STAFF REPORT
CITY OF COTTAGE GROVE; DCTA 2-25
FLOOD DAMAGE PREVENTION CODE
DEVELOPMENT CODE TEXT AMENDMENT
MARCH 19, 2025

PROPOSAL DESCRIPTION

Date application filed: February 28, 2025

Applicant: City of Cottage Grove
400 Main Street
Cottage Grove, OR 97424

Location: City-wide.

Comprehensive Plan Designation: N/A.

Zoning: N/A.

Proposal:

FEMA was sued in 2009 by various environmental agencies, alleging development in Oregon was harmful to threatened and endangered species. FEMA settled, agreeing to consult the National Marine Fisheries Services on how to address the impacts that NFIP development had on these species. In 2016, the National Marine Fisheries Services released a final "Biological Opinion" (BiOp) regarding FEMA's implementation of the NFIP in Oregon. The Oregon BiOp found that FEMA's implementation of the NFIP in Oregon reduces the quantity and quality of habitat that jeopardizes the continued existence of certain threatened or endangered species; salmon and Resident Killer Whale in Oregon. In 2021, FEMA issued a draft implementation plan on how to reduce the negative impacts of the NFIP on threatened species. In March of 2023, FEMA's draft implantation plan started the National Environmental Policy Act (NEPA) review to evaluate the plan's impacts. That fall, a lawsuit was filed alleging that FEMA had been too slow to implement the BiOp.

FEMA expects that a Final Implementation Plan draft will be released in 2026, with full implementation by 2027. In July of 2024, FEMA notified NFIP communities that in the interim, communities will be required to implement a Pre-implementation Compliance Measure, or PICM, which addresses the BiOp while FEMA solidifies their plan. These measures are intended to ensure that the threatened and endangered species identified in the BiOp are adequately protected. The three possible PICM options were 1) adopt a permit-by-permit approach, 2) adopt a model ordinance, or 3) prohibit all development in the floodplain.

In November of 2024, City Council directed staff to choose the permit-by-permit option. In order to enforce the permit-by-permit option, the Development Code must be amended to include the new requirements.

As required by ORS 227.186, the proper Measure 56 Notice was provided to all property owners within the floodplain on March 27, 2025.

COMMENTS RECEIVED

No comments have been received at the time of this staff report.

APPROVAL CRITERIA AND FINDINGS; DCTA 2-25

14.41.500.H Decision-Making Criteria. *The recommendation by the Planning Commission and the decision by the City Council shall be based on the following factors:*

1. Approval of the request is consistent with the Statewide Planning Goals;

Staff response and findings of fact:
This proposal is consistent with the Statewide Planning Goals. The Statewide Planning Goals that are directly impacted by this request are Goal 1, Citizen Involvement, Goal 2, Land Use Planning, Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces, Goal 6 – Air, Water and Land Resources Quality, Goal 7 – Areas Subject to Natural Hazards

Goal 1 – Citizen Involvement: This request is consistent with Goal 1. Adequate public notice of the proposed changes has been provided through the Type IV public notice process as specified in Section 14.41.500 of the Development Code. The Department of Land Conservation and Development was notified of the intended adoption of the draft code language on March 19, 2025, and did not express any concerns in writing about the changes. Public hearings have been held at the Planning Commission and City Council levels to consider this code amendment. Our process involves various forms of notification of the public in the immediate area, notification in local media, and notification of impacted governmental agencies and recognized neighborhood groups.

Notice was sent for the Planning Commission public hearing to all affected properties through the required Measure 56 Notice. The Planning Commission held a public hearing on April 23, 2025. The City Council held a public hearing on May 12, 2025. All property owners within the Special Flood Hazard Area that are impacted by this code change were sent written notice about this public hearing.

Goal 2 – Land Use Planning: This request is consistent with Goal 2. The City has established a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions. The proposed change followed the process established in Title 14 of the City of Cottage Grove Municipal Code and has been found compatible with the City's Comprehensive Plan. Under Goal 2, "All land use plans shall include identification of issues and problems, inventories and other factual information for each applicable statewide planning goal, evaluation of alternative courses of action and ultimate policy choices, taking into consideration social, economic, energy and environmental needs. The required information shall be contained in the plan document or in supporting documents."

Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces:
Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces, states that local governments must adopt plans that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. The City of Cottage Grove has adopted such plans in its Comprehensive Plan and Development Code. This request is consistent with Goal 5, because the proposed amendments will ensure that development within the regulatory floodplain results in no net loss of key floodplain functions, including fish access and egress and riparian vegetation. The proposed amendments reflect the preliminary conclusions of a Biological Opinion issues by NMFS regarding impacts of the NFIP on several species of threatened or endangered anadromous fish species protected by the ESA. By maintaining key floodplain functions, the proposed amendments serve to protect natural resources in flood hazard areas.

Goal 6: Air, Water and Land Resources Quality:
Goal 6, Air, Water and Land Resources Quality, establishes policies to ensure that all waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards. The proposed amendments will ensure that development activities within the regulatory floodplain suffer no net loss of key floodplain functions, including water quality. The new rules will require no net increase in impervious surface or that any net increase in impervious surface be mitigated by techniques that retain and treat Stormwater to maintain water quality.

Goal 7: Areas Subject to Natural Disasters and Hazards:
Goal 7 requires local jurisdictions to adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards. Jurisdictions are required to adopt or amend, as necessary, based on the evaluation of risk, plan policies and implementing measures consistent with the following principles: a. avoiding development in hazard areas where the risk to people and property cannot be mitigated; and b. prohibiting the siting of essential facilities, major structures, hazardous facilities and special occupancy structures, as defined in the state building code (ORS 455.447(1)(a)(b)(c) and (e)), in identified hazard areas, where the risk to public safety cannot be mitigated, unless an essential facility is needed within a hazard area in order to provide essential emergency response services in a timely manner. The proposed amendments will improve the City's implementation of Statewide Planning Goal 7. The proposed amendments are specifically designed to ensure that City ordinances relating to development in designated flood hazard areas continue to be consistent with applicable federal regulations for flood management.

2. Approval of the request is consistent with the Comprehensive Plan; and

Staff response and findings of fact:
Among the primary Goals for Community Development in the Cottage Grove Comprehensive Plan are the goals to protect our natural and cultural features from inappropriate and hazardous development and to improve and protect the quality of our air and water resources. The proposed Flood Damage Prevention code implements these Comprehensive Plan goals. The purpose of this Chapter is to promote the public health, safety and general welfare, and to

minimize public and private losses due to flood condition in specific areas by provisions designed to:

1. Protect human life and health;
2. Minimize damage to public facilities and utilities, such as water and sewage treatment plants, water and gas mains, electric, telephone and sewer lines, streets and bridges, that are located in areas of special flood hazard;
3. Help maintain a stable tax base by providing for the sound use and development of flood prone areas so as to minimize blight areas caused by flooding;
4. Minimize expenditure of public money for costly flood control projects;
5. Minimize the need for rescue, emergency services, and relief associated with flooding and generally undertaken at the expense of the general public;
6. Minimize prolonged business interruptions, unnecessary disruption of commerce, access and public service during times of flood;
7. Notify potential buyers that property is in an area of special flood hazard;
8. Ensure that those who occupy within the areas of special flood hazard assume responsibility for their actions;
9. Manage the alteration of areas of special flood hazard, stream channels and shorelines to minimize the impact of development on the natural and beneficial functions, and;
10. Participate in and maintain eligibility for flood insurance and disaster relief.

The goals and regulations reflected within the proposed Flood Damage Prevention Code are compliant with the goals of the Cottage Grove Comprehensive Plan.

3. The property and affected area is presently provided with adequate public facilities, services and transportation networks to support the use, or such facilities, services and transportation networks are planned to be provided concurrently with the development of the property.

Staff response and findings of fact:
Public facilities, services and transportation networks to support properties within the special flood hazard areas impacted by this code will not change due to this code amendment. Public infrastructure remains permitted within all areas, with appropriate modifications to lessen flood impacts and resource impacts.

This application is compliant with this standard.

CONCLUSION

Ordinance amendment approval pursuant to Sections 14.41.500.H Decision-Making Criteria is supported by the findings of fact that establish compliance with the applicable state and local standards.

STAFF RECOMMENDATION

Approval of DCTA 2-25 to amend Development Code by repealing the current Chapter 14.37.200 Flood Damage Prevention, and replacing it with a new Chapter 14.37.200 Flood Damage Prevention, pursuant to Section 14.41.500, which is supported by findings of fact.

CONDITIONS OF APPROVAL
None.

MATERIALS TO BE PART OF THE RECORD
File DCTA 2-25

EXHIBITS

1. Ordinance amending Title 14 Cottage Grove Development Code Repealing current Chapter 14.37.200 and adopting a new Chapter 14.37.200 Flood Damage Prevention.
2. Flood Damage Prevention Ordinance Modifications

Ordinance No. ____

AN ORDINANCE AMENDING TITLE 14 COTTAGE GROVE DEVELOPMENT CODE REPEALING SECTION 14.37.200 FLOOD DAMAGE PREVENTION& ADOPTING
A NEW SECTION 14.37.200 FLOOD DAMAGE PREVENTION

WHEREAS, the City Council amended Title 14 in 2020 with the adoption of Ordinance No. 3129, which adopted Section 14.37.200 Flood Damage Prevention Development, regulating development in the floodplain areas; and

WHEREAS, the proposed amendments reflect the preliminary conclusions of a Biological Opinion issued by the National Marine Fisheries Service regarding impacts of requirements of the National Flood Insurance Program (NFIP) on several species of threatened or endangered anadromous fish species protected by the Endangered Species Act; and

WHEREAS, the proposed amendments establish standards to ensure "no net loss" of key floodplain functions when certain activities are proposed within the regulatory floodplain; and

WHEREAS, adoption of the proposed amendments is required for the city to continue to participate in the NFIP; and

WHEREAS, legal and public notices have been provided as required by law; and

WHEREAS, the Department of Land Conservation and Development was given thirty-five day notice prior to the first hearing on March 19, 2025, pursuant to Oregon Revised Statues; and

WHEREAS, the Planning Commission has forwarded said amendment to Section 14.37.200 to the City council with a favorable recommendation after holding a public hearing on April 23, 2025; and

WHEREAS, the City Council finds that the proposed amendments are in the public interest of the City of Cottage Grove.

THE CITY OF COTTAGE GROVE ORDAINS AS FOLLOWS:

Section 1. Purpose. The purpose of this ordinance is to repeal the existing Section 14.37.200 Flood Damage Prevention and replace it with a new Section 14.37.200 Flood Damage Prevention in Title 14 of the Cottage Grove Development Code. The amendment is intended to: bring the City of Cottage Grove into compliance with current Federal and State regulations regarding development within Special Flood Hazard Areas; to promote the public health, safety and general welfare; and to minimize public and private losses due to flood condition.

Section 2. Procedural Compliance. This amendment is in compliance with 14.47.500-600 of the Municipal code of the City of Cottage Grove and is based upon the City Council determination, after a Planning Commission public hearing and recommendation, that this amendment is a proper implementation of the comprehensive land use plan and, therefore, is in the public interest and for the health, safety and welfare of the residents of the City of Cottage Grove.

Section 3. Amendment. Title 14 of the Cottage Grove Municipal Code is hereby amended, by repealing the current Section 14.37.200 Flood Damage Prevention, and replacing it with a new Section 14.37.200 Flood Damage Prevention, as set forth in Exhibit A, attached hereto and incorporated herein by this reference.

Section 4. Findings. The City Council hereby adopts findings of fact set forth in Exhibit B, attached hereto and incorporated herein by this reference.

PASSED BY THE COUNCIL AND APPROVED BY THE MAYOR THIS _____ DAY OF _____, 2025.

_____
Candace Solesbee, Mayor
Dated: _____

ATTEST:

_____
Mindy Roberts, City Recorder
Dated: _____

EXHIBIT A:
Note: deleted text with strike-thru blue font and new text with underlined blue font.

14.37.200 Flood Damage Prevention

A. Statutory Authorization. The State of Oregon has in ORS 197.175 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. Therefore, the city of Cottage Grove does ordain as follows:

B. Findings of Fact.

1. The flood hazard areas of Cottage Grove 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.

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

3. The city has the primary responsibility for planning, adoption and enforcement of land use regulations to accomplish proper management of special flood hazard areas.

C. Purpose. It is the purpose of this section to promote the public health, safety and general welfare, and to minimize public and private losses due to flood condition in specific areas by provisions designed to:

1. Protect human life and health;

2. Minimize damage to public facilities and utilities, such as water and sewage treatment plants, water and gas mains, electric, telephone and sewer lines, streets and bridges, that are located in areas of special flood hazard;

3. Help maintain a stable tax base by providing for the sound use and development of flood prone areas so as to minimize blight areas caused by flooding;

4. Minimize expenditure of public money for costly flood control projects;

5. Minimize the need for rescue, emergency services, and relief associated with flooding and generally undertaken at the expense of the general public;

6. Minimize prolonged business interruptions, unnecessary disruption of commerce, access and public service during times of flood;

7. Notify potential buyers that property is in an area of special flood hazard;

8. Ensure that those who occupy within the areas of special flood hazard assume responsibility for their actions;

9. Manage the alteration of areas of special flood hazard, stream channels and shorelines to minimize the impact of development on the natural and beneficial functions; ~~and~~

10. Preserve natural and beneficial floodplain functions; and

~~10.~~ 11. Participate in and maintain eligibility for flood insurance and disaster relief;

D. Methods of Reducing Flood Losses. In order to accomplish its purposes, this section includes methods and provisions for:

1. Requiring development that is vulnerable to floods, including structures and facilities necessary for the general health, safety and welfare of citizens, to be protected against flood damage at the time of initial construction;

2. Restricting or prohibiting development which is dangerous to health, safety and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion;

3. Controlling filling, grading, dredging and other development which may increase flood damage or erosion;

4. Preventing or regulating the construction of flood barriers that will unnaturally divert flood waters or that may increase flood hazards to other lands;

5. Preserving and restoring natural floodplains, stream channels, and natural protective barriers which carry and store flood waters;

6. Coordinating with and supplementing provisions of State of Oregon Specialty Codes enforced by the State of Oregon Building Codes Division; and

7. Employing a standard provided by FEMA to determine that no net loss has occurred with development.

E. Definitions.

1. For purposes of this section, the following words, terms, and phrases shall be defined as follows:

a. **Accessory structure.** A structure on the same parcel of property as a principal structure, the use of which is incidental to the use of the principal structure.

b. **Ancillary features. Features of a development that are not directly related to the primary purpose of the development.**

~~b.~~c. **Appeal.** A request for a review of the interpretation of any provision of this section or a request for a variance.

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

~~d.~~e. **Area of special flood hazard.** The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR. "Special flood hazard area" is synonymous in meaning and definition with the phrase "area of special flood hazard."

~~e.~~f. **Base flood.** A flood having a one percent chance of being equaled or exceeded in any given year.

~~f.~~g. **Base flood elevation (BFE).** The elevation to which floodwater is anticipated to rise during the base flood.

~~g.~~h. **Basement.** Any area of the building having its floor subgrade (below ground level) on all sides.

~~h.~~i. **Below-grade crawlspace.** An enclosed area below the base flood elevation in which the interior grade does not exceed two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the bottom of the lowest horizontal structural member of the lowest floor, does not exceed four feet at any point.

~~i.~~j. **Conditional letter of map revision (CLOMR).** A letter from FEMA commenting on whether a proposed project, if built as proposed, would meet the minimum NFIP standards or proposed hydrology changes. If the project, built as proposed, revises the Flood Insurance Rate Map and/or Flood Insurance Study, a LOMR is required to be submitted no later than six months after project completion.

~~j.~~k. **Datum.** The vertical control datum from which all vertical elevations are determined. Historically, Flood Insurance Rate Maps have used the National Geodetic Vertical Datum of 1929 (NGVD29). The vertical datum currently adopted by the federal government as a basis for measuring heights is the North American Vertical Datum of 1988 (NAVD88). (See "Mean sea level.")

~~k.~~l. **De minimis development.** Development that is exempt under this code, provided impacts of the development are negligible or insignificant. Examples include: landscaping; certain types of fencing per Table 14.7.210; and raised garden beds.

~~l.~~m. **Development.** Any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

~~m.~~n. **Digital FIRM (DFIRM).** Digital Flood Insurance Rate Map. It depicts flood risk and zones and flood risk information. The DFIRM presents the flood risk information in a format suitable for electronic mapping applications.

~~n.~~o. **Elevated building.** A nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

~~o.~~p. **Encroachment.** The activities or construction within the floodway, including fill, excavation, grading, new construction, substantial improvements and other development.

~~p.~~q. **Essential facility or critical facility**.

1. Hospitals and other medical facilities having surgery and emergency treatment areas;

2. Fire and police stations;

3. Tanks or other structures containing, housing or supporting water or fire-suppression materials or equipment required for the protection of essential or hazardous facilities or special occupancy structures;

4. Emergency vehicle shelters and garages;

5. Structures and equipment in emergency-preparedness centers;

6. Standby power generating equipment for essential facilities; and

7. Structures and equipment in government communication centers and other facilities required for emergency response.

r. **Fish accessible / egress-able space.** The volumetric space available to an adult or juvenile individual of the identified 16 ESA-listed fish to access or exit or leave from.

~~q.~~s. **FEMA.** The Federal Emergency Management Agency.

~~r.~~t. **Flood or flooding.**

1. 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 of runoff or surface waters from any source.

iii. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in subsection (E)(1)(r)(1)(ii) of this section and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when

earth is carried by a current of water and deposited along the path of the current.

2. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in subsection (E)(1)(r)(1)(i) of this section.

~~s.~~u. **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.

~~t.~~v. **Flood Insurance Rate Map (FIRM).** The official map of a community on which the Federal Insurance Administrator has delineated both the special flood 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).

~~u.~~w. **Flood Insurance Study (FIS).** See also "Flood elevation study."

~~v.~~x. **Floodproofed or floodproofing.** Any combination of structural and nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

y. **Floodplain storage.** The volume of floodwater that an area of floodplain can hold during the one-percent annual chance flood (i.e. during the base flood).

~~w.~~z. **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."

~~s.~~aa. **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.

~~x.~~ab. **Functionally dependent use.** A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long term storage or related manufacturing facilities.

~~x~~.ac. **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.

ad. **Habitat restoration activity.** An activity with the sole purpose of restoring habitat that has only temporary impacts and long-term benefits to habitat. Such a project does not include ancillary structures (such as a storage shed for maintenance equipment), must demonstrate that no rise in the base flood elevation would occur as a result of the project and obtain a CLOMR and LOMR accordingly, and must obtain any other required permits (e.g., Clean Water Act (CWA) Section 404 permit).

ae. **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.

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

~~z~~.ag. **Historic structure.** A structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of the 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 to a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places which have been approved by the Secretary of the Interior; or

4. 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.

~~x~~.ah. **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.

ai. **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.

aj. **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.

ak. **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.

~~aa~~.al. **Letter of map change (LOMC).** An official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps and/or Flood Insurance Studies. LOMCs are issued in the following categories:

1. **Letter of map amendment (LOMA).** An amendment to the FIRM based on technical data showing that an existing structure or parcel of land that has not been elevated by fill (natural grade) was inadvertently included in the special flood hazard area because of an area of naturally high ground above the base flood.

2. **Letter of map revision (LOMR).** A letter from FEMA stating that an existing structure or parcel of land that has been elevated by fill would not be inundated by the base flood. A LOMR revises the current FIRM and/or FIS to show changes to the floodplains, floodways or flood elevations. LOMRs are generally based on manmade alterations that affected the hydrologic or hydraulic characteristics of a flooding source and thus result in modification to the existing regulatory floodway, the effective base flood elevation or the special flood hazard area. It is recommended that a conditional letter of map revision be approved by FEMA prior to issuing a permit to start a project that has a potential to affect the special flood hazard area. (See "Conditional letter of map revision.")

~~bb.~~am. **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 nonelevation design requirements of this section.

~~cc.~~an. **Manufactured dwelling or home.** A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured dwelling" does not include a "recreational vehicle" and is synonymous with "manufactured home."

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

~~ee.~~ap. **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.

~~ff.~~aq. **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 Cottage Grove (November 11, 1985) and includes any subsequent improvements to such structures.

ar. **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. For purposes of this title, the floodplain functions of floodplain storage, water quality, and vegetation must be maintained.

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

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

au. **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.

~~gg.~~av. **Oregon Specialty Codes.** The combined specialty codes adopted under ORS 446.062, 446.185, 447.020 (2), 455.020 (2), 455.496, 455.610, 455.680, 460.085, 460.360, 479.730 (1) or 480.545, but not including regulations adopted by the State Fire Marshal pursuant to ORS Chapter 476 or ORS 479.015 to 479.200 and 479.210 to 479.220. The combined specialty codes are often referred to as building codes.

aw. **Qualified professional.** An appropriate subject matter expert that is defined by the City.

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

~~hh~~.ay. **Recreational vehicle.** A vehicle which is:

1. Built on a single chassis;

2. Four hundred square feet or less when measured at the largest horizontal projection;

3. Designed to be self-propelled or permanently towable by a light duty truck; and

4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

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

ba. **Riparian Buffer Zone.** 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 (Marine Higher-High Water line). 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.

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

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

~~ii.~~bd **Special flood hazard area.** See "Area of special flood hazard" for this definition.

~~jj~~.be **Start of construction.** Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, or other improvement was within 180 days of the permit date. The "actual start" means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers,

or 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 the alteration affects the external dimensions of a building.

~~kk~~.bf **Structure.** For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, which is principally above ground, as well as a manufactured dwelling.

~~ll.~~bg **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 49 percent of the market value of the structure before the damage occurred.

~~mm~~.bh **Substantial improvement.** Any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 49 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 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.

~~x~~.bi **Undeveloped Space.** The volume of flood capacity and fish-accessible/egress-able habitat from the existing ground to the BFE that has not been reduced due to development activity. 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-assessable/egress-able habitat.

~~nn~~.bj **Variance.** A grant of relief by the city of Cottage Grove from the terms of a floodplain management regulation.

~~oo~~.bk **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 with this section is presumed to be in violation until such time as that documentation is provided.

~~pp.~~bl **Water surface elevation.** The height, in relation to a specific datum, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

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

F. Applicability. This section shall apply to all special flood hazard areas within the jurisdiction of Cottage Grove. All development within special flood hazard areas is subject to the terms of this section and required to comply with its provisions and all other applicable regulations. Nothing in this section is intended to allow uses or structures that are otherwise prohibited by this development code or State of Oregon Specialty Codes.

G. Basis for Areas of Special Flood Hazard. The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled the "Flood Insurance Study (FIS) for Lane County, Oregon and Incorporated Areas," dated June 2, 1999, with accompanying Flood Insurance Rate Maps (FIRM) or Digital Flood Insurance Rate Maps (DFIRM), as amended and updated by FEMA, are adopted by reference and declared a part of this section. The FIS and the FIRM are on file at the public works and development department, City Hall, 400 East Main Street, Cottage Grove, Oregon.

H. Coordination with Specialty Codes Adopted by the State of Oregon Building Codes Division. Pursuant to the requirement established in ORS Chapter 455 that the city of Cottage Grove administers and enforces the State of Oregon Specialty Codes, the city council of the city of Cottage Grove 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 section is intended to be administered and enforced in conjunction with the Oregon Specialty Codes.

I. Floodplain Development Permit Required. A floodplain development permit shall be obtained prior to start of all proposed construction and other development, including the placement of manufactured homes and all other development activities for all other development, as defined in subsection E of this section, including fill and other development activities within any area horizontally within the special flood hazard area.

J. Administration.

1. Designation of Floodplain Administrator. The public works and development director or his/her designee is appointed as the floodplain administrator, who is responsible for administering, implementing, and enforcing the provisions of this section by granting or denying development permits in accordance with its provisions.

2. Duties of the floodplain administrator shall include, but not be limited to:

a. Permit Review. Review all development permits to determine that:

1. The permit requirements of this title have been satisfied;

2. All other required local, state, and federal permits have been obtained and approved;

3. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway, assure that the floodway provisions of subsection (N)(2) of this section are met;

4. 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;

5. Provide to building officials the base flood elevation (BFE) and required freeboard elevation (two feet above BFE) applicable to any building requiring a development permit;

6. Review all development permit applications to determine if the proposed development qualifies as a substantial improvement or substantial development;

7. 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 of subsections J and L of this section;

8. Review all development permits to determine if the proposed development activity includes the placement of fill or excavation;

9. Review all development permits to determine compliance with FEMA's Habitat Assessment (version published November 2024); and

~~9~~. 10. Issue development permits when the provisions of this section have been met, or deny the same in the event of noncompliance.

b. Information to Be Obtained and Maintained. The following information shall be obtained and maintained and shall be made available for public inspection as needed:

1. Make periodic inspections of special flood hazard areas to establish that development activities are being performed in compliance with this section, and to verify that existing buildings and structures maintain compliance with this section;

2. 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 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 the requirements of this section;

3. 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 this section are adhered to;

4. 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) is in compliance with the two-foot freeboard requirements of this section;

5. 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;

6. Maintain all elevation certificates (EC) submitted to the city of Cottage Grove;

7. 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 section and where base flood elevation (BFE) data is provided through the FIS or FIRM;

8. Maintain all floodproofing certificates required under this section;

9. Record and maintain all variance actions, including justification for their issuance;

10. Obtain and maintain all hydrologic and hydraulic analyses performed as a permit requirement;

11. Record and maintain all substantial improvement and substantial damage calculations and determinations;

12. Maintain for public inspection all records pertaining to the provisions of this section;

13. Coordinate with the building official to inspect areas where buildings and structures in special flood hazard areas have been damaged, regardless of the cause of damage, and notify owners that permits may be required to repair, rehabilitate, demolish, relocate, or reconstruct structures if substantial damage thresholds are met; and

14. Conduct substantial improvement (SI) reviews for all structural development proposal applications in the special flood hazard area and maintain a record of SI calculations within permit files. Conduct substantial damage (SD) assessments when structures in the special flood hazard area are damaged due to a natural hazard event or other causes. Make SD determinations whenever structures within the special flood hazard area are damaged to the extent that the cost of restoring the structure to its before-damaged condition would equal or exceed 49 percent of the market value of the structure before the damage occurred.

15. Maintain all documentation of how no net loss standards in Section 14.37.200(V)(1) have been met.

c. Requirement to Notify Other Entities and Submit New Technical Data. The following information shall be obtained and maintained and shall be submitted to appropriate agencies as needed:

1. Community Boundary Alterations. 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.

2. Watercourse Alterations. The floodplain administrator shall notify adjacent communities and the Oregon Department of Land Conservation and Development prior to any alteration or relocation of the watercourse. Copies of such notification shall be submitted to the Federal Insurance Administrator. The applicant shall provide to the floodplain administrator the technical information necessary to prepare the notification. 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.

The applicant shall be required to submit a conditional letter of map revision (CLOMR) when required under subsection L of this section.

d. Requirement to Submit New Technical Data through LOMC Process. 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 44 CFR 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.

1. 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;

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; and

iii. Proposed development that involves more than 50 cubic yards of fill (or 1,350 cubic feet), alters a watercourse, modifies floodplain boundaries, or modifies base flood elevations.

2. Within six months of project completion, an applicant who obtains a conditional letter of map revision (CLOMR) from FEMA shall obtain from FEMA a letter of

map revision (LOMR) reflecting the as-built changes to the FIS and/or FIRM and provide a copy of the final LOMR to the city.

3. It is the responsibility of the applicant to have technical data prepared in a format required for a CLOMR or LOMR and to submit such data to FEMA on the appropriate FEMA Form MT-2 application forms. Submittal and processing fees for these map revisions shall be the responsibility of the applicant.

4. Applicants shall be responsible for all costs associated with obtaining a CLOMR or LOMR from FEMA.

5. The floodplain administrator shall be under no obligation to sign the community acknowledgment form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met all applicable requirements of this section.

K. Floodplain Development Permit.

1. A floodplain development permit shall be obtained prior to start of all proposed construction and other development including the placement of manufactured homes within any area horizontally within the special flood hazard area established in subsection G of this section.

2. The floodplain development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in subsection E of this section, including fill and other development activities.

3. The floodplain development permit shall be a Type I application as set forth by Chapter 14.41. The ~~public works and development director~~ Community Development Director may require a Type II application if discretion is involved in the review of the application.

4. The floodplain development permit shall meet the no net loss standards of Section 14.37.200(V)(1).

~~4.~~ 5. Application Requirements for Floodplain Development Permit. Application for a development permit shall be made on forms furnished by the ~~public works and development~~ Community Development ~~d~~Department and may include but not be limited to:

a. Plans in triplicate drawn to scale, with elevations of the project area and the nature, location, and dimensions of existing or proposed structures, earthen fill placement, storage of materials or equipment and drainage facilities;

b. Delineation of special flood hazard areas, regulatory floodway boundaries including base flood elevations, or flood depth in AO zones;

c. For all proposed or substantially improved structures, elevation in relation to the highest adjacent grade and the base flood elevation, or flood depth in AO zones, of the:

1. Lowest enclosed area including crawlspace or basement floor; and

2. Top of the proposed garage slab, if any; and

3. Next highest floor; and

4. Attendant utilities;

d. Locations and sizes of all flood openings, if required, in any proposed structure;

e. The proposed elevation to which a nonresidential structure will be floodproofed or elevated;

f. 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 in subsection (O)(3) of this section;

g. The amount, location and proposed final elevations of any fill or exaction activities proposed;

h. Evidence that the no net loss standards in Section 14.37.200(V)(1) have been adhered to;

~~h.~~i. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development;

~~i.~~j. Evidence that all necessary permits can be obtained from those governmental agencies from which approval is required by federal or state law; and

~~j.~~k. Substantial Damage/Improvement Calculation. For reconstruction, rehabilitation, additions or other improvements to existing nonconforming buildings, evidence to determine improvement costs and actual repair/damage value for substantial improvement/substantial damage calculation, including market value estimates of existing building(s) prior to damage/improvement, and market value estimate of building(s) post repair/improvement. Estimates must include all structural elements, interior finish elements, utility and service equipment, labor and other costs associated with demolishing, removing, or altering building components, construction management, and any improvements beyond predamaged condition.

~~5.~~6. Approval Requirements. No floodplain development permit shall be issued until compliance with this section and other applicable codes and regulations has been demonstrated. Specifically, the following documentation is required prior to issuance of a floodplain development permit:

a. Evidence of compliance with the standards of this section;

b. Evidence that all necessary permits have been obtained from those governmental agencies from which approval is required by federal or state law;

c. A FEMA-approved CLOMR if the project will involve adding fill exceeding 50 cubic yards (or 1,350 cubic feet), cause a watercourse alteration, modify base flood elevation, or change the boundaries of the floodway or special flood hazard area;

d. A complete preconstruction elevation certificate signed and sealed by a registered professional surveyor for structures, except as provided in subsection (O)(3) of this section for wet-proofed accessory structures; and

e. Certified elevations for nonstructural development prepared by registered professional surveyor.

f. Evidence of compliance with the no net loss standards of Section 14.37.200(V)(1).

~~6.~~ 7. During Construction.

a. For all new construction and substantial improvements, the permit holder shall provide to the floodplain administrator an as-built certification of the floor elevation or floodproofing level immediately after the lowest floor or floodproofing is placed and prior to further vertical construction; and

b. Any deficiencies identified by the floodplain administrator shall be corrected by the permit holder immediately and prior to work proceeding. Failure to submit certification or failure to make the corrections shall be cause for the floodplain administrator to issue a stop-work order for the project.

~~7.~~ 8. Finished Construction. In addition to the requirements of the Oregon Specialty Codes pertaining to certificate of occupancy, and prior to the final inspection, the owner or authorized agent shall submit the following documentation for finished construction that has been signed and sealed by a registered surveyor or engineer:

a. For elevated buildings and structures in special flood hazard areas, the elevation of the lowest floor, including basement.

b. For nonresidential buildings and structures that have been floodproofed, the elevation to which the building or structure was floodproofed.

c. Failure to submit certification or failure to correct violations shall be cause for the floodplain administrator to withhold a certificate of occupancy until such deficiencies are corrected.

~~8.~~9. Expiration of Floodplain Development Permit. Floodplain development permits issued under this section shall become invalid unless the work authorized by such permit is commenced within 180 days after issuance or the work is suspended or abandoned for a period of 180 days after the work commences. Extensions for periods of not more than 180 days each shall be requested in writing and shall be reviewed against the current FIRM and this section.

L. Watercourse Alterations.

1. Development shall not diminish the flood carrying capacity of a watercourse. If a watercourse will be altered or relocated as a result of the proposed development the applicant must submit certification by a registered professional engineer that the flood carrying capacity of the watercourse is maintained and will not be diminished.

2. Applicant will be responsible for obtaining all necessary permits from governmental agencies from which approval is required by federal, state, or local law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334; the Endangered Species Act of 1973, 16 U.S.C. 1531 through 1544; and State of Oregon Division of State Lands regulations. The applicant shall also be required to submit a conditional letter of map revision (CLOMR) to FEMA for watercourse alterations.

3. The floodplain administrator shall assure that maintenance for the altered or relocated portion of the watercourse is provided so that the flood carrying capacity will not be diminished. It shall be the responsibility of the applicant to perform required maintenance.

4. The applicant shall submit required technical data to the floodplain administrator prior to any watercourse alteration that will result in the expansion, relocation or elimination of the special flood hazard area.

M. Nonconversion of Enclosed Areas below the Lowest Floor. To ensure that enclosed areas below the lowest floor continue to be used solely for parking vehicles, limited storage, or access to the building and not be finished for use as human habitation/recreation/bathrooms, etc., the floodplain administrator shall:

1. Determine which applicants for new construction and/or substantial improvements have fully enclosed areas below the lowest floor that are five feet or higher; and

2. Require such applicants to enter into a "NON-CONVERSION DEED DECLARATION FOR CONSTRUCTION WITHIN FLOOD HAZARD AREAS" or equivalent. The deed declaration shall be recorded with Lane County, and shall be in a form acceptable to the floodplain administrator.

N. Provisions for Flood Hazard Reduction.

1. Site Improvements and Subdivisions.

a. All subdivisions and partitions shall be designed based on the need to minimize the risk of flood damage. No new building lots shall be created entirely within the regulatory floodway. All new lots shall be buildable without requiring development within the floodway (i.e., minimum lot size under base zoning must be provided outside of the floodway) and, where possible, allow building outside of the special flood hazard area.

b. If a parcel has a buildable site outside the special flood hazard area, it shall not be subdivided to create a new lot, tract or parcel for a building that does not have a buildable site outside the special flood hazard area. This provision does not apply to lots set aside from development and preserved as open space.

c. Where a special flood hazard area has been defined but a base flood elevation has not been provided, it shall be generated for subdivision and partition proposals and all other proposed development (including proposals for manufactured home parks and commercial or industrial site developments) by the applicant. Development proposals located within a riverine unnumbered A zone shall be reasonably safe from flooding.

The test of reasonableness includes use of historical data, high water marks, FEMA-provided base level engineering data, and photographs of past flooding, etc., where available.

d. Site improvements, subdivisions, and manufactured home parks shall have public utilities and facilities such as sewer, gas, electric and water systems located and constructed to minimize or eliminate flood damage and infiltration of floodwaters into the systems. Replacement public utilities and facilities such as sewer, gas, electric, and water systems likewise shall be sited and designed to minimize or eliminate damage and infiltration of floodwaters.

e. New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems. New and replacement sanitary sewerage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters. On-site waste disposal systems shall be located to avoid functional impairment to them or contamination from them during flooding consistent with the Oregon Department of Environmental Quality.

f. Subdivisions proposals and other proposed new development, including manufactured home parks, shall have adequate drainage provided to reduce exposure to flood hazards. In AO and AH zones, drainage paths shall be provided to guide floodwater around and away from proposed structures.

g. New essential facilities shall not be constructed in the regulatory floodway, and shall be, to the extent possible, located outside the limits of the special flood hazard area.

h. All new site improvements and subdivisions shall comply with the no net loss standards of Section 14.37.200(V)(1).

2. Development in Regulatory Floodways.

a. Development Prohibited in Floodway. Since the floodway is an extremely hazardous area due to the velocity of the floodwaters which carry debris, potential projectiles, and erosion potential, except as provided below, encroachments, including fill, new construction, substantial improvements, solid fences or other non-de minimis development, are prohibited in the regulatory floodway.

b. Temporary Encroachments. Temporary encroachments in the regulatory floodway for the purposes of capital improvement projects (including bridge construction/repair) may be allowed provided:

1. A floodplain development permit is obtained prior to initiating development activities; and

2. All other permits and permissions have been obtained from federal, state and local agencies; and

3. Certification by a registered professional civil engineer must be 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

4. 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 44 CFR 65.12 are fulfilled, and proof of compliance with the no net loss standards of Section 14.37.200(V)(1) is shown.

c. Stream Habitat Restoration. Projects for stream habitat restoration may be allowed provided:

1. A floodplain development permit is obtained prior to initiating development activities; and

2. The project qualifies for a Department of the Army, Portland District Regional General Permit for Stream Habitat Restoration (NWP-2007-1023); and

3. Certification by a registered professional civil engineer must be 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

4. 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 44 CFR 65.12 are fulfilled and proof of compliance with the no net loss standards of Section 14.37.200(V)(1) is shown..

d. Public Infrastructure. Public infrastructure that requires close proximity near water, including water intake structures, stormwater outfalls, bridges, etc., may be allowed provided:

1. A floodplain development permit is obtained prior to initiating development activities; and

2. The project limits placement of equipment, material, and structures in the regulatory floodway to that which is absolutely necessary for the purposes of the project; and

3. Certification by a registered professional civil engineer must be 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

4. 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 44 CFR 65.12 are fulfilled and proof of compliance with the no net loss standards of Section 14.37.200(V)(1) is shown..

e. Fences in the Floodway. Fences are allowed in the regulatory floodway if they are open barb or barbless, or open pipe or rail fencing (e.g., corrals). "Open" means no more than one horizontal strand per foot of height, with rails occupying less than 10 percent of the fence area and posts spaced no closer than eight feet apart. Other types of fencing in a regulatory floodway may be approved through a floodplain development variance as detailed in subsection V of this section.

3. Zones with Base Flood Elevations but No 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. 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 not net loss standards in Section 14.37.200(V)(1).

O. Building Design and Construction. Within the special flood hazard area, buildings and structures shall be designed and constructed in accordance with the flood-resistant construction provisions of the Oregon Specialty Codes, including but not limited to the Residential Specialty Code, the Manufactured Dwelling Installation Specialty Code, ~~and~~ the Structural Specialty Code, ~~and~~ Section 14.37.200(V), and as specified below:

1. In All Special Flood Hazard Areas.

a. 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. New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;

c. New construction and substantial improvements shall be constructed using methods and practices that minimize flood damage;

d. New structures placed in the SFHA should be elevated by methods other than fill. Projects that involve adding fill exceeding 50 cubic yards (1,350 cubic feet) shall pursue CLOMR-Fs prior to LOMR-Fs to ensure ESA compliance;

e. Electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall be elevated at or above two feet above base flood level, with the exception of electrical systems, equipment and components, heating, ventilation and air-conditioning, plumbing appliances and plumbing fixtures, duct systems, and other service equipment 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 the occurrence of flooding to the design flood elevation. In addition, electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall meet all substantial improvement requirements of this section;

f. Any alteration, repair, reconstruction or nonsubstantial improvement to a building that is not in compliance with the provisions of this section shall be undertaken only if said nonconformity is not furthered, extended or replaced. Flood-resistant materials shall be used below BFE; and

g. Structures Located in Multiple or Partial Flood Zones.

1. When a structure is located in multiple flood zones on the FIRM, the provisions of the more restrictive flood zone shall apply.

2. 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.

2. Specific Building Design and Construction Standards for Residential Construction. In addition to subsection (O)(1) of this section:

a. Required Freeboard. New construction and substantial improvement of residential structures located in special flood hazard areas shall have the lowest floor elevation, including basement, elevated a minimum of two feet above the base flood elevation or three feet above highest adjacent grade where no BFE is defined; and

b. Requirements for Enclosed Spaces Below Lowest Floor (Flood Openings). All new construction and substantial improvements with fully enclosed areas below the lowest floor (including basements) are subject to the following requirements. Enclosed areas below the base flood elevation, including crawlspaces shall:

1. Be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters;

2. Be used solely for parking, storage, or building access; and

3. 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 nonengineered 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;

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. Specific Building Design and Construction Standards for Nonresidential Construction.

a. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall:

1. Have the lowest floor, including basement, elevated at or above two feet above the base flood elevation (BFE); 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 in this section;

5. Nonresidential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in subsection (O)(2) of this section; and

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

b. Applicants floodproofing nonresidential buildings shall provide a comprehensive maintenance plan for the entire structure to include but not be limited to: exterior envelope of structure; all penetrations to the exterior of the structure; all shields, gates, barriers, or components designed to provide floodproofing protection to the structure; all seals or gaskets for shields, gates, barriers, or components; and the location of all

shields, gates, barriers, and components as well as all associated hardware, and any materials or specialized tools necessary to seal the structure.

c. Applicants floodproofing nonresidential buildings shall supply an emergency action plan (EAP) for the installation and sealing of the structure prior to a flooding event that clearly identifies what triggers the EAP and who is responsible for enacting the EAP.

4. Specific Building Design and Construction Standards for Manufactured Dwellings. In addition to subsections (O)(1) and (O)(2)(b) of this section, new, replacement, and substantially improved manufactured dwellings are subject to the following standards:

a. New or substantially improved manufactured dwellings supported on solid foundation walls shall be constructed with flood openings that comply with subsection (O)(2) of this section;

b. The bottom of the longitudinal chassis frame beam shall be at or above one foot above the 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 two feet above base flood elevation (BFE).

P. Below Grade Crawlspaces.

1. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Hydrostatic loads and the effects of buoyancy can usually be addressed through the required openings stated in subsection (P)(2) of this section. Because of hydrodynamic loads, crawlspace construction is not recommended in areas with flood velocities greater than five feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer. Other types of foundations are recommended for these areas.

2. The crawlspace is an enclosed area below the base flood elevation and, as such, must have openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than one foot above the lowest adjacent exterior grade.

3. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE. The recommended construction practice is to elevate the bottoms of joists and all insulation above BFE.

4. Any building utility systems within the crawlspace must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions. Ductwork, in particular, must either be placed above the BFE or sealed from floodwaters.

5. The interior grade of a crawlspace below the BFE must not be more than two feet below the lowest adjacent exterior grade.

6. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the bottom of the structural support of the next higher floor, must not exceed four feet at any point.

7. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event. The type of drainage system will vary because of the site gradient and other drainage characteristics, such as soil types. Possible options include natural drainage through porous, well-drained soils and drainage systems such as perforated pipes, drainage tiles or gravel or crushed stone drainage by gravity or mechanical means.

8. The velocity of floodwaters at the site should not exceed five feet per second for any crawlspace. For velocities in excess of five feet per second, other foundation types should be used.

Q. Recreational Vehicles. In all special flood hazard areas, recreational vehicles authorized as temporary trailers under Section 14.49.100 or stored on properties in special flood hazard areas shall:

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, attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

3. Meet the requirements of subsection (O)(4) of this section, including the anchoring and elevation requirements for manufactured dwellings.

R. Essential Facilities. Construction of new essential facilities shall be prohibited in floodways and, to the extent possible, located outside the limits of the special flood hazard area. Construction of new essential facilities shall be permissible within the special flood hazard area if no feasible alternative site is available. Floodproofing and sealing measures must be taken to ensure that toxic substances or priority organic pollutants as defined by the Oregon Department of Environmental Quality will not be displaced by or released into floodwaters. The lowest floor shall be elevated three feet above the base flood elevation or to the height of the 500-year flood, whichever is higher. Access routes elevated to or above the level of the base flood elevation shall be provided to all essential facilities to the maximum extent possible.

S. Tanks.

1. New and replacement tanks in flood hazard areas either shall be elevated above the base flood elevation on a supporting structure designed to prevent flotation, collapse or lateral movement during conditions of the base flood, or be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy assuming the tank is empty, during conditions of the design flood.

2. New and replacement tank inlets, fill openings, outlets and vents shall be placed a minimum of two feet above base flood elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tank during conditions of the design flood.

T. Fences. Floodplain development permits are required for solid walls and certain fences located in the special flood hazard area to ensure that they are reasonably safe from impacts of flooding. Fencing located in the regulatory floodway shall meet the requirements of subsection (N)(2) of this section, Development in Regulatory Floodways.

U. Other Development, Including Accessory Structures, in Special Flood Hazard Areas (All A Zones).

1. Appurtenant (Accessory) Structures. Relief from elevation or floodproofing requirements for residential and nonresidential structures in riverine (noncoastal) flood zones may be granted for appurtenant structures that meet the following requirements:

a. Obtain a floodplain permit;

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. Appurtenant structures on properties that are zoned as nonresidential 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 subsection (O)(2) of this section;

g. Appurtenant structures shall be located and constructed to have low damage potential;

h. Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental

Quality unless confined in a tank installed in compliance with subsection S of this section; 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.

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:

1. The floors are at or above grade on not less than one side;

2. The garage is used solely for parking, building access, and/or storage;

3. The garage is constructed with flood openings in compliance with subsection O of this section to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater;

4. The portions of the garage constructed below the BFE are constructed with materials resistant to flood damage;

5. The garage is constructed in compliance with the standards in subsection O of this section; and

6. 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 nonresidential structures in subsection (O)(3) of this section.

V. Standards for Protection of Area of Special Flood Hazard 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. These proxies include undeveloped space, pervious surfaces, and trees to account for a no net loss in respective floodplain functions of floodplain storage, water quality, and vegetation. Mitigation of these proxies must be completed to ensure compliance with no net loss standards. No net loss applies to the net change in floodplain functions as compared to existing conditions at the time of application and mitigation must be addressed to the floodplain function that is receiving the detrimental impact. The standards described below apply to all areas of special flood hazard as defined in Section E Definitions.

1. No Net Loss Standards

a. No net loss of the three proxies for the floodplain functions 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:

i. The lot or parcel that floodplain functions were removed from,
ii. The same reach of the waterbody where the development is proposed, or
iii. The special flood hazard area within the same hydrologically connected area as the proposed development. Table 14.37.200 presents the no net loss ratios, which increase based on the preferences listed above.

2. Undeveloped Space
   a. Development proposals shall not reduce the fish-accessible and egress-able undeveloped space within the special flood hazard area.
   b. A development proposal with an activity that would impact undeveloped space shall achieve no net loss of fish-accessible and egress-able space and flood storage volume.
   c. Lost undeveloped space must be replaced with fish-accessible and egress-able compensatory volume based on the ratio in Table 14.37.200.
3. Impervious Surfaces.
   a. Designed so that there is no increase in velocity. Impervious surface mitigation shall be mitigated through any of the following options:
      i. Development proposals shall not result in a net increase in impervious surface area within the special flood hazard area through the use of ratios prescribed in Table 14.37.200, or
      ii. 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
      iii. 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.
4. 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 of or exceeding 6-inches dbh that are removed from the RBZ, floodway, or RBZ-fringe, must be replaced at the ratios in Table 14.37.200.

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

5. Stormwater Management

a. Any development proposal that cannot mitigate as specified in Section 14.37.200(V)(3)(2-3) must include the following:

i. Water quality (pollution reduction) treatment for post-construction Stormwater runoff from any net increase in impervious area; and

ii. Water quantity treatment (retention facilities).

iii. Retention facilities must:

1. 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).
2. 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.
3. Be designed to not entrap fish.
4. Be certified by a qualified professional.

iv. 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 shall include:

1. Access to Stormwater treatment facilities at the site by the City for the purpose of inspection and repair.
2. 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.
3. 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.
4. 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.

6. Alternative Habitat Assessment and Mitigation. As an alternative path to demonstrate that the proposed development will achieve no net loss, in lieu of complying with subsections 1-5, the applicant may conduct a Floodplain Habitat Assessment, with adequate mitigation measures, in compliance with the FEMA *Floodplain Habitat Assessment and Mitigation, Regional Guidance for Oregon*, August 2024, or as later amended by FEMA, ("FEMA Floodplain Habitat Assessment Guidance) to achieve no net loss, as demonstrated by:

a. Describing the project area (development site), including description and map;
b. Describing the project area's habitat, including background research, protected species identification, site investigation, habitat narrative, and habitat area map;
c. Describing the project (development), including final project, construction process, and protection measures;
d. Providing an assessment of the environmental effects, including types of environmental effects, effects determination, and prepare a Habitat Assessment Report and Mitigation Plan;
e. Reviewing Mitigation Alternatives, including avoidance, minimization, replacement of degrade habitats, compensation, and selection of best approach(es); and
f. Preparing a Mitigation Plan that:
  i. Objective: sufficiently and appropriately mitigate for negative impacts on ESA-listed populations and the natural functions and processes that support their habitats; and provides sufficient detail to demonstrate how this will be done, using avoidance, minimizations, replacement (rectify), and/or compensatory measures. The final Mitigation Plan must not be filed until the applicable Oregon and federal agencies have approved the conceptual mitigation plan.
  ii. Format: is prepared in a format approved by the City Manager; and
  iii. Minimum standards: are consistent with the minimum standards described in the FEMA Floodplain Habitat Assessment Guidance.
g. The applicant's Floodplain Habitat Assessment shall be prepared by a Qualified Professional.
h. The applicant's Floodplain Habitat Assessment and Mitigation shall be reviewed by the reviewing authority (as pursuant to Section 14.37.200(K)(3)) and approved if it complies with the FEMA Floodplain Habitat Assessment Guidance and achieves no net loss.

7. Activities Exempt from No Net Loss Standards. The following activities are not subject to the no net loss standards in Section 14.37.200(V)(1) and Section 14.37.200(V)(^); 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, including 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).

8. Riparian Buffer Zone (RBZ)

a. Riparian Buffer Zone is measured from the ordinary high-water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water of a marine shoreline or tidally influenced river reach to 170 feet horizontally on each side of the stream or inland of the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel.
b. Functionally dependent uses are only subject to the no net loss standards in Section 14.37.200(V)(1) (No Net Loss) 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, and shrub and tree vegetation and designated as open space.

Table 14.37.200 No Net Loss Standards

Basic Mitigate Ratios	**Undeveloped Space (cubic ft)**	**Impervious Surface (sq.ft)**	**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 (5th field)	200%*	200%*	200%*	200%	200%

~~V~~W. Floodplain Development Variance Procedures and Criteria.

1. Floodplain Development Variance Procedure.

a. An application for a floodplain development variance is a Type III quasi-judicial decision. A Type III application must be submitted to the city of Cottage Grove on an application form provided by the city and include at minimum the same information required for a floodplain development permit and an explanation for the basis for the variance request.

b. The applicant carries the burden to show that the variance is warranted and meets the criteria set out herein.

c. Upon consideration of the criteria in subsection (V)(2) of this section (Criteria for Variances) and the purposes of this section, the city of Cottage Grove may attach such conditions to the granting of variances as it deems necessary to further the purposes of this section.

d. 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.

e. The floodplain administrator shall maintain a permanent record of all variances and report any variances to the Federal Emergency Management Agency upon request.

2. Criteria for Variances. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, or economic or financial circumstances. As such, variances from the floodplain development standards should be quite rare.

a. In passing upon such applications, the city shall consider all technical evaluations, all relevant factors, standards specified in other sections of this section, and the:

1. Danger that material may be swept onto other lands to the injury of others;

2. Danger to life and property due to flooding or erosion damage;

3. Susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. Importance of the services provided by the proposed facility to the community;

5. Necessity to the facility of a waterfront location, where applicable;

6. Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

7. Compatibility of the proposed use with existing and anticipated development;

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

9. Safety of access to the property in times of flood for ordinary and emergency vehicles;

10. Expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at this site; and

11. Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

b. Variances shall only be granted upon a:

1. Showing of good and sufficient cause;

2. Determination that failure to grant the variance would result in exceptional hardship to the applicant;

3. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances; and

4. Determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

5. Determination that the development will not result in the net loss of undeveloped space; pervious surface; or trees 6 inches dbh or greater (See Section 14.37.200(V) and associated options in Table 14.37.200).

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

d. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places, the Statewide Inventory of Historic Properties, or designated with a local historic preservation overlay zone without regard to the procedures set forth in this section.

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 this section 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.

3. Variance Decision. If the variance is approved, the public works and development director shall notify the applicant in writing following the procedures established in Section 14.41.300 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 shall be maintained with a record of all variance actions.

~~W~~X. Violation and Penalty.

1. No structure or land shall hereafter be located, extended, converted or altered unless in full compliance with the terms of this section and other applicable regulations.

2. Violation of the provisions of this section by failure to comply with any of its requirements (including violation of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. The city shall enforce violations of this section or its requirements in accordance with the procedures of Section 14.15.500.

3. Each person, firm or corporation found guilty of a violation shall be deemed guilty of a separate offense for every day during any portion of which any violations of any provisions

of this section are committed, continued or permitted by such person, firm or corporation, and shall be punishable therefor, as provided for in this section.

4. In addition, each person, firm or corporation found guilty of a violation shall pay all costs and expenses involved in the case of all parties.

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

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

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

~~Z~~AA. **Interpretation.** In the interpretation and application of this ordinance, all provisions shall be:

1. Considered as minimum requirements;

2. Liberally construed in favor of the governing body; and

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

~~AA~~AB. **Warning and Disclaimer of Liability.** The degree of flood protection required by this section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This section does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This section shall not create liability on the part of the city, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this section or any administration decision lawfully made thereunder.

EXHIBIT B – FINDINGS

ORDINANCE NO. _____

1. The City Council adopted Title 14 in 2007 with the adoption of Ordinance No. 2959, which included Chapter 3.7.200 Floodplain Development, regulating development in the floodplain areas.
2. Chapter 3.7.200 Floodplain Development was based on the 2005 State Model code, which has since been revised twice by the state in order to incorporate changes in Federal and State regulations.
3. In 2016, City Council adopted Ordinance No. 3064, which replaced Chapter 3.7.300 Floodplain Development, with 14.37.200 Flood Damage Prevention, based upon the 2012 Oregon Model Companion Flood Damage Prevention Ordinance.
4. In 2020, City Council adopted Ordinance No. 3129, which replaced Chapter 14.37.200 Floodplain Development, with 14.37.200 Flood Damage Prevention, based upon the 2020 Oregon Model Companion Flood Damage Prevention Ordinance.
5. The City of Cottage Grove is proposing to replace the current Chapter 14.37.200 Flood Damage Prevention with a new Flood Damage Prevention section that reflect the preliminary conclusions of a Biological Opinion issued by the National Marine Fisheries Service regarding impacts of requirements of the National Flood Insurance Program (NFIP) on several species of threatened or endangered anadromous fish species protected by the Endangered Species Act, and is in compliance with current Code of Federal Regulations and Oregon Statutes.
6. The State of Oregon has adopted statewide land use planning goals. Comprehensive Plan amendments must comply with the applicable Statewide Planning Goals and implementing regulations. To recommend approval to the City Council, the Planning Commission must find that the application complies with the applicable Statewide Goals. Part of this decision requires determining which Statewide Goals are applicable.

This proposal is consistent with the Statewide Planning Goals. The Statewide Planning Goals that are directly impacted by this request are Goal 1, Citizen Involvement, Goal 2, Land Use Planning, Goal 5 – Natural Resources, Scenic and Historic Areas, and Open Spaces, Goal 6 – Air, Water and Land Resources Quality, Goal 7 – Areas Subject to Natural Hazards

Goal 1 – Citizen Involvement: This request is consistent with Goal 1. Adequate public notice of the proposed changes has been provided through the Type IV public notice process as specified in Section 14.41.500 of the Development Code. The Department of Land Conservation and Development was notified of the intended adoption of the draft code language on March 19, 2025, and did not express any concerns in writing about the changes. Public hearings have been held at the Planning Commission and City Council levels to consider this code amendment. Our process involves various forms of notification of the public in the immediate area, notification in local media, and notification of impacted governmental agencies and recognized neighborhood groups.

Notice was sent for the Planning Commission public hearing to all affected properties through the required Measure 56 Notice. The Planning Commission held a public hearing on April 23, 2025. The City Council held a public hearing on May 12, 2025. All property owners within the

Special Flood Hazard Area that are impacted by this code change were sent written notice about this public hearing.

Goal 2 – Land Use Planning: This request is consistent with Goal 2. The City has established a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions. The proposed change followed the process established in Title 14 of the City of Cottage Grove Municipal Code and has been found compatible with the City's Comprehensive Plan. Under Goal 2, "All land use plans shall include identification of issues and problems, inventories and other factual information for each applicable statewide planning goal, evaluation of alternative courses of action and ultimate policy choices, taking into consideration social, economic, energy and environmental needs. The required information shall be contained in the plan document or in supporting documents."

Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces:
Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces, states that local governments must adopt plans that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations. The City of Cottage Grove has adopted such plans in its Comprehensive Plan and Development Code. This request is consistent with Goal 5, because the proposed amendments will ensure that development within the regulatory floodplain results in no net loss of key floodplain functions, including fish access and egress and riparian vegetation. The proposed amendments reflect the preliminary conclusions of a Biological Opinion issues by NMFS regarding impacts of the NFIP on several species of threatened or endangered anadromous fish species protected by the ESA. By maintaining key floodplain functions, the proposed amendments serve to protect natural resources in flood hazard areas.

Goal 6: Air, Water and Land Resources Quality:
Goal 6, Air, Water and Land Resources Quality, establishes policies to ensure that all waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards. The proposed amendments will ensure that development activities within the regulatory floodplain suffer no net loss of key floodplain functions, including water quality. The new rules will require no net increase in impervious surface or that any net increase in impervious surface be mitigated by techniques that retain and treat Stormwater to maintain water quality.

Goal 7: Areas Subject to Natural Disasters and Hazards:
Goal 7 requires local jurisdictions to adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards. Jurisdictions are required to adopt or amend, as necessary, based on the evaluation of risk, plan policies and implementing measures consistent with the following principles: a. avoiding development in hazard areas where the risk to people and property cannot be mitigated; and b. prohibiting the siting of essential facilities, major structures, hazardous facilities and special occupancy structures, as defined in the state building code (ORS 455.447(1)(a)(b)(c) and (e)), in identified hazard areas, where the risk to public safety cannot be mitigated, unless an essential facility is needed within a hazard area in order to provide essential emergency response services

in a timely manner. The proposed amendments will improve the City's implementation of Statewide Planning Goal 7. The proposed amendments are specifically designed to ensure that City ordinances relating to development in designated flood hazard areas continue to be consistent with applicable federal regulations for flood management.

6. The proposed 14.37.200 Flood Damage Prevention Code is consistent with the Cottage Grove Comprehensive Plan.

Among the primary Goals for Community Development in the Cottage Grove Comprehensive Plan are the goals to protect our natural and cultural features from inappropriate and hazardous development and to improve and protect the quality of our air and water resources. The proposed Flood Damage Prevention code implements these Comprehensive Plan goals. The purpose of this Chapter to promote the public health, safety and general welfare, and to minimize public and private losses due to flood condition in specific areas by provisions designed to:

1. Protect human life and health;
2. Minimize damage to public facilities and utilities, such as water and sewage treatment plants, water and gas mains, electric, telephone and sewer lines, streets and bridges, that are located in areas of special flood hazard;
3. Help maintain a stable tax base by providing for the sound use and development of flood prone areas so as to minimize blight areas caused by flooding;
4. Minimize expenditure of public money for costly flood control projects;
5. Minimize the need for rescue, emergency services, and relief associated with flooding and generally undertaken at the expense of the general public;
6. Minimize prolonged business interruptions, unnecessary disruption of commerce, access and public service during times of flood;
7. Notify potential buyers that property is in an area of special flood hazard;
8. Ensure that those who occupy within the areas of special flood hazard assume responsibility for their actions;
9. Manage the alteration of areas of special flood hazard, stream channels and shorelines to minimize the impact of development on the natural and beneficial functions, and;
10. Participate in and maintain eligibility for flood insurance and disaster relief.

The goals and regulations reflected within the proposed Flood Damage Prevention Code are compliant with the goals of the Cottage Grove Comprehensive Plan.