Memo

RE: DC 25-01 10.1.24 additional information and proposed revisions

The proposed Pre Implementation Compliance Measures (PICM) edits were sent to Federal Emergency Management Agency (FEMA) and the Department of Land Conservation and Development (DLCD) on May 6, 2025 for review and a determination of consistency with the PICM requirements. The DLCD responded shortly thereafter explaining that it was consistent. FEMA provided comments on June 27th, 2025 after the staff report was published. That email and review document is attached.

FEMA explained that the proposed edits were consistent with the PICM requirements, except for the need to add 5 new definitions in the definitions section of the document. The FEMA proposed additions are below. Staff recommends including these 5 definitions, though Staff proposes the word "Flood" be added to each to clarify that these definitions only pertain to the flood overlay, Chapter 2.12. This will make the added definitions match the other new definitions that are specific to Chapter 2.12. The draft Ordinance going to City Council will reflect the changes.

Ancillary Features (Flood): Features of a development that are not directly related to the primary purpose of the development.

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

Breakaway wall (Flood): 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.

Flood Storage Capacity (Flood): The volume of floodwater that an area of the floodplain can hold during the 1-percent annual chance flood.

Hazard Trees (Flood): Standing dead, dying, diseased, or infested 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 pose a safety threat from the risk of falling on a road, building, or otherwise creates a risk of damage or injury.

Outlook

RE: Millersburg proposed PICM Code update

From FEMA-R10-MIT-PICM <fema-r10-mit-picm@fema.dhs.gov>
Date Fri 6/27/2025 12:02 PM
To Matt Straite <Matt.Straite@millersburgoregon.gov>; FEMA-R10-MIT-PICM <fema-r10-mit-picm@fema.dhs.gov>
Cc Graves, John <John.Graves@fema.dhs.gov>; WRIGHT Deanna * DLCD <deanna.wright@dlcd.oregon.gov>

2 attachments (291 KB)

Millersburg Model; Ord WORD CHAPTER 2.12 revised with PICM changes DRAFT 11.3.25, Permit.docx; UPDATED NFIP OR EIS - Ordinance Checklist Millersburg OR 6-23-2025.docx;

Good morning Mr. Straite,
I have been asked to review the City of Millersburg's Floodplain Ordinance.

Incorporating a few minor changes as noted in the attached *Updated NFIP OR EIS – Ordinance checklist…* would make it the City of Millersburg's ordinance compliant with the Pre Implementation Compliance Measures (PICM) Oregon Model Ordinance standard.

I have copied the Department of Land Conservation and Development for their information and/or review.

Please reach back if you have questions.

Respectfully,

Frank Mansell, CFM

From: Graves, John <John.Graves@fema.dhs.gov>
Sent: Monday, June 23, 2025 7:42 AM
To: Mansell, Frank <Frank.Mansell@fema.dhs.gov>
Cc: FEMA-R10-MIT-PICM <fema-r10-mit-picm@fema.dhs.gov>
Subject: FW: Millersburg proposed PICM Code update

Frank,

Can you please review this ordinance that came in directly to me rather than the inbox?

Thanks,

John Graves, CFM
Floodplain Management and Insurance Branch Chief
Mitigation Division | FEMA Region 10
425-487-4737
John.graves@fema.dhs.gov

From: Matt Straite <Matt.Straite@millersburgoregon.gov>
Sent: Tuesday, May 6, 2025 1:35 PM
To: WRIGHT Deanna * DLCD <deanna.wright@dlcd.oregon.gov>; Van Hoff, Scott <scott.vanhoff@fema.dhs.gov>; Graves, John <John.Graves@fema.dhs.gov>; CRALL Matt * DLCD <matt.crall@dlcd.oregon.gov>
Cc: Janelle Booth <Janelle.Booth@millersburgoregon.gov>
Subject: Millersburg proposed PICM Code update

Not sure if this is going to the right folks, please help me out if it's not. We are proposing updates to our code for PICM. We have a workshop lined up with our Planning Commission and City Council, but no hearings scheduled yet.

I previously asked if the DLCD and FEMA wanted to review these *outside* of the typical hearing notification process (PAPA) and the answer was yes. So this email is attempting to do just that.

If you could, please review the attached DRAFT proposed changes and let me know if you have any suggested edits or questions. I think we will hold off on any hearings until we hear back from your team. Thank you.

Matt Straite

Community Development Director

City of Millersburg

458-233-6306

Please note: the City has changed our web site addresses to MillersburgOregon.gov and all email has changed to first name. then last name@ millersburgoregon.gov. My email address is now matt.straite@millersburgoregon.gov.

UPDATED DRAFT CHECKLIST – Oregon State Model Flood Ordinance

(Created 4/9/2019, ***UPDATED SEE LEGEND (Blue-New 5.3)*** ***5/19/2025)***

Community Name: Millersburg, OR

Reviewer's Name: Mansell

Review Date: 6/23/2025

Ordinance No.: 2.12

Ordinance Date: 1/2025

Notes Fully functional PICM Model Ordinance. Needs only Ancillary Features, Appeal, Breakaway Walls, Flood Storage Capacity, and Hazard trees to be fully compliant.

Community Flood Zones:

☐ **A** ☐ **AE** ☒ **AE with Floodway** ☐ **V, VE, V1-30, Coastal A**

Level of Regulations (Under the Code of Federal Regulations, 44 CFR 60.3):

☐ **a)** ☐ **b)** ☐ **c)** ☒ **d)** ☐ **e)**

LEGEND

- Black: National Flood Insurance Program and State minimum requirements.
- Red: Wording to be replaced with community's specific information.
- ***Blue (Italic): Only required for communities with Coastal High Hazard Areas.***
- ***Purple (italic): PICM Standard required for communities.***

This checklist is only used to review for compliance with the minimum NFIP and State standards. Recommended optional definitions and standards are provided in Appendices A & B of the Oregon Model Flood Hazard Ordinance.

Section	Verbatim/ Intent	Local Ord. Section	Compliant
1.1 Statutory Authority 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:	V	2.12.010	y
1.2 Findings of Fact A. The flood hazard areas of COMMUNITY NAME are subject to periodic inundation which may result in loss of life and property, health and safety hazards,	V	2.12.010	Yes

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 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. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. Minimize prolonged business interruptions; E. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and	**Content satisfied**	2.12.010	Yes

streets and bridges located in special flood hazard areas; F. 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; G. Notify potential buyers that the property is in a special flood hazard area H. Notify those who occupy special flood hazard areas that they assume responsibility for their actions I. 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;	**Content satisfied**	2.12.020	Yes

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 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. ***Ancillary Features:*** *features of a development that are not directly related to the primary purpose of the development.* **Appeal:** A request for a review of the interpretation of any provision of this ordinance or a request for a variance. **Area of shallow flooding:** A designated Zone AO, AH, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. **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	V **Missing** **Missing** **Included** **Included**	2.12.030	Yes BUT see Missing definitions for **Ancillary Features, Appeal, Breakaway Walls, Flood Storage Capacity, and Hazard trees**

on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE). "Special flood hazard area" is synonymous in meaning 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.	**Included**		
Base flood elevation (BFE): The elevation to which floodwater is anticipated to rise during the base flood.	**Included**		
Basement: Any area of the building having its floor subgrade (below ground level) on all sides.	**Missing**		
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.*	***Missing***		
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.*	***N/A***		
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.	**Included**		
Fill*: Placement of any materials such as soil, gravel, crushed stone, or other materials that change the topographic elevation within the floodplain. The placement of fill is considered "development."*	***Included***		

Fish Accessible Space: *The volumetric space available to fish to access.*	***Included***		
Fish Egressable Space: *The volumetric space available to fish to exit or leave from.*	***Included***		
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.	**Included**		

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.	**Included**		
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).	**Included**		
Flood Insurance Study (FIS): See "Flood elevation study".	**Included**		
Flood proofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.	**Included**		
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."	**Included**		
Flood Storage Capacity: *The volume of floodwater that an area of the floodplain can hold during the 1-percent annual chance flood.*	***Missing***		
Functionally dependent use: A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the	**Included**		

loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long term storage or related manufacturing facilities.			
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.*	***Included***		
Habitat Restoration Activities: *Activities with the sole purpose of restoring natural fish and wildlife 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, obtain a CLOMR and LOMR, and have obtained any other required permits (e.g., CWA Section 404 permit).*	***Included***		
Hazard Trees: *standing dead, dying, diseased, or infested 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 pose a*	**Missing**		

safety threat from the risk of falling on a road, building, or otherwise creates a risk of damage or injury. **Highest adjacent grade:** The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. **Historic structure:** Any structure that is: 1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; 2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; 3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or 4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either: a. By an approved state program as determined by the Secretary of the Interior or	**Included** **Included**		

b. 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) in which the difference between the ground surface elevation and the 100-year water surface elevation or base flood elevation is approximately equivalent to another (e.g., the impacted site). Hydraulically equivalent elevations can be determined by elevation data, observed ordinary-high water mark, ordinary-high water marks determined by a state or federal agency, or best available water surface profiles.* ***Hydrologically Connected:** connected in such a manner that precipitation will runoff directly into a watercourse.* ***Impervious Surface:** A surface that cannot be penetrated by water and thereby prevents infiltration.* ***Low Impact Development:** An approach to land development (or redevelopment) that works with nature to manage stormwater at or near its source. It employs principles such as preserving and recreating natural landscape features, and minimizing imperviousness to create functional site drainage. 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.*	***Included*** ***Included*** ***Included*** ***Included***		

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.	**Included**		
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".	**Included**		
Manufactured dwelling park or subdivision: A parcel (or contiguous parcels) of land divided into two or more manufactured dwelling lots for rent or sale.	**Included**		
Mean Higher-High Water: *The 19-year average of the higher high-tide water height of each tidal day observed over the National Tidal Datum Epoch.*	***Included***		
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.	**Included**		
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	**Included**		

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 floodplain function from the existing condition when a development application is submitted to the state, tribal, or local jurisdiction. The floodplain functions of flood storage, water quality, and vegetation must be maintained.*	***Included***		
Offsite: *Mitigation occurring outside of the project area or parcel.*	***Included***		
Onsite: *Mitigation occurring within the project area or parcel.*	***Included***		
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.*	***Included***		
Pervious Surface: *surfaces that allow rain and snowmelt to seep into the soil and gravel below. Pervious surface may also be referred to as permeable surface.*	***Included***		
Qualified Professional: *Appropriate subject matter expert that is defined by the community.*	***Included***		
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 hydrologic conditions) between major tributaries or two stream gages, or a length of river for*	***Included***		

which the characteristics are well described by readings at a single stream gage. **Recreational vehicle:** A vehicle which is: 1. Built on a single chassis; 2. 400 square feet or less when measured at the largest horizontal projection; 3. Designed to be self-propelled or permanently towable by a light duty truck; and 4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.	**Included**		
Riparian: *Of, adjacent to, or living on, the bank of a river, lake, pond, or other water body.*	***Included***		
Riparian Buffer Zone (RBZ): *The boundary of the riparian buffer zone is measured from the ordinary high water mark (OHWM) of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water (MHHW) line of a marine shoreline or tidally influenced river reach to 170 feet inland. The riparian buffer zone includes the area between these 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.*	***Included***		
Silviculture: *The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands.*	***Included***		

Special flood hazard area: See "Area of special flood hazard" for this definition.	**Included**		
Start of construction: Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.	**Included**		
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.	**Included**		
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	**Included**		

of the structure before the damage occurred. **<u>Substantial improvement:</u>** Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either: 1. Any project for improvement of a structure to correct 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 2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure." **Undeveloped Space** *(Flood).* The volume of flood capacity and fish-accessible/egress-able space from the existing ground to the BFE 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 food storage volume and fish accessible/egress-able space must achieve no net loss.	**Included** **Included** **Included**		

Variance: A grant of relief by COMMUNITY NAME from the terms of a flood plain 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.	**Included**		
3.1 Lands to Which This Ordinance Applies This ordinance shall apply to all special flood hazard areas within the jurisdiction of COMMUNITY NAME.	V	2.12.040	Yes
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).	V	2.12.050	Yes

3.3 Coordination with State of Oregon Specialty Codes Pursuant to the requirement established in ORS 455 that the INSERT COMMUNITY NAME administers and enforces the State of Oregon Specialty Codes, the INSERT 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.	I	2.12.060	Yes
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.	V	2.12.070	Yes
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 (INSERT INFRACTION TYPE (I.E. MISDEMEANOR). INSERT 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	I	2.12.070	Yes

MONEY…) Nothing contained herein shall prevent the COMMUNITY NAME from taking such other lawful action as is necessary to prevent or remedy any violation.			
3.5.1 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.	V	2.12.080	Yes
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.	V	2.12.080	Yes
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.	V	2.12.090	Yes
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	V	2.12.100	Yes

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.	V	2.12.100	Yes
4.1 Designation of the Floodplain Administrator The INSERT 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.		2.12.110	Yes
4.2 Duties and Responsibilities of the Floodplain Administrator Duties of the floodplain administrator, or their designee, shall include, but not be limited to:		2.12.110	Yes
4.2.1 Permit Review Review all development permits to determine that: A. The permit requirements of this ordinance have been satisfied; B. All other required local, state, and federal permits have been obtained and approved. C. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway assure that the floodway		2.12.110	Yes

provisions of this ordinance in section Error! Reference source not found. are met; and D. Review all development permits to 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 E. 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. F. Review all development permit applications to determine if the proposed development qualifies as a substantial improvement as defined in section **2.0**. G. Review all development permits to 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**. H. Review all development permits to determine if the proposed development activity includes the placement of fill or excavation.			
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. Obtain, record, and maintain the actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or		2.12.110	Yes

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. Obtain and record 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 **5.2.4, 5.3.1(F), 4.2.1(B)** are adhered to. C. Upon placement of the lowest floor of a structure (including basement) but prior to further vertical construction, obtain 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, obtain 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 (INSERT COMMUNITY NAME); F. Obtain, record, and maintain 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. Maintain all floodproofing certificates required under this ordinance; H. Record and maintain all variance actions, including justification for their issuance; I. Obtain and maintain all hydrologic and hydraulic analyses performed as required under section **5.2.4**. J. Record and maintain all Substantial Improvement and Substantial Damage calculations and determinations as required under section **4.2.4**. K. Maintain for public inspection all records pertaining to the provisions of this ordinance.			
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.	V	2.12.110	Yes
4.2.3.2 Watercourse Alterations Notify adjacent communities, the Department of Land Conservation and Development, and other		2.12.110	Yes

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: A. A proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or B. Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance. 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 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	I	2.12.010	Yes

Insurance Administrator of the changes by submitting technical or scientific data in accordance with Section 44 of the Code of Federal Regulations (CFR), Sub-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. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for: A. Proposed floodway encroachments that increase the base flood elevation; and B. 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. 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).			
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	I	2.12.110	Yes

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.			
4.3.1 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.	V	2.12.120	Yes
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**.		2.12.120	Yes

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 nonresidential structure meet the floodproofing criteria for nonresidential 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.	I	2.12.130	Yes

4.4.1 Conditions for Variance 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: 1. A showing of good and sufficient cause; 2. A determination that failure to grant the variance would result in exceptional hardship to the applicant; 3. 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		2.12.130	Yes

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.			
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**.	V	2.12.130	Yes
5.1 General Standards In all special flood hazard areas, the following standards shall be adhered to:		2.12.140	Yes
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**.	V	2.12.140	Yes
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	V	2.12.140	Yes

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.	V	2.12.140	Yes
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.	V	2.12.140	Yes
5.1.4.2 Electrical, Mechanical, Plumbing, and Other Equipment Electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service		2.12.140	Yes

facilities shall be elevated at or above the base flood level (INSERT ANY COMMUNITY FREEBOARD REQUIREMENT HERE) 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 (INSERT COMMUNITY FREEBOARD REQUIREMENT HERE) 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.		2.12.140	Yes
5.1.6 Subdivision Proposals A. All new subdivision proposals and other proposed new developments (including proposals for manufactured home		2.12.150	Yes

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 home parks and subdivisions) shall: 1. Be consistent with the need to minimize flood damage. 2. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage. 3. Have adequate drainage provided to reduce exposure to flood hazards.			
5.1.7 Use of Other Base Flood Data 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**. 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	V	2.12.160	Yes

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. (Insert 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 structures 2feet 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.	I	2.12.170	Yes
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.		2.12.180	Yes
5.2.1 Flood Openings All new construction and substantial improvements with fully enclosed		2.12.200	Yes

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 exist 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: 1. A minimum of two openings, 2. The total net area of non-engineered openings shall be not less than one (1) square inch for each square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls, 3. The bottom of all openings shall be no higher than one foot above grade. 4. 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. 5. 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		2.12.180 2.12.230	Yes

slab below the Base Flood Elevation (BFE) in riverine flood zones, if the following requirements are met: 1. If located within a floodway the proposed garage must comply with the requirements of section **5.2.4**. 2. The floors are at or above grade on not less than one side; 3. The garage is used solely for parking, building access, and/or storage; 4. 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. 5. The portions of the garage constructed below the BFE are constructed with materials resistant to flood damage; 6. The garage is constructed in compliance with the standards in section **5.1**; and 7. 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 nonresidential 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.		2.12.190	Yes
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.		2.12.190	Yes
5.2.3.2 Residential Construction A. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at or above the Base Flood Elevation (BFE) (INSERT 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**.		2.12.190	Yes
5.2.3.3 Non-Residential Construction A. New construction and substantial improvement of any commercial,		2.12.190	Yes

industrial, or other nonresidential structure shall: 1. Have the lowest floor, including basement elevated at or above the Base Flood Elevation (BFE) (INSERT ANY ADDITIONAL FREEBOARD REQUIREMENTS FOR YOUR COMMUNITY); Or, together with attendant utility and sanitary facilities, 2. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water; 3. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. 4. 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. New or substantially improved manufactured dwellings 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. New or substantially improved manufactured dwellings 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).		2.12.210	Yes
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, 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.		2.12.220	Yes

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.		2.12.230	Yes

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 incompliance with section **5.1.5**. 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: 1. Certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard		2.12.240	Yes

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, 2. A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that a Conditional Letter of Map Revision (CLOMR) is applied for and approved by the Federal Insurance Administrator, and the requirements for such revision as established under Volume 44 of the Code of Federal Regulations, section 65.12 are fulfilled. 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**.			
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.		2.12.250	Yes

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(A).**	I	2.12.260	Yes
5.2.5.2 Standards for AO Zones In AO zones, the following provisions apply in addition to the requirement in section **5.2.5 (A)**: A. New construction 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 at or above the depth number specified on the Flood Insurance Rate Maps (FIRM) (INSERT COMMUNITY FREEBOARD REQUIREMENT HERE) (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 and substantial improvements of non-nonresidential structures within AO zones shall either: 1. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at minimum at or above the depth number specified on the Flood Insurance Rate Maps (FIRMS) (INSERT COMMUNITY FREE BOARD REQUIREMENT HERE) (at least two (2) feet if no depth number is specified); or		2.12.270	Yes

2. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the depth number specified on the FIRM (INSERT COMMUNITY FREEBOARD REQUIREMENT HERE) 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 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: 1. Be on the site for fewer than 180 consecutive days, and 2. 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 3. 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 areas 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**.		N/A	N/A
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: 1. 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 2. 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		N/A	N/A

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 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 local 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: 1. Breakaway wall collapse shall result from water load less than that which would occur during the base flood; and 2. If breakaway walls are utilized, such enclosed space shall be useable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation. 3. Walls intended to break away under flood loads shall have flood openings that meet or exceed the criteria for flood openings in section **5.2.1**. E. The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum water loading values to be used in this determination shall be those associated with the base flood. Maximum wind loading values used shall be those specified by the State of Oregon Specialty Codes. F. Prohibit the use of fill for structural support of buildings.			

G. All new construction shall be located landward of the reach of mean high tide. H. Prohibit man-made alteration of sand dunes which would increase potential flood damage. I. All structures, including but not limited to residential structures, non-residential structures, appurtenant structures, and attached garages shall comply with all the requirements of section **5.3.1** Floodproofing of non-residential structures is prohibited.			
5.3.1.1 Manufactured Dwelling Standards for Coastal High Hazard Zones All manufactured dwellings to be placed or substantially improved within Coastal High Hazard Areas (Zones V, V1-30, VE, or Coastal A) shall meet the following requirements: A. Comply with all of the standards within section **5.3**; B. The bottom of the longitudinal chassis frame beam shall be elevated to a minimum of one foot above the Base Flood Elevation (BFE); and C. Electrical crossover connections shall be a minimum of 12 inches above the BFE.		N/A	N/A
5.3.1.2 Recreational Vehicle Standards for Coastal High Hazard Zones Recreational Vehicles within Coastal High Hazard Areas (Zones V, V1-30, VE, or 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 its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and		N/A	N/A

Verbatim/ Intent			

has no permanently attached additions; or C. Meet the permit requirements of section **4.0** and the requirements for manufactured homes in section **5.3.1.1**.			
5.3.1.3 Tank Standards for Coastal High Hazard Zones Tanks shall meet the requirements of section **5.1.5.**		N/A	N/A

No Net Loss Standards	Verbatim/ Intent	Local Ord. Section	Compliant
6.1 A No net loss *of the three floodplain functions, which are flood storage, water quality, and vegetation, is required for development in the special flood hazard area that would reduce flood storage capacity, reduce pervious surface, or result in a loss of trees that are 6-inches diameter at breast height (dbh) or greater.* *No net loss can be achieved by avoiding impacts, minimizing remaining impacts, and mitigating/or otherwise compensating for, offsetting, or rectifying the adverse impacts to the three floodplain functions.*		2.12.280	Yes
6.1.A.i Prior to the issuance *of any development authorization, the applicant shall demonstrate a legal right to implement the proposed activities to achieve no net loss (e.g., property owner agreement) at the proposed location.*		2.12.290	Yes
6.1.A.ii Prior to the issuance *of any development authorization, the applicant shall demonstrate that financial assurances are in place for the long-term maintenance and monitoring of all projects to achieve no net loss.*		2.12.290	Yes

6.1.A.iii Prior to the issuance *of any development authorization, the applicant shall develop a management plan for mitigation areas for multi-parcel facilities, subdivisions, common plans of development, or for mitigation performed offsite. The management plan shall identify the responsible site manager, stipulate what activities are allowed on site and require the posting of signage identifying the site as a mitigation area.*		2.12.290	Yes
6.1.B Compliance with no net loss *for flood storage, pervious surface, and vegetation is preferred to occur prior to the loss of floodplain function but, at a minimum, shall occur concurrent with the loss.*		2.12.290	Yes
6.1.C No net loss *must be provided within, in order of preference:* *1) the lot or parcel that floodplain functions were removed from,* *2) within the special flood hazard area and the same reach of the waterbody where the development is proposed, or 3) the special flood hazard area within the same watershed (10-digit hydrologic unit code) as the proposed development.* *Table 1 (end of document) presents the mitigation ratios required to achieve no net loss of floodplain functions, which increase based on the preferences listed above.*		2.12.290	Yes

6.1.1.A The volume of flood storage *capacity impacted by the development must be replaced with compensatory volume that is fish-accessible and egressable to the greatest extent possible as determined by a qualified professional, based on the ratio in Table 1 at the same flood level at which the development causes an impact (i.e., plus or minus 1 foot of the hydraulically equivalent elevation).*		2.12.290	Yes
6.1.1.A.i Compensatory volume *for flood storage capacity must be at a hydraulically equivalent elevation, which is the same elevation relative to the BFE as the development that causes an impact or within 1 foot of the hydraulically equivalent elevation. Hydraulically equivalent elevations can be determined by elevation data or best available water surface profiles.*		2.12.290	Yes
6.1.1.A.ii Compensatory volume *for flood storage capacity must be hydrologically connected to the waterbody that is the flooding source.*		2.12.290	Yes
6.1.1.A.iii Compensatory volume *for flood storage capacity must be designed so that there is no increase in velocity as determined by a qualified professional.*		2.12.290	Yes
6.1.2.A Development shall not result *in a net reduction in pervious surface area within the special flood hazard area.*		2.12.290	Yes
6.1.2.B The reduction of pervious *surfaces must be offset by removing an equal area of impervious surface.*		2.12.290	Yes
6.1.2.C Low impact development *or green infrastructure shall be used to infiltrate and treat stormwater produced from new impervious surfaces, and it must be sized to accommodate the stormwater runoff associated with a 10-year storm event on the square footage*		2.12.300	Yes

of new impervious surface, as documented by a qualified professional.			
6.1.2.D If 6.1.2 (A)-(C) are not feasible *[i.e., avoid reductions in pervious surface or mitigate through removal of impervious surface or low impact development or green infrastructure], as documented by a qualified professional, stormwater retention shall be required to ensure no increase in peak volume or flow and to maximize infiltration. Treatment is required to minimize pollutant loading. See section* ***6.2.C*** *[i.e., stormwater management requirements] for stormwater retention specifications.*		2.12.300	Yes
6.1.3.A Development shall result in *no net loss of trees 6-inches dbh or greater within the special flood hazard area. This requirement does not apply to silviculture practices that do not meet the definition of development.*		2.12.290	Yes
6.1.3.A.i Trees of or exceeding 6-inches *dbh that are removed must be replaced at the ratio in Table 1 and planted within the special flood hazard area.*		2.12.290	Yes
6.1.3.A.ii Replacement trees must be *tree species native to the project area.*		2.12.290	Yes
6.2.A-B Any development that cannot *achieve no net loss of pervious surface as specified in* ***6.1.2 (A)-(C)*** *[i.e., avoid reductions in pervious surface or mitigate through removal of impervious surface or low impact development or green infrastructure] must include the following:* *A. Water quality (pollution reduction) treatment for post-construction stormwater runoff from any net increase in impervious area; and* *B. Water quantity treatment (retention or detention facilities), unless the water discharges into the ocean.*		2.12.300	Yes

6.2.C-D Retention and detention facilities *must:* *i. Limit discharge to match the pre-development peak discharge rate (i.e., the discharge rate of the site based on its natural groundcover and grade before any development occurred) for the 10-year peak flow using a continuous simulation for flows between 50 percent of the 2-year event and the 10-year flow event (annual series).* *ii. Treat stormwater to remove sediment and pollutants from impervious surfaces such that at least 80 percent of the suspended solids are removed from the stormwater prior to discharging to the receiving water body.* *iii. Be designed to not entrap fish.* *iv. Be designed by a qualified professional.* *Detention facilities must:* *i. Drain to the source of flooding.*		2.12.300	Yes
6.2.E Stormwater treatment practices *for multi-parcel facilities, including subdivisions or proposals with a common plan of development, shall have an enforceable operation and maintenance agreement to ensure the system functions as designed. This agreement will include:* *i. Access to stormwater treatment facilities at the site by the community staff 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 shall be recorded with the community Recorder's Office and shall remain with the title of the property regardless of ownership.* *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.*		2.12.300	Yes

iv. The responsible party for the operation and maintenance of the stormwater facility shall have the operation and maintenance manual available at all times. Records of the maintenance and repairs shall be retained and made available for inspection by the community.			
***6.3 The following activities are not** subject to the no net loss standards; however, they may not be exempt from floodplain development 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, driveway, and road maintenance including farm and forest roads, including filling potholes, repaving, and installing signs and traffic signals, that does not alter contours, use, or alter culverts. Exempt activities do not include vertical or horizontal 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 (harvesting of trees), including hazardous fuels reduction and hazard tree removal as long as root balls are left in place.* *F. Lawn care, gardening, 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*		2.12.310	Yes

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 are considered self-mitigating and are not subject to the no net loss standards.*			
***6.4 A. The Riparian Buffer Zone** is measured from the ordinary high-water mark of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or from the mean higher-high water line of a marine shoreline or tidally influenced river reach to 170 feet inland. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel.* *B. Functionally dependent uses are only subject to the no net loss standards in Section 6.1 for development in the RBZ. Ancillary features that are associated with but that are not also functionally dependent uses in the RBZ (including manufacturing support facilities and restrooms) are subject to the beneficial gain standard in addition to no net loss.* *C. Any other use of the RBZ requires a greater offset to achieve no net loss of floodplain functions, in addition to the no net loss standards described above, through the beneficial gain standard.* *D. Under FEMA's beneficial gain standard, an area within the same reach of the project and equivalent to 5 percent of the total project area within the RBZ shall be planted with herbaceous, shrub, and tree vegetation native to the project area.*		2.12.320 2.12.330	Yes

Table 1 Mitigation Ratios: *Confirm that the mitigation ratios for flood storage capacity, pervious surface, and trees 6 inches dbh and greater conform to those in Table 1. Mitigation ratios vary by tree size and location of impacts (i.e., within the floodway, RBZ, or outside of the RBZ in the remainder of the SFHA) as well as multipliers for mitigation occurring offsite, within a different reach, but within the same watershed (i.e., 10-digit Hydrologic Unit Code [HUC]).*		Table 1	Yes

Table 1. Mitigation Ratios to Offset Development Impacts on Floodplain Functions

Basic Ratios	Flood Storage Capacity	Pervious Surface	Trees (6-inches dbh to 20-inches dbh)	Trees (20-inches dbh to 39-inches dbh)	Trees (39-inches dbh or greater)
Impact Occurring in the Mapped Floodway	2:1	1:1	3:1	5:1	6:1
Impact Occurring in the Riparian Buffer Zone (RBZ)	2:1	1:1	3:1	5:1	6:1
Impact Occurring Outside the RBZ, in remainder of Special Flood Hazard Area (SFHA)	1.5:1	1:1	2:1	4:1	5:1
Multipliers					
Mitigation occurring onsite or offsite within the same reach	100%	100%	100%	100%	100%
Mitigation occurring offsite, within a different reach, but within the same watershed (i.e., 10-digit Hydrologic Unit Code [HUC])[1]	200%	200%	200%	200%	200%

Conditions:

1. When the floodway is not mapped, the mitigation ratios for the RBZ and remainder of the SFHA will be used, depending on the location of the impact.
2. Trees planted for mitigation do not have a specified dbh; however, they must be native species.
3. Mitigation multipliers of 100 percent result in the required mitigation occurring at the same value described by the ratios above, while multipliers of 200 percent result in the required mitigation being doubled.
    a. For example, if a development would create 1,000 square feet of new impervious surface, then 1,000 square feet of new pervious surface would need to be created. However, if only 500 square feet can be created onsite and in the same reach, the remaining 500 square feet created offsite along a different reach would need to be created at double the required amount as a result of the 200 percent multiplier. That is, another 1,000 square feet of pervious surface would need to be created at the offsite location, in addition to the 500 square feet created onsite.

[1] The 10-digit HUC watershed is also called the 5th Level or Watershed 5th Level (2016 BiOp, Appendix 2.8-C (f))

4. Reach is defined as 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 hydrologic 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.
5. Watersheds are determined by the U.S. Geological Survey using the 10-digit HUC area.

Sections that need to be removed from current ordinance for compliance:

Oregon Model Flood Ordinance Regulatory Crosswalk

Section	Code of Federal Regulations (CFR) and Technical Bulletin Citation(s)	State of Oregon Citation(s) (Goal 7, Specialty Codes*, 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	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; R106.1.4; R109.1.3; R109.1.6.1; R322.1.10; R322.3.6

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; R106.1.4; 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; 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 Nonresidential 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	S105.2; 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
5.3.1.2 Recreational Vehicle Standards for Coastal High Hazard Zones	60.3(e)(9)(i)- (iii)	Goal 7