CITY OF GEARHART

ORDINANCE NO. 952

AN ORDINANCE REPEALING ORDINANCE 947 IN ITS ENTIRETY AND REPLACING THE TEXT OF ZONING ORDINANCE SECTION 3.10 FLOOD HAZARD OVERLAY ZONE TO IMPLEMENT FEMA's ESA-PICM STANDARDS WITH GEARHART REVISIONS

WHEREAS, the City of Gearhart is a participant in the National Flood Insurance Program (NFIP), which provides property owners access to federally-backed flood insurance and eligibility for certain federal disaster relief programs; and

WHEREAS, in 2024 FEMA communicated to the City that in order to remain in good standing with the National Flood Insurance Program, the City must also implement one of the three Endangered Species Compliance pathways called Pre-Implementation Compliance Measures (PICM); and

WHEREAS, adoption of FEMA's PICM Model Ordinance will make Gearhart's floodplain management regulations comply with the National Flood Insurance Program requirements including ESA/PICM compliance; and

WHEREAS, the Planning Commission recommended approval following a duly noticed public hearing on October 9th, 2025, and the City Council held a public hearing on November 5th 2025 and fully considered the recommendation of the Planning Commission, public testimony, and staff analysis; and

WHEREAS, City Council completed two readings adopting Ordinance 952 November 5th and December 3rd;

NOW, THEREFORE, the City of Gearhart ordains Ordinance 947 is repealed in its entirety and the text of the Zoning Ordinance Section 3.10 Flood Hazard Overlay Zone is replaced in its entirety by the **FEMA ESA/PICM Model Floodplain Management Ordinance with Gearhart Revisions (Exhibit A)**

Passed by the City Council of Gearhart this 5th day of November, 2025.

Yeas: 4

Nays: 0

Absent: 0

Abstain: 1

Approved and signed by the Mayor of Gearhart this 3rd day of December, 2025.

Mayor Kerry Smith

ATTEST:

City Administrator, Chad Sweet

Ordinance 952 Exhibit A

3.10.1.0 STATUTORY AUTHORITY, FINDINGS OF FACT, PURPOSE, AND METHODS

3.10.1.1 STATUTORY AUTHORIZATION

The State of Oregon has in 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 CITY OF GEARHART does ordain as follows:

3.10.1.2 FINDINGS OF FACT

A. The flood hazard areas of CITY OF GEARHART 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.

3.10.1.3 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 expenditures 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.

3.10.1.4 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. <u>Employing a standard of "no net loss" of natural and beneficial flood plain functions.</u>

3.10.2.0 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 on a community's Flood Insurance Rate Map (FIRM) with 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.

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 an adult or juvenile individual of the identified 16 ESA-listed fish to access.

Fish Egress-able Space: The volumetric space available to an adult or juvenile individual of the identified 16 ESA- 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:

    i. The overflow of inland or tidal waters.

    ii. The unusual and rapid accumulation or runoff of surface waters from any source.

    iii. 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 of 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, accompanies 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 or 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."

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

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."

Footprint: The existing measurements of the structure related to the three floodplain functions and their proxies. The footprint related to floodplain storage refers to the volumetric amount of developed space measured from the existing ground level to the BFE, and the footprint related to water quality refers to the area of impervious surface that the structure creates.

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 previous 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 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:
    i. By an approved state program as determined by the Secretary of the Interior; or

    ii. 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 resistance 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 CITY OF GEARHART 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.

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.

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

Reach: A section of a stream or river along with 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 self-propelled or permanently towable by a light duty truck; and

d. Designed primarily not for use as a permanent dwelling but as a 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 the 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 continue 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 has not been reduced due to activity that meets FEMA's definition of development. Examples of development that impede undeveloped space includes, but is 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.

Variance: A grant of relief by CITY OF GEARHART from the terms of a floodplain management regulation.

Violation: The failure of a structure of other development to be fully compliance 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.

3.10.2.1 ACRONYMS

BA: Biological Assessment
BE: Biological Evaluation
BFE: Base Flood Elevation
BiOp: Biological Opinion
CFR: Code of Federal Regulations
CLOMR: Conditional Letter of Map Revision
CMZ: Channel Migration Zone
CRS: Community Rating System
CWA: Clean Water Act
dbh: Diameter Breast Height
DLCD: Oregon Department of Land Conservation
EFH: Essential Fish Habitat
ESA: Endangered Species Act
FEMA: Federal Emergency Management Agency
FIRM: Flood Insurance Rate Map
JPA: Joint Permit Application
LID: Low-Impact Development
LOMR: Letter of Map Revision
MA: Mitigation Assessment
MHHW: Mean Higher-High Waterline
NFIP: National Flood Insurance Program
NMFS: National Marine Fisheries Service
NNL: No Net Loss
ODEQ: Oregon Department of Environmental Quality
ODSL: Oregon Department of State Lands
OHWM: Ordinary High-Water Mark
ORS: Oregon Revised Statutes
ORSC: Oregon Residential Specialty Code
OSSC: Oregon Structural Specialty Code
PICM: Pre-implementation Compliance Measures
RBZ: Riparian Buffer Zone
RPA: Reasonable and Prudent Alternative
SFHA: Special Flood Hazard Area
TB: Technical Bulletin
USACE: United States Army Corps of Engineers

USFWS: United States Fish and Wildlife Service
USGS: United States Geological Service

3.10.3.0 GENERAL PROVISIONS

3.10.3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

This ordinance shall apply to all special flood hazard areas within the jurisdiction of the CITY OF GEARHART.

3.10.3.2 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 Clatsop County, Oregon, dated June 20th, 2018, with accompanying Flood Insurance Rate Maps (FIRMs) 41007C0366F, 41007C0367F, 41007C0368F and 41007C0369F are hereby adopted by reference and declared to be part of this ordinance. The FIS and FIRM panels are on file at Gearhart City Hall, 698 Pacific Way, Gearhart, Oregon, 97138.

3.10.3.3 COORDINATION WITH STATE OF OREGON SPECIALTY CODES

Pursuant to the requirement established in ORS 455 that the CITY OF GEARHART administers and enforces the State of Oregon Specialty Codes, the CITY OF GEARHART 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.

3.10.4.0 COMPLIANCE AND PENALTIES FOR NONCOMPLIANCE

3.10.4.1 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.

3.10.4.2 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 MISDEMEANOR. A person violating a provision of this ordinance shall be fined an amount not to exceed $500.00. A violation of this ordinance shall be considered a separate offense for each day the violation continues. Nothing contained herein shall prevent the CITY OF GEARHART from taking such other lawful action as is necessary to prevent or remedy any violation.

3.10.3.5 ABROGATION AND SEVERABILITY

3.10.3.5.1 ABROGATION

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

3.10.3.5.2 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 affect the validity of the remaining portions of this Ordinance.

3.10.3.6 INTERPRETATION

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

a. Considered as minimum requirements;

b. Liberally construed in favor in the governing body; and

c. Deemed neither to limit nor repeal any other powers granted under state statutes.

3.10.3.7 WARNING AND DISCLAIMER OF LIABILITY

3.10.3.7.1 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.

3.10.7.2 DISCLAIMER OF LIABILITY

This ordinance shall not create liability on the part of CITY OF GEARHART, 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.

3.10.4.0 ADMINISTRATION

3.10.4.1 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The Building Official is hereby appointed to administer, implement, and enforce this ordinance by granting or denying development permits in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

3.10.4.2 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

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

3.10.4.1 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 3.10.5.2.4 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 3.10.5.1.7; and

   iii. Provide to building officials the Base Flood Elevation (BFE) and the Base Flood Elevation plus one (1) foot applicable to any building requiring a development permit.

d. Determine if the proposed development qualifies as a substantial improvement as defined in section 3.10.2.0.

e. Determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in section 3.10.5.11.

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 3.10.6.0.

3.10.4.2 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 3.10.5.1.7.

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 the construction and the placement of any fill and ensure that the requirements of sections 3.10.4.2.1(B), 3.10.5.2.4, and 3.10.5.3.1(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 3.10.5.1.7.

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 3.10.5.2.4.

j. All Substantial Improvement and Substantial Damage calculations and determinations as required under section 3.10.4.2.4.

k. Documentation of how no net loss standards have been met (see Section 3.10.6.0)

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

3.10.4.2.3 REQUIREMENT TO NOTIFY OTHER ENTITIES AND SUBMIT NEW TECHNICAL DATA

3.10.4.2.3.1 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.

3.10.4.2.3.2 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 3.10.4.2.3.3. Ensure compliance with all applicable requirements in sections 3.10.4.2.3.3 and 3.10.5.1.1.

3.10.4.2.3.3 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).

3.10.4.2.4 SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE ASSESSMENTS AND DETERMINATIONS

Conduct Substantial Improvement (SI) (as defined in section 3.10.2.0) reviews for all structural development proposal applications and maintain a record of SI calculations within permit files in accordance with section 3.10.4.2.2. Conduct Substantial Damage (SD) (as defined in section 3.10.2.0) 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 3.10.3.2) are damaged to the extent that the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.

3.10.4.3 ESTABLISHMENT OF DEVELOPMENT PERMIT

3.10.4.3.1 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 3.10.3.2. The development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in section 3.10.2.0, including fill and other development activities.

3.10.4.3.2 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 3.10.4.2.2.

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 3.10.5.2.3.3.

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 3.10.4.2.1 and 3.10.5.1.6.

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.

3.10.4.4 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.

3.10.4.4.1 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 3.10.4.4.1 (C) and (E), and 3.10.4.4.2. 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; and

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 3.10.4.4.1(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 3.10.6.0 and associated options in Table 1).

3.10.4.4.2 VARIANCE NOTIFICATION

Any applicant to whom a variance is grated 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 3.10.4.2.2.

3.10.5.0 PROVISIONS FOR FLOOD HAZARD REDUCTION

3.10.5.1 GENERAL STANDARDS

In all special flood hazard areas, the no net loss standards (see Section 3.10.6.0) and the following standards shall be adhered to:

3.10.5.1.1 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 3.10.4.2.3.2 and 3.10.4.2.3.3.

3.10.5.1.2 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 3.10.5.2.3.4.

3.10.5.1.3 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.

3.10.5.1.4 UTILITIES AND EQUIPMENT

3.10.5.1.4.1 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.

3.10.5.1.4.2 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 plus one (1) foot 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.

3.10.5.1.5 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 plus one (1) foot of 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.

3.10.5.1.6 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 3.10.6.0.

3.10.5.1.7 USE OF OTHER BASE FLOOD ELEVATION DATA

a. When Base Flood Elevation data has not been provided in accordance with section 3.10.3.2 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 3.10.5.0. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) must meet the requirements of section 3.10.5.1.6.

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 where available. Residential structures and commercial structures that are not dry floodproofed shall be elevated at least two feet above the highest adjacent grade. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

3.10.5.1.8 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.

3.10.5.2 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 3.10.5.1 of this ordinance and the no net loss standards (see Standard 3.10.6.0).

3.10.5.2.1 FLOOD OPENINGS

All new construction and substantial improvements with full 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.

3.10.5.2.2 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 3.10.5.2.4;

   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 3.10.5.2.1 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 3.10.5.1; 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 3.10.5.2.3.6 or non-residential structures in section 3.10.5.2.3.3 depending on the square footage of the garage.

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

In addition to the general standards listed in section 3.10.5.1 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.

3.10.5.2.3.1 BEFORE REGULATORY FLOODWAY

In areas where a regulatory floodways 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 3.10.6.1.C.

3.10.5.2.3.2 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) plus one (1) foot.

b. Enclosed areas below the lowest floor shall comply with the flood opening requirements in section 3.10.5.2.1.

3.10.5.2.3.3 NON-RESIDENTIAL CONSTRUCTION

a. 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) plus one (1) foot, or

    ii. Together with attendant utility and sanitary facilities:

        1. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;

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

3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this 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 3.10.4.2.2.

b. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in section 3.10.5.2.1.

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.

3.10.5.2.3.4 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 3.10.5.2.1;

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).

3.10.5.2.3.5 RECREATIONAL VEHICLES

Recreational vehicles placed on the 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 3.10.5.2.3.4, including the anchoring and elevation requirements for manufactured dwellings.

3.10.5.2.3.6 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 the requirements for development within a floodway found in section 3.10.5.2.4;

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 3.10.5.2.1;

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 the section 3.10.5.1.5; 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.

3.10.5.2.4 FLOODWAYS

Located within the special flood hazard areas established in section 3.10.3.2 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 3.10.6.0.

b. If the requirements of section 3.10.5.2.4 (A) are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazards reduction provisions of section 3.10.5.0 and 3.10.6.0.

3.10.5.2.5 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 with 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.

3.10.5.2.5.1 STANDARDS FOR AH ZONES

Development within AH Zones must comply with the standards in sections 3.10.5.1, 3.10.5.2, and 3.10.5.2.5.

3.10.5.2.5.2 STANDARDS FOR AO ZONES

In AO zones, the following provisions apply in addition to the requirements in sections 3.10.5.1 and 3.10.5.2.5:

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 one (1) foot above the depth number specified on the Flood Insurance Rate Maps (FIRM) and at least two (2) feet above the highest adjacent grade 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) plus one (1) foot (at least two (2) feet above the highest adjacent grade 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 plus one (1) foot 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 3.10.5.2.3.3(A)(4).

c. Recreational vehicles place 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 3.10.5.2.5.2(A), and the anchoring and other requirements for manufactured dwellings of section 3.10.5.2.3.4.

d. In AO zones, new and substantially improved appurtenant structures must comply with standards in section 3.10.5.2.3.6.

e. In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in section 3.10.5.2.1.

3.10.5.3 SPECIFIC STANDARDS FOR COASTAL HIGH HAZARD FLOOD ZONES

Located within special flood hazard areas established in section 3.10.3.2 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 3.10.5.1.

3.10.5.3.1 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 3.10.4.2.2.

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

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

iii. Walls intended to break away under flood loads shall have flood openings that meet or exceed the criteria for flood openings in section 3.10.5.2.1.

e. The elevated portion of the building and supported foundation system shall not be subjective 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 3.10.5.3.1 Floodproofing of non-residential structures is prohibited.

3.10.5.3.1.1 MANUFACTURED DWELLING STANDARDS FOR COASTAL HIGH HAZARD ZONES

All manufactured dwellings to be placed (new or replacement) 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 3.10.5.3

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.

3.10.5.3.1.2 RECREATIONAL VEHICLES 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 wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

3.10.5.3.1.3 TANK STANDARDS FOR COASTAL HIGH HAZARD ZONES

Tanks shall meet the requirements of section 3.10.5.1.5 and 3.10.6.0.6.

3.10.6.0 STANDARD FOR PROTECTION FO SFHA FLOODPLAIN FUNCTIONS

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. The 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. The standards described below apply to all special flood hazard areas as defined in Section 3.10.2.

3.10.6.1 NO NET LOSS STANDARDS

a. No net loss of the proxies for the floodplain functions mentioned in Section 3.10.6.0 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.

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.

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.

i. Mitigation may be credited from a separate floodplain development permit closed within five years prior to submittal of the floodplain development permit application that requires mitigation.

ii. The application establishing credit shall not have been submitted before August 29th, 2025.

iii. The application and floodplain permit establishing credit shall be made prior to the action establishing credit. Credit will not be established for actions taken prior to obtaining a floodplain development permit.

iv. The application establishing credit shall include documentation including pre and post development elevation drawings, photographs and calculations prepared by an engineer or surveyor to establish the credit.

v. The credit shall run with the land for a period of five years. Use of the credit on a different site shall occur through a floodplain development permit and shall require acknowledgement by the property owner of the site where credit was established.

vi. The application using credit shall reference the permit number and location of the permit that established the credit, and the amount of credit that it uses.

vii. The application using credit shall include an affidavit signed by the property owners of the site that established the credit, acknowledging the specific credit amounts that will be used at the receiving site.

viii. *The application using credit, shall submit post construction elevation certificates, elevations, drawings and photographs documenting the post construction conditions,*

ix. *The City shall maintain a table documenting pending and final credits and debits. The table shall be updated each time a floodplain permit is approved and each time a floodplain permit is closed out.*

d. *Applicants may demonstrate compliance with the No Net Loss Standards through one or a combination of the two approaches below:*

1) *Demonstrate that the proposed floodplain development has none of the 16 ESA-listed fish species and the Southern resident killer whale in the project area and that development would create no adverse effect through indirect, and/or cumulative downstream effects to said species by completing a full Habitat Assessment following steps 1-6 identified in the latest version of Floodplain Habitat Assessment and Mitigation: Regional guidance for Oregon, available on FEMA's website. Habitat assessments with an effects determination outcome of "No effect" or "Not likely to adversely affect" do not require compensatory mitigation to achieve no net loss. Habitat assessments with an effects determination outcome of "Likely to Adversely Affect", require compensatory mitigation consistent with Table 1of this section to achieve no net loss.*

2) *Demonstrate that the proposed floodplain development complies with this section by following the standards below, using the latest version of Floodplain Mitigation Assessment: Regional Guidance for Oregon available on FEMA's website.*

3.10.6.1.1 UNDEVELOPED SPACE

a. Development proposals shall not reduce the fish-accessible and egress-able habitat and flood storage volume created by undeveloped space within the special flood hazard area. A development proposal with an activity that would impact undeveloped space shall achieve no net loss of fish-accessible and egress-able space and flood storage volume.

i. Lost undeveloped space must be replaced with fish-accessible and egress-able compensatory volume based on the ratio in Table 1.

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

iii. Designed so that there is no increase in velocity

3.10.6.1.2 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 through the use of ratios prescribed in Table 1, 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 minimize pollutant loading. See section 3.10.6.2.C for stormwater retention specifications.

3.10.6.1.3 TREES

a. Development proposals shall result in no net loss of trees 6-inches dbh or greater within the special flood hazard area.

i. Trees exceeding 6-inches dbh that are removed from the RBZ, Floodway, or RBZ-fringe must be replaced at the ratios in Table 1 and planted within the special flood hazard area.

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

3.10.6.2 STORMWATER MANAGEMENT

Any development proposal that cannot mitigate as specified in 3.10.6.1.2(A)-(B) 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 outfall discharges into the ocean.

c. 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 certified by a qualified professional.

d. Detention facilities must:

   i. Drain by the source of flooding.

   ii. Be designed by a qualified professional.

e. Stormwater treatment practices for multi-parcel facilities, including subdivisions, 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 City 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 City for five years.

3.10.6.3 ACTIVITIES EXEMPT FROM NO NET LOSS STANDARDS

The following activities are not subject to the no net loss standards in Section 3.10.6.1; 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 and is less than six inches above grade. 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 (harvesting of trees), including hazardous fuels reduction and hazard tree removal as long as root balls are left in place;

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.

j. Pre-emptive removal of documented susceptible trees to manage the spread of invasive species.

k. Projects that are covered under separate consultations under Section 4(d), 7, or 10 of the Endangered Species Act (ESA).

3.10.6.4 RIPARIAN BUFFER ZONE (RBZ)

a. The Riparian Buffer Zone is measured from the ordinary high-waterline 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. Functionally dependent uses are only subject to the no net loss standards in Section 3.10.6.1 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.

c. 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.

d. 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, shrub and tree vegetation.

Basic Mitigate Ratios	Undeveloped Space (ft^3)	Impervious Surface (ft^2)	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
Mitigation multipliers					
Mitigation onsite to Mitigation offsite, same reach	100%	100%	100%	100%	100%
Mitigation onsite to Mitigation offsite, different reach, same watershed (5^{th} field)	200%	200%	200%	200%	200%

Notes:

1. 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 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 within the same reach, the remaining 500 square feet created within a different reach would need to be double the required amount because of the2 00 percent multiplier. In other words, another 1,000 square feet of pervious surface would need to be created at the location in the different reach, in addition to the 500 square feet created within the same reach.