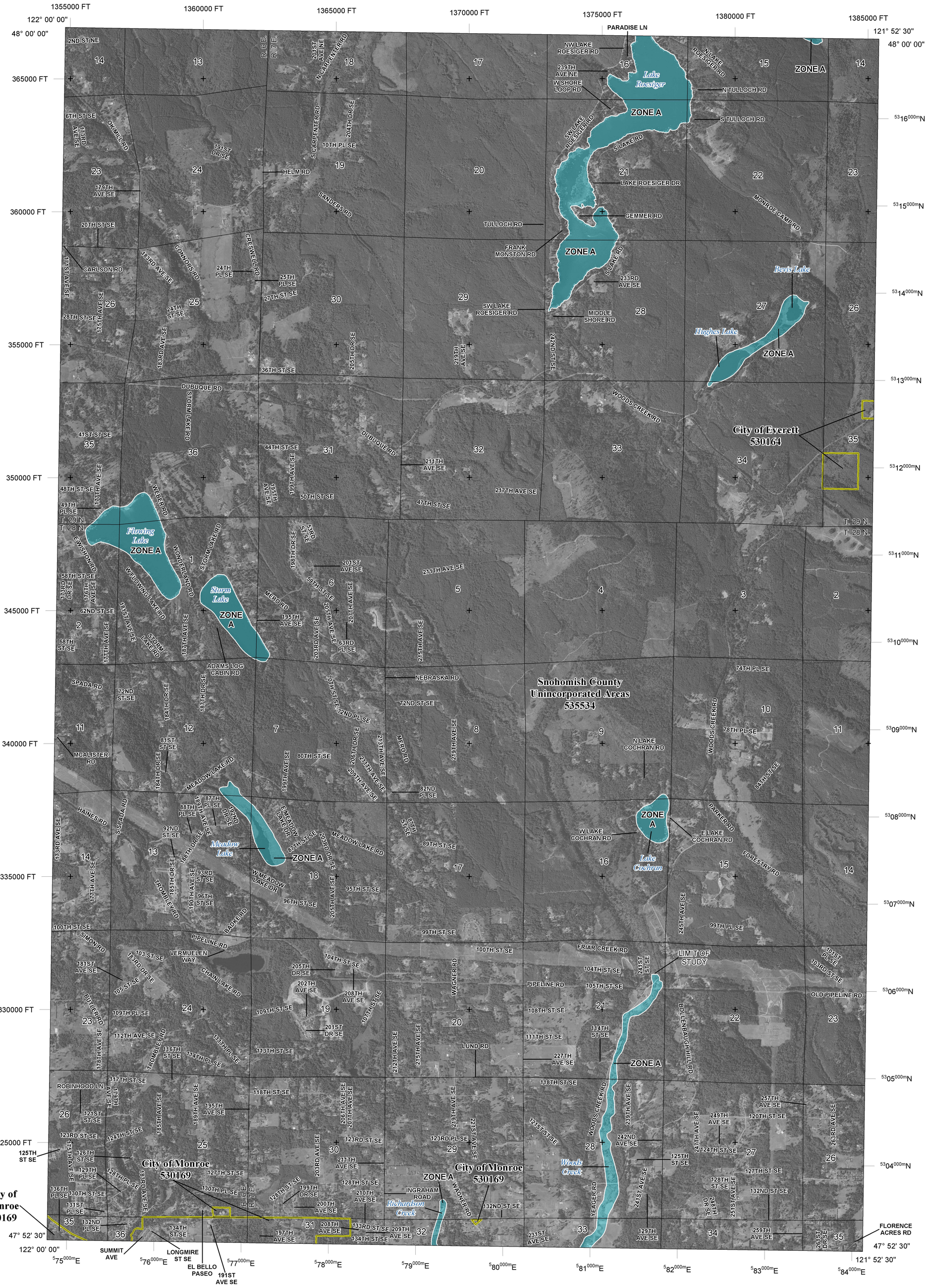
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONROE, CITY OF	530169	1070	G
SNOHOMISH COUNTY	535534	1070	G

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1070G

MAP REVISED
JUNE 19, 2020



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OTHER AREAS
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OTHER FEATURES
- E — 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- 8 — Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
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- 513 — Base Flood Elevation Line (BFE)
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SCALE

N

Map Projection:
NAD 1983 StatePlane Washington North FIPS 4601 Feet;
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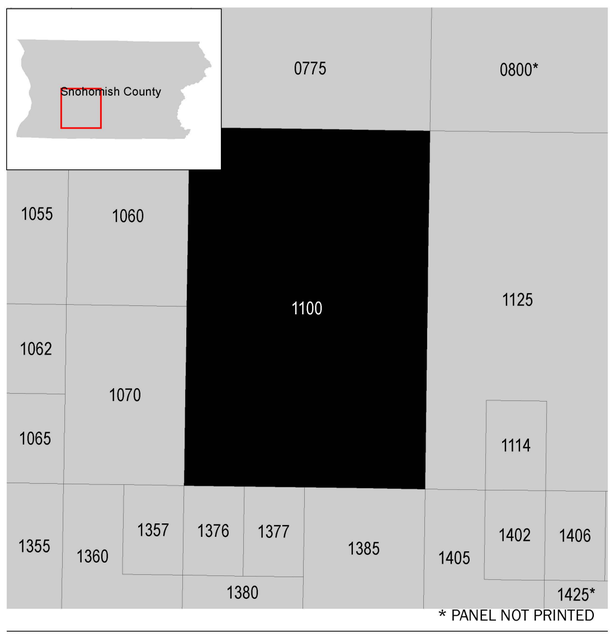
1 inch = 2,000 feet 1:24,000

0 2,000 4,000 8,000 Feet

0 500 1,000 2,000 Meters

PANEL LOCATOR



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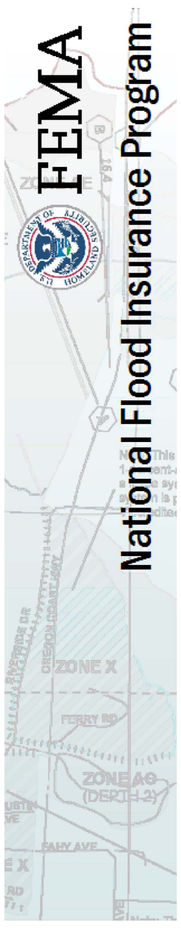


NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1100 OF 1575

FEMA

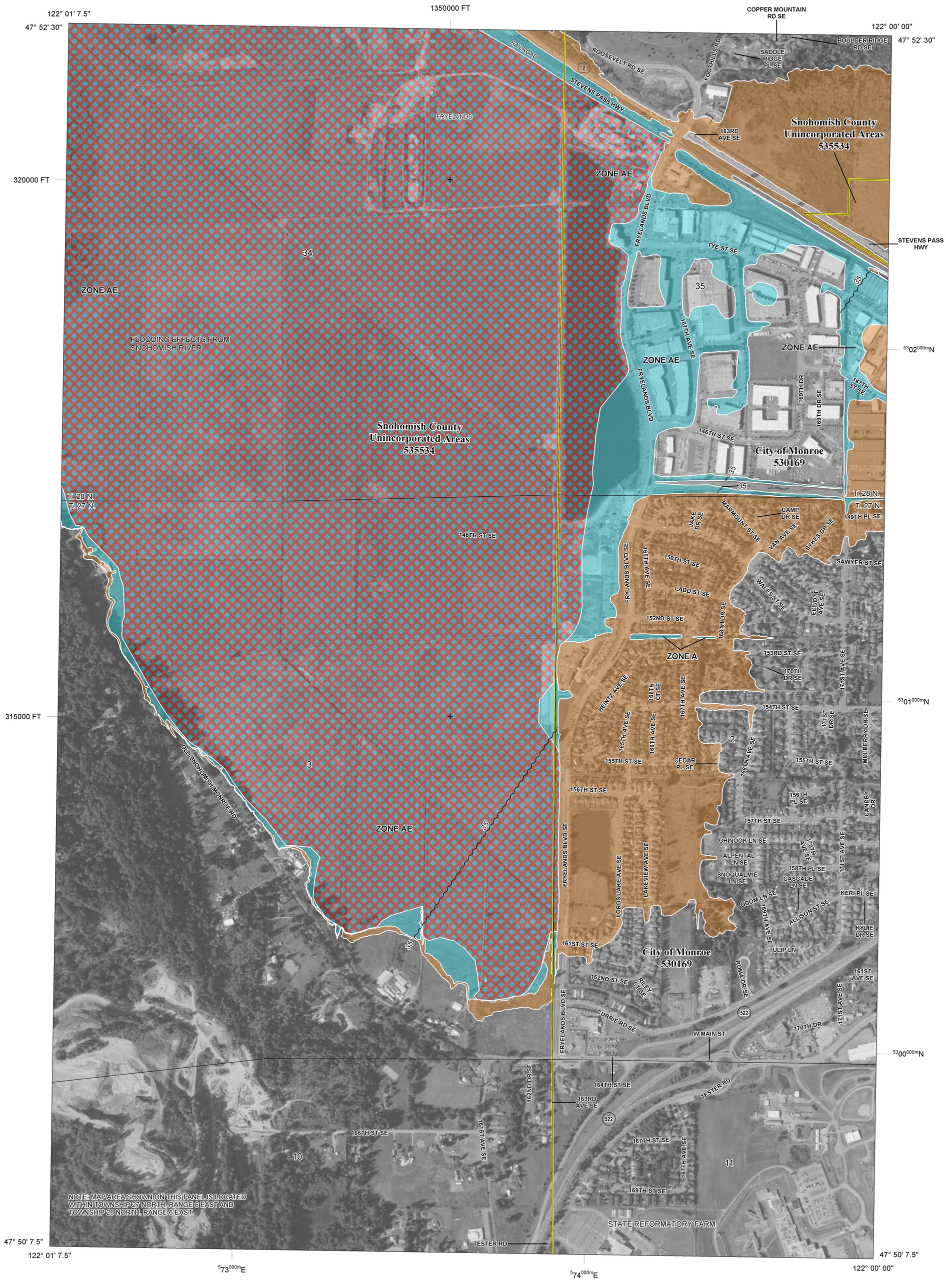
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
EVERETT, CITY OF	530164	1100	F
MONROE, CITY OF	530169	1100	F
SNOHOMISH COUNTY	535534	1100	F

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1100F

MAP REVISED
JUNE 19, 2020



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Density Fringe Area

SCALE

N

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Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 500 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR

* PANEL NOT PRINTED

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1357 OF 1575

FEMA

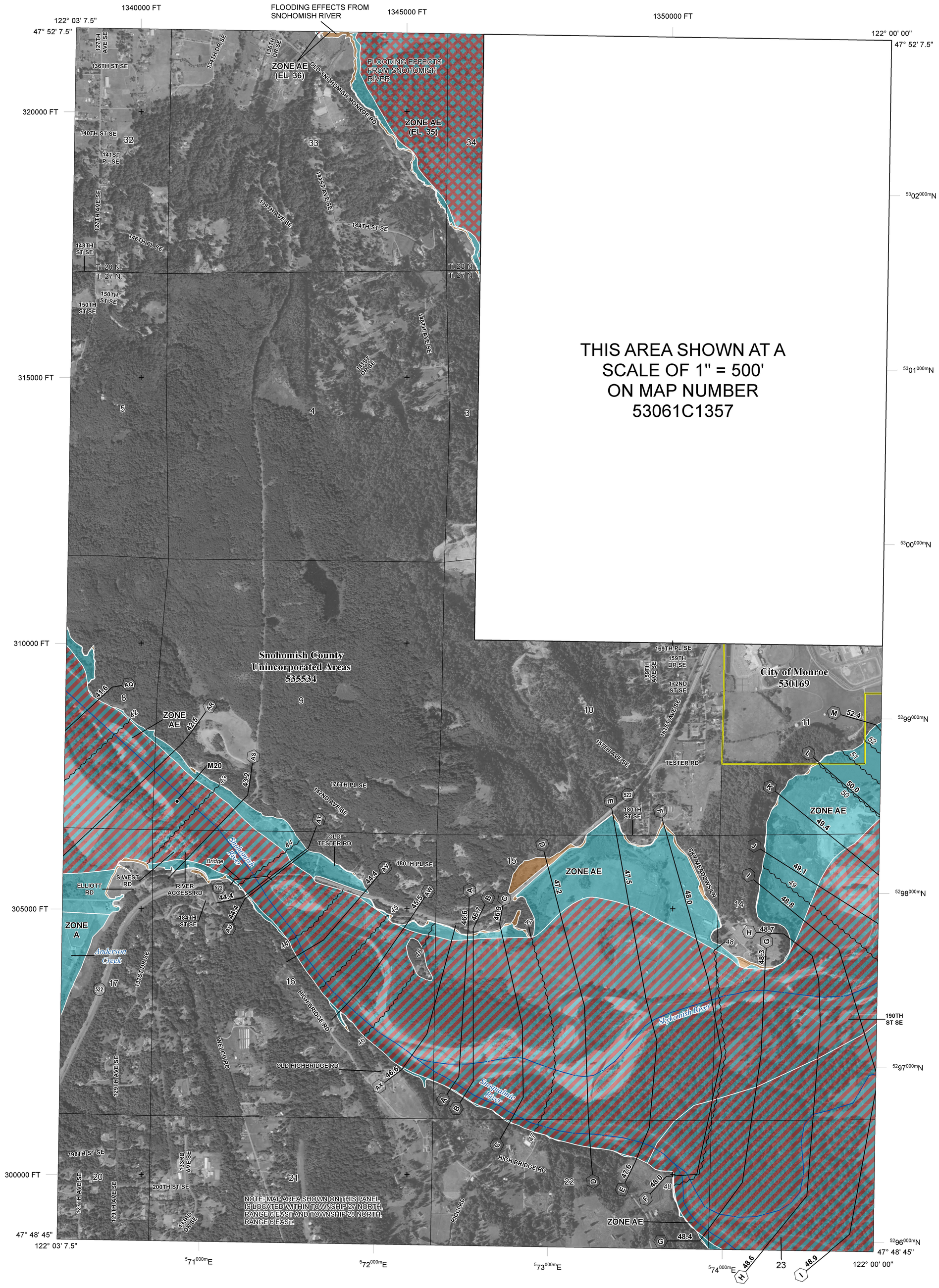
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONROE, CITY OF	530169	1357	G
SNOHOMISH COUNTY	535534	1357	G

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1357G

MAP REVISED
JUNE 19, 2020



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OTHER FEATURES
- 18.2 / E / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- 8 — Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Density Fringe Area
- M4.0 — River Mile Marker

NOTES TO USERS

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SCALE

N

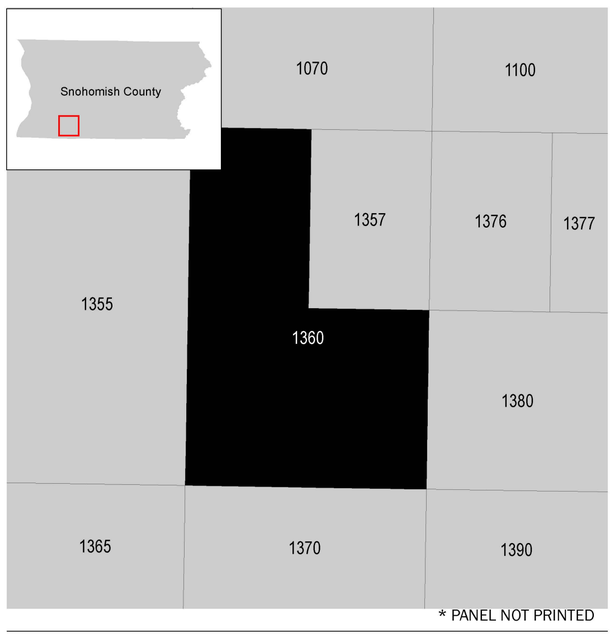
Map Projection:
NAD 1983 StatePlane Washington North FIPS 4601 Feet;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 255 510 1,020 Meters

PANEL LOCATOR



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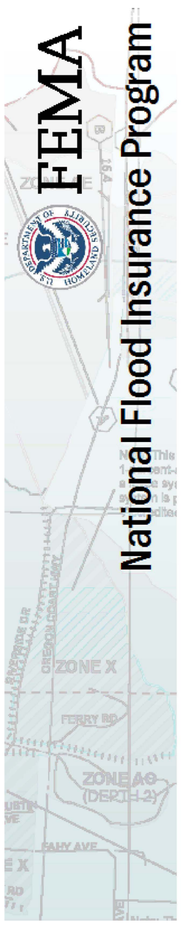


NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1360 OF 1575

FEMA

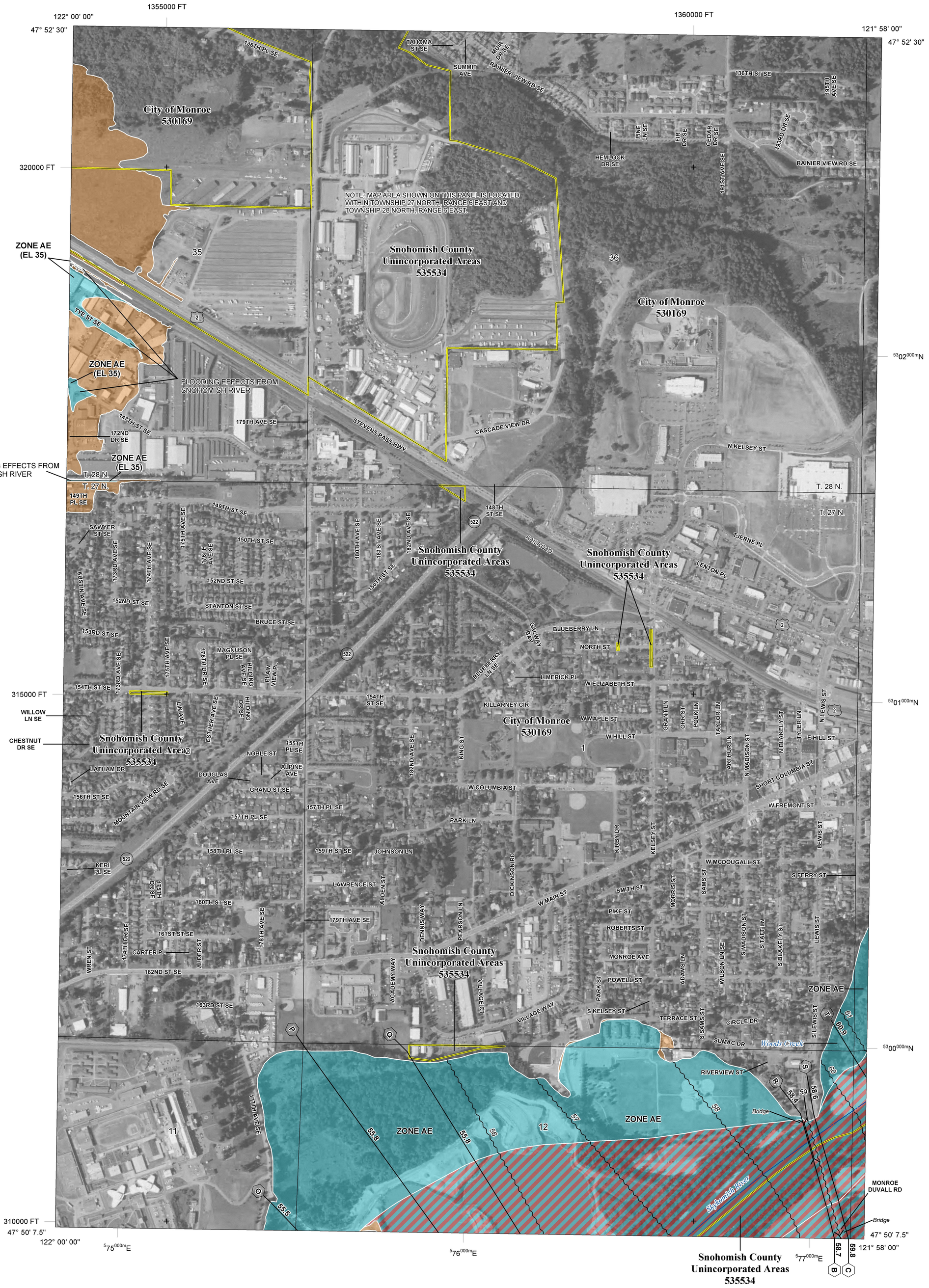
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONROE, CITY OF	530169	1360	G
SNOHOMISH COUNTY	535534	1360	G

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1360G

MAP REVISED
JUNE 19, 2020



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

HTTPS://MSC.FEMA.GOV

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A,V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*

OTHER AREAS

- NO SCREEN Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall

OTHER FEATURES

- E 18.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- 8 Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

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SCALE

N

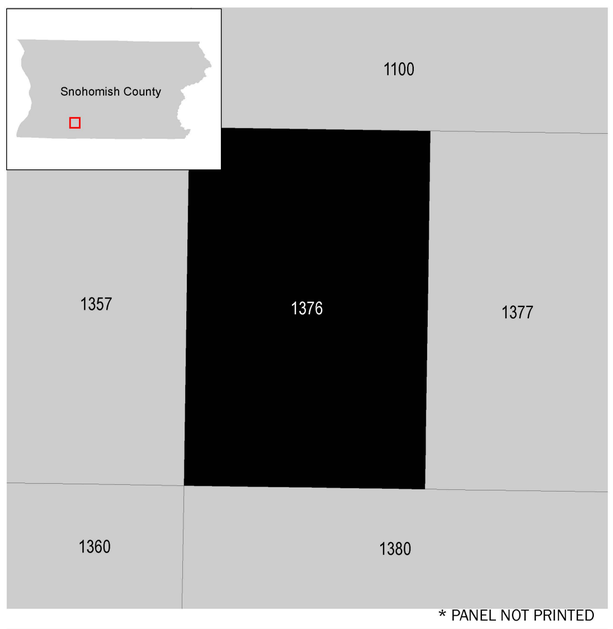
Map Projection:
NAD 1983 StatePlane Washington North FIPS 4601 Feet;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

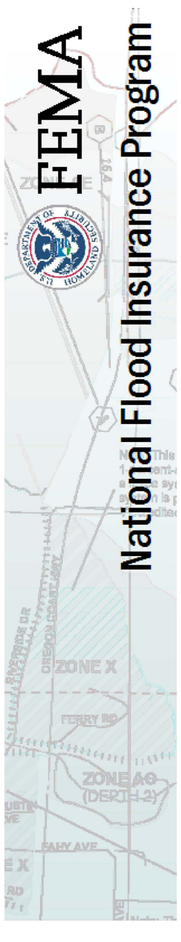
0 500 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR



* PANEL NOT PRINTED



NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1376 OF 1575

FEMA

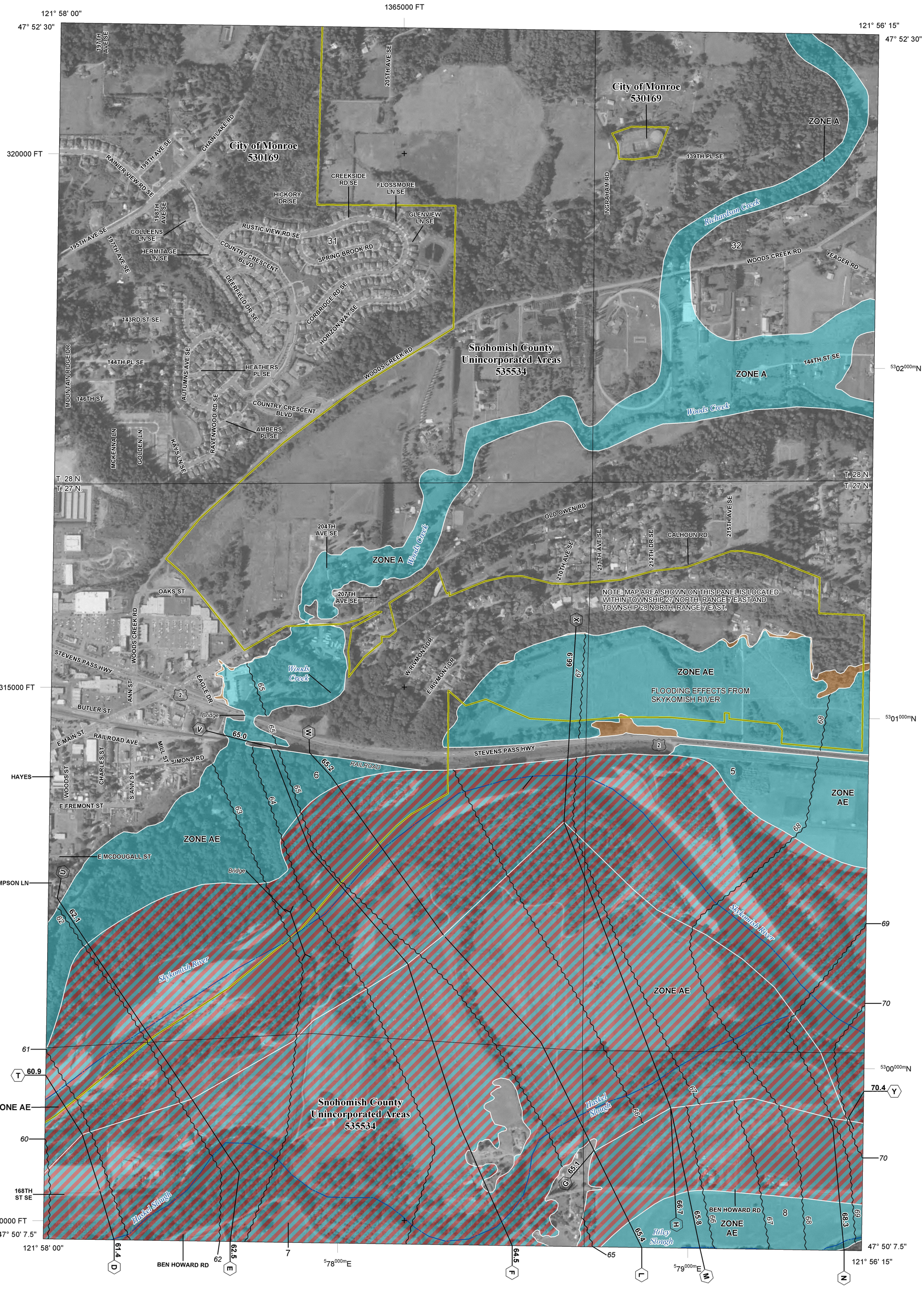
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONROE, CITY OF	530169	1376	G
SNOHOMISH COUNTY	535534	1376	G

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1376G

MAP REVISED
JUNE 19, 2020



FLOOD HAZARD INFORMATION

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SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE) *Zone A,V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*

OTHER AREAS

- NO SCREEN — Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
- Accredited or Provisionally Accredited Levee, Dike, or Floodwall
- Non-accredited Levee, Dike, or Floodwall

OTHER FEATURES

- E 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- 8 — Coastal Transect
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature
- 513 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary

NOTES TO USERS

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SCALE

N

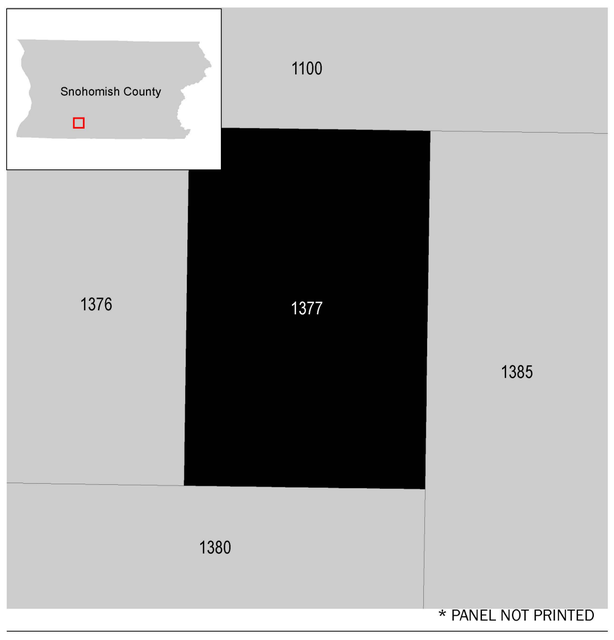
Map Projection:
NAD 1983 StatePlane Washington North FIPS 4601 Feet;
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 500 feet 1:6,000

0 500 1,000 2,000 Feet

0 125 250 500 Meters

PANEL LOCATOR



* PANEL NOT PRINTED

FEMA National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1377 OF 1575

FEMA

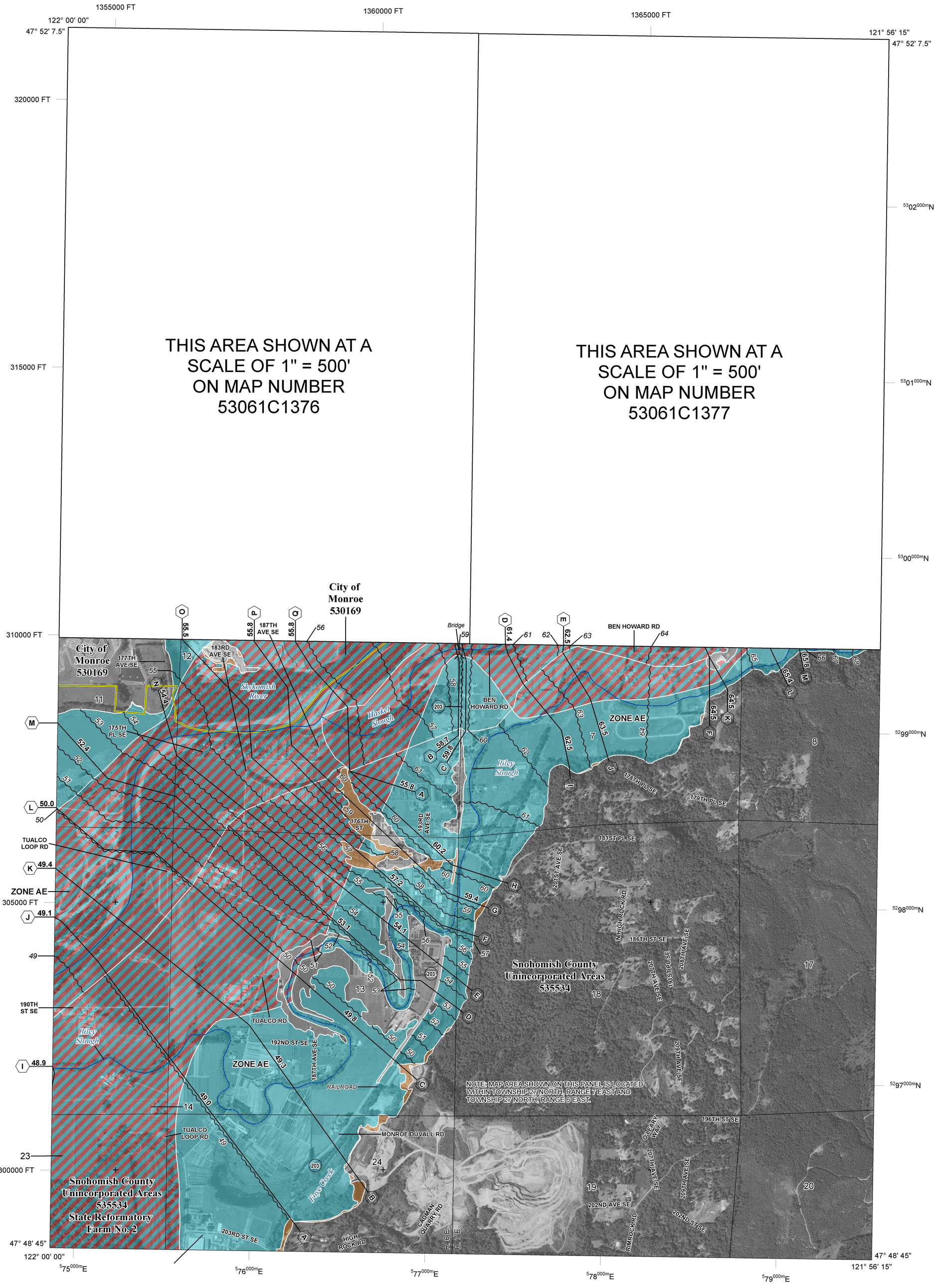
Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONROE, CITY OF	530169	1377	F
SNOHOMISH COUNTY	535534	1377	F

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1377F

MAP REVISED
JUNE 19, 2020



FLOOD HAZARD INFORMATION

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- Area with Reduced Flood Risk due to Levee See Notes. *Zone X*

OTHER AREAS

- NO SCREEN — Areas Determined to be Outside the 0.2% Annual Chance Floodplain *Zone X*
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GENERAL STRUCTURES

- Channel, Culvert, or Storm Sewer
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OTHER FEATURES

- E — 18.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation (BFE)
- 8 — Coastal Transect
- Coastal Transect Baseline
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- 513 — Base Flood Elevation Line (BFE)
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SCALE

N

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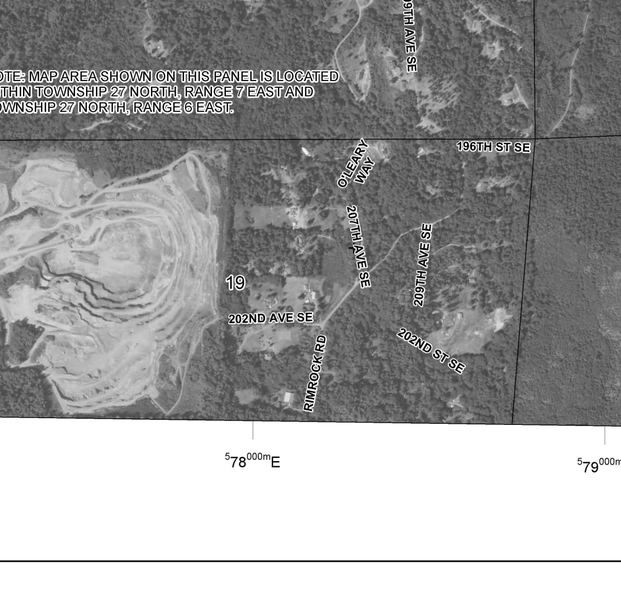
Western Hemisphere; Vertical Datum: NAVD 88

1 inch = 1,000 feet 1:12,000

0 1,000 2,000 4,000 Feet

0 255 510 1,020 Meters

PANEL LOCATOR



* PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

SNOHOMISH COUNTY, WASHINGTON
AND INCORPORATED AREAS

PANEL 1380 OF 1575

FEMA

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
MONROE, CITY OF	530169	1380	F
SNOHOMISH COUNTY	535534	1380	F

VERSION NUMBER
2.3.2.1

MAP NUMBER
53061C1380F

MAP REVISED
JUNE 19, 2020