

**Congress of the United States**  
**Washington, DC 20515**

August 22, 2024

The Honorable Deanne Criswell  
Administrator  
Federal Emergency Management Agency  
500 C St. SW  
Washington, D.C. 20024

Dear Administrator Criswell,

We are writing to reiterate concerns about the Federal Emergency Management Agency's (FEMA) proposed strategy to implement changes to the National Flood Insurance Program (NFIP) in Oregon, specifically regarding a new compliance requirement that communities need to select Pre-Implementation Compliance Measures (PICMs) well before FEMA makes final recommendations. NFIP is a life-saving federal program, and its administration and changes must be undertaken with the utmost care and evenhanded judgment.

All of our offices have heard serious concerns from small business leaders, local elected officials, affordable housing advocates, and economic development groups. We want to emphasize that the implementation of permitting programs is carried out primarily at the local level, and the leaders in the affected communities have valuable insights. FEMA must lead by listening to and working collaboratively with local and state officials to craft policies that can be implemented effectively and sustainably.

Our offices have heard significant concerns from these communities about the decision to abruptly cease processing Letters of Map Revision – Based on Fill (LOMR-F) and Conditional Letters of Map Revision – Based on Fill (CLOMR-F) on August 1<sup>st</sup>, 2024, with little to no notice. The timing of this action leaves communities scrambling to comply with FEMA's plan to reach compliance with the National Marine Fisheries Service's (NMFS) 2016 Biological Opinion ("BiOp") and its Reasonable and Prudent Alternatives (RPAs).

We do not doubt the necessity of enhanced conservation efforts, including protection of Oregon's declining salmon population. The worsening wildfire intensity and smoke pollution is also an urgent reminder of the scale of the climate crisis. Communities across the state share these concerns and the fundamental drive to protect the unique environment in which we live.

We respectfully request that you make several key changes to FEMA's revised timeline. We ask that FEMA provide an additional 90 days for Oregon jurisdictions to consider the three proposed "Pre-Implementation Compliance Measures," changing the December 1<sup>st</sup>, 2024 selection date to

March 1<sup>st</sup>, 2025. Accordingly, the automatic adoption of the permit-by-permit PICM should also be delayed until at least March 1<sup>st</sup>, 2025 and accompanied by collaborative action with the state to demonstrate compatibility with state land use law.

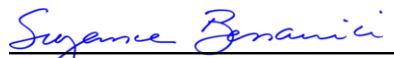
Additionally, FEMA should develop a pathway for continued review of LOMR and CLOMR cases during this period as it finalizes its Environmental Impact Statement. The pause to these processes initiated on August 1<sup>st</sup> was not sufficiently noticed to communities and future timeline changes should be announced with significantly greater notice. If applicants need additional consultation and technical assistance, FEMA should make staff available to assist.

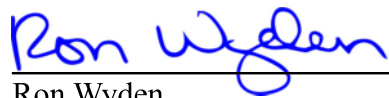
We also request that you fully consider the State of Oregon's request that FEMA add a pathway for the state to develop and adopt a statewide regulatory package that achieves compliance with the "no net loss" standard. Allowing state agencies with the staff and expertise to develop a policy that is consistent statewide would reduce capacity and cost burdens for local governments and simplify integration of any new requirements with existing state land use law.


Finally, we request a written explanation of the decision-making process that led to the PICM taking effect well before the completion of the Environmental Impact Statement. Providing community members with a clear understanding of this process is key to maintaining transparency and demonstrating consistency with the NEPA process.

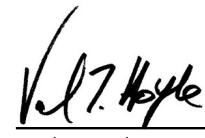
We remain committed to a collaborative path forward that responds to the dual imperatives of economic stability and environmental preservation. We appreciate FEMA's shared commitment to these goals and thank you for your full and fair consideration of our concerns. For any questions, please contact Espen Swanson in Congresswoman Bonamici's office at [Espen.Swanson@mail.house.gov](mailto:Espen.Swanson@mail.house.gov); Ree Armitage in Senator Ron Wyden's office at [Ree\\_Armitage@wyden.senate.gov](mailto:Ree_Armitage@wyden.senate.gov); Gustavo Guerrero in Senator Jeff Merkley's office at [Gustavo\\_Guerrero@merkley.senate.gov](mailto:Gustavo_Guerrero@merkley.senate.gov); Olivia Wilhite in Congresswoman Val Hoyle's office at [Olivia.Wilhite@mail.house.gov](mailto:Olivia.Wilhite@mail.house.gov) or Alexander O'Keefe in Congresswoman Andrea Salinas' office at [Alexander.OKeefe@mail.house.gov](mailto:Alexander.OKeefe@mail.house.gov).

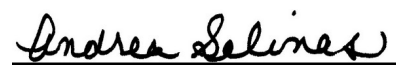
Sincerely,


  
Suzanne Bonamici  
Member of Congress

  
Ron Wyden  
United States Senator

  
Jeffrey A. Merkley  
United States Senator

  
Val Hoyle  
Member of Congress

  
Andrea Salinas  
Member of Congress

  
Earl Blumenauer  
Member of Congress



NFIP Oregon Implementation Program Guidance

# Model Floodplain Management Ordinance

For Participating Communities in the  
Implementation Plan Area



**FEMA**

Federal Emergency Management Agency  
Region 10  
Department of Homeland Security  
130 – 228<sup>th</sup> Street SW  
Bothell, WA 98021

Note to Communities: This document presents the draft model ordinance that for the Pre-Implementation Compliance Measures and is intended to closely represent most of the language that will be presented as Pathway A of the Draft Implementation Plan. It is built off the 2020 State of Oregon Model Flood Hazard Management Ordinance and the 2018 iteration of the Oregon Model ordinance for ESA Integration. It reflects the NMFS 2016 Biological Opinion (BiOp) (except where noted) and is informed by the 2023 NEPA Scoping effort.

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## Acronyms and Abbreviations

BiOp	Biological Opinion
CFR	Code of Federal Regulations
CLOMR	Conditional Letter of Map Revision
CRS	Community Rating System
dbh	diameter breast height
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
LID	Low-Impact Development
LOMR	Letter of Map Revision
MHHW	Marine Higher-High Water line
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
OHWM	Ordinary High Water Mark
ORS	Oregon Revised Statutes
ORSC	Oregon Residential Specialty Code
OSSC	Oregon Structural Specialty Code
RBZ	Riparian buffer zone
SFHA	Special Flood Hazard Area
TB	Technical Bulletin

# SECTION 1. Introduction

FEMA has developed this model flood hazard management ordinance (“2024 model ordinance”) to address the requirements outlined in the Draft Implementation Plan for National Flood Insurance Program (NFIP)-Endangered Species Act (ESA) Integration in Oregon (“Oregon Implementation Plan”). The Federal Emergency Management Agency (FEMA) consulted with the National Marine Fisheries Service (NMFS) on potential effects of the implementation of the NFIP in Oregon on listed species under NMFS authority. In 2016, NMFS issued a Biological Opinion (BiOp), which recommended changes to the implementation of the NFIP in Oregon within the plan area (see the 2024 Draft Oregon Implementation Plan for NFIP-ESA Integration [2024 Draft Implementation Plan] for a description of the plan area).

As a result of the BiOp issued by NMFS, communities are required to demonstrate how floodplain development is compliant with the Endangered Species Act in the SFHA while the 2024 Draft Implementation Plan undergoes an Environmental Impact Statement (EIS). The 2024 model ordinance provides the tools a community would need to implement “Path A” of the 2024 Draft Implementation Plan and serves as one of three actions a community can take under Pre-Implementation Compliance Measures (PICM).

The regulatory language contained within the 2024 model ordinance can be adopted verbatim and incorporated into local floodplain and land use regulations, or a community may select those sections that are missing from its current floodplain ordinance and adopt those sections. The State of Oregon’s Model Flood Hazard Management Ordinance (2020) was used as a starting point, with additions to provide compliance with the Oregon Implementation Plan. The additional sections are clearly noted with yellow highlighting to simplify implementation for Oregon communities in the plan area that have already adopted the Oregon Model Flood Hazard Management Ordinance (2020).

This 2024 model ordinance provides a set of provisions to protect the built environment from flood damage and to minimize potential impacts of construction and reconstruction on public health and safety, property, water quality, and aquatic and riparian habitats. The requirements pertain to new development in Special Flood Hazard Area (see definitions), which includes the maintenance, repair, or remodel of existing structures and utilities when the existing footprint is expanded and/or the floodplain is further encroached upon.

The Oregon Implementation Plan and this model ordinance do not change the definition of development in 44 Code of Federal Regulations [CFR] 59.1.

“Development” is defined as “any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.” (44 C.F.R. 59.1)

The 2024 model ordinance provides compliance with federal and state statutes and with the Oregon Implementation Plan. The 2024 model ordinance conforms to the following:

1. The requirements of the NFIP, as specified in 44 CFR 59 and 60.
2. Oregon State codes to protect structures from flood damage that are specified in Oregon Structural Specialty Code (OSSC), Section 1612 and Oregon Residential Specialty Code (ORSC), Section R322.
3. Oregon Statewide Land Use Planning Goals
4. Provisions needed to meet the requirements of the Oregon Implementation Plan for NFIP-ESA Integration. These sections are highlighted in yellow in the model ordinance.

This 2024 model ordinance provides communities with ordinance language that complies with the NFIP-ESA Integration Implementation Plan. Adoption of the ordinance language will ensure compliance with the minimum standards for participation in the NFIP in the plan area in Oregon. Prior to adoption of the ordinance language, communities must have their locally proposed draft language reviewed by FEMA and/or the Oregon Department of Land Conservation and Development.

The model flood hazard ordinance includes standards and provisions that encourage sound floodplain management. The language is based on the minimum requirements of the NFIP found in 44 CFR 59 and 60, Oregon's statewide land use planning Goal 7, and Oregon specialty codes. The new language added to the state model floodplain ordinance, highlighted in yellow, provides compliance with the ESA for floodplain development in the plan area.

Adherent to the NMFS 2016 Biological Opinion, mitigation is necessary to ensure a no net loss in floodplain functions. FEMA's 2024 Draft Oregon Implementation Plan identifies proxies that provide measurable actions that can prevent the no net loss of the parent floodplain functions. These proxies include undeveloped space, pervious surfaces, and trees to account for a no net loss in respective floodplain functions of floodplain storage, water quality, and vegetation. Mitigation of these proxies must be completed to ensure compliance with no net loss standards. No net loss applies to the net change in floodplain functions as compared to existing conditions at the time of proposed development and mitigation must be addressed to the floodplain function that is receiving the detrimental impact.

### 1.1. How to Use this Document

This 2024 model ordinance includes a Table of Contents and a Regulatory Crosswalk that identifies the federal and state standards that align to and are reflected in each section. Communities will need to review their ordinances and ensure that all the required components are included.

Please refer to [FEMA's website](#) for information on how to determine whether or not your community is within the plan area.

### 1.1.1. ORDINANCE LANGUAGE LEGEND:

The colors are used in the text in the model ordinance to denote specific actions or sections with specific applicability.

- Black: Represents the existing NFIP and current state minimum requirements that are found in the 2020 Oregon Model Flood Hazard Management Ordinance.
- Red: Represents language that must be replaced with community specific information. Only include the appropriate language for your community.
- Purple: Represents language required for communities with Coastal High Hazard Areas mapped by FEMA (V Zones or Coastal A Zones). (*DELETE ALL PURPLE LANGUAGE IF NOT A COASTAL COMMUNITY*).
- Blue: Represents hyperlinks to other sections of the document or external websites.
- Yellow highlighting: Represents new ordinance language not in the 2020 Oregon Model Flood Hazard Management Ordinance. Communities that have previously adopted the state model ordinance may focus on the yellow highlighted sections.

### 1.2. Changes from the 2020 Oregon Model Flood Hazard Management Ordinance

This 2024 version of the Oregon Model Flood Hazard Ordinance (to be referred to herein as the “2024 Model Ordinance”), varies from the 2020 Oregon Model Flood Hazard Management Ordinance. with the addition of new content to be included for ESA compliance for NFIP-participating communities in the plan area. If no part of the Special Flood Hazard Area (SFHA) in your NFIP-participating community is in the Oregon NFIP-ESA Integration plan area, your community may continue to use the 2020 Oregon Model Flood Hazard Management Ordinance.

In general, the ordinance was revised to ensure that the implementation of the NFIP-ESA integration no net loss standards avoids or offsets adverse impacts on threatened and endangered species and their critical habitat. A summary of the primary changes found in the 2024 model ordinance is provided below:

1. New language has been added to incorporate the following no net loss standards:
  - a. No net loss of undeveloped space (see Section 6.1.1).
  - b. No net loss of pervious surface. (see Section 6.1.2).
  - c. No net loss of trees equal to or greater than 6 inches dbh (i.e., tree diameter measured at 4.5 feet from the ground surface). (see Section 6.1.3).

2. Some definitions (see 2.0) have been added to provide context for the new no net loss standards from the Oregon Implementation Plan.
3. Language has been added:
  - a. (see 6.3) to address activities that may require a floodplain development permit but are exempt from the no net loss requirement per the BiOp.
  - b. (see 6.4) to address the specific requirements of the Riparian Buffer Zone (RBZ).
4. In general, the language in the 2024 model ordinance mirrors the language from the 2020 Oregon Model Flood Hazard Management Ordinance. Minor edits to the 2020 language have been made for clarity, punctuation, and grammar.

### 1.3. Community Rating System

Implementation of the new no net loss standards related to NFIP-ESA integration may be eligible for credit under the Community Rating System (CRS). The CRS is explained further in CRS Credit for Habitat Protection, available online at: <https://crsresources.org/files/guides/crs-credit-for-habitat-protection.pdf>, and the 2017 CRS Coordinators' Manual, available online at: [https://www.fema.gov/sites/default/files/documents/fema\\_community-rating-system\\_coordinators-manual\\_2017.pdf](https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_coordinators-manual_2017.pdf), and the 2021 Addendum to the 2017 CRS Coordinator's Manual, available online at: [https://www.fema.gov/sites/default/files/documents/fema\\_community-rating-system\\_coordinator-manual\\_addendum-2021.pdf](https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_coordinator-manual_addendum-2021.pdf). The Association of State Floodplain Managers' Green Guide, also provides useful information on development techniques that avoid impacts on natural functions and values of floodplains. This document is available at: [www.floodsciencecenter.org/products/crs-community-resilience/green-guide/](http://www.floodsciencecenter.org/products/crs-community-resilience/green-guide/). Communities interested in CRS credits should contact their CRS specialist for additional information and review.

Implementation of the no net loss standards would most likely contribute to credits under the following CRS activities:

- Activity 430 Higher Regulatory Standards
  - Development Limitations
    - Prohibition of all fill (DL1a): This credit is for prohibiting all filling in the regulatory floodplain. To meet this standard, communities may NOT approve Conditional Letters or Letters of Map Revision based on Fill (CLOMR-F or LOMR-F). If a CLOMR-F or LOMR-F is issued for a property in a community, then DL1 credit will be denied. This applies to CLOMRs and LOMRs that include filling as part of the reason for requesting a map change. Minor filling may be allowed where needed to protect or restore natural floodplain functions, such as part of a channel restoration project.

- The CRS manual describes a number of regulatory approaches that do not warrant credit under DL1; however, because the Oregon NFIP-ESA integration no net loss standards exceed the approaches described in the manual, a community meeting the Oregon no net loss standards should qualify for credit under DL1.

- Compensatory storage (DL1b): This credit is for regulations that require new development to provide compensatory storage at hydraulically equivalent sites up to a ratio of 1.5:1. Credit is not provided for:

- Compensatory storage requirements in floodways only or in V Zones only, or
- Stormwater management regulations that require a developer to compensate for any increase in runoff created by the development. This is credited under Activity 450.

- Activity 450 Stormwater Management

- Stormwater management regulations (SMR – 452a): This credit is the sum of four sub-elements: Size of development (Section 452.a(1), SZ); design storm used (Section 452.a(2), DS); low-impact development (LID) regulations (Section 452.a(3), LID); and public agency authority to inspect and maintain, at the owner's expense, private facilities constructed to comply with the ordinance (Section 452.a.(4), PUB).

- LID credits the community's regulatory language that requires the implementation of LID techniques to the maximum extent feasible to control peak runoff when new development occurs. LID techniques can significantly reduce or eliminate the increase in stormwater runoff created by traditional development, encourage aquifer recharge, and promote better water quality.

## SECTION 2. Regulatory Crosswalk

The following table presents a crosswalk of the model ordinance sections against the relevant federal and state laws, regulations, and policies. The new sections related to the Oregon NFIP-ESA integration implementation (yellow highlighted sections of the model ordinance) are not listed in this table and are related to compliance with the ESA.

Ordinance Section	44 CFR and Technical Bulletin (TB) Citation(s)	State of Oregon Citation(s) (Goal 7, Specialty Codes*, Oregon Revised Statutes [ORS])
1.1 Statutory Authorization	59.22(a)(2)	Goal 7; ORS 203.035 (Counties), ORS 197.175 (Cities)
1.2 Findings of Fact	59.22(a)(1)	Goal 7
1.3 Statement of Purpose	59.2; 59.22(a)(1) and (8); 60.22	Goal 7
1.4 Methods of Reducing Flood Losses	60.22	Goal 7
2.0 Definitions	59.1; 33 CFR 328.3(c)(7)	Goal 7
3.1 Lands to Which this Ordinance Applies	59.22(a)	Goal 7
3.2 Basis for Establishing the Special Flood Hazard Areas	59.22(a)(6); 60.2(h)	Goal 7
3.3 Coordination with Specialty Codes Adopted by the State of Oregon Building Codes Division		ORS 455
3.4.1 Compliance	60.1(b) – (d)	Goal 7
3.4.2 Penalties for Noncompliance	60.1(b) – (d)	Goal 7
3.5.1 Abrogation	60.1(b) – (d)	Goal 7
3.5.2 Severability		
3.6 Interpretation	60.1(b) – (d)	Goal 7
3.7.1 Warning		
3.7.2 Disclaimer of Liability		
4.1 Designation of the Floodplain Administrator	59.22(b)(1)	Goal 7
4.2.1 Permit Review	60.3(a)(1) – (3); 60.3(c)(10)	Goal 7
4.2.2 Information to be Obtained and Maintained	59.22(a)(9)(iii); 60.3(b)(5)(i) and (iii); 60.3(c)(4); 60.3(b)(3); 60.6(a)(6)	Goal 7; 105.9; 110.33; R106.1.4; R109.1.3; R109.1.6.1; R322.1.10; R322.3.6

Ordinance Section	44 CFR and Technical Bulletin (TB) Citation(s)	State of Oregon Citation(s) (Goal 7, Specialty Codes*, Oregon Revised Statutes [ORS])
4.2.3.1 Community Boundary Alterations	59.22(a)(9)(v)	Goal 7
4.2.3.2 Watercourse Alterations	60.3(b)(6) – (7), 65.6(12-13)	Goal 7
4.2.3.3 Requirement to Submit New Technical Data	65.3, 65.6, 65.7, 65.12	Goal 7
4.2.4 Substantial Improvement and Substantial Damage Assessments and Determinations	59.1; 60.3(a)(3); 60.3(b)(2); 60.3(b)(5)(i); 60.3(c)(1), (2), (3), (5) – (8), (10), (12); 60.3(d)(3); 60.3(e)(4), (5), (8)	Goal 7
4.3.1 Floodplain Development Permit Required	60.3(a)(1)	Goal 7
4.3.2 Application for Development Permit	60.3(a)(1); 60.3(b)(3); 60.3(c)(4)	Goal 7; Oregon Residential Specialty Code (R) 106.1.4; R322.3.6
4.4 Variance Procedure	60.6(a)	Goal 7
4.4.1 Conditions for Variances	60.6(a)	Goal 7
4.4.2 Variance Notification	60.6(a)(5)	Goal 7
5.1.1 Alteration of Watercourses	60.3(b)(6) and (7)	Goal 7
5.1.2 Anchoring	60.3(a)(3); 60.3(b)(1), (2), and (8)	Goal 7; R322.1.2
5.1.3 Construction Materials and Methods	60.3(a)(3), TB 2; TB 11	Goal 7; R322.1.3; R322.1.3
5.1.4.1 Water Supply, Sanitary Sewer, and On-Site Waste Disposal Systems	60.3(a)(5) and (6)	Goal 7; R322.1.7
5.1.4.2 Electrical, Mechanical, Plumbing, and Other Equipment	60.3(a)(3)	Goal 7; R322.1.6;
5.1.5 Tanks		R322.2.4; R322.3.7
5.1.6 Subdivision Proposals	60.3(a)(4)(i) – (iii); 60.3(b)(3)	Goal 7
5.1.7 Use of Other Base Flood Data	60.3(a)(3); 60.3(b)(4); 60.3(b)(3); TB 10-01	Goal 7; R322.3.2
5.1.8 Structures Located in Multiple or Partial Flood Zones		R322.1
5.2.1 Flood Openings	60.3(c)(5); TB 1; TB 11	Goal 7; R322.2.2;

Ordinance Section	44 CFR and Technical Bulletin (TB) Citation(s)	State of Oregon Citation(s) (Goal 7, Specialty Codes*, Oregon Revised Statutes [ORS])
		R322.2.2.1
5.2.2 Garages	TB 7-93	R309
5.2.3.1 Before Regulatory Floodway	60.3(c)(10)	Goal 7
5.2.3.2 Residential Construction	60.3(c)(2)	Goal 7
5.2.3.3 Non-residential Construction	60.3(c)(3) – (5); TB 3	Goal 7; R322.2.2; R322.2.2.1
5.2.3.4 Manufactured Dwellings	60.3(b)(8); 60.3(c)(6)(iv); 60.3(c)(12)(ii)	Goal 7; State of OR Manufactured Dwelling Installation Specialty Code (MDISC) and associated statewide Code Interpretation dated 1/1/2011
5.2.3.5 Recreational Vehicles	60.3(c)(14)(i) – (iii)	Goal 7
5.2.3.6 Appurtenant (Accessory) Structures	60.3(c)(5); TB 1; TB 7-93	Oregon Structural Specialty Code (S) 105.2; R105.2
5.2.4 Floodways	60.3(d); FEMA Region X Fish Enhancement Memo (Mark Riebau)	Goal 7
5.2.5 Standards for Shallow Flooding Areas	60.3(c)(7), (8), (11), and (14)	Goal 7
5.3 Specific Standards for Coastal High Hazard Flood Zones, and 5.3.1 Development Standards	60.3(e); TB 5; TB 8; TB 9	Goal 7; R322.3.1; R322.3.2; R322.3.3; R322.3.4; R322.3.5
5.3.1.1 Manufactured Dwelling Standards for Coastal High Hazard Zones	60.3(e)(8)(i) – (iii)	Goal 7; RR322.3.2; State of OR Manufactured Dwelling Installation Specialty Code (MDISC) and associated statewide Code Interpretation dated 1/1/2011

## Regulatory Crosswalk

Ordinance Section	44 CFR and Technical Bulletin (TB) Citation(s)	State of Oregon Citation(s) (Goal 7, Specialty Codes*, Oregon Revised Statutes [ORS])
5.3.1.2 Recreational Vehicle Standards for Coastal High Hazard Zones	60.3(e)(9)(i)- (iii)	Goal 7
5.3.1.3 Tank Standards for Coastal High Hazard Zones		R322.2.4; R322.3.7

\*[Link to Oregon Specialty Codes \(https://www.oregon.gov/bcd/codes-stand/Pages/adopted-codes.aspx\)](https://www.oregon.gov/bcd/codes-stand/Pages/adopted-codes.aspx)

# SECTION 3. Model Ordinance Language

## 1.0 STATUTORY AUTHORITY, FINDINGS OF FACT, PURPOSE, AND METHODS

### 1.1 STATUTORY AUTHORIZATION

The State of Oregon has in **ORS 203.035 (COUNTIES) OR ORS 197.175 (CITIES)** delegated the responsibility to local governmental units to adopt floodplain management regulations designed to promote the public health, safety, and general welfare of its citizenry.

Therefore, the **COMMUNITY NAME** does ordain as follows:

### 1.2 FINDINGS OF FACT

- A. The flood hazard areas of **COMMUNITY NAME** **preserve the natural and beneficial values served by floodplains but** are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.
- B. These flood losses may be caused by the cumulative effect of obstructions in special flood hazard areas which increase flood heights and velocities, and when inadequately anchored, cause damage in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to flood loss.

### 1.3 STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote public health, safety, and general welfare, and to minimize public and private losses due to flooding in special flood hazard areas by provisions designed to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Preserve natural and beneficial floodplain functions;**
- D. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- E. Minimize prolonged business interruptions;

- F. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in special flood hazard areas;
- G. 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;
- H. Notify potential buyers that the property is in a special flood hazard area;
- I. Notify those who occupy special flood hazard areas that they assume responsibility for their actions;
- J. 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:

- A. Restricting or prohibiting development which 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;
- B. Requiring that development vulnerable to floods, including facilities which 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, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage;
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.
- F. Employing a standard of “no net loss” of natural and beneficial floodplain functions.

#### 2.0 DEFINITIONS

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

**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 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.

**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, V1-30, VE). “Special flood hazard area” is synonymous in meaning and definition with the phrase “area of special flood hazard.”

**Base flood:** The flood having a one percent chance of being equaled or exceeded in any given year.

**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 subgrade (below ground level) on all sides.

**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.

**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.

**Fill:** Placement of any materials such as soil, gravel, crushed stone, or other materials that change the elevation of the floodplain. The placement of fill is considered “development.”

**Fish Accessible Space:** The volumetric space available to fish to access.

**Fish Egress-able Space:** The volumetric space available to fish to exit or leave from.

**Flood or Flooding:**

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

(3) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (a)(2) 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.

(b) 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 (a)(1) 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.

**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).

**Flood Insurance Study (FIS):** See "Flood elevation study."

**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 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, but does not include long-term storage or related manufacturing facilities.

**Green Infrastructure:** Use of natural or human-made hydrologic features to manage water and provide environmental and community benefits. Green infrastructure uses management approaches and technologies that use, enhance, and/or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration, and reuse. At a large scale, it is an interconnected network of green space that conserves natural systems and provides assorted benefits to human populations. At a local scale, it manages stormwater by infiltrating it into the ground where it is generated using vegetation or porous surfaces, or by capturing it for later reuse. Green infrastructure practices can be used to achieve no net loss of pervious surface by creating infiltration of stormwater in an amount equal to or greater than the infiltration lost by the placement of new impervious surface.

**Habitat Restoration Activities:** Activities with the sole purpose of restoring habitats that have only temporary impacts and long-term benefits to habitat. Such projects cannot include ancillary structures such as a storage shed for maintenance equipment, must demonstrate that no rise in the BFE would occur as a result of the project and obtain a CLOMR and LOMR, and have obtained any other required permits (e.g., CWA Section 404 permit).

**Hazard Trees:** Standing dead, dying, or diseased trees or ones with a structural defect that makes it likely to fail in whole or in part and that present a potential hazard to a structure or as defined by the community.

**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:

- (a) 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;
- (b) 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;
- (c) 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
- (d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
  - (1) By an approved state program as determined by the Secretary of the Interior or
  - (2) Directly by the Secretary of the Interior in states without approved programs.

**Hydraulically Equivalent Elevation:** A location (e.g., a site where no net loss standards are implemented) that is approximately equivalent to another (e.g., the impacted site) relative to the same 100-year water surface elevation contour or base flood elevation. This may be estimated based on a point that is along the same approximate line perpendicular to the direction of flow.

**Hydrologically Connected:** The interconnection of groundwater and surface water such that they constitute one water supply and use of either results in an impact to both.

**Impervious Surface:** A surface that cannot be penetrated by water and thereby prevents infiltration and increases the amount and rate of surface water runoff, leading to erosion of stream banks, degradation of habitat, and increased sediment loads in streams. Such surfaces can accumulate large amounts of pollutants that are then “flushed” into local water bodies during storms and can also interfere with recharge of groundwater and the base flows to water bodies.

**Low Impact Development:** An approach to land development (or redevelopment) that works with nature to manage stormwater as close to its source as possible. It employs principles such as preserving and recreating natural landscape features and minimizing effective imperviousness to create functional and appealing site drainage that treats stormwater as a resource rather than a waste product. Low Impact Development refers to designing and implementing practices that can be employed at the site level to control stormwater and help replicate the predevelopment hydrology of the site. Low impact development helps achieve no net loss of pervious surface by infiltrating stormwater in an amount equal to or greater than the infiltration lost by the placement of new impervious surface. LID is a subset of green infrastructure.

**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.

**Manufactured dwelling:** 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 dwelling" does not include a "recreational vehicle" and is synonymous with “manufactured home.”

**Manufactured dwelling park or subdivision:** A parcel (or contiguous parcels) of land divided into two or more manufactured dwelling lots for rent or sale.

**Mean Higher-High Water:** The average of the higher-high water height of each tidal day observed over the National Tidal Datum Epoch.

**Mean sea level:** For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

**New construction:** 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 **COMMUNITY NAME** and includes any subsequent improvements to such structures.

**No Net Loss:** A standard where adverse impacts must be avoided or offset through adherence to certain requirements so that there is no net change in the function

from the existing condition when a development application is submitted to the state, tribal, or local jurisdiction. The floodplain functions of floodplain storage, water quality, and vegetation must be maintained.

**Offsite:** Mitigation occurring outside of the project area.

**Onsite:** Mitigation occurring within the project area.

**Ordinary High Water Mark:** The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas.

**Qualified Professional:** Appropriate subject matter expert that is defined by the community.

**Reach:** A section of a stream or river along which similar hydrologic conditions exist, such as discharge, depth, area, and slope. It can also be the length of a stream or river (with varying conditions) between major tributaries or two stream gages, or a length of river for which the characteristics are well described by readings at a single stream gage.

**Recreational vehicle:** A vehicle which is:

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

**Riparian:** Of, adjacent to, or living on, the bank of a river, lake, pond, or other water body.

**Riparian Buffer Zone (RBZ):** The outer boundary of the riparian buffer zone is measured from the ordinary high water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water line of a marine shoreline or tidally influenced river reach to 170 feet horizontally on each side of the stream or 170 feet inland from the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel. Where the RBZ is larger than the special flood hazard area, the no net loss standards shall only apply to the area within the special flood hazard area.

**Riparian Buffer Zone Fringe:** The area outside of the RBZ and floodway but still within the SFHA.

**Silviculture:** The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands.

**Special flood hazard area:** See "Area of special flood hazard" for this definition.

**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 dwelling 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 dwelling.

**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:

- (a) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- (b) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

**Undeveloped Space:** The volume of flood capacity and fish-accessible/egress-able habitat from the existing ground to the Base Flood Elevation that is undeveloped. Any form of development including, but not limited to, the addition of fill, structures, concrete

structures (vaults or tanks), pilings, levees and dikes, or any other development that reduces flood storage volume and fish accessible/egress-able habitat must achieve no net loss.

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

**Violation:** The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

### **3.0 GENERAL PROVISIONS**

#### **3.1 LANDS TO WHICH THIS ORDINANCE APPLIES**

This ordinance shall apply to all special flood hazard areas within the jurisdiction of **COMMUNITY NAME**.

#### **3.2 BASIS FOR ESTABLISHING THE SPECIAL FLOOD HAZARD AREAS**

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 FLOOD INSURANCE STUDY FOR COMMUNITY"**, dated **DATE (MONTH DAY, FOUR DIGIT YEAR)**, with accompanying Flood Insurance Rate Maps (FIRMs) **LIST ALL EFFECTIVE FIRM PANELS HERE (UNLESS ALL PANELS ARE BEING REPLACED THROUGH A NEW COUNTY\_WIDE MAP THAT INCORPORATES ALL PREVIOUS PANELS/VERSIONS, IN THAT SITUATION PANELS DO NOT NEED TO BE INDIVIDUALLY LISTED)** are hereby adopted by reference and declared to be a part of this ordinance. The FIS and FIRM panels are on file at **INSERT THE LOCATION (I.E. COMMUNITY PLANNING DEPARTMENT LOCATED IN THE COMMUNITY ADMINISTRATIVE BUILDING)**.

#### **3.3 COORDINATION WITH STATE OF OREGON SPECIALTY CODES**

Pursuant to the requirement established in ORS 455 that the **COMMUNITY NAME** administers and enforces the State of Oregon Specialty Codes, the **COMMUNITY NAME** does hereby acknowledge that the Oregon Specialty Codes contain certain provisions that apply to the design and construction of buildings and structures located in special flood hazard areas. Therefore, this ordinance is intended to be administered and enforced in conjunction with the Oregon Specialty Codes.

#### **3.4 COMPLIANCE AND PENALTIES FOR NONCOMPLIANCE**

##### **3.4.1 COMPLIANCE**

All development within special flood hazard areas is subject to the terms of this ordinance and required to comply with its provisions and all other applicable regulations.

**3.4.2 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 (INFRACTION TYPE (I.E. MISDEMEANOR) AND PENALTIES PER STATE/LOCAL LAW ASSOCIATED WITH SPECIFIED INFRACTION TYPE (I.E. ANY PERSON WHO VIOLATES THE REQUIREMENTS OF THIS ORDINANCE SHALL UPON CONVICTION THEREOF BE FINED NOT MORE THAN A SPECIFIED AMOUNT OF MONEY...)

Nothing contained herein shall prevent the COMMUNITY NAME from taking such other lawful action as is necessary to prevent or remedy any violation.

**3.5 ABROGATION AND SEVERABILITY**

**3.5.1 ABROGATION**

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

**3.5.2 SEVERABILITY**

This ordinance and the various parts thereof are hereby declared to be severable. If any section clause, sentence, or phrase of the Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this Ordinance.

**3.6 INTERPRETATION**

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

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

**3.7 WARNING AND DISCLAIMER OF LIABILITY**

**3.7.1 WARNING**

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.

### **3.7.2 DISCLAIMER OF LIABILITY**

This ordinance shall not create liability on the part of the **COMMUNITY NAME**, any officer or employee thereof, or the Federal Insurance Administrator for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

## **4.0 ADMINISTRATION**

### **4.1 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR**

The **INDIVIDUAL JOB TITLE** 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.

[Additional Recommended Language Provided in Appendix B](#)

### **4.2 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR**

Duties of the floodplain administrator, or their designee, shall include, but not be limited to:

#### **4.2.1 PERMIT REVIEW**

Review all development permits to:

- A. Determine that the permit requirements of this ordinance have been satisfied;
- B. Determine that all other required local, state, and federal permits have been obtained and approved;
- C. Determine if the proposed development is located in a floodway.
  - i. If located in the floodway assure that the floodway provisions of this ordinance in section **5.2.4** are met; and
  - ii. Determine if the proposed development is located in an area where Base Flood Elevation (BFE) data is available either through the Flood Insurance Study (FIS) or from another authoritative source. If BFE data is not available then ensure compliance with the provisions of sections **5.1.7**; and

- iii. Provide to building officials the Base Flood Elevation (BFE) (ADD FREEBOARD IF COMMUNITY HAS HIGHER ELEVATION STANDARDS) applicable to any building requiring a development permit.

D. Determine if the proposed development qualifies as a substantial improvement as defined in section 2.0.

E. Determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in section 5.1.1.

F. Determine if the proposed development activity includes the placement of fill or excavation.

G. Determine whether the proposed development activity complies with the no net loss standards in Section 6.0.

#### 4.2.2 INFORMATION TO BE OBTAINED AND MAINTAINED

The following information shall be obtained and maintained and shall be made available for public inspection as needed:

A. The actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation (BFE) data is provided through the Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM), or obtained in accordance with section 5.1.7.

B. The elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of sections 4.2.1(B), 5.2.4, and 5.3.1(F), are adhered to.

C. Upon placement of the lowest floor of a structure (including basement) but prior to further vertical construction, documentation, prepared and sealed by a professional licensed surveyor or engineer, certifying the elevation (in relation to mean sea level) of the lowest floor (including basement).

D. Where base flood elevation data are utilized, As-built certification of the elevation (in relation to mean sea level) of the lowest floor (including basement) prepared and sealed by a professional licensed surveyor or engineer, prior to the final inspection.

E. Maintain all Elevation Certificates (EC) submitted to the community.

F. The elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under this ordinance and where

Base Flood Elevation (BFE) data is provided through the FIS, FIRM, or obtained in accordance with section **5.1.7**.

G. All floodproofing certificates required under this ordinance.

H. All variance actions, including justification for their issuance.

I. All hydrologic and hydraulic analyses performed as required under section **5.2.4**.

J. All Substantial Improvement and Substantial Damage calculations and determinations as required under section **4.2.4**.

K. Documentation of how no net loss standards have been met (see Section 6.0)

L. All records pertaining to the provisions of this ordinance.

#### **4.2.3 REQUIREMENT TO NOTIFY OTHER ENTITIES AND SUBMIT NEW TECHNICAL DATA**

##### **4.2.3.1 COMMUNITY BOUNDARY ALTERATIONS**

The Floodplain Administrator shall notify the Federal Insurance Administrator in writing whenever the boundaries of the community have been modified by annexation or the community has otherwise assumed authority or no longer has authority to adopt and enforce floodplain management regulations for a particular area, to ensure that all Flood Hazard Boundary Maps (FHBM) and Flood Insurance Rate Maps (FIRM) accurately represent the community's boundaries. Include within such notification a copy of a map of the community suitable for reproduction, clearly delineating the new corporate limits or new area for which the community has assumed or relinquished floodplain management regulatory authority.

##### **4.2.3.2 WATERCOURSE ALTERATIONS**

A. Notify adjacent communities, the Department of Land Conservation and Development, and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration. This notification shall be provided by the applicant to the Federal Insurance Administration as a Letter of Map Revision (LOMR) along with either:

- i. A proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or

- ii. Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance.

- B. The applicant shall be required to submit a Conditional Letter of Map Revision (CLOMR) when required under section **4.2.3.3**. Ensure compliance with all applicable requirements in sections **4.2.3.3** and **5.1.1**.

#### **4.2.3.3 REQUIREMENT TO SUBMIT NEW TECHNICAL DATA**

- A. A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, a community shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data in accordance with Title 44 of the Code of Federal Regulations (CFR), Section 65.3. The community may require the applicant to submit such data and review fees required for compliance with this section through the applicable FEMA Letter of Map Change (LOMC) process.
- B. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for:
  - i. Proposed floodway encroachments that increase the base flood elevation; and
  - ii. Proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway.
- C. An applicant shall notify FEMA within six (6) months of project completion when an applicant has obtained a Conditional Letter of Map Revision (CLOMR) from FEMA. This notification to FEMA shall be provided as a Letter of Map Revision (LOMR).

[Additional Recommended Language Provided in Appendix B](#)

#### **4.2.4 SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE ASSESSMENTS AND DETERMINATIONS**

Conduct Substantial Improvement (SI) (as defined in section 2.0) reviews for all structural development proposal applications and maintain a record of SI calculations within permit files in accordance with section **4.2.2**. Conduct Substantial Damage (SD) (as defined in section 2.0) assessments when structures are damaged due to a natural hazard event or other causes. Make SD determinations whenever structures within the special flood hazard area (as established in section **3.2**) are damaged to the extent that 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.

#### **4.3 ESTABLISHMENT OF DEVELOPMENT PERMIT**

##### **4.3.1 FLOODPLAIN DEVELOPMENT PERMIT REQUIRED**

A development permit shall be obtained before construction or development begins within any area horizontally within the special flood hazard area established in section 3.2. The development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in section 2.0, including fill and other development activities.

##### **4.3.2 APPLICATION FOR DEVELOPMENT PERMIT**

Application for a development permit may 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:

- A. In riverine flood zones, the proposed elevation (in relation to mean sea level), of the lowest floor (including basement) and all attendant utilities of all new and substantially improved structures; in accordance with the requirements of section 4.2.2.
- B. In coastal flood zones (V zones and coastal A zones), the proposed 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 structures, and whether such structures contain a basement.
- C. Proposed elevation in relation to mean sea level to which any non-residential structure will be floodproofed.
- D. Certification by a registered professional engineer or architect licensed in the State of Oregon that the floodproofing methods proposed for any non-residential structure meet the floodproofing criteria for non-residential structures in section 5.2.3.3.
- E. Description of the extent to which any watercourse will be altered or relocated.
- F. Base Flood Elevation data for subdivision proposals or other development when required per sections 4.2.1 and 5.1.6.
- G. Substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure.

H. The amount and location of any fill or excavation activities proposed.

#### 4.4 VARIANCE PROCEDURE

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

##### 4.4.1 CONDITIONS FOR VARIANCES

- A. 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 base flood level, in conformance with the provisions of sections **4.4.1 (C) and (E), and 4.4.2**. As the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases.
- B. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- C. Variances shall not be issued within any floodway if any increase in flood levels during the base flood discharge would result.
- D. Variances shall only be issued upon:
  - i. A showing of good and sufficient cause;
  - ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and,
  - iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
- E. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of section **4.4.1 (B) – (D)** are met, and 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.
- F. Variances shall not be issued unless it is demonstrated that the development will not result in net loss of the following proxies for the three floodplain functions in the SFHA: undeveloped space; pervious surface; or trees 6 inches dbh or greater (see Section 6.0 and associated options in Table 1).

[Additional Optional Language Provided in Appendix B.](#)

#### 4.4.2 VARIANCE NOTIFICATION

Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the Base Flood Elevation will result in increased premium rates for flood insurance and that such construction below the base flood elevation increases risks to life and property. Such notification and a record of all variance actions, including justification for their issuance shall be maintained in accordance with section 4.2.2.

### 5.0 PROVISIONS FOR FLOOD HAZARD REDUCTION

#### 5.1 GENERAL STANDARDS

In all special flood hazard areas, the no net loss standards (see Section 6.0) and the following standards shall be adhered to:

##### 5.1.1 ALTERATION OF WATERCOURSES

Require that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained. Require that maintenance is provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Require compliance with sections 4.2.3.2 and 4.2.3.3.

##### 5.1.2 ANCHORING

- A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
- B. All manufactured dwellings shall be anchored per section 5.2.3.4.

##### 5.1.3 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.

##### 5.1.4 UTILITIES AND EQUIPMENT

###### 5.1.4.1 WATER SUPPLY, SANITARY SEWER, AND ON-SITE WASTE DISPOSAL SYSTEMS

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

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

C. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding consistent with the Oregon Department of Environmental Quality.

#### 5.1.4.2 ELECTRICAL, MECHANICAL, PLUMBING, AND OTHER EQUIPMENT

Electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall be elevated at or above the base flood level (ANY COMMUNITY FREEBOARD REQUIREMENT) or shall be designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during conditions of flooding. In addition, electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall:

A. If replaced as part of a substantial improvement shall meet all the requirements of this section.

B. Not be mounted on or penetrate through breakaway walls.

#### 5.1.5 TANKS

A. Underground tanks shall be anchored to prevent flotation, collapse and lateral movement under conditions of the base flood.

B. Above-ground tanks shall be installed at or above the base flood level (COMMUNITY FREEBOARD REQUIREMENT) or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood.

C. In coastal flood zones (V Zones or coastal A Zones) when elevated on platforms, the platforms shall be cantilevered from or knee braced to the building or shall be supported on foundations that conform to the requirements of the State of Oregon Specialty Code.

#### 5.1.6 SUBDIVISION PROPOSALS AND OTHER PROPOSED DEVELOPMENTS

A. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, shall include within such proposals Base Flood Elevation data.

B. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) shall:

- i. Be consistent with the need to minimize flood damage.
- ii. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.
- iii. Have adequate drainage provided to reduce exposure to flood hazards.

iv. Comply with no net loss standards in section 6.0.

#### 5.1.7 USE OF OTHER BASE FLOOD ELEVATION DATA

A. When Base Flood Elevation data has not been provided in accordance with section 3.2 the local floodplain administrator shall obtain, review, and reasonably utilize any Base Flood Elevation data available from a federal, state, or other source, in order to administer section 5.0. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) must meet the requirements of section 5.1.6.

B. Base Flood Elevations shall be determined for development proposals that are 5 acres or more in size or are 50 lots or more, whichever is lesser in any A zone that does not have an established base flood elevation. Development proposals located within a riverine unnumbered A Zone shall be reasonably safe from flooding; the test of reasonableness includes use of historical data, high water marks, FEMA provided Base Level Engineering data, and photographs of past flooding, etc... where available. (REFERENCE TO ANY OF THIS TYPE OF INFORMATION TO BE USED FOR REGULATORY PURPOSES BY YOUR COMMUNITY, I.E. BASE LEVEL ENGINEERING DATA, HIGH WATER MARKS, HISTORICAL OR OTHER DATA THAT WILL BE REGULATED TO, THIS MAY BE NECESSARY TO ENSURE THAT THE STANDARDS APPLIED TO RESIDENTIAL STRUCTURES ARE CLEAR AND OBJECTIVE. IF UNCERTAIN SEEK LEGAL ADVICE, AT A MINIMUM REQUIRE THE ELEVATION OF RESIDENTIAL STRUCTURES AND NON-RESIDENTIAL STRUCTURES THAT ARE NOT DRY FLOODPROOFED TO BE 2 FEET ABOVE HIGHEST ADJACENT GRADE). Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

#### 5.1.8 STRUCTURES LOCATED IN MULTIPLE OR PARTIAL FLOOD ZONES

In coordination with the State of Oregon Specialty Codes:

A. When a structure is located in multiple flood zones on the community's Flood Insurance Rate Maps (FIRM) the provisions for the more restrictive flood zone shall apply.

B. When a structure is partially located in a special flood hazard area, the entire structure shall meet the requirements for new construction and substantial improvements.

[Additional Recommended Language Provided in Appendix B.](#)

### 5.2 SPECIFIC STANDARDS FOR RIVERINE (INCLUDING ALL NON-COASTAL) FLOOD ZONES

These specific standards shall apply to all new construction and substantial improvements in addition to the General Standards contained in section 5.1 of this ordinance **and the no net loss standards (see Section 6.0).**

#### 5.2.1 FLOOD OPENINGS

All new construction and substantial improvements with fully enclosed areas below the lowest floor (excluding basements) are subject to the following requirements. Enclosed areas below the Base Flood Elevation, including crawl spaces shall:

- A. Be designed to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters;
- B. Be used solely for parking, storage, or building access;
- C. Be certified by a registered professional engineer or architect or meet or exceed all of the following minimum criteria:
  - i. A minimum of two openings;
  - ii. The total net area of non-engineered openings shall be not less than one square inch for each square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls;
  - iii. The bottom of all openings shall be no higher than one foot above grade;
  - iv. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area; and,
  - v. All additional higher standards for flood openings in the State of Oregon Residential Specialty Codes Section R322.2.2 shall be complied with when applicable.

**5.2.2 GARAGES**

- A. Attached garages may be constructed with the garage floor slab below the Base Flood Elevation (BFE) in riverine flood zones, if the following requirements are met:
- i. If located within a floodway the proposed garage must comply with the requirements of section **5.2.4**;
  - ii. The floors are at or above grade on not less than one side;
  - iii. The garage is used solely for parking, building access, and/or storage;
  - iv. The garage is constructed with flood openings in compliance with section **5.2.1** to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater;
  - v. The portions of the garage constructed below the BFE are constructed with materials resistant to flood damage;
  - vi. The garage is constructed in compliance with the standards in section **5.1**; and,
  - vii. The garage is constructed with electrical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.
- B. Detached garages must be constructed in compliance with the standards for appurtenant structures in section **5.2.3.6** or non-residential structures in section **5.2.3.3** depending on the square footage of the garage.

**5.2.3 FOR RIVERINE (NON-COASTAL) SPECIAL FLOOD HAZARD AREAS WITH BASE FLOOD ELEVATIONS**

In addition to the general standards listed in section **5.1** the following specific standards shall apply in Riverine (non-coastal) special flood hazard areas with Base Flood Elevations (BFE): Zones A1-A30, AH, and AE.

**5.2.3.1 BEFORE REGULATORY FLOODWAY**

In areas where a regulatory floodway has not been designated, no new construction, substantial improvement, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's Flood Insurance Rate Map (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 and will not

result in the net loss of flood storage volume. When determined that structural elevation is not possible and where the placement of fill cannot meet the above standard, impacts to undeveloped space must adhere to the no net loss standards in section 6.1.C.

#### 5.2.3.2 RESIDENTIAL CONSTRUCTION

- A. New construction, conversion to, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at or above the Base Flood Elevation (BFE) (ADDITIONAL FREEBOARD FOR YOUR COMMUNITY – RECOMMEND MINIMUM OF 1FT ABOVE BFE).
- B. Enclosed areas below the lowest floor shall comply with the flood opening requirements in section 5.2.1.

#### 5.2.3.3 NON-RESIDENTIAL CONSTRUCTION

- A. New construction, conversion to, and substantial improvement of any commercial, industrial, or other non-residential structure shall:
  - i. Have the lowest floor, including basement elevated at or above the Base Flood Elevation (BFE) (ANY ADDITIONAL FREEBOARD REQUIREMENTS FOR YOUR COMMUNITY); or
  - ii. Together with attendant utility and sanitary facilities:
    - a. Be floodproofed so that below 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; and,
    - 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 section based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth section 4.2.2.
- B. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in section 5.2.1.

- C. Applicants floodproofing non-residential buildings shall be notified that flood insurance premiums will be based on rates that are one (1) foot below the floodproofed level (e.g. a building floodproofed to the base flood level will be rated as one (1) foot below.

#### **5.2.3.4 MANUFACTURED DWELLINGS**

- A. Manufactured dwellings to be placed (new or replacement) or substantially improved that are supported on solid foundation walls shall be constructed with flood openings that comply with section **5.2.1**;
- B. The bottom of the longitudinal chassis frame beam shall be at or above Base Flood Elevation;
- C. Manufactured dwellings to be placed (new or replacement) or substantially improved shall be anchored to prevent flotation, collapse, and lateral movement during the base flood. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques), and;
- D. Electrical crossover connections shall be a minimum of twelve (12) inches above Base Flood Elevation (BFE).

#### **5.2.3.5 RECREATIONAL VEHICLES**

Recreational vehicles placed on sites are required to:

- A. Be on the site for fewer than 180 consecutive days, and
- 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 section **5.2.3.4**, including the anchoring and elevation requirements for manufactured dwellings.

#### **5.2.3.6 APPURTENANT (ACCESSORY) STRUCTURES**

Relief from elevation or floodproofing requirements for residential and non-residential structures in Riverine (Non-Coastal) flood zones may be granted for appurtenant structures that meet the following requirements:

- A. Appurtenant structures located partially or entirely within the floodway must comply with requirements for development within a floodway found in section **5.2.4**;
- B. Appurtenant structures must only be used for parking, access, and/or storage and shall not be used for human habitation;

- C. In compliance with State of Oregon Specialty Codes, appurtenant structures on properties that are zoned residential are limited to one-story structures less than 200 square feet, or 400 square feet if the property is greater than two (2) acres in area and the proposed appurtenant structure will be located a minimum of 20 feet from all property lines. Appurtenant structures on properties that are zoned as non-residential are limited in size to 120 square feet;
- D. The portions of the appurtenant structure located below the Base Flood Elevation must be built using flood resistant materials;
- E. The appurtenant structure must be adequately anchored to prevent flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood;
- F. The appurtenant structure must be designed and constructed to equalize hydrostatic flood forces on exterior walls and comply with the requirements for flood openings in section **5.2.1**;
- G. Appurtenant structures shall be located and constructed to have low damage potential;
- H. Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed in compliance with section **5.1.5**; and,
- I. Appurtenant structures shall be constructed with electrical, mechanical, and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.

#### **5.2.4 FLOODWAYS**

Located within the special flood hazard areas established in section **3.2** are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of the floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless:
  - i. Certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment shall not result in any increase in flood levels within the community during the occurrence of the base flood discharge; or

ii. A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that conditional approval has been obtained by the Federal Insurance Administrator through the Conditional Letter of Map Revision (CLOMR) application process, all requirements established under 44 CFR 65.12 are fulfilled, and the encroachment(s) comply with the no net loss standards in section 6.0.

B. If the requirements of section 5.2.4 (A) are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard reduction provisions of section 5.0 and 6.0.

## 5.2.5 STANDARDS FOR SHALLOW FLOODING AREAS

Shallow flooding areas appear on FIRMs as AO zones with depth designations or as AH zones with Base Flood Elevations. For AO zones the base flood depths range from one (1) to three (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. For both AO and AH zones, adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

### 5.2.5.1 STANDARDS FOR AH ZONES

Development within AH Zones must comply with the standards in sections 5.1, 5.2, and 5.2.5.

### 5.2.5.2 STANDARDS FOR AO ZONES

In AO zones, the following provisions apply in addition to the requirements in sections 5.1 and 5.2.5:

A. New construction, conversion to, and substantial improvement of residential structures and manufactured dwellings within AO zones shall have the lowest floor, including basement, elevated above the highest grade adjacent to the building, at minimum to or above the depth number specified on the Flood Insurance Rate Maps (FIRM) (COMMUNITY FREEBOARD REQUIREMENT) (at least two (2) feet if no depth number is specified). For manufactured dwellings the lowest floor is considered to be the bottom of the longitudinal chassis frame beam.

B. New construction, conversion to, and substantial improvements of non-residential structures within AO zones shall either:

i. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at minimum to or above the depth number specified on the Flood Insurance Rate

Maps (FIRMS) (**COMMUNITY FREE BOARD REQUIREMENT**) (at least two (2) feet if no depth number is specified); or

- ii. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the depth number specified on the FIRM (**COMMUNITY FREEBOARD REQUIREMENT**) or a minimum of two (2) feet above the highest adjacent grade if no depth number is specified, 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 the effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as stated in section **5.2.3.3(A)(4)**.

C. Recreational vehicles placed on sites within AO Zones on the community's Flood Insurance Rate Maps (FIRM) shall either:

- i. Be on the site for fewer than 180 consecutive days, and
- ii. 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
- iii. Meet the elevation requirements of section **5.2.5.2(A)**, and the anchoring and other requirements for manufactured dwellings of section **5.2.3.4**.

D. In AO zones, new and substantially improved appurtenant structures must comply with the standards in section **5.2.3.6**.

E. In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in section **5.2.1**.

### **5.3 SPECIFIC STANDARDS FOR COASTAL HIGH HAZARD FLOOD ZONES**

Located within special flood hazard areas established in section **3.2** are Coastal High Hazard Areas, designated as Zones V1-V30, VE, V, or coastal A zones as identified on the FIRMs as the area between the Limit of Moderate Wave Action (LiMWA) and the Zone V boundary. These areas have special flood hazards associated with high velocity waters from surges and, therefore, in addition to meeting all provisions of this ordinance and the State of Oregon Specialty Codes, the following provisions shall apply in addition to the general standards provisions in section **5.1**.

5.3.1 DEVELOPMENT STANDARDS

A. All new construction and substantial improvements in Zones V1-V30 and VE, V, and coastal A zones (where base flood elevation data is available) shall be elevated on pilings and columns such that:

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

ii. 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. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those specified by the State of Oregon Specialty Codes;

B. 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 this section.

C. Obtain the elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures and whether or not such structures contain a basement. The floodplain administrator shall maintain a record of all such information in accordance with section 4.2.2.

D. Provide that all new construction and substantial improvements 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 purpose 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 designs proposed meet the following conditions:

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

969                               ii. Such enclosed space created by breakaway walls shall be useable  
970                               solely for parking of vehicles, building access, or storage. Such  
971                               space shall not be used for human habitation.

972                               iii. Walls intended to break away under flood loads shall have flood  
973                               openings that meet or exceed the criteria for flood openings in  
974                               section **5.2.1**.

975                               E. The elevated portion of the building and supporting foundation system shall  
976                               not be subject to collapse, displacement, or other structural damage due to  
977                               the effects of wind and water loads acting simultaneously on all building  
978                               components (structural and nonstructural). Maximum water loading values  
979                               to be used in this determination shall be those associated with the base  
980                               flood. Maximum wind loading values used shall be those specified by the  
981                               State of Oregon Specialty Codes.

982                               F. Prohibit the use of fill for structural support of buildings.

983                               G. All new construction shall be located landward of the reach of mean high  
984                               tide.

985                               H. Prohibit man-made alteration of sand dunes which would increase potential  
986                               flood damage.

987                               I. All structures, including but not limited to residential structures, non-  
988                               residential structures, appurtenant structures, and attached garages shall  
989                               comply with all the requirements of section **5.3.1** Floodproofing of non-  
990                               residential structures is prohibited.

991                               **5.3.1.1 MANUFACTURED DWELLING STANDARDS FOR COASTAL HIGH**  
992                               **HAZARD ZONES**

993                               All manufactured dwellings to be placed (new or replacement) or substantially  
994                               improved within Coastal High Hazard Areas (Zones V, V1-30, VE, or Coastal A)  
995                               shall meet the following requirements:

996                               A. Comply with all of the standards within section **5.3**

997                               B. The bottom of the longitudinal chassis frame beam shall be elevated to  
998                               a minimum of one foot above the Base Flood Elevation (BFE); and

999                               C. Electrical crossover connections shall be a minimum of 12 inches above  
1000                               the BFE.

1001                               **5.3.1.2 RECREATIONAL VEHICLE STANDARDS FOR COASTAL HIGH**  
1002                               **HAZARD ZONES**

1003                               Recreational Vehicles within Coastal High Hazard Areas (Zones V, V1-30, VE, or  
1004                               Coastal A) shall either:

- A. Be on the site for fewer than 180 consecutive days, and
- B. Be fully licensed and ready for highway use, on wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

### 5.3.1.3 TANK STANDARDS FOR COASTAL HIGH HAZARD ZONES

Tanks shall meet the requirements of section 5.1.5 and 6.0.

## 6.0 STANDARDS FOR PROTECTION OF SFHA FLOODPLAIN FUNCTIONS

The standards described below apply to all special flood hazard areas as defined in Section 2.0.

### 6.1 NO NET LOSS STANDARDS

- A. No net loss of the three proxies for the floodplain functions mentioned in Section 1 is required for development in the special flood hazard area that would reduce undeveloped space, increase impervious surface, or result in a loss of trees that are 6-inches dbh or greater. No net loss can be achieved by first avoiding negative effects to floodplain functions to the degree possible, then minimizing remaining effects, then replacing and/or otherwise compensating for, offsetting, or rectifying the residual adverse effects to the three floodplain functions. Prior to the issuance of any development authorization, the applicant shall:
  - i. Demonstrate a legal right by the project proponent to implement the proposed activities to achieve no net loss (e.g., property owner agreement);
  - ii. Demonstrate that financial assurances are in place for the long-term maintenance and monitoring of all projects to achieve no net loss;
  - iii. Include a management plan that identifies the responsible site manager, stipulates what activities are allowed on site, and requires the posting of signage identifying the site as a mitigation area.
- B. Compliance with no net loss for undeveloped space or impervious surface is preferred to occur prior to the loss of habitat function but, at a minimum, shall occur concurrent with the loss. To offset the impacts of delay in implementing no net loss, a 25 percent increase in the required minimum area is added for each year no net loss implementation is delayed.
- C. No net loss must be provided within, in order of preference: 1) the lot or parcel that floodplain functions were removed from, 2) the same reach of the waterbody where the development is proposed, or 3) the special flood hazard area within the same hydrologically connected area as the proposed development. Table 1 presents the no net loss ratios, which increase based on the preferences listed above.

**6.1.1 UNDEVELOPED SPACE**

A. Development proposals shall not reduce the fish-accessible and egress-able undeveloped space within the special flood hazard area.

B. A development proposal with an activity that would impact undeveloped space shall achieve no net loss of fish-accessible and egress-able space.

C. Lost undeveloped space must be replaced with fish-accessible and egress-able compensatory volume based on the ratio in Table 1 and at the same flood level at which the development causes an impact (i.e., plus or minus 1 foot of the hydraulically equivalent elevation).

i. Hydraulically equivalent sites must be found within either the equivalent 1-foot elevations or the same flood elevation bands of the development proposal. The flood elevation bands are identified as follows:

(1) Ordinary High Water Mark to 10-year,

(2) 10-year to 25-year,

(3) 25-year to 50-year,

(4) And 50-year to 100-year

ii. Hydrologically connected to the waterbody that is the flooding source;

iii. Designed so that there is no increase in velocity; and

iv. Designed to fill and drain in a manner that minimizes anadromous fish stranding to the greatest extent possible.

**6.1.2 IMPERVIOUS SURFACES**

Impervious surface mitigation shall be mitigated through any of the following options:

A. Development proposals shall not result in a net increase in impervious surface area within the SFHA, or

B. use low impact development or green infrastructure to infiltrate and treat stormwater produced by the new impervious surface, as documented by a qualified professional, or

C. If prior methods are not feasible and documented by a qualified professional stormwater retention is required to ensure no increase in peak volume or flow and to maximize infiltration, and treatment is required to

1072 minimize pollutant loading. See section 6.2.C for stormwater retention  
1073 specifications.

1074 **6.1.3 TREES**

1075 A. Development proposals shall result in no net loss of trees 6-inches dbh or  
1076 greater within the special flood hazard area. This requirement does not  
1077 apply to silviculture where there is no development.

1078 i. Trees of or exceeding 6-inches dbh that are removed from the RBZ,  
1079 Floodway, or RBZ-fringe must be replaced at the ratios in Table 1.

1080 ii. Replacement trees must be native species that would occur naturally  
1081 in the Level III ecoregion of the impact area.

1082 **6.2 STORMWATER MANAGEMENT**

1083 Any development proposal that cannot mitigate as specified in 6.1.2(A)-(B) must include  
1084 the following:

1085 A. Water quality (pollution reduction) treatment for post-construction  
1086 stormwater runoff from any net increase in impervious area; and

1087 B. Water quantity treatment (retention facilities) unless the outfall discharges  
1088 into the ocean.

1089 C. Retention facilities must:

1090 i. Limit discharge to match the pre-development peak discharge rate  
1091 (i.e., the discharge rate of the site based on its natural groundcover  
1092 and grade before any development occurred) for the 10-year peak  
1093 flow using a continuous simulation for flows between 50 percent of  
1094 the 2-year event and the 10-year flow event (annual series).

1095 ii. Treat stormwater to remove sediment and pollutants from impervious  
1096 surfaces such that at least 80 percent of the suspended solids are  
1097 removed from the stormwater prior to discharging to the receiving  
1098 water body.

1099 iii. Be designed to not entrap fish and drain to the source of flooding.

1100 iv. Be certified by a qualified professional.

1101 D. Stormwater treatment practices for multi-parcel facilities, including  
1102 subdivisions, shall have an enforceable operation and maintenance  
1103 agreement to ensure the system functions as designed. This agreement will  
1104 include:

i. Access to stormwater treatment facilities at the site by the  
COMMUNITY TYPE (e.g., city, county) for the purpose of inspection  
and repair.

ii. A legally binding document specifying the parties responsible for the  
proper maintenance of the stormwater treatment facilities. The  
agreement will be recorded and bind subsequent purchasers and  
sellers even if they were not party to the original agreement.

iii. For stormwater controls that include vegetation and/or soil  
permeability, the operation and maintenance manual must include  
maintenance of these elements to maintain the functionality of the  
feature.

iv. The responsible party for the operation and maintenance of the  
stormwater facility shall have the operation and maintenance  
manual on site and available at all times. Records of the  
maintenance and repairs shall be retained and made available for  
inspection by the COMMUNITY TYPE (e.g., city, county) for five years

### 6.3 ACTIVITIES EXEMPT FROM NO NET LOSS STANDARDS

The following activities are not subject to the no net loss standards in Section 6.1;  
however, they may not be exempt from floodplain development permit requirements.

A. Normal maintenance of structures, such as re-roofing and replacing siding,  
provided there is no change in the footprint or expansion of the roof of the  
structure;

B. Normal street, sidewalk, and road maintenance, including filling potholes,  
repaving, and installing signs and traffic signals, that does not alter  
contours, use, or alter culverts. Activities exempt do not include expansion  
of paved areas;

C. Routine maintenance of landscaping that does not involve grading,  
excavation, or filling;

D. Routine agricultural practices such as tilling, plowing, harvesting, soil  
amendments, and ditch cleaning that does not alter the ditch configuration  
provided the spoils are removed from special flood hazard area or tilled into  
fields as a soil amendment;

E. Routine silviculture practices that do not meet the definition of  
development, including harvesting of trees as long as root balls are left in  
place and forest road construction or maintenance that does not alter  
contours, use, or alter culverts;

F. Removal of noxious weeds and hazard trees, and replacement of non-native  
vegetation with native vegetation;

- G. Normal maintenance of above ground utilities and facilities, such as replacing downed power lines and utility poles provided there is no net change in footprint;
- H. Normal maintenance of a levee or other flood control facility prescribed in the operations and maintenance plan for the levee or flood control facility. Normal maintenance does not include repair from flood damage, expansion of the prism, expansion of the face or toe or addition of protection on the face or toe with rock armor.
- I. Habitat restoration activities.

#### 6.4 RIPARIAN BUFFER ZONE (RBZ)

- A. The Riparian Buffer Zone is measured from the ordinary high-water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water of a marine shoreline or tidally influenced river reach to 170 feet horizontally on each side of the stream or inland of the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel.
- B. Habitat restoration activities in the RBZ are considered self-mitigating and are not subject to the no net loss standards described above.
- C. Functionally dependent uses are only subject to the no net loss standards for development in the RBZ. Ancillary features that are associated with but do not directly impact the functionally dependent use in the RBZ (including manufacturing support facilities and restrooms) are subject to the beneficial gain standard in addition to no net loss standards.
- D. Any other use of the RBZ requires a greater offset to achieve no net loss of floodplain functions, on top of the no net loss standards described above, through the beneficial gain standard.
- E. Under FEMA's beneficial gain standard, an area within the same reach of the project and equivalent to 5% of the total project area within the RBZ shall be planted with native herbaceous and shrub vegetation and designated as open space.

Table 1 No Net Loss Standards

Basic Mitigate Ratios	Undeveloped Space (ft <sup>3</sup> )	Impervious Surface (ft <sup>2</sup> )	Trees (6" < dbh ≤ 20")	Trees (20" < dbh ≤ 39")	Trees (39" < dbh)
RBZ and Floodway	2:1*	1:1	3:1*	5:1	6:1
RBZ-Fringe	1.5:1*	1:1	2:1*	4:1	5:1

<b><u>Mitigation multipliers</u></b>					
<b>Mitigation onsite to Mitigation offsite, same reach</b>	100%	100%	100%	100%	100%
<b>Mitigation onsite to Mitigation offsite, different reach, same watershed (5<sup>th</sup> field)</b>	200% *	200%*	200%*	200%	200%

**Notes:**

1. Ratios with asterisks are indicated in the BiOp
2. Mitigation multipliers of 100% result in the required mitigation occurring at the same value described by the ratios above, while multipliers of 200% result in the required mitigation being doubled.
  - a. For example, if only 500 ft<sup>2</sup> of the total 1000 ft<sup>2</sup> of required pervious surface mitigation can be conducted onsite and in the same reach, the remaining 500 ft<sup>2</sup> of required pervious surface mitigation occurring offsite at a different reach would double because of the 200% multiplier.
3. RBZ impacts must be offset in the RBZ, on-site or off-site.
4. Additional standards may apply in the RBZ (See 6.4 Riparian Buffer Zone)



# Frequently Asked Questions about Pre-Implementation Compliance Measures

October 4, 2024

**Disclaimer:** This FAQ is general guidance based on the information available to DLCD staff at this time. It is not a DLCD decision. It is not legal advice for any specific situation. Cities and counties should consult their legal counsel for advice on specific decisions.

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## What are “Pre-Implementation Compliance Measures”?

In July 2024, the Federal Emergency Management Agency (FEMA) sent a letter to cities and counties in Oregon instructing them to make short term changes to how the city or county regulates development

in flood hazard areas. FEMA describes these short-term actions as “pre-implementation” because they are occurring before FEMA fully implements long-term changes to the National Flood Insurance Program (NFIP) to comply with the Endangered Species Act.

## What led up to PICM?

In 2009, environmental advocacy organizations sued the Federal Emergency Management Agency (FEMA) alleging that FEMA violated the Endangered Species Act by not consulting with National Marine Fisheries Services (NMFS) about how the National Flood Insurance Program (NFIP) could jeopardize threatened species. FEMA resolved the lawsuit by formally consulting with NMFS to review the impact of the NFIP. In April 2016, NMFS issued its [Biological Opinion](#) (BiOp) that concludes that the NFIP in Oregon jeopardizes the survival of several threatened species, including salmon, sturgeon, eulachon, and orcas. The BiOp contained a reasonable and prudent alternative (RPA) with recommendations from NMFS to FEMA on how to avoid jeopardizing the threatened species. In October 2021, FEMA issued a draft implementation plan on how to reduce the negative impacts of the NFIP on threatened species.

In 2023, FEMA started reviewing the draft implementation plan using a National Environmental Policy Act (NEPA) process, which is still underway. Under the NEPA process FEMA will analyze whether there are additional alternatives or changes to the 2021 draft implementation plan to consider.

In September 2023, environmental advocacy organizations filed a lawsuit alleging that FEMA has been too slow to implement the BiOp. Plaintiffs included the [Center for Biological Diversity](#), the [Northwest Environmental Defense Center](#), [Willamette Riverkeeper](#), and [The Conservation Angler](#). See also coverage in the [Oregonian](#).

In July 2024, FEMA announced a new program of pre-implementation compliance measures (PICM or short-term measures) for the BiOp, separate from the NEPA full implementation (long-term measures) process. FEMA hosted four [PICM webinars](#) in July and August, and is planning additional outreach to assist NFIP communities in the fall of 2024. Some of the PICM pathways are included in the 2016 BiOp under RPA, element 2.

FEMA now has two separate, but similar processes: NEPA evaluation of the full implementation plan, and interim action through PICM. FEMA’s webpage [“Endangered Species Act Integration in Oregon”](#) contains information about both processes, but does not clearly distinguish between the two processes.

## What is the role of the Oregon Department of Land Conservation and Development in PICM?

FEMA and the state provide funds to the Oregon Department of Land Conservation and Development (DLCD) for staff to help cities and counties participate in the NFIP. DLCD floodplain staff do not set program policies and cannot make decisions on behalf of FEMA. As FEMA provides more information about what they are requiring through PICM, DLCD floodplain staff will try to explain the program to cities and counties.

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### Frequently Asked Questions about Pre-Implementation Compliance Measures

While the floodplain staff at DLCD have a coordinating role communicating with FEMA, cities and counties are always free to communicate directly with FEMA staff. In this role, DLCD staff provided feedback on the full implementation plan (long-term measures) through the NEPA process. DLCD staff provided information about how the land use planning system in Oregon would affect the full implementation plan. DLCD did not have an opportunity to play a similar role while FEMA developed PICM.

On September 26, 2024, Governor Tina Kotek sent a [letter to FEMA](#) expressing concerns about PICM, similar to concerns raised in a [letter from members of congress](#) in August. DLCD will work with FEMA to address the governor's concerns.

### **What does a city or county need to do now?**

FEMA is requiring cities and counties to select one of three PICM short-term paths by December 1, 2024:

- Pathway 1: Adopt the [PICM model floodplain management ordinance](#) that considers impacts to fish habitat and requires mitigation to a no net loss standard.
- Pathway 2: Review individual development proposals and require permit-by-permit habitat mitigation to achieve no net loss using "Floodplain Habitat Assessment and Mitigation" guidance from FEMA.
- Pathway 3: Prohibit all new development in the floodplain.

FEMA is also requiring cities and counties to gather additional data on local floodplain permitting starting January 31, 2025, and submit an annual report to FEMA starting January 2026.

If a city or county does not choose a PICM path by December 1, 2024, then FEMA expects the city or county to use Pathway 2 for permit-by-permit habitat assessment and mitigation.

Once local planning staff review the FEMA documents ([PICM model ordinance](#) and [habitat assessment guidance](#)), planning staff may want to discuss the PICM paths with other internal local staff, and their local legal counsel. A starting point could be to determine how much developable land is within the Special Floodplain Hazard Area (SFHA). With that data to inform local decision making, staff might want to report to decision makers and the public explaining the situation and may find this FAQ useful as background. An informational work-session could be helpful to explore options for what may or may not work at the local level. DLCD staff ([regional representatives](#) and [flood hazards staff](#)) are available for technical assistance; however, many questions will need to go to FEMA. Use the dedicated email address: [FEMA-R10-MIT-PICM@fema.dhs.gov](mailto:FEMA-R10-MIT-PICM@fema.dhs.gov).

### **Does Pathway 3 "Prohibit floodplain development" require a moratorium?**

No. A city or county has at least two options for prohibiting development in the special flood hazard area: temporary moratorium or permanent rezoning.

### *Option A: Temporary Moratorium*

[ORS 197.520 to 197.540](#) defines a process for a city or county to declare a moratorium to temporarily prevent all development in a specific area. Typically, a city or county would declare a moratorium where there are insufficient public facilities, which would not apply in this case. ORS 197.520(3) allows a different type of moratorium if a city or county demonstrates there is a compelling need based on the findings below:

For urban or urbanizable land:

- That application of existing development ordinances or regulations and other applicable law is inadequate to prevent irrevocable public harm from development in affected geographical areas;
- That the moratorium is sufficiently limited to ensure that a needed supply of affected housing types and the supply of commercial and industrial facilities within or in proximity to the city or county are not unreasonably restricted by the adoption of the moratorium;
- Stating the reasons alternative methods of achieving the objectives of the moratorium are unsatisfactory;
- That the city or county has determined that the public harm which would be caused by failure to impose a moratorium outweighs the adverse effects on other affected local governments, including shifts in demand for housing or economic development, public facilities and services and buildable lands, and the overall impact of the moratorium on population distribution; and
- That the city or county proposing the moratorium has determined that sufficient resources are available to complete the development of needed interim or permanent changes in plans, regulations or procedures within the period of effectiveness of the moratorium.

For rural land:

- That application of existing development ordinances or regulations and other applicable law is inadequate to prevent irrevocable public harm from development in affected geographical areas;
- Stating the reasons alternative methods of achieving the objectives of the moratorium are unsatisfactory;
- That the moratorium is sufficiently limited to ensure that lots or parcels outside the affected geographical areas are not unreasonably restricted by the adoption of the moratorium; and
- That the city or county proposing the moratorium has developed a work plan and time schedule for achieving the objectives of the moratorium.

Moratoriums are legally complicated. This description is only a summary of the law. A city or county should consult carefully with their legal counsel to determine whether and how a moratorium would work in their specific situation, and to review the applicable timelines for which a moratorium may be in place and circumstances for extending a moratorium.

#### *Option B: Permanent Rezoning*

A city or county could permanently rezone the land within the special flood hazard area to a zone that would not permit development. This would not be appropriate for all cities and counties, but could be appropriate if the area in the SFHA is relatively small, unlikely to develop, or publicly owned.

### **Is a “Measure 56 Notice” required for PICM short-term options?**

Most likely yes, but cities and counties should consult with their legal counsel on how the notification requirements apply in the specific local circumstances.

#### *Background on Measure 56 Notices*

Cities and counties in Oregon are required to send a notice to landowners before “rezoning” property. This requirement was originally enacted through Ballot Measure 56 in 1998, and is codified in [Oregon Revised Statutes \(ORS\) 227.186](#) for cities and [ORS 215.503](#) for counties. The requirement uses a broad definition of rezoning that includes any change that “limits or prohibits land uses previously allowed.” DLCD maintains a [webpage on the landowner notification requirement](#).

#### *Pathway 1 – Model ordinance*

Cities and counties staff should carefully review current zoning and development regulations for property within the SFHA. If properties are zoned for open space or conservation, then the [PICM model ordinance](#) might not further limit uses.

If properties are zoned for residential, commercial or industrial use, the [PICM model ordinance](#) would likely limit those uses, and the Measure 56 notification requirement could apply. Most local floodplain codes require owners to obtain a permit for development in the floodplain. Permit processing varies for each city or county. Oregon’s model floodplain Ordinance (version 2020) meets minimum NFIP standards. However, the updated [PICM model ordinance](#) contains new standards in section 6.0 (highlighted in yellow) which could limit currently allowed uses, in which case the Measure 56 notification requirement would apply.

#### *Pathway 2 – Permit-by-permit habitat assessment and mitigation*

Cities and counties should carefully review any existing requirements for habitat mitigation. Most cities and counties do not require mitigation for habitat impacts, so the city or county would be adopting a new ordinance to require assessment and mitigation for development in flood hazard areas. These new development regulations would most likely limit currently allowed uses, and thus the Measure 56 notification requirement would apply.

### *Pathway 3 – Prohibit floodplain development*

If a city or county declares a temporary moratorium under ORS 197.520 to 197.540, then the Measure 56 notification requirements would likely apply because a moratorium would limit or prohibit uses that would otherwise be allowed.

If a city or county rezones land or amends development regulations to permanently prohibit development within the SFHA, then the city or county should carefully review the previous zoning and allowed uses for each parcel. If some properties were previously zoned for open space or conservation, then the prohibition on development is not likely to be a limitation on future use. If some properties are zoned for residential, commercial or industrial use, then the prohibition on development would limit those uses, and thus the Measure 56 notification requirement would apply.

A city or county may not want to completely prohibit all development in the floodplain and may want to think about explicitly adding in activities exempt from the no net loss standards as listed in section 6.3 of the [PICM Model Ordinance](#). Some of the exempt activities include normal maintenance of structures, street repairs, habitat restoration activities, routine agricultural practices, and normal maintenance of above ground utilities and would still require a local floodplain development permit. However, if a city or county wishes to include activities beyond those listed in section 6.3, then the city or county will likely need to adopt the model ordinance or require permit-by-permit habitat mitigation for the uses that are still allowed. It may be simpler to choose pathway 1 (model ordinance) or pathway 2 (permit-by-permit) instead. Cities and counties should communicate with FEMA about any exemptions.

### **Will the state waive legislative adoption requirements?**

Each city or county has its own requirements for adopting an ordinance. The state has no authority to waive those requirements.

[ORS 197.610 through 197.625](#) requires cities and counties to submit notice to DLCD 35 days before the first hearing to adopt a change to a comprehensive plan or a land use regulation. The statute does not authorize DLCD to waive this requirement. If it is not possible to send the notice 35 days prior to the hearing, cities and counties should send the notice as soon as possible. The notice can include a draft ordinance that will be revised before adoption. If a city or county does not provide notice 35 days prior to the hearing, this does not invalidate the ordinance. A party that did not appear before the local government in the proceedings would be allowed to appeal the ordinance.

DLCD has no authority to waive the required Measure 56 notification to landowners that is described above.

## What if a city or county cannot complete the ordinance process by December 1, 2024?

Start the process of evaluating the PICM pathways as soon as possible. Keep FEMA informed via their PICM inbox [FEMA-R10-MIT-PICM@fema.dhs.gov](mailto:FEMA-R10-MIT-PICM@fema.dhs.gov) regarding your PICM path and progress.

Send questions to FEMA early in the process to give them time to respond, and document when replies are received.

Communicate often to FEMA to update them on your status and expected adoption date.

## Is the model ordinance clear & objective?

### *Background on Clear and Objective Standards*

Oregon Revised Statutes [197A.400](#) requires cities and counties to:

“adopt and apply only clear and objective standards, conditions and procedures *regulating the development of housing*, including needed housing, on land within an urban growth boundary.”  
[emphasis added.]

The legislature amended this statute to include areas within unincorporated communities and rural residential zones. The amendment takes effect on July 1, 2025.

### *Reviewing Model Ordinances*

DLCD plans to review the existing [Oregon Model Flood Hazard Ordinance](#) to identify standards for residential development that may not be clear and objective. Over the past year, DLCD also reviewed an early draft of the model ordinance in the NEPA process for the full implementation of the BiOp. DLCD identified several aspects of that early draft model ordinance that may not be clear and objective and suggested that FEMA revise those aspects. DLCD has not yet determined whether the [PICM Model Ordinance](#) has only clear and objective standards.

## What is changing for cities and counties for letters of map revision based on fill?

FEMA has temporarily suspended processing of applications for letters of map revision based on fill (LOMR-F) and conditional letters of map revision based on fill (CLOMR-F) as of **August 1, 2024**. FEMA is doing this to remove any perceived incentive to using fill and to avoid potentially negative effects on habitat for threatened species.

FEMA is not prohibiting fill in the SFHA, rather they are suspending the opportunity for owners or developers to revise floodplain maps to be released from mandatory flood insurance. Therefore, if fill is used for structure elevation and there is a federally backed mortgage on the property, flood insurance will still be required. Cities and counties should continue to enforce their existing floodplain ordinance on regulations regarding placement of fill in flood hazard areas.

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### Frequently Asked Questions about Pre-Implementation Compliance Measures

If an applicant asks for a community acknowledgement form (CAF) for a CLOMR-F or LOMR-F for a project not covered in the exceptions below, it would be wise to [contact FEMA](#) before signing.

Exceptions for L/CLOMR-F processing:

- Projects that are undergoing Section 7 consultation via an alternative federal nexus
- LOMR-Fs for already processed CLOMR-Fs
- CLOMRs required for habitat restoration projects

## **What are the Measure 49 implications to the PICM pathways?**

Measure 49 could apply in some situations, but it is unlikely that a city or county would have to pay compensation to a landowner. Cities and counties should consult with their legal counsel to analyze their specific situation.

### *Background:*

[Ballot Measure 49](#) was approved by Oregon voters in 2007. Its initial impact was on property owners who acquired their property before land use regulations were established in the 1970's and 1980's. In many cases, those owners were permitted to build up to three houses, even though the current zoning would not allow new houses.

Measure 49 also applies to future changes in land use regulations. Those provisions are codified in [ORS 195.300 to 195.336](#). If a state or local government enacts a land use regulation that restricts a residential use and reduces the fair market value of a property, then the owner can apply for just compensation. The compensation can be monetary, or a waiver to allow the owner to use the property without applying the new land use regulation. This requirement does not apply if the new regulation is for the protection of public health and safety.

### *Pathway 1 – Model ordinance*

If a property owner applied for just compensation as a result of a city or county adopting the PICM model ordinance, the city or county would process the claim as provided in ORS 195.300 through 314. This includes evaluating the claim to determine whether it is valid, and then deciding whether to waive the regulation or pay monetary compensation.

First, determine whether the claimant owned the property before the city or county adopted the new regulations in the model ordinance.

Next determine whether the new regulations restrict the use of the property for single-family dwellings. The statute does not include a specific definition of “restrict” in this context. If the new ordinance has the effect of completely prohibiting residential use, then it clearly restricts the use. If the new ordinance allows single-family dwellings, but places design standards or conditions of development, these likely do not restrict the use.

Next, determine whether the regulations “restrict or prohibit activities for the protection of public health and safety” as provided in ORS 195.305(3)(b). Many aspects of regulating floodplains are based on safety; however, some of the regulations in the [PICM model ordinance](#) are based on improving fish habitat. This could result in complicated analysis to determine whether the habitat requirements restrict development beyond the restriction already created by regulations based on safety.

Next, review the property appraisals submitted by the claimant to determine whether the property value was actually reduced. Property in a flood hazard area may already have a low value. The property may still have value for agricultural use which would offset the loss due to the regulation.

If a property owner has a valid claim, then the city or county would decide to pay monetary compensation or to waive some regulations. The city or county is not required to waive all regulations, only “to the extent necessary to offset the reduction in the fair market value of the property” ORS 195.310(6)(b). The city or county could still apply regulations based on safety, and could still apply regulations that existed prior to adopting the [PICM model ordinance](#).

#### *Pathway 2 – Permit-by-permit habitat assessment and mitigation*

The results would be similar to pathway 1. In most cases the habitat mitigation requirement would not prevent development, and the owner would likely not be entitled to just compensation. If the habitat mitigation requirements did prevent development, then the owner could apply for just compensation. The city or county would use the steps described above to determine whether it is a valid claim, and decide to waive some of the requirements, or pay monetary compensation.

#### *Pathway 3 – Prohibit floodplain development*

A temporary moratorium would likely not lead to a claim for just compensation because it is not a new land use regulation. Also, a temporary moratorium is unlikely to significantly affect fair market value because potential buyers know that the moratorium will end.

Rezoning to prohibit all development within the SFHA would likely be a basis for a claim for just compensation, especially for a property entirely within the SFHA. If a property includes area inside and outside the SFHA, and the owner could still develop the same number of dwellings in a different location, then the owner would likely not be able to make a claim for just compensation.

The city or county would use the steps described above to determine whether it is a valid claim, and decide to waive some of the requirements, or pay monetary compensation.

### **Where can I find additional information or ask questions about PICM?**

FEMA has a webpage for [Endangered Species Act Integration in Oregon](#). Email questions to the PICM email address: [FEMA-R10-MIT-PICM@fema.dhs.gov](mailto:FEMA-R10-MIT-PICM@fema.dhs.gov).

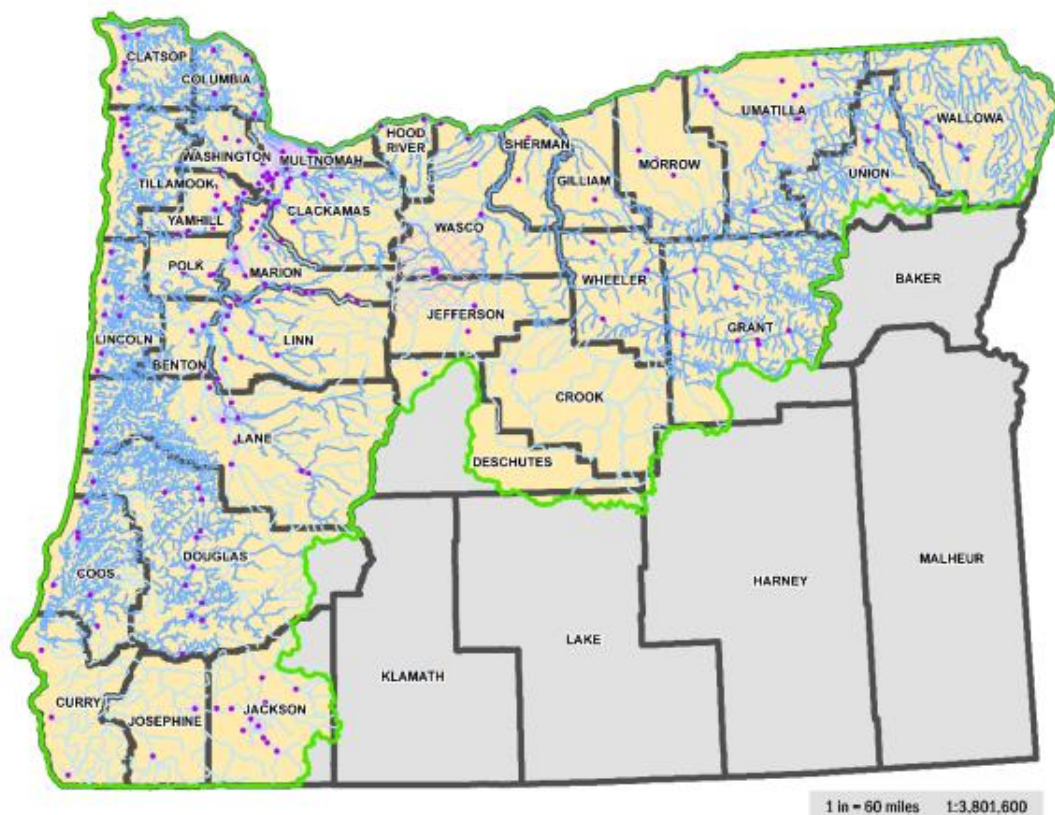
While DLCD staff are not responsible for PICM implementation, we are available to offer technical assistance. Email or call Oregon's NFIP Coordinator at DLCD, Deanna Wright, [deanna.wright@dlcd.oregon.gov](mailto:deanna.wright@dlcd.oregon.gov), 971-718-7473.

### What if a city or county received a PICM letter in error, or did not receive a PICM letter?

Staff may contact FEMA's PICM inbox at: [FEMA-R10-MIT-PICM@fema.dhs.gov](mailto:FEMA-R10-MIT-PICM@fema.dhs.gov) to receive the letter, or you may contact DLCD staff. FEMA staff sent the email announcements to the city or county floodplain staff and the letter was mailed to each individual city or county chief elected officer. If you believe your community is outside of the BiOp action area (map instructions below), but you received a PICM letter, please contact FEMA PICM inbox for verification.

### What area does the BiOp cover?

Below is a snapshot image of the Oregon NFIP BiOp Action Area:



**OREGON NFIP BIOP ACTION AREA**

2021.09.28

The BiOp is applicable in Special Flood Hazard Areas (SFHA) within the mapped salmon recovery domains for Oregon communities that participate in the NFIP. The BiOp covers approximately 90 percent of participating Oregon NFIP communities but does not apply to five counties.

[NOAA Fisheries GIS mapping application tool](#)

FEMA has published [directions](#) on how to determine if a proposed development or project area is within the BiOp area.

October 18, 2024



# Oregonians for Floodplain Protection

Oregon NFIP Biological Opinion,  
FEMA's Pre-Implementation Plan, and  
Impacts to Communities and Property  
Owners





# Background on Oregon NFIP Biological Opinion

- In 2009, FEMA was sued by several environmental groups in Oregon for failing to consider the effects of the NFIP on ESA listed species and their habitat in Oregon
- In 2010, FEMA settled; agreed to consult regarding the effects of the NFIP in Oregon on T&E species and designated critical habitat
- In April 2016, NMFS issued the Oregon NFIP Biological Opinion (BiOp)
- The BiOp concluded FEMA's implementation of the NFIP in Oregon jeopardizes the continued existence of T&E species and adversely modifies designated critical habitat



# Oregon NFIP BiOp (April 2016)

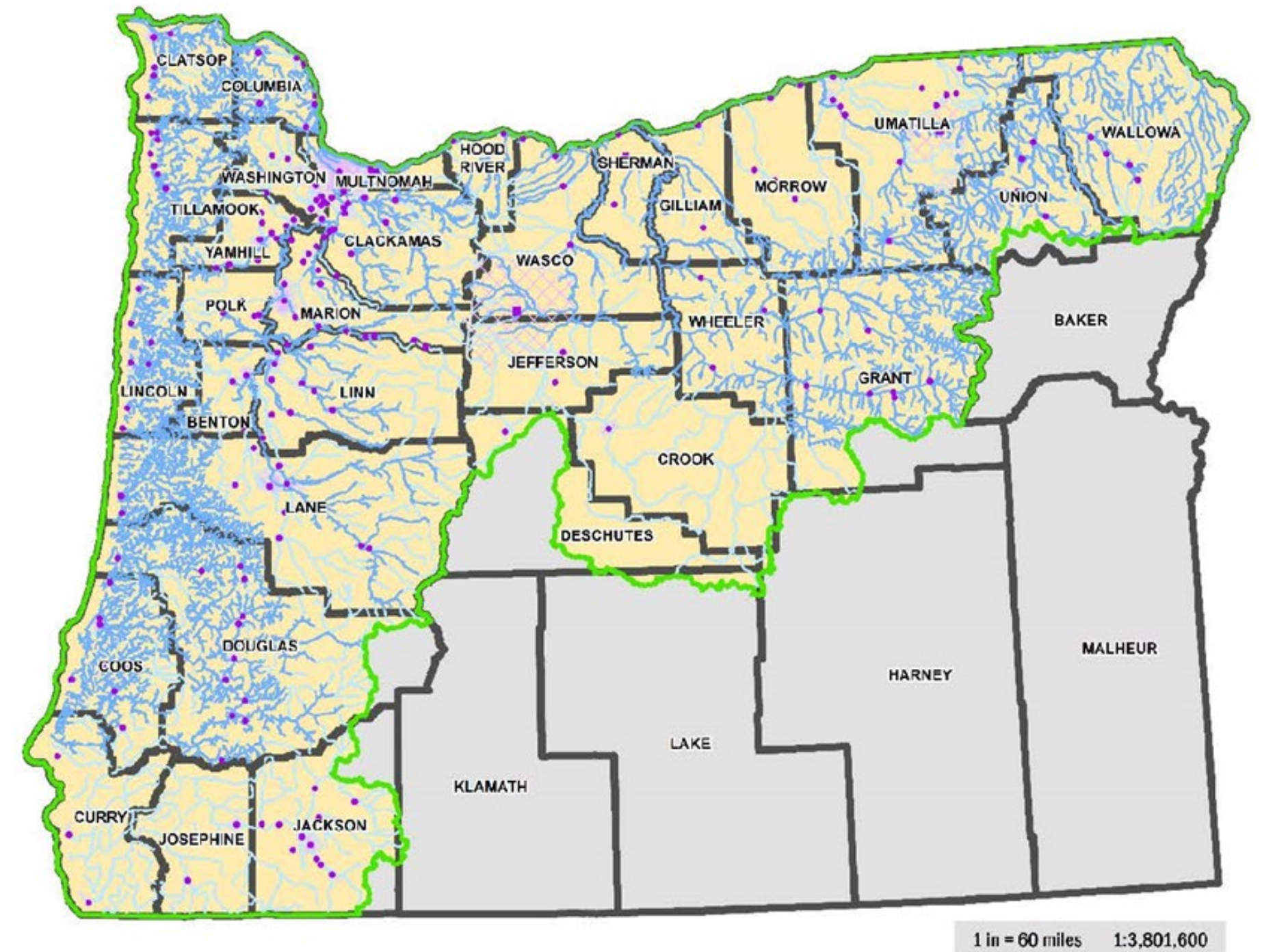
- BiOp includes a six element “Reasonable and Prudent Alternative” (RPA)
- RPA = NMFS’s roadmap to FEMA about how to change its implementation of the NFIP to avoid violating the ESA
- RPA is one option available to FEMA; FEMA may take an alternative course of action if it also avoids jeopardy and adverse modification
- Original deadline for RPAs 1 and 2 (not requiring regulatory change) in response to the BiOp was 2016 and 2018 respectively
- Additional deadlines for other RPAs continued through 2021 (FEMA says 2024)
- Congress, through Representative DeFazio, extended implementation period three years





# Areas Subject to Oregon NFIP BiOp

- Applies within 31 of Oregon's 36 counties
- Applies to more than 230 NFIP-participating communities (counties, cities and towns)



## OREGON NFIP BIOP ACTION AREA

2021.09.28

### LEGEND

OREGON NFIP ACTION AREA

CRITICAL HABITATS (SALMON/STEELHEAD)\*

MAJOR STREAMS

COUNTIES

NFIP PARTICIPATING TRIBES

NFIP PARTICIPATING COMMUNITIES

### ABOUT

This map displays the Oregon NFIP BIOP Action Area where critical habitats for salmon and steelhead (and areas upstream of those habitats) are displayed in relation to NFIP participating tribes and jurisdictions. Most NFIP-participating communities within Oregon have all or a portion of land within the BiOp Action Area, with the exception of Baker, Harney, Klamath, Lake, and Malheur Counties.

\*Critical Habitats are via NOAA Fisheries: <https://www.fisheries.noaa.gov/resource/map/critical-habitat-salmon-and-steelhead-all-west-coast>



# OFP's First Lawsuit Challenging BiOp and FEMA's implementation

In 2017, OFP filed suit in the DC District Court challenging:

- The accuracy/legality of the BiOp itself => BiOp does **not** comply with the requirements of the ESA
- The legality of the RPA => RPAs do **not** meet the requirements of the ESA
- FEMA's authority to implement the RPA =>
  - Nothing in the NFIP authorizes FEMA to act to protect T&E species and habitat; only people and property; and
  - Even if such authority did exist, FEMA has not adopted regulations that enable it to implement the RPA or other measures aimed at protecting T&E species or habitat
- FEMA failed to complete NEPA regarding any proposed action to implement the RPA or other measures





# OFP's First Lawsuit Challenging BiOp and FEMA's implementation

- Lawsuit dismissed in 2018 on the grounds that:
  - OFP members could not demonstrate an injury in fact since FEMA had not taken any action to implement the BiOp/RPA; and
  - FEMA had not taken any action yet so the claim was not ripe
- FEMA represented to the court and OFP that it would not take any action toward implementing the RPA or other measures until after FEMA had completed NEPA environmental review and issued a Record of Decision (ROD).





# FEMA's Draft Implementation Plan

- In October 2021, FEMA issued its Draft Implementation Plan
- Draft Plan varies from RPA and focuses on preserving and restoring three main floodplain functions:
  - Flood storage => limit new fill or require compensatory flood storage to offset any new fill
  - Water Quality => limit new impervious surface and heightened stormwater requirements (LID and non-structural approaches)
  - Riparian Vegetation => restrict removal within 170-feet of a water feature
- Draft Plan includes direction to avoid new non-water dependent development in the floodplain
  - Restricts future land divisions in floodplain
  - Allowance for one unit per existing parcel to avoid takings claims provided the development preserves three floodplain functions



# | FEMA's Draft Implementation Plan

- In March 2023, FEMA began the NEPA process to evaluate the impacts of its Draft Plan.
- FEMA elected to prepare an EIS recognizing that the impacts of its Plan are likely significant to NFIP-participating jurisdictions and floodplain property owners.
- FEMA's schedule for balance of EIS has slipped
  - Original plan:
    - Draft EIS – Summer 2024
    - Final EIS/ROD – Spring 2025
    - Community Implementation – beginning Fall 2025 with 18 month roll out
  - Revised plan:
    - Draft EIS – “early 2025”
    - Planning 75-day comment/public outreach period
    - Final EIS and ROD expected in 2026
    - Full community implementation expected by 2027
- Find FEMA's Quarterly updates at:
  - [www.fema.gov/about/organization/region-10/oregon/nfip-esa-integration](https://www.fema.gov/about/organization/region-10/oregon/nfip-esa-integration)



# Key Concerns with FEMA's Approach

- Consultation between FEMA and NMFS – but resulting requirements imposed on state and local governments
- No regulatory basis for the proposed requirements; FEMA has declined to go through rulemaking
- FEMA eager to shift the burden to local governments irrespective of whether the new standards work with existing Oregon policies and laws
- Unclear whether NMFS will accept FEMA's Implementation Plan
- Communities who decline to adopt the new standards will be removed from the NFIP. Result:
  - NFIP flood insurance no longer available
  - Community will not qualify for federal disaster assistance
  - Community will not qualify for federal funding for projects in the FEMA floodplain





# FEMA's "Pre-Implementation Compliance Measures"

- In response to pressure from lawsuit filed by the Northwest Environmental Defense Center and the Center for Biological Diversity, **FEMA has abandoned its prior commitment to complete EIS before implementing any changes.**
- FEMA has stated that NFIP participating communities in Oregon must select a PICM option by Dec. 1, 2024. The options include:
  - Adopting a model ordinance that considers impacts to T&E species and their habitat and requires mitigation to a "no net loss standard,"
  - Choosing to require a habitat assessment and mitigation plan for floodplain development on a permit-by-permit basis, or
  - Prohibiting floodplain development in the Special Flood Hazard Area.
- Communities must begin collecting information on their floodplain permitting to document compliance beginning Jan. 31, 2025.





# FEMA's Pre-Implementation Measures

- Additionally, as of August 1, 2024, FEMA stopped processing new applications for Letters of Map Revision based on Fill (LOMR-F) and Conditional Letters of Map Revision based on Fill (CLOMR-F)
  - This will impact owners who seek to have their properties removed from the SFHA after placing fill on a lot to raise the building pad above BFE
  - Exception for projects that are undergoing ESA Section 7 consultation due to a federal nexus (non-FEMA federal permit/authorization or funding)





# FEMA's Pre-Implementation Measures

## Key Components of the FEMA's Model Ordinance

- "No Net Loss" standard. Includes:
  - No Net New Fill in areas of the floodplain that could be fish habitat
  - No Net New Impervious Surface in the floodplain
    - If no net increase in impervious surface is "not feasible," impose restrictive stormwater management standards (e.g., LID, green infrastructure, or professional stormwater retention)
  - No Net Loss of trees 6" dbh or larger in the floodplain
- Exceptions: Normal maintenance of roads, utilities, levees and other structures (e.g., re-roofing or replacing siding), routine agricultural and silviculture practices. Exception does not include expansion of paved areas.





# Major Concerns with FEMA's PICMs

- The BiOp itself remains invalid and should not be implemented
- PICMs exceed FEMA's legal authority and address issues outside the scope of the NFIP
- By implementing the PICMs before completing environmental review under NEPA, FEMA is violating federal law and its commitment to Oregon's NFIP-participating communities
- FEMA is implementing the PICMs without first evaluating their environmental consequences or hearing from the public or NFIP-participating communities
- PICMs were announced with no warning and no involvement from State or local jurisdictions
- Any of the PICM options will be devastating to housing production, economic development, critical infrastructure and other community development in the floodplain
- FEMA's model ordinance is untested and difficult to implement
- Smaller communities with fewer resources will prohibit all new development in the floodplain in the near term, compromising the vitality of those communities





# Cities' Options in the face of FEMA's PICMs

- Comply with FEMA's call for action by implementing one of the PICMs
- Respond that you are considering your options, but do not believe that FEMA has authority to require implementation of the PICMs. Default into permit-by-permit habitat assessment approach.
- Respond that you are considering your options, but are awaiting the results of the Environmental Impact Statement before making a decision. Default into permit-by-permit habitat assessment approach.





# Cities' Options in the face of FEMA's PICMs – cont'd

## From FEMA's PICM Fact Sheet:

What if a community's adoption process timeline does not allow us to meet the December 1<sup>st</sup> deadline for implementing a PICM?

While FEMA recognizes that the time it takes to implement a PICM varies by community, there is still an obligation to abide by ESA requirements. If a community cannot implement a PICM by the December 1<sup>st</sup> deadline, **FEMA will work with the community to consider alternative options to remain compliant with the ESA requirements in the interim.**

What penalties are communities looking at if they cannot meet the December deadline?

Communities will default to the permit-by-permit option if no selection was given to FEMA by December 1<sup>st</sup>. If FEMA does not hear from a community, the agency will contact them to identify what technical assistance is needed to implement PICM. **If a community has no PICM implemented by July 31<sup>st</sup>, 2025, FEMA will prioritize an audit of floodplain development activities that occurred in the community, specifically focused on the PICM time-period to assess what has occurred and any mitigation that would have been required for development that occurred.**





# Cities' Options in the face of FEMA's PICMs – cont'd

- FEMA has explained that they will not request documentation of compliance for communities that select the permit-by-permit approach ***until January 2026***.
- For communities that do not implement a PICM, FEMA's plan is to begin the standard Community Assistance Visit/Community Assistance Contact approach.
- **BOTTOM LINE: While FEMA is using strong language (saber rattle), the consequences of taking a slow approach (wait and see) presents a **LOW RISK\*** to local jurisdictions.**

*\* Of course, I am not currently your attorney, but this is what I am telling my clients based on extensive discussions with FEMA and review of FEMA's materials.*





# | 44 CFR 60.3(a)(2) does NOT require jurisdictions to implement the PICMs.

- NFIP-participating communities must adopt floodplain development standards at least as restrictive as those set forth at 44 CFR 60.3
- FEMA has cited 44 CFR 60.3(a)(2) as the legal basis for requiring compliance with the PICM
- *But* 44 CFR 60.3(a)(2) provides only that local governments “assure that all necessary **permits** have been received from those governmental agencies from which approval is **required** by Federal or State law”
- *No basis in the regulations for requiring implementation of the PICMs – and FEMA knows that but they are hoping NFIP-participating jurisdictions will comply*





# Coalition and Renewed Challenge

## **NFIP-participating communities may also join with OFP in a renewed challenge to the BiOp and FEMA's implementation efforts**

Dozens of public and private sector entities have formed the [Oregonians for Floodplain Protection](https://www.floodplainprotection.org) coalition to assist coalition partners in

- Engaging with federal and state elected leaders,
- Supporting NFIP participating jurisdictions in responding to FEMA,
- Increasing awareness among property owners and members of the public, and
- Evaluating options for challenging the NFIP BiOp and FEMA's implementation efforts

Learn more at [www.floodplainprotection.org](https://www.floodplainprotection.org)





# Have questions or want more information?

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