



Malynda Wenzl, Mayor

Mariana Valenzuela, Council President
Angel Falconer, Councilor
Donna Gustafson, Councilor

Michael Marshall, Councilor
Karen Martinez, Councilor
Brian Schimmel, Councilor

[TVCTV Livestream](#)

[Zoom Webinar](#) Meeting ID: 850 7572 2488 Passcode: 97116

Americans with Disabilities Act (ADA) Notice: The City is committed to providing equal access to public meetings. Requests for accommodation can be submitted to the City Recorder at least 48 hours before the meeting at: mwoods@forestgrove-or.gov or 503-992-3235

CITY COUNCIL WORK SESSIONS

No public comment will be taken. The Council will take no formal action.

5:30 2040 Vision

Staff: Sara Singer Wilson, Principal at SSW Consulting

CITY COUNCIL MEETING

A. 7:00 Call to Order

1. Roll Call
2. Land Acknowledgement
3. Pledge of Allegiance
4. "If I Were Mayor" Student Contest
5. Eric Stewart Award: Elena Uhing
6. National Preservation Month Proclamation

B. Public Comment: Time provided for anyone wishing to speak to City Council on an item not on the agenda or on the agenda but not scheduled for a public hearing. Comments are limited to 2 minutes unless additional time is granted by the Presiding Officer. The public comment period shall not exceed 30 minutes unless a majority of Councilors present vote to extend the time. Zoom attendees may use the "Raise Hand" option to be called on.

1. Written Public Comment

C. Consent Agenda: Items under the Consent Agenda are considered routine and will all be adopted with a single motion, without separate discussion. Councilors who wish to remove an item from the Consent Agenda may do so prior to the motion. Any item(s) removed will be discussed and acted upon following the approval of the remaining item(s).

1. Monthly Building Report - April
2. Library Commission Minutes 03.12.2025
3. New Liquor Licenses
4. Liquor License Renewals
5. **RESOLUTION 2025-16 CONSENTING TO BOARD AND COMMISSION APPOINTMENTS TO CITY ADVISORY BOARDS, COMMITTEES AND COMMISSIONS**

D. Additions/Deletions

1. City Manager
2. Proposed by Councilors

E. Presentations: The Council will hold questions until the end of each presentation. A two-minute reminder will be given to the presenter to conclude remarks.

1. **7:20 Historic Landmarks Board Annual Report**
Jennifer Brent, HLB Chair; Matthew Johnson, Senior Planner

F. Public Hearings, Ordinances, and Resolutions

1. 2nd Reading
7:35 **ORDINANCE 2025-01 AMENDING THE FOREST GROVE COMPREHENSIVE PLAN TO REPLACE THE CITY'S 2019 ECONOMIC OPPORTUNITIES ANALYSIS WITH THE 2025 ECONOMIC OPPORTUNITIES ANALYSIS UPDATE AND ADDING THE 2025 ECONOMIC OPPORTUNITIES ANALYSIS UPDATE AS A COMPREHENSIVE PLAN APPENDIX; FILE NUMBER 311-25-000002-PLNG**
Staff: Bryan Pohl, Community Development Director; Daniel Riordan, Senior Planner
2. 1st Reading
7:45 **ORDINANCE 2025-02 AMENDING FOREST GROVE DEVELOPMENT CODE ARTICLE 8 AND 12 TO ADOPT REVISED FLOODPLAIN MANAGEMENT REGULATIONS AND DEFINITIONS IN COMPLIANCE WITH THE FEDERAL EMERGENCY MANAGEMENT AGENCY 2024 FLOOD HAZARD MANAGEMENT MODEL ORDINANCE; FILE NO. 311-25-000005-PLNG**
Staff: Daniel Riordan, Senior Planner

3. 7:55 **RESOLUTION 2025-17 ENDORSING A LOCALLY PREFERRED ALTERNATIVE FOR THE TUALATIN VALLEY HIGHWAY BUS RAPID TRANSIT PROJECT**

Staff: Daniel Riordan, Senior Planner

4. 8:05 **RESOLUTION 2025-18 AMENDING COUNCIL RULES SUBSECTIONS 4.1, 6.4.2, 9.2, 10.2, 11.2, AND 14.3; AND DELETING SUBSECTION 3.12 IN ITS ENTIRETY**

Staff: Jesse VanderZanden, City Manager

G. 8:10 Council Communications:

1. Councilor Reports
 - a. Mariana Valenzuela (LC, CDBG/PAB)
 - b. Angel Falconer (HLB, JWC, CCESC)
 - c. Donna Gustafson (PAC, RWPCB, WCCCA)
 - d. Michael Marshall (CFC, P&R)
 - e. Karen Martinez (FGRFPD, SCC, FGSCC)
 - f. Brian Schimmel (CCE, EDC, TVHSC, Chamber of Commerce)
2. City Manager's Report
3. Mayor's Report (WCCC, R1ACT, MMC, WCC&MG, WCMG, MYAC)

H. 8:30 Adjournment

EXECUTIVE SESSION

EXECUTIVE SESSIONS ARE CLOSED TO THE PUBLIC. No formal decisions or actions will be taken. Representatives of the news media may attend, but may not disclose any information discussed. News media representatives can request a link to attend via Zoom by emailing the City Recorder's Office at: mwoods@forestgrove-or.gov

8:30 The Council will convene to hold an executive session: ORS 192.660(2)(i) to review and evaluate the employment-related performance of the City Manager.



FOREST GROVE
FORWARD
YOUR VOICE, YOUR VISION

City Council Meeting
May 12, 2025





01

Forest Grove Forward
Project Overview

02

Community
Engagement
+ Outreach Snapshot

03

Community Input for
Vision of Forest Grove
in 2040

04

Draft Vision, Values,
Goals, + Outcomes

05

Questions, Discussion +
Next Steps



01

Forest Grove Forward Project Overview

What is Forest Grove Forward?



Forest Grove Forward is a community visioning project where we will translate community aspirations into a clear vision for 2040 to guide the City's strategic planning and decision-making.

This is an inclusive process to engage community members to have a voice in how they want Forest Grove to look, feel, and function in the future.

What does the community vision include?

- A shared vision that describes the community residents want Forest Grove to be in 2040
- A set of community values that describe what is important to people in Forest Grove and what should guide us in implementing the vision
- An action plan with specific goals that describe the future conditions for the community and supporting actions that outline focused approaches to achieving the goals.



Why is having a community vision important?

Cities have many complex priorities to juggle in creating vibrant, resilient, and inclusive communities.

As Forest Grove considers topics – such as housing, roads, utilities, economy, parks and recreation, public safety, and climate – it is important to have broadly supported direction and an actionable plan that is aligned with the values and aspirations of the people who live and work in Forest Grove.

Process Overview



Project Schedule



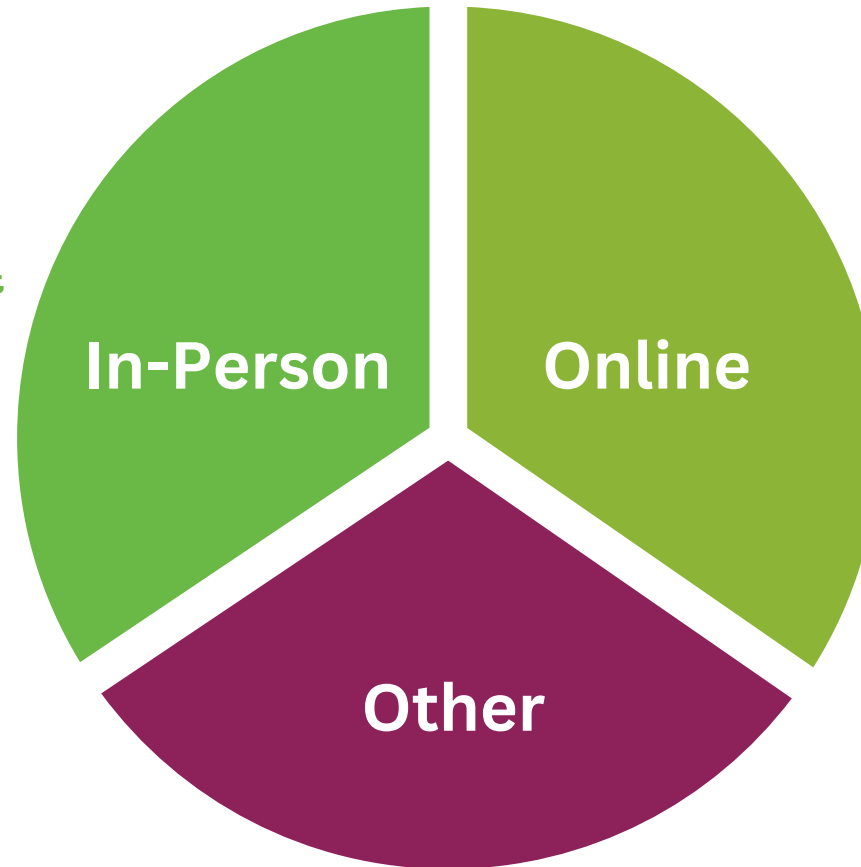


02

Engagement + Outreach Snapshot

How have we engaged Forest Grove?

- **Community Events**
 - Farmers Markets, National Night Out, Festival of the Arts, High School Football Game, Annual Town Hall, Sidewalk Chalk Art Festival, Corn Roast, Oktoberfest, and more!
- **Business Community**
 - Engaging with Local Businesses
 - Economic Development Commission
 - Chamber Events
- **Partnership with Veritas**
 - 1:1 Interviews
 - Group Event
- **Youth Engagement**
 - FGHS Football Game
 - Teen Library Council
 - Mayor Youth Council
 - FGHS Lunch Engagement
- **Steering Committee Meetings**
- **Rotary Club**



- **Community Survey**
- **Forest Grove Social Media Pages**
- **Forest Grove E-Newsletter**
- **City Website**
- **Chamber partnership - social media and e-newsletter**
- **Pacific University - distributed content and survey link to all University Clubs and organizations**

- **Utility bill inserts**
- **Posters, flyers, table tents**
 - Local businesses, Pacific University, apartment complexes, senior living communities, + City facilities
- **Community Leader Interviews**



Who did we hear from?

- 9 Community Leader Interviews
- 4 Community Group Meetings
- 60 Participants at Community Meetings
- 1,597 Community Survey Respondents
- 25 Community Events
- 2,300+ Engaged at Community Events
- 1 Latino Outreach Event
- 57 Latino Intercept Surveys
- 59 Businesses Visited
- 26 Apartments and 2 Senior Living Facilities Visited
- 7 Pacific University Student Meetings/Events
- 5 Youth Meetings/Events





03

Community input for Vision of Forest Grove in 2040

What should we preserve into the future? What do people love about Forest Grove?

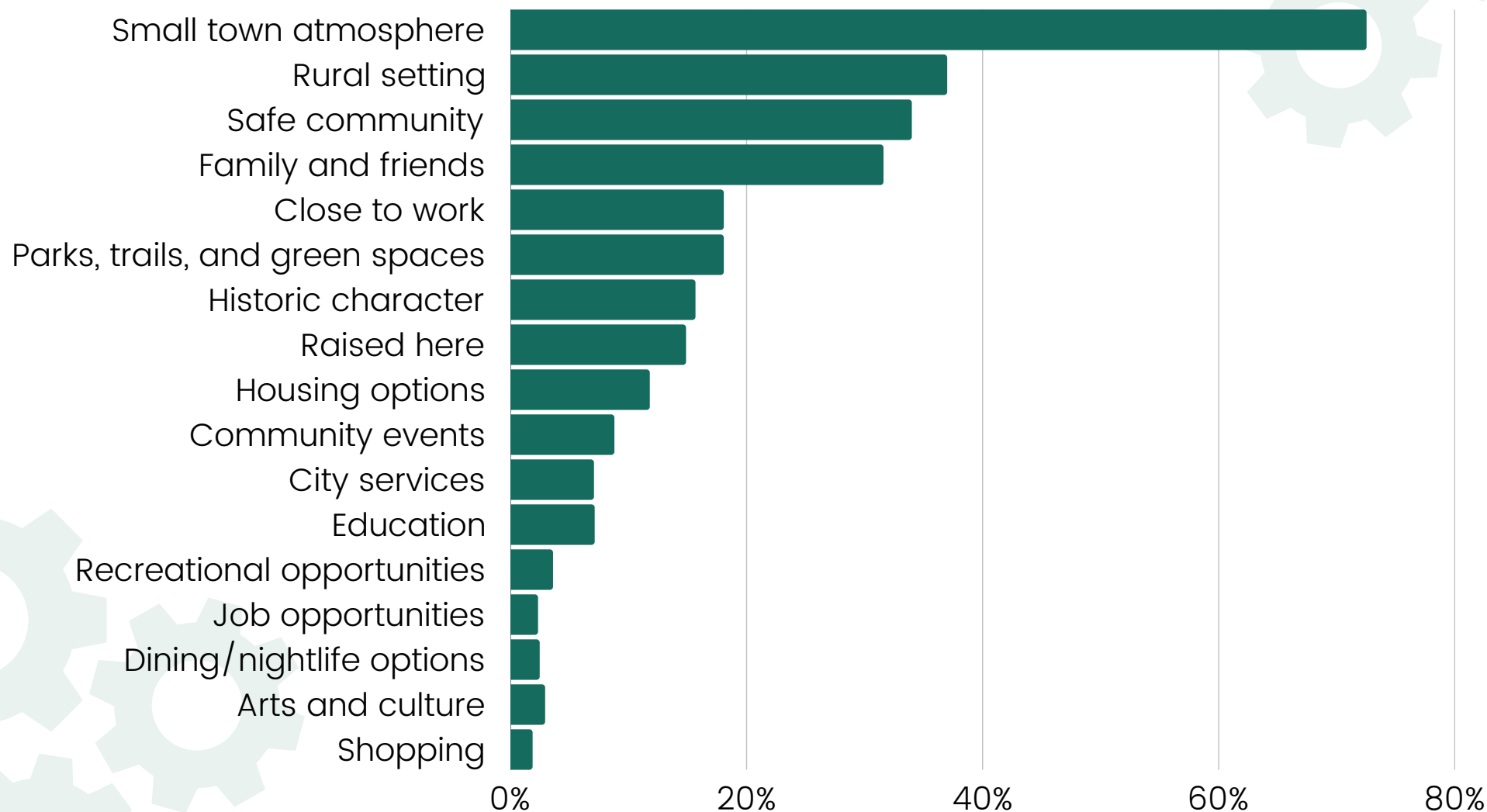


What do you like most about Forest Grove? What should we preserve into the future?



- Size of community/small-town feel (43%)
- Downtown/Local businesses (7%)
- Environment (9%)
 - Trees, natural environment, rural setting, trees, farmland, open spaces
- Community Events (5%)
- Parks + Recreation (5%)
 - Preserve the parks/green spaces, add more parks/amenities
- Maintenance and cleanliness
- Historic Preservation (5%)
 - Houses, neighborhoods, downtown, businesses, trees
- Transportation/Mobility (5%)
 - Walk-ability, easy to get around, minimal traffic, GroveLink/Tri-Met

What are the top three reasons why you live, work, learn, play, or visit in Forest Grove?



Vision: What is our desired state in the next 15 years?

Vision Themes from Community Survey + Events:

- Unique identity, not a Portland suburb
- Preserves the warmth, charm, and close-knit spirit that people love about small-town living
- Thoughtful growth – Intentional about the kind of businesses and housing that are brought into Forest Grove
- Preserve natural environment – trees, green spaces, farmland
- Historic character – homes, neighborhoods, trees, downtown
- Family friendly – Great schools, activities for youth, parks, events
- Bike friendly/walkable + easy to get around town
- Vibrant downtown – Honors historic feel, clean, locally owned businesses, full occupancy
- Safe
- Lots of community events and opportunities for residents to gather, spend time together

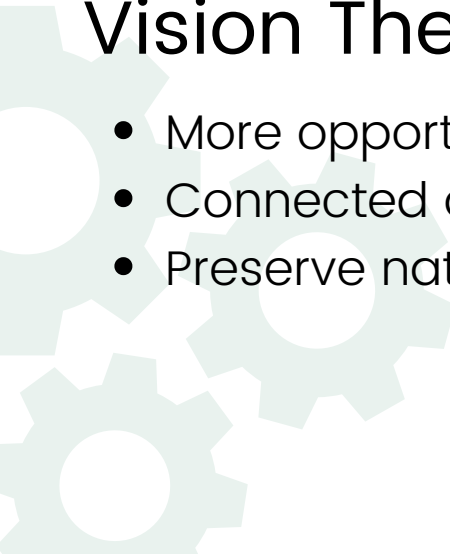
Vision: What is our desired state in the next 15 years?



Vision Themes from Veritas Outreach:

- Tranquil, small-town feel
- Cleanliness
- Parks
- Job opportunities
- Affordable housing
- Lack of homelessness and crime

Vision Themes from Youth Outreach:



- More opportunities to shop, eat, play, and gather in town
- Connected and supportive community
- Preserve natural beauty and access to nature

Vision: What is our desired state in the next 15 years?

Vision Themes from Business Outreach:

- Better access to stores downtown (parking and sidewalks)
- Beautiful and aesthetically-pleasing downtown to draw in residents and tourists
- Tourism
- Support for small businesses
- Active communication between City and business community



04

Draft Vision, Values, Goals + Outcomes

Definition of Vision + Values



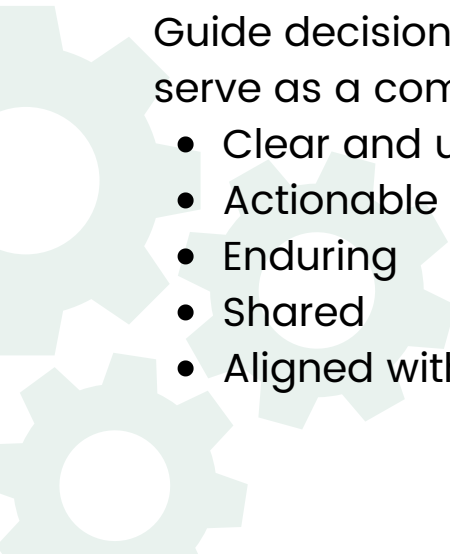
VISION

The community's desired future state. Vision statement attributes include:

- Aspirational
- Clear and concise
- Future-oriented
- Inclusive
- Inspiring
- Values-based
- Serves as “North Star”

VALUES

Guide decisions, behaviors, and culture within a community or organization. The values serve as a compass in implementing your vision and goals. Values should:

- Clear and understandable
 - Actionable
 - Enduring
 - Shared
 - Aligned with vision
- 

Draft Vision

ROOTED IN CONNECTION, GROWING WITH PURPOSE.

In 2040, Forest Grove serves as the gateway to Oregon's rural tranquility and urban innovation, situated between mountains and metropolis. We are a destination with a vibrant downtown and local economy where independent businesses thrive, education inspires and provides opportunity, recreation amenities abound, and neighbors truly connect. Through thoughtful, sustainable growth and collaborative spirit, we cultivate a high-quality, safe, and affordable life honoring our history and welcoming all who visit and call Forest Grove home.



Draft Values

SUSTAINABLE

Together, we strive toward a sustainable future—where our commitment to environmental care, responsible financial choices, thoughtful community growth, and resilient infrastructure ensures a thriving, inclusive city for generations to come.

SAFE

We aspire to be a community where everyone feels secure, supported, and prepared—where public safety is a shared priority, health is nurtured, and we stand resilient in the face of emergencies, united in our care for one another.



CONNECTED

We envision a deeply connected community—where neighbors know and care for one another, where inclusive engagement thrives, and where thoughtfully designed spaces and infrastructure bring people together, preserving a small-town spirit as we grow.

Goals, Outcomes, + Actions



GOALS + OUTCOMES

There are five proposed goal areas for Forest Grove Forward. Each goal area will have a goal statement describing the overall goal focus, followed by outcomes which describe the specific results the 2040 Vision aims to achieve. These outcomes translate the broad goal area into specific targets.

ACTIONS

Specific actions will support the advancement of each outcome. Actions are specific projects, programs, initiatives, policies, or operational changes the 2040 Vision undertakes to achieve the desired outcomes. They are the concrete steps towards achieving the vision.



Goal Area: Economy

DRAFT OUTCOMES

1. Attract higher paying job opportunities
2. Connected business community
3. Revitalized downtown
4. Foster a community identity and sense of place
5. Support access to high-quality education for all

Goal Area: Community Growth



DRAFT OUTCOMES

1. Increase the supply of diverse and affordable housing options to meet current and future needs
2. Improve major thoroughfares with balanced traffic management and safety enhancements
3. Improve public safety response in Forest Grove

Goal Area: Healthy + Active Community



DRAFT OUTCOMES

1. Increased recreation opportunities for all
 2. Increased accessibility and safety for all recreation amenities
 3. Improved health and well-being for all Forest Grove residents
- 

Goal Area: Infrastructure



DRAFT OUTCOMES

1. Build and maintain resilient, efficient, and financially sustainable infrastructure
 2. Enhance mobility and safety through thoughtful planning and design
 3. Enhance walkability and community connectivity through pedestrian and bike friendly infrastructure and enhanced transit options
- 

Goal Area: Community Connection

DRAFT OUTCOMES

1. Inclusive and accessible spaces for people of all ages to gather and connect
2. Increased engagement through community wide awareness of news and events
3. Active civic engagement and increased collaboration among community organizations, volunteers, and the City



05

Questions, Discussion + Next Steps

Next Steps

- MAY 21
 - Staff Leadership Team Workshop
- JUNE 9
 - City Council Update
- JUNE 9-22
 - Community Review
- JUNE 17
 - Steering Committee Meeting
- JUNE 23
 - City Council Review
- JULY 14
 - City Council Adoption



CITY COUNCIL MEMORANDUM

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

PROJECT TEAM: *Malynda Wenzl, Mayor*
Jaime Zaik, Executive Assistant

DATE: *May 12, 2025*

SUBJECT: ***"If I Were Mayor" Student Contest***

The "If I Were Mayor" 2025 Student Contest is sponsored by the Oregon Mayors Association. The contest was advertised through multiple social media platforms, by printed flyers, and featured on the city website. Applications were due April 4, 2025.

Mayor Wenzl is pleased to announce that three (3) entries were received:

- Poster category for grades 4 – 5: No entries received.
- Essay category for grades 6 – 8:
 - Roxinny Aubrey Parra Salgado
- Digital Media Presentation Category for grades 9 – 12:
 - Christopher Walsh
 - Elisabeth Hansen

Students will be recognized at the City Council Meeting on Monday, May 12, 2025. Winners will receive a cash prize from the City of Forest Grove.

The winning entry for each category will be submitted to the state level where it will compete against other city winners for the chance of winning a prize worth up to \$500. The winners at the state level will be announced during the Oregon Mayors Association Summer Conference to be held August 14-16, 2025, in Baker City, Oregon.

ERIC G. STEWART AWARD

Awarded to

Elena Uhing

In Recognition of Outstanding Commitment
To the Preservation of the City of Forest Grove's History



Jennifer Brent
Historic Landmarks Board Chair
May 12, 2025



PROCLAMATION

WHEREAS, the National Trust for Historic Preservation created Preservation Month to spotlight grassroots preservation efforts in America; and

WHEREAS, Preservation Month provides an opportunity to celebrate the diverse and unique heritage of our county's cities and states and enable more Americans to become involved in the preservation movement; and

WHEREAS, historic preservation is an effective tool for managing growth and sustainable development, revitalizing neighborhoods, fostering local pride and maintain community character while enhancing livability; and

WHEREAS, historic preservation is relevant for communities across the nation, both urban and rural, and for Americans of all ages, walks of life, and ethnic backgrounds; and

WHEREAS, it is important to celebrate the role of history in our lives and the contributions made by dedicated individuals to help preserve the tangible aspects of the heritage that has shaped us as a people.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF FOREST GROVE DOES HEREBY PROCLAIM THE MONTH OF MAY 2025, AS

NATIONAL PRESERVATION MONTH

In Forest Grove, Oregon and calls upon the people to join their fellow citizens across the United States in recognizing and participating in this special observance.



IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the City of Forest Grove, Oregon, to be affixed this 12th day of May, 2025.

Malynda H. Wenzl, Mayor, City of Forest Grove

PROCLAMACIÓN

CONSIDERANDO QUE, el Fondo Nacional para la Preservación Histórica creó el Mes de la Preservación para destacar los esfuerzos comunitarios de preservación en Estados Unidos; y

CONSIDERANDO QUE, el Mes de la Preservación brinda la oportunidad de celebrar el patrimonio diverso y único de las ciudades y estados de nuestro país y permitir que más estadounidenses se involucren en el movimiento de preservación; y

CONSIDERANDO QUE, la preservación histórica es una herramienta eficaz para gestionar el crecimiento y el desarrollo sustentable, revitalizar vecindarios, fomentar el orgullo local y mantener el carácter comunitario al tiempo que mejora la habitabilidad; y

CONSIDERANDO QUE, la preservación histórica es relevante para las comunidades de todo el país, tanto urbanas como rurales, y para los estadounidenses de todas las edades, todos los ámbitos de la vida y todos los orígenes étnicos; y

CONSIDERANDO QUE, es importante celebrar el papel de la historia en nuestras vidas y las contribuciones hechas por personas dedicadas para ayudar a preservar los aspectos tangibles del patrimonio que nos ha moldeado como pueblo.

AHORA, POR LO TANTO, EL AYUNTAMIENTO DE LA CIUDAD DE FOREST GROVE POR LA PRESENTE PROCLAMA AL MES DE MAYO 2025, COMO

Mes Nacional de la Preservación

En Forest Grove, Oregon, y hace un llamado a la gente de Forest Grove a unirse a sus conciudadanos de todo Estados Unidos para reconocer y participar en esta celebración especial.



EN TESTIMONIO DE LO CUAL, he suscrito la presente y he hecho que el sello de la Ciudad de Forest Grove, Oregon, se emplace en este día 12 de mayo de 2025.

Malynda Wenzl, Alcalde, Ciudad de Forest Grove

Mariah Woods

From: [REDACTED]
Sent: Wednesday, April 30, 2025 1:56 PM
To: 'Lindsay Trapp'
Cc: 'Leah Feldon'; Ali.Mirzakhali@deq.oregon.gov; board@wc-can.org; 'Kevin moss'; Nicholas LaMora; City Councilors; Kevin Moss; Amber Ames; Malynda Wenzl; Therese Bottomly
Subject: Dale Feik - written and oral comments: EQC, County Commissioners, Forest Grove and Hillsboro City Councilors and staffs
Attachments: Al Gore attacks Trump Firey speech Earth Day 2025 Climate change.docx

Subject: Support of governments, Al Gore's Keynote speech at Climate event during Earth Day

To: Environmental Quality Commissioners via Lindsay Trapp (Please forward this email to the four Commissioners - Matt Donegan, Chair, and Commissioners, Amy Schlusser, Mark Webb, Karen Moynahan; and DEQ Director Leah Feldon

To: Washington County Board of Commissioner's Chair Kathryn Harrington and Commissioners

To: Forest Grove City Mayor Malynda Wenzl and City Councilors (via Mariah Woods, clerk)

To: Hillsboro Mayor Beach Pace and Councilors (via Amber Ames)

Re: Please read my comments below my name regarding Al Gore's keynote speech at a Climate event in San Francisco. I also attached it.

I, Dale Feik, will attend the EQC meeting in Bend May 8-9, 2025, and make public comment on Thursday May 8th.

At a previous meeting I gave you EQC members the book On Tyranny, Twenty Lessons from the Twentieth Century by Timothy Snyder. In this email I am emphasizing Lesson (actions) 2 and 10.

2. Defend institutions. *It is institutions that help us to preserve decency. They need our help as well. Do not speak of "our institutions" unless you make them yours by acting on their behalf. Institutions do not protect themselves. They fall one after the other unless each is defended from the beginning. So choose an institution you care about -- a court, a newspaper, a law, a labor union -- and take its side.*

10. Believe in truth. *To abandon facts is to abandon freedom. If nothing is true, then no one can criticize power, because there is no basis upon which to do so. If nothing is true, then all is spectacle. The biggest wallet pays for the most blinding lights.*

The Lessons relate to Al Gore's Keynote speech during a San Francisco Climate Week event and support the work of the EQC/DEQ, the Washington County Commissioners and staff, and the Councilors and staff of the cities of Forest Grove and Hillsboro who are committed to provide the best service for its residents.

Please continue to read below my name about Gore's speech and the transcript of his speech.

Sincerely,

Dale Feik
Chair, Washington County Citizen Action Network (WC CAN) -
<http://www.wc-can.org/>

Resident of Forest Grove since 1966

Cell: [REDACTED]
[REDACTED]

Cc: Leah Feldon, DEQ Director

Ali Mirzakhali, DEQ Air Administrator

Washington County Board of Commissioners via Kevin Moss, clerk

Mariah Woods, Clerk/Recorder, City of Forest Grove

Therese Bottomly, The Oregonian

Nicholas LaMora, a Pamplin Papers reporter

Washington County Citizen Action Network, WC CAN,, Board of Directors

P.S. Please scroll down to the beginning.

<https://people.com/al-gore-attacks-trump-fiery-speech-parallels-nazi-germany-11720881>

By [Meredith Kile](#)

Published on April 23, 2025 04:39PM EDT

- Al Gore had strong words for President Donald Trump during his keynote speech at San Francisco Climate Week.
- Drawing a comparison to early Nazi Germany, the former vice president said the Trump administration is attempting to create “their own preferred version of reality.”
- Gore cautioned Americans to remember how, throughout history, “populist authoritarian leaders have used migrants as scapegoats and have fanned the fires of xenophobia to fuel their own rise of power.”

The climate activist cited the findings of a group of German philosophers who “performed a moral autopsy” on their country in the aftermath of World War II — seeking answers about how Hitler was able to engineer his propaganda-driven takeover on such a massive scale.

Those philosophers, Gore recounted, found that the Nazis “attacked the very heart of the distinction between true and false.”

[Al Gore's Advice for President Trump: 'Resign'](#)

[Al Gore Blasts Trump for 'Normalizing' Climate Change Denial in New Book: The 'Future of Humanity' Is at Risk](#)

[Gore on Trump](#)

[Robert](#)

[Reich](#)

April 29, 2025

Email from Robert

reich



READ IN
APP 

Friends,

Earlier today, I asked rhetorically: When it comes to the necessity of speaking out against this dangerous and detestable regime, where are Bill Clinton and George W. Bush, and where are their vice presidents, Al Gore and Dick Cheney? When I wrote this I had not come across a particularly powerful speech Al Gore delivered last week in San Francisco at Climate Week. My error. Here it is, in full:

It is abundantly clear, after only three months and one day, that the new Trump administration is attempting to do everything it possibly can to try to halt the transition to a clean energy future and a deep reduction in the burning of fossil fuels. The climate crisis is a fossil fuel crisis, basically 80% of it.

Many of you here today have likely felt the chilling effect of the policies and the rhetoric coming from Washington, D.C. and what the effect has been on businesses and investors and far beyond.

The Dow Jones, of course, today fell another thousand points and since Donald Trump's inauguration it's gone down six thousand points. But while the most visible impacts of what the new administration is doing may be in the market for stocks and bonds, that's not the only thing that he has caused to crash.

The trust market has crashed.

The market for democracy has taken a major hit.

Hope is being arbitrated in the growing market for fear.

Truth has been devalued and confidence in U.S. leadership around the world has plummeted.

We are facing a national emergency for our democracy and a global emergency for our climate system.

We have to deal with the democracy crisis in order to solve the climate crisis.

The scale and scope of the ongoing attacks on liberty are literally unprecedented. With that in mind, I want to note before I use what is not a precedent, I understand very well why it is wrong to compare Adolf Hitler's Third Reich to any other movement. It was uniquely evil, full stop. I get it.

But there are important lessons from the history of that emergent evil, and here is one that I regard as essential.

In the immediate aftermath of World War II, a small group of philosophers who had escaped Hitler's murderous regime returned to Germany and performed a kind of moral autopsy on the Third Reich. The most famous of the so-called Frankfurt School of Philosophers was a man named Jurgen Habermas – best known, I would say. But it was Habermas' mentor, Theodor Adorno, who wrote that the first step of that nation's descent into Hell was, and I quote, "the conversion of all questions of truth into questions of power." He described how the Nazis, and I quote again, "attacked the very heart of the distinction between true and false."

The Trump administration is insisting on trying to create their own preferred version of reality. They say Ukraine attacked Russia instead of the other way around, and expect us to believe it! At home, they attack heroes who have defended our nation in war and against cyberattacks as traitors.

They say the climate crisis is a "hoax" invented by the Chinese to destroy American manufacturing.

They say coal is clean.

They say wind turbines cause cancer.

They say sea level rise just creates more beachfront property.

Their allies in the oligarchic backlash to climate action argue that those who want to stop using the sky as an open sewer, for God's sake, need to be more "realistic" and acquiesce to the huge increases in the burning of more and more fossil fuels (which is what they're pushing), even though that is the principal cause of the climate crisis.

You may not be surprised to learn that this propagandistic notion of "climate realism" is one that the fossil fuel industry has peddled for years.

The CEO of the largest oil company in the world, Saudi Aramco has said "We should abandon the fantasy of phasing out oil and gas."

His colleague, Exxon CEO Darren Woods, has claimed that "the world needs to get real. ... The problem is not oil and gas. It's emissions."

The American Petroleum Institute says that we need "a more realistic energy approach" – one that, you guessed it, includes buying and burning even more oil and gas.

So, allow me to put this question to all of you: What exactly is it that they want us to be realistic about?

Their twisted version of "realism" is colliding with the reality that humanity is now confronting.

The accumulated global warming pollution (because these molecules linger there on average about 100 years and it builds up over time), it's trapping as much extra heat now every single day as would be released by the explosion of 750,000 first generation atomic bombs blowing up on the Earth every single day!

Is it realistic to let that continue?

Is it realistic to think that if we opt out of taking action to reduce greenhouse gas pollution, we'll be able to just wish it away and continue with business as usual? Well, Mother Nature makes a pretty good case against that argument. Every night on the TV news is like a nature walk through the Book of Revelation.

Is it realistic, for example, to continue stoking the risk of wildfire in California, after what has already happened to so many communities in Northern California? And just look at the devastation caused by the Los Angeles wildfires in January.

Is it realistic to tell homeowners around the world that the global housing market is expected to suffer a \$25 trillion loss in the next 25 years? Fifteen percent of all the residential housing stock in the world if we do not change what we're doing? Is that realistic in their view?

Is it realistic to continue quietly accepting 8.7 million deaths every single year from breathing in the particulate co-pollution that also comes from the burning of fossil fuels? That is the number of people who are already being killed. According to health experts, it is, and I quote, "the leading contributor to the global disease burden." When you're burning coal, oil and gas, it puts the heat trapping pollution up there and it puts the particulate and PM 2.5 pollution into the lungs of people downwind from where the facilities are burning the fossil fuels.

Is it realistic, in their view, for governments to manage 1 billion climate migrants crossing international borders in the balance of this century? That's how many the Lancet Commission estimates will be crossing borders in the decades to come, if we continue driving temperatures and humidity higher and making the physiologically unlivable regions of the world vastly larger by continuing to put 175 million tons of man-made heat-trapping pollution into that thin shell of the troposphere surrounding the planet. You know what that blue line looks like,

that thin blue shell is blue because that's where the oxygen is. And it's so thin, if you could drive a car straight up in the air at highway speeds, you'd get to the top of that blue line in five to seven minutes.

That's what we're using as an open sewer. Is that realistic? I don't think it is.

We've already seen, by the way, how populist authoritarian leaders have used migrants as scapegoats and have fanned the fires of xenophobia to fuel their own rise to power. And power-seeking is what this is all about. Our Constitution, written by our founders, is intended to protect us against a threat identical to Donald Trump: someone who seeks power at all costs to get more power. Imagine what the demagogues would do as we continued toward a billion migrants crossing international borders. We could face a grave threat to our capacity for self-governance.

Is it "realistic" to continue inflicting the financial toll that the climate crisis is taking on the global economy? According to Deloitte, climate inaction will cost the economy \$178 trillion over the next half century. And is it realistic to miss out on the economic opportunity that we could seize by going toward net-zero? Over that same period, climate action would increase the size of the global economy by \$43 trillion.

A question with particular relevance in nearby Silicon Valley: is it realistic for the semiconductor industry to experience losses of up to 35% of annual revenues due to supply chain disruptions caused by the stronger and more severe cyclonic storms and supercell storms?

Is it realistic to continue with a system of financing that leaves the entire continent of Africa completely out? Right now, the entire continent of Africa, fastest-growing population in the world, has fewer solar panels installed than the single state of Florida in the United States of America. That's a disgrace to the makeup of our financial system. But Africa has three times as many oil and gas pipelines under construction and preparing for construction to begin than all of North America. It is ridiculous to allow this system to continue as it is. How is that realistic? Or fair? Or just?

Is it realistic for us, all of us here, to consign our children and grandchildren to what scientists warn us would be Hell on Earth in order to conserve the profits of the fossil fuel industry? The predictions of the scientists 50 years ago have turned out to be spot on correct. Their predictions just a few decades ago have turned out to be exactly right. Should not that cause us to listen more carefully to what they're warning us will happen if we do not sharply and quickly reduce the emissions from burning fossil fuels?

Is that unrealistic to listen to a proven source of advice?

This newfound so-called climate realism is nothing more than climate denial in disguise. It is an attempt to pretend there is no problem and to ignore the reality that is right in front of our faces.

What's never present in any of this so-called "realism" is any credible challenge whatsoever to the conclusions of the Intergovernmental Panel on Climate Change, the IPCC. They never address that. They just wish it away and say, "Oh it's unrealistic to actually do anything about it."

I wish we could wish it away, but we cannot.

The hard reality is that the fossil fuel industry has grown desperate for more capital. They're seeing their two largest markets wither away: electricity generation, number one and transportation, number two. They've been losing their share of investment in the energy market to renewables and so they're panicked.

That explains why they are so aggressively using their captive policymakers to block meaningful solutions. Of course, as you know, they're way better at capturing politicians than they are at capturing emissions. They've grown very skillful at that.

They are the wealthiest and most powerful industry lobby in the history of the world. They make the East India Company look like a popcorn vendor. They are the effective global hegemon.

They have used their war chests and their legacy network of political and economic power to block any reductions of fossil fuel burning emissions – whether at the international conferences that we call the COPs, the Conference of Parties in the UN process, or at the global negotiations for a plastic treaty. They blocked anything there, too.

Why? They're losing the first market of electricity generation because 93% of all the new electricity generation installed worldwide last year was solar and wind. They're losing that market steadily. EVs are rising dramatically. They say they've slowed down. Well, we just got the new figures – an 18% increase year-on-year here in the United States. In many countries much faster than that.

And so, their third market – they're telling Wall Street that they're going to make up all of the expected lost revenue in their first two markets by tripling the production of plastics over the next 35 years.

Well, we might have a word to say about that. Is that realistic? Because we've already found – the scientists say – that some seabirds are manifesting symptoms like Alzheimer's disease from the plastic particles in their brains and they found that it crosses the blood-brain barrier in humans, and the size of the amount has doubled just in the last decade.

Do we really want to continue that?

It's crazy, but they are blocking action at both of these international forums and they're blocking action in the deliberations of nation-states, even in states and provinces, and even at the local level. Anywhere in the world where there is an effort to pass legislation or regulations that reduces the burning of fossil fuels, they are there with their money, with their lobbyists, with their captive politicians, blocking it as best they can.

And the solution is what you're doing here at Climate Week here in San Francisco. We have got to rise up and change this situation.

That's also why they are ballyhooing ridiculously expensive and hilariously impractical technologies like building giant mechanical vacuuming machines to suck it back out of the atmosphere after they put it up there. Could that someday be a realistic part of the solution? Perhaps, perhaps. But not now! Not even close.

They use it as a bright, shiny object to distract attention and say, 'see this, see this, this could be so miraculous, we don't have to stop burning fossil fuels at all! We can actually continue to increase the burning of fossil fuels because look at this bright, shiny object. We've got this vacuuming machine.'

Well, CO₂ is 0.035% of the molecules in the air. You're gonna use an energy-intensive, ridiculous, expensive process to filter through the other 99.965% of the molecules? It's absolutely preposterous.

In reality, the Sustainability Revolution is powering more and more of our global economy. It has the scale and impact of the Industrial Revolution and is moving at the pace of the Digital Revolution.

By the way, in Texas, which used to have a free market for energy, over 90% of all their new electricity generation last year was solar and wind. And, you know, they've got captured politicians there. They're pushing legislation in Texas to legally require any developers of solar and wind to spend time and money developing more oil and gas before they're given permission to develop renewables.

That's not realism, that's pathetic.

That is a sign of desperation.

They don't trust the free market. They're just relying more and more on the politicians who will jump when they tell them jump and ask how high when they tell them to jump again.

So, around the world, the market is transforming. Since the Paris Agreement, the cost of solar has dropped 76%. The cost of wind is down 66%. Utility-scale batteries are down 87%.

In 2004, when Generation was founded, it took a full year for the world to install one gigawatt of solar power. Now it takes one day to install one gigawatt of solar power.

And it's not just renewables. We're seeing the Sustainability Revolution rapidly take hold across the rest of the global economy from transportation, to regenerative agriculture, to circular manufacturing, and so much more.

So, as we gather here to kick off Climate Week and as we gather on the eve of Earth Day, we have to treat this moment as a call to action.

So, I'm here not only to respond to the invitation for which I'm grateful.... I'm here to recruit you.

Many of you are already working on this, but those of you who are not, I'm here to recruit you. We need you. This is the time and this is a break glass moment. This is an all hands on deck moment.

Now is the time to look at every aspect of your businesses, your investments, and your civic engagement to determine whether or not you can contribute even more to solving the climate crisis.

It's easy to adopt our own versions of climate realism to say that the challenge is too great. Some people worry about that. To say that our individual role is too small to have an impact. Some use that as an excuse: that if the government won't act, what can any of us do about it?

Well, just as the climate crisis does not recognize borders between countries, it does not either recognize delineations between the duty of government and businesses and all significant participants in the global economy.

Climate change is already impacting your life and work and will more so through disrupted supply chains, increased liability, changes in consumer demand, and more.

This is a moment when we all have to mobilize to defend our country. And remember the antidote to climate despair is climate action. It was in this city in the 1960s that Joan Baez first said that the antidote to despair is action. And we need to remember that now.

And during a time of when people were tempted to despair in the struggle for civil rights in this country, Martin Luther King said something about overcoming the forces that try to discourage you and halt progress. He said this: "If you can't fly, run. If you can't run, walk. If you can't walk, crawl. But by all means, keep moving."

And that's where we are.

Every one of the morally based movements in the past had periods when advocates felt despair. But when the central choice was revealed as a choice between right and wrong, then the outcome at a very deep level became foreordained.

Because of the way Pope Francis reminded us we have been created as God's children.

We love our families.

We are devoted to our communities.

We have to protect our future.

And if you doubt for one moment ever that we as human beings have the capacity to muster sufficient political will to solve this crisis, just remember that political will is itself a renewable resource.

Mariah Woods

From: noreply@civicplus.com
Sent: Tuesday, May 06, 2025 1:57 PM
To: City Councilors
Subject: Online Form Submittal: Contact City Council

Contact City Council

First Name	Allan
Last Name	Moreno
City	Forest Grove
State	OR
Zip	97116
Email	[REDACTED]
Whom would you like to contact?	Entire Forest Grove City Council (Includes Mayor Wenzl)
Would you like a response?	Yes
Question / Comment	Can you explain how a person is found to be in non-compliance of a city code is give another chance to comply? As this is what your code office told us today 5/6/2025

Email not displaying correctly? [View it in your browser.](#)

Monthly Building Activity Report April-25 2024-2025

Category	Period: April-24		Period: April-25	
	# of Permits	Value	# of Permits	Value
Man. Home Setup				
Accessory Dwelling Unit				
Res 1 & 2 Family New	9	\$4,244,005	29	\$10,894,989
SFR Addition & Alt/Repair			3	\$34,882
MultiFamily New				
MultiFamily Alteration/Repair	2	\$13,000		
Group Care Facility				
Commercial New			3	\$24,509,282
Commerical Addition				
Commercial Alt/Repair	6	\$163,326	7	\$1,194,131
Industrial New				
Industrial Addition				
Industrial Alt/Repair				
Gov/Pub/Inst (new/add)	1	\$150,000		
Signs			1	\$1,250
Grading	1		4	
Demolitions	6			
Total	25	\$4,570,331	47	\$36,634,534

Fiscal Year-to-Date

2023-2024		2024-2025	
Permits	Value	Permits	Value
210	\$37,179,543	288	\$173,378,319



A place where families and businesses thrive.

< Forest Grove City Library Commission, Meeting Minutes Wednesday, March 12, 2025 >
< FGCL Rogers Room & Zoom >

Minutes are unofficial until approved by the B/C.

1. CALLED TO ORDER:

Pamela Bailey, Vice President, called the meeting to order at 6:35 p.m.

ROLL CALL: Morgan Knapp, Kathleen Poulsen, Ed Uecker, Kirsten Beier, Pamela Bailey, Lauren Miller

EXCUSED: Colene Lord

STAFF PRESENT: Colleen Winters

COUNCIL LIAISON PRESENT: none

2. PUBLIC COMMENT: None.

3. CONSENT AGENDA:

Approve B/C Meeting Minutes of February 2025.

MOTION: Morgan Knapp moved, seconded by Ed Uecker, to approve the Consent Agenda as presented/amended. MOTION CARRIED 6-0.

4. ADDITIONS/DELETIONS: None.

5. DISCUSSION/DECISION/PRESENTATION ITEMS:

National Library Week is April 6th through April 12th. The City Council has requested that the annual update be given during National Library Week. Morgan Knapp will present at the City Council meeting scheduled for Monday April 14th. The Friends would like to support the Commission's efforts to support library staff during National Library Week and have approved a \$500 budget. The Library Commission voted to split the \$500 budget as follows: \$200 for massages, \$200 for shirts, and \$50 for an interactive thank you card(s).

MOTION: Kathleen Poulsen moved, seconded by Lauren Miller, to approve the National Library Week budget as presented/amended. MOTION CARRIED with 5 votes and 1 abstained (Ed Uecker abstained).

The Commission reviewed the current Library Behavior Policy that was approved by City Council in 2017.

6. **B/C COMMUNICATIONS:** None.

7. **STAFF COMMUNICATIONS:**

Director's Report: The event to celebrate the completion of the Teen Zone was held. There were an estimated 40 people in attendance, including many members of the Teen Library Commission.

Planning for the summer reading challenge has started.

WCCLS: Phase 1 of the consulting firm's plans are moving forward. This plan includes requiring member libraries to be open a minimum of 45 hours per week, centralizing the collection, selection, acquisition, and cataloging of materials, and a levy increase. Phase 2 is set to start in early April and will include discussions about funding allocation.

Friends: The Friends book sale is scheduled for Thursday May 8th through Saturday May 10th, with set up beginning on Monday May 5th. Monday May 12th any remaining inventory will be boxed and donated. Retired Friends Board members Charlene MCloskey; Dave Pauli and Susan Schubothe will be honored at the Friends Annual Meeting in April.

Foundation: Consultant Linda Richardson will give recommendations on changes to the Ginsburg Garden. The Foundation will draft a proposal for the City Council regarding maintenance of the garden. The Foundation will be putting out a newsletter with more information. The location for the donor recognition art installation is still being discussed.

8. **COUNCIL LIAISON REPORT:** None.

9. **ANNOUNCEMENT OF NEXT MEETING:** The next meeting will be held on April 9, 2025 at 6:30pm.

10. **ADJOURNMENT:**

The meeting adjourned at 7:52 p.m.

CITY COUNCIL MEMORANDUM

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

PROJECT TEAM: *Mariah Woods, City Recorder*

DATE: *9 May, 2025*

SUBJECT TITLE: *Application for New Liquor License*

BACKGROUND:

City Code Sections §110.071-110.073 requires any applicant/business requesting endorsement for a new liquor license application to submit to a criminal background check and have a valid City business license in accordance with City Code. The Police Chief has reviewed the applicable records check of the licensee and has made recommendation to:

- ***Forward with approval – No legal basis for denial noted.***

The OLCC also conducts its investigation, i.e., if the business location has had problems with OLCC, police or neighbors; the applicant has a criminal history; the applicant has provided false information; and/or the applicant has a history of abusing drugs or alcohol.

STAFF RECOMMENDATION:

Staff recommends City Council authorize endorsement of the attached application for a new Liquor License. The City's endorsement will be submitted to OLCC and OLCC approves, denies, restricts, or makes recommendations to OLCC Commissioners. If application is approved, the OLCC will issue the license. If application is denied or restricted, there is a process by OLCC to contest the decision.

ATTACHMENTS:

Denial Criteria

Application for a New Liquor License

REASONS WE MAY DENY OR RESTRICT A LICENSE
ORS 471.313(4)(5), OAR 845-005-0320, 845-005-0321, 845-005-0322
845-005-0325, 845-005-0326(4)(5) or 845-005-0355

The following is a list of problems relating to the **APPLICANT** or **BUSINESS** that OLCC **can** consider to refuse or restrict a license:

1. Applicant has a habit of using alcohol or drugs to excess
2. Applicant makes a false statement to OLCC (must be related to a refusal basis)
3. Applicant has been convicted of local, state or federal laws that are substantially related to the fitness of holding a liquor license
4. Applicant has demonstrated poor moral character
5. Applicant has a poor record of compliance when previously licensed by OLCC
6. Applicant is not the legitimate owner of the business
7. The business has a history of serious and persistent problems at this location.

The problems can include:

- Obtrusive or excessive noise, music or sound vibrations
- Public drunkenness
- Fights or altercations
- Harassment
- Unlawful drug sales
- Alcohol or related litter

OLCC is **not** able to consider the following issues when deciding to renew a liquor license:

- Lack of parking
- Increase in traffic
- Too many licenses in a specific area (saturation)
- Entertainment type - nude dancing, gambling, live bands, etc.
- Increased noise
- Zoning issues

Visit www.oregon.gov/olcc/ to see the full text of ORS and OAR referenced above. In order for an unfavorable recommendation from a local government to be valid, the grounds must be found in the license refusal bases of ORS 471.313(4), 471.313(5), OAR 845-005-0320, 845-005-0321, 845-005-0322, 845-005-0325 or 845-005-0326(4)(5) or the license restriction bases of OAR 845-005-0355, and must be supported by reliable factual information.



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #: _____

RECEIVED: _____

MEETING DATE: _____

FINAL ACTION: _____

LIQUOR LICENSE RECOMMENDATION

BUSINESS NAME / INDIVIDUAL: THE GROWLER GARAGE

BUSINESS LOCATION ADDRESS: 1837 PACIFIC AVE STE 133
FOREST GROVE, OR 97116

LIQUOR LICENSE TYPE: L

CITY BUSINESS LICENSE: 21231

1. TYPE OF LICENSE:			2. LICENSE FEE:	
F-COM – Full On-Premises Sales	X	L – Limited On-Premises Sales	X	\$100.00 New Application
F- CAT – Full ON-Premises Sales, Caterer		O – Off-Premises Sales		\$ 75.00 Change of License
F-FPC/F-CLU – Full On-Premises, Private		SEW – Special Event Winery		\$ 35.00 Temporary Sales
F-PL – Full On-Premises Public Location		SEG – Special Event Grower		\$ 35.00 Annual Renewal
TSL – Temporary Sales License		SED – Special Event Distillery		\$ 20.00 Event License
BP – Brewery Public House		Distillery		\$ No Charge: Temp Annual Use
FULL ON-PREMISES SALES		LIMITED ON-PREMISES SALES	OFF-PREMISES SALES	
Allows sale and service of distilled spirits, malt beverages, wine and cider for consumption on licensed premises and required to have dining seating. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises. Also allows applying for temporary use of annual license for special events off-premises.		Allows sale and service of malt beverages, wine and cider for consumption on licensed premises. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises. Also allows applying for temporary use of annual license for special events off-premises.		Allows the sale of malt beverages, wine and cider in factory sealed containers for consumption off licensed premises. Also allows applying for sample tasting on premises.
		BREWERY – PUBLIC		
		Allows manufacturing malt beverages and to sell and distribute to patrons and wholesalers. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises.		

APPLICABLE CRIMINAL RECORDS CHECK:

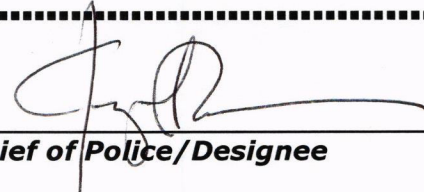
☐ NONE

☒ SUPPORTING DOCUMENTATION ATTACHED

RECOMMENDED ACTION:

☒ FORWARD WITH APPROVAL

☐ REJECT APPLICATION (Memorandum Required)


Chief of Police/Designee

4.28.25
Date



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #: _____

RECEIVED: _____

MEETING DATE: _____

FINAL ACTION: _____

LIQUOR LICENSE RECOMMENDATION

BUSINESS NAME / INDIVIDUAL: Patton Valley Wines

BUSINESS LOCATION ADDRESS: 2007 Main St
Forest Grove, OR 97116

LIQUOR LICENSE TYPE: F-COM

CITY BUSINESS LICENSE: _____

1. TYPE OF LICENSE:	2. LICENSE FEE:
☒ F-COM – Full On-Premises Sales	☒ \$100.00 New Application
☐ F-CAT – Full ON-Premises Sales, Caterer	☐ \$ 75.00 Change of License
☐ F-FPC/F-CLU – Full On-Premises, Private	☐ \$ 35.00 Temporary Sales
☐ F-PL – Full On-Premises Public Location	☐ \$ 35.00 Annual Renewal
☐ TSL – Temporary Sales License	☐ \$ 20.00 Event License
☐ BP – Brewery Public House	☐ \$ No Charge: Temp Annual Use
☐ FULL ON-PREMISES SALES	☐ LIMITED ON-PREMISES SALES
Allows sale and service of distilled spirits, malt beverages, wine and cider for consumption on licensed premises and required to have dining seating. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises. Also allows applying for temporary use of annual license for special events off-premises.	Allows the sale of malt beverages, wine and cider in factory sealed containers for consumption off licensed premises. Also allows applying for sample tasting on premises.
	BREWERY – PUBLIC
	Allows manufacturing malt beverages and to sell and distribute to patrons and wholesalers. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises.

APPLICABLE CRIMINAL RECORDS CHECK:

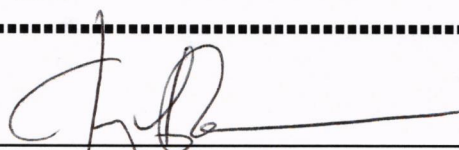
☐ NONE

☒ SUPPORTING DOCUMENTATION ATTACHED

RECOMMENDED ACTION:

☒ FORWARD WITH APPROVAL

☐ REJECT APPLICATION (Memorandum Required)


Chief of Police/Designee

4.28.25
Date

CITY COUNCIL MEMORANDUM

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

PROJECT TEAM: *Mariah Woods, City Recorder*

DATE: *12 May, 2025*

SUBJECT TITLE: *Annual Liquor License Renewals 2025*

BACKGROUND

The Oregon Liquor Control Commission (OLCC) has notified the City of the eligible liquor licenses seeking renewal for 2024. City Code Sections §110.071-110.073 requires any applicant/business requesting endorsement for a new liquor license application or liquor license renewal to submit to a criminal background check and have a valid City business license in accordance with City Code. A first round of renewal application has been received by the City. The Police Chief has reviewed the applicable criminal records check of the licensee and has made recommendation to:

- ***Forward with approval – No legal basis for denial noted.***

The OLCC also conducts its investigation, i.e., if the business location has had problems with OLCC, police or neighbors; the applicant has a criminal history; the applicant has provided false information; and/or the applicant has a history of abusing drugs or alcohol.

STAFF RECOMMENDATION

Staff recommends City Council authorize endorsement of the attached Annual Liquor License Renewals. The City's endorsement will be submitted to OLCC and OLCC approves, denies, restricts, or makes recommendations to OLCC Commissioners. If application is approved, the OLCC will issue the license. If application is denied or restricted, there is a process by OLCC to contest the decision.

ATTACHMENTS

- OLCC Reasons to Deny or Restrict a License
- Annual Liquor License Renewals

REASONS WE MAY DENY OR RESTRICT A LICENSE
ORS 471.313(4)(5), OAR 845-005-0320, 845-005-0321, 845-005-0322
845-005-0325, 845-005-0326(4)(5) or 845-005-0355

The following is a list of problems relating to the **APPLICANT** or **BUSINESS** that OLCC **can** consider to refuse or restrict a license:

1. Applicant has a habit of using alcohol or drugs to excess
2. Applicant makes a false statement to OLCC (must be related to a refusal basis)
3. Applicant has been convicted of local, state or federal laws that are substantially related to the fitness of holding a liquor license
4. Applicant has demonstrated poor moral character
5. Applicant has a poor record of compliance when previously licensed by OLCC
6. Applicant is not the legitimate owner of the business
7. The business has a history of serious and persistent problems at this location.

The problems can include:

- Obtrusive or excessive noise, music or sound vibrations
- Public drunkenness
- Fights or altercations
- Harassment
- Unlawful drug sales
- Alcohol or related litter

OLCC is **not** able to consider the following issues when deciding to renew a liquor license:

- Lack of parking
- Increase in traffic
- Too many licenses in a specific area (saturation)
- Entertainment type - nude dancing, gambling, live bands, etc.
- Increased noise
- Zoning issues

Visit www.oregon.gov/olcc/ to see the full text of ORS and OAR referenced above. In order for an unfavorable recommendation from a local government to be valid, the grounds must be found in the license refusal bases of ORS 471.313(4), 471.313(5), OAR 845-005-0320, 845-005-0321, 845-005-0322, 845-005-0325 or 845-005-0326(4)(5) or the license restriction bases of OAR 845-005-0355, and must be supported by reliable factual information.



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #: _____

RECEIVED: _____

MEETING DATE: _____

FINAL ACTION: _____

LIQUOR LICENSE RECOMMENDATION

BUSINESS NAME / INDIVIDUAL: 7-ELEVEN #20715D

BUSINESS LOCATION ADDRESS: 2001 YEW ST
FOREST GROVE, OR 97116

LIQUOR LICENSE TYPE: O

CITY BUSINESS LICENSE: 20606

1. TYPE OF LICENSE:	2. LICENSE FEE:
F-COM – Full On-Premises Sales	L – Limited On-Premises Sales \$100.00 New Application
F-CAT – Full ON-Premises Sales, Caterer	O – Off-Premises Sales \$ 75.00 Change of License
F-FPC/F-CLU – Full On-Premises, Private	SEW – Special Event Winery \$ 35.00 Temporary Sales
F-PL – Full On-Premises Public Location	SEG – Special Event Grower X \$ 35.00 Annual Renewal
TSL – Temporary Sales License	SED – Special Event Distillery \$ 20.00 Event License
BP – Brewery Public House	Distillery \$ No Charge: Temp Annual Use
FULL ON-PREMISES SALES	LIMITED ON-PREMISES SALES X OFF-PREMISES SALES
Allows sale and service of distilled spirits, malt beverages, wine and cider for consumption on licensed premises and required to have dining seating. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises. Also allows applying for temporary use of annual license for special events off-premises.	
Allows sale and service of malt beverages, wine and cider for consumption on licensed premises. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises. Also allows applying for temporary use of annual license for special events off-premises.	
Allows the sale of malt beverages, wine and cider in factory sealed containers for consumption off licensed premises. Also allows applying for sample tasting on premises.	
BREWERY – PUBLIC	
Allows manufacturing malt beverages and to sell and distribute to patrons and wholesalers. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises.	

APPLICABLE CRIMINAL RECORDS CHECK:

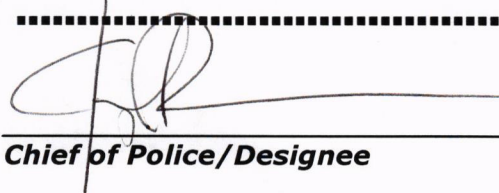
☐ NONE

☒ SUPPORTING DOCUMENTATION ATTACHED

RECOMMENDED ACTION:

☒ FORWARD WITH APPROVAL

☐ REJECT APPLICATION (Memorandum Required)


Chief of Police/Designee

4.28.25
Date



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #: _____

RECEIVED: _____

MEETING DATE: _____

FINAL ACTION: _____

LIQUOR LICENSE RECOMMENDATION

BUSINESS NAME / INDIVIDUAL: THE GROWLER GARAGE

BUSINESS LOCATION ADDRESS: 1837 PACIFIC AVE SUITE 133
FOREST GROVE, OR 97116

LIQUOR LICENSE TYPE: L

CITY BUSINESS LICENSE: 21231

1. TYPE OF LICENSE:	2. LICENSE FEE:
F-COM – Full On-Premises Sales	L – Limited On-Premises Sales
F-CAT – Full ON-Premises Sales, Caterer	O – Off-Premises Sales
F-FPC/F-CLU – Full On-Premises, Private	SEW – Special Event Winery
F-PL – Full On-Premises Public Location	SEG – Special Event Grower
TSL – Temporary Sales License	SED – Special Event Distillery
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	Allows the sale of malt beverages, wine and cider in factory sealed containers for consumption off licensed premises. Also allows applying for sample tasting on premises.
	BREWERY – PUBLIC
	Allows manufacturing malt beverages and to sell and distribute to patrons and wholesalers. Allows sale of malt beverages, wine and cider in securely covered container (growler) for consumption off licensed premises.

APPLICABLE CRIMINAL RECORDS CHECK:

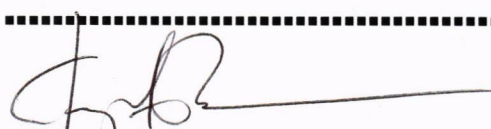
☐ NONE

☒ SUPPORTING DOCUMENTATION ATTACHED

RECOMMENDED ACTION:

☒ FORWARD WITH APPROVAL

☐ REJECT APPLICATION (Memorandum Required)


Chief of Police/Designee

4.28.25
Date

CITY COUNCIL STAFF REPORT

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

PROJECT TEAM: *Joyce Phillips, Communications and Programs Assistant*
Mariah Woods, City Recorder

MEETING DATE: *May 12, 2025*

SUBJECT TITLE: *RESOLUTION 2025-16 CONSENTING TO BOARD AND COMMISSION APPOINTMENTS TO CITY ADVISORY BOARDS, COMMITTEES AND COMMISSIONS*

ACTION REQUESTED:

	Ordinance		Order	X	Resolution		Motion		Informational
--	------------------	--	--------------	----------	-------------------	--	---------------	--	----------------------

BACKGROUND

Per City Charter, Section 8, and Council Rules, Sections 4.1 and 14.1, the Mayor appoints members of boards, commissions, and committees with consent of Council. The following candidate has been appointed by the Mayor, subject to Council consent:

Sarah Peterson	Committee for Community Engagement
----------------	------------------------------------

Once appointed, the Staff Liaison will reach out to the appointee to ensure they are oriented to the relevant bylaws, rules and regulations.

STAFF RECOMMENDATION

Consider approving Resolution 2025-16.

ATTACHMENT

- Resolution No. 2025-16
- Application

RESOLUTION NO. 2025-16

**RESOLUTION CONSENTING TO BOARD AND COMMISSION
APPOINTMENTS TO CITY ADVISORY BOARDS,
COMMITTEES AND COMMISSIONS**

WHEREAS, City Charter, Section 8, and Council Rules, Sections 4.1 and 14.1, state the Mayor, with the consent of Council, appoints members of boards, commissions, and committees established by ordinance or resolution; and

WHEREAS, the Mayor has appointed the individual in the table below at the recommendation of the respective Council and Staff Liaisons.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE AS FOLLOWS:

Section 1. The City Council consents to the following appointments to the associated Boards and Commissions as outlined below, terms expiring December 31st, 2028:

Sarah Peterson	Committee for Community Engagement
----------------	------------------------------------

Section 2. This resolution is effective immediately upon its enactment by the City Council.

PRESENTED AND PASSED this 12th day of May, 2025.

Mariah S. Woods, City Recorder

APPROVED by the Mayor this 12th day of May, 2025.

Malynda H. Wenzl, Mayor

Boards & Commissions Application - Submission #1196

Date Submitted: 3/9/2025

First Name*		Last Name*	
Sarah		Petersen	

Home Address*

City*

State*

Zip Code*

Mailing Address (if different)

City

State

Zip Code

Phone Number*

Email Address*

Employer*	Occupation/Profession*
Virginia Garcia Memorial Health Center	Director of HR

Are you a high school student applicant?*

- ☐ Yes
☒ No

Students must be high school grade level and residing or attending school in Forest Grove. Students may serve on any board, except Budget Committee, Planning Commission and Urban Renewal Advisory Committee.

If so, which grade level and school do you attend?*

Are you currently on a board or commission and reapplying?*

- ☐ Yes ☒ No

Which board(s) would you like to apply for? Please select from the dropdowns below your first, second, and third options. Applicants must select 1 board.

Membership Requirement for Planning Commission: Planning Commissioners are required to file an annual [Statement of Economic Interest \(SEI\)](#) with the Oregon Government Ethics Commission Electronic Filing System in March of each year (ORS 244). SEI filers are required to file if they are seated and hold their position on April 15th of any given year.

1.*

Committee for Community Engagement (Monthly- 1st Tuesday, 5:30 pm) ▼

2.

Historic Landmarks Board (Quarterly- 4th Tuesday, 6:30 pm) ▼

3.

-- Select One -- ▼

Do you reside within the City limits?*

- ☒ Yes
☐ No

What specific topics interest you that relate to the board(s)?*

Community involvement is critical to the growth and sustainability of our city. Engaged citizens are crucial to maintaining Forest Grove as a thriving place to live and work.

What contributions do you hope to bring to the board(s)? *

Experience working in non-profits, critical thinking, imagination, and active listening skills. I have experience as an attorney and human resources professional.

List your educational experience*

BA, Marquette University
JD, Lewis & Clark Law School

List any community involvement, appointed offices, elected offices and/or affiliations*

Parishioner, St. Anthony of Padua

How did you hear of this opportunity*

Newsletter

Electronic Signature Agreement*

By checking the "I agree" box below, you agree and acknowledge that 1) your application will not be signed in the sense of a traditional paper document, 2) by signing in this alternate manner, you authorize your electronic signature to be valid and binding upon you to the same force and effect as a handwritten signature, and 3) you may still be required to provide a traditional signature at a later date.

☒ I agree.

Electronic Signature

Sarah M Petersen



Historic Landmarks Board

2025 Update

Jennifer Brent, Chair
Matt Johnson, Staff Liaison

DATE 5/12/25

WHO WE ARE

- Appointed advisory board serving the City of Forest Grove- Members are appointed to serve by the City Council
- Comprised of residents with expertise or interest in historic preservation
- Works in partnership with city staff to oversee preservation of the city's architectural and cultural heritage
- Acts as a resource for education and public awareness on historic issues

WHAT WE DO

- Review new development, alterations, restorations, and demolitions of properties within historic districts
- Recommend properties for landmark designation
- Advise on preservation-related ordinances, incentives, and policies
- Promote historic education through events, signage, and outreach programs
- Collaborate with state preservation agencies and local organizations

2024 EVENT

Forest Grove Preservation T.L.C.
Hosted By Forest Grove Historic Landmarks Board

August 3, 2024

Forest Grove Community Auditorium, 1915 Main Street

Learn About:

- ✓ Conducting Oral Histories, Oregon State University Archivist, 9:15 am
- ✓ Preservation of Your Home, Clatsop Community College Historic Preservation & Restoration Program, 10:15 am
- ✓ Forest Grove Indian School - Pacific University Archivist, 11:15 am

Following the Program:

- ✓ Historic Downtown Walking Tour - Sojourner Tours, 1 pm to 2 pm
- ✓ Old Train Station Museum Open House (1936 19th Ave.), 12 pm to 3 pm

FUTURE PLANS

The City has been awarded a grant from the State Historic Preservation Office to create nonresidential design guidelines and standards for historic downtown.

- Historic guidelines and standards are intended to preserve and maintain the character of the historic buildings in Forest Grove. They will reinforce and protect the defining features of the Downtown Historic District and define the visual elements which are common to the district as well as the qualities unique to our community (ex. building characteristics/materials, height, roof shape, entrances/doors, canopies, awnings, signage, etc.)
- The guidelines and standards do not impact the use of the building or it's interior. Only the exterior portions, which includes new construction, additions, and rehabilitation of a building may be impacted by the standards and guidelines.
- Project timeline- Hire consultant this Summer with tentative Council adoption in winter 2026.



QUESTIONS?



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #: _____
MEETING DATE: _____
FINAL ACTION: _____

CITY COUNCIL STAFF REPORT

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

MEETING DATE: *May 12, 2025*

PROJECT TEAM: *Bryan Pohl, Community Development Director
Dan Riordan, Senior Planner
Miles Glowacki, Economic Development Coordinator*

SUBJECT TITLE: *Ordinance No. 2025-01; Amending the Forest Grove Comprehensive Plan to Replace the City's 2019 Economic Opportunities Analysis with the 2025 Economic Opportunities Analysis update and adding the 2025 Economic Opportunities Analysis update as a Comprehensive Plan appendix; File Number 311-25-000002-PLNG*

ACTION REQUESTED:

☒ Ordinance	☐ Order	☐ Resolution	☐ Motion	☐ Informational
---	--------------------------------	-------------------------------------	---------------------------------	--

X all that apply

ADDENDUM FOR MAY 12, 2025 COUNCIL MEETING

On April 28, 2025, the Council held the first reading for Ordinance 2025-01 and unanimously advanced the Ordinance to a second reading.

STAFF REPORT FROM APRIL 28, 2025 MEETING

BACKGROUND:

City Council adopted Goal Objective 1.2 for 2025 to update and adopt an Economic Opportunities Analysis (EOA) for the City. A final draft of the EOA is completed and ready for City Council adoption. The City Council held a work session on April 14, 2025, to review the draft EOA. Tonight's public hearing provides an opportunity for the City Council to accept public comments on the EOA update and to consider first reading of an ordinance amending the Forest Grove Comprehensive Plan (Plan) to replace the 2019 Economic Opportunities Analysis with the 2025 update and adding the 2025 EOA to the Comprehensive Plan as a Plan appendix. This provides a basis for using the EOA to guide land decisions affecting the zoning of land for commercial or industrial activities.

Economic Opportunities Analysis Overview

Under Oregon Statewide Land Use Planning Goal 9 (Economic Development), and the associated Oregon Administrative Rules (OARs), most cities in Oregon are required to prepare and adopt an EOA. The City's current EOA was adopted in 2019. This was before recent interest in locating data centers in Forest Grove and federal policy promoting the "reshoring" of manufacturing to the United States. The Oregon Administrative Rules includes requirements for how EOAs are prepared. Under the rules an EOA must include the following elements:

1. Description of national, state, regional, county and local trends affecting the economy;
2. Identification of the type of lands/sites needed for local economic development needs;
3. Inventory of industrial, retail, office, and employment land supply;
4. Assessment of local economic development potential and the planning area's economic advantages and disadvantages; and
5. Projection of short-term (5-year) and long-term (20-year) employment land demand.

The 2025 EOA, attached to the adopting ordinance as Exhibit A, addresses each of the elements listed above.

Employment in Forest Grove

Data from the Oregon Employment Department indicates that estimated employment in Forest Grove is about 7,600 employees. The data also indicates that employment in the City is concentrated in several sectors including educational services, manufacturing, healthcare and social assistance and accommodation and food services. These sectors make up approximately 58% of local employment.

Data from the Oregon Employment Department shows that professional, scientific and technical services are not well represented in Forest Grove. The employment level in this sector was 147 employees in 2022. This represents about 1.9% of the local employment base. Employment levels in this sector increased by two people between 2012 and 2022.

Local access to subsea cables reducing latency to high value Asia-Pacific markets is attractive for firms in the information sector which includes publishing, telecommunications and other information services such as data centers. Employment in this sector is currently low comprising 0.5% of the local employment base. Employment in the information sector is projected to increase from 37 employees to 56 or 111 during the next twenty years depending on the employment growth scenarios described below and in the EOA.

Employment Growth Scenarios

Three employment growth scenarios based on different sources and assumptions were prepared for the EOA. Scenario 1 is based on the Oregon Employment Department Regional Forecast. Scenario 1 is what's called a safe harbor scenario since the methodology complies with the Oregon Administrative Rules. Since the safe harbor method complies with the administrative rules it is not subject to challenge or appeal. Scenario 1 assumes a 1.3% annual growth rate. This translates to an estimated increase of about 2,400 jobs in the City over the next 20 years.

Scenario 2 is based on Metro's Urban Growth Report and assumes a 0.3% employment growth rate. This translates to a net gain of 589 jobs for the next 20 years in Forest Grove. This scenario was rejected by the EOA Economic Development Commission which served as a technical advisory committee.

Scenario 3 is aspirational and assumes a more optimistic 1.9% growth rate. Scenario 3 is based on identified economic trends, a more optimistic growth outlook for targeted industries and input from the Economic Development Commission. This scenario recognizes that public policy and economic development efforts can influence growth in targeted employment sectors. This scenario results in an estimated increase of about 3,800 jobs in the City over the next 20 years.

Buildable Employment Land Inventory

The City's buildable land inventory includes about 62 acres of land zoned for commercial use that is either vacant or partially vacant. Based on the employment projections for the three growth scenarios described above, the estimated 20-year land need for commercial use ranges from about 25 acres under Scenario 2 to 133 acres under scenario 3. The estimated commercial land need under Scenario 1 is about 94 acres. This means there is an estimated surplus of commercial land under Scenario 2 and a deficit of commercial land under Scenarios 1 and 3.

The City's buildable land inventory includes about 290 acres of land for industrial use that is either vacant or partially vacant. Based on the employment projections for the three growth scenarios, the estimated 20-year land needed for industrial use ranges from about 7 acres under Scenario 2 to about 102 acres under Scenario 3. The estimated industrial land needed under Scenario 1 is about 46 acres. This means there is an estimated surplus of land zoned for industrial use under all three growth scenarios ranging between 188 acres and 280 acres. Some of this surplus industrial land could be banked for very long-term needs, or depending on site characteristics, the land could be rezoned for other uses such as residential, commercial or multi-use development.

Commission Review

The Economic Development Commission served as the technical advisory committee and provided informal input into the EOA update. After review by the EDC the Planning Commission held a public hearing on the update on March 3rd and approved a motion recommending that City Council adopt an ordinance amending the Comprehensive Plan to include the EOA update. The Commission's motion passed unanimously. The Planning Commission also recommended that the City Council endorse employment growth Scenario 1 as a basis for making future land use decisions affecting the zoning of employment lands in the City since it is based on a methodology accepted under the Oregon Administrative Rules.

STAFF RECOMMENDATION:

1. That City Council accept the Planning Commission's recommendation to adopt an ordinance amending the Forest Grove Comprehensive Plan to replace the 2019 Economic Opportunities Analysis with the 2025 Economic Opportunities Analysis and adding the 2025 Economic Opportunities Analysis to the Comprehensive Plan as an appendix; and
2. That the City Council accept the Planning Commission's recommendation to select employment growth Scenario 1 as the City's preferred employment growth scenario.

ATTACHMENTS:

- A. Adoption Ordinance
 - a. Exhibit A: 2025 Economic Opportunities Analysis Update Document
 - b. Exhibit B: Planning Commission Findings and Decision 25-01, March 3, 2025



ECONOMIC OPPORTUNITIES ANALYSIS (EOA) ADOPTION

Bryan Pohl | Community Development Director

Dan Riordan | Senior Planner

City Council Public Hearing 4|28|25

PUBLIC HEARING PURPOSE

2

Tonight's public hearing provides an opportunity for City Council to accept public comments on the 2025 Economic Opportunities Analysis (EOA) update.

Tonight's public hearing also provides an opportunity to consider first reading of an ordinance amending the Forest Grove Comprehensive Plan to replace the 2019 EOA with the 2025 update.

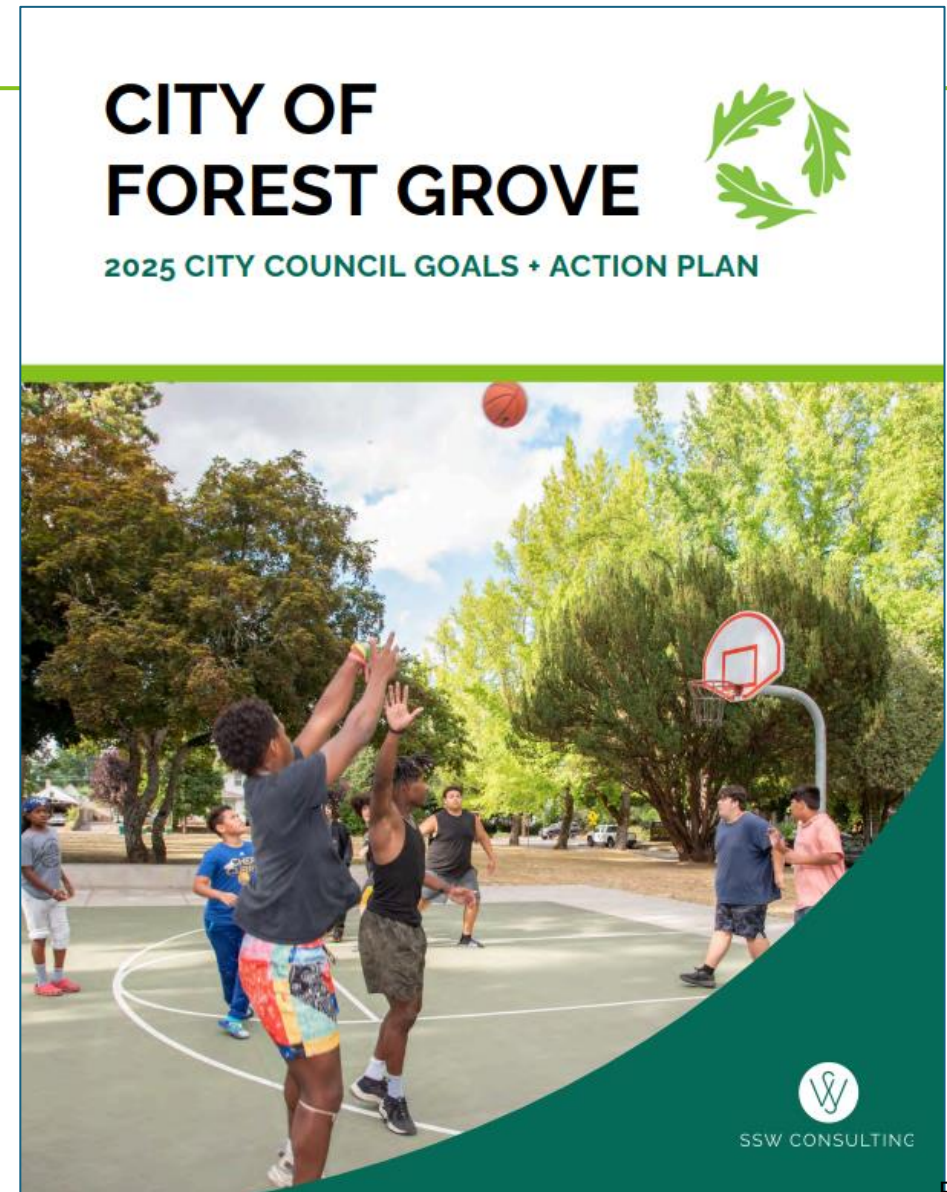
Adoption of the ordinance will add the 2025 update to Comprehensive Plan as an appendix.

ISSUE STATEMENT

City Council adopted Goal Objective 1.2 for 2025 to update and adopt an EOA for the City. The EOA update is complete and ready for adoption.

City Council held a work session on the EOA on April 14 ,2025.

Since the 2019 EOA was adopted there has been considerable interest in the use of industrial land for data centers. This was not captured in the last EOA.



BACKGROUND

An EOA identifies local economic goals and target industries based on the City's economic advantages and includes a forecast of economic trends and employment growth.

Ordinance Exhibit A

4



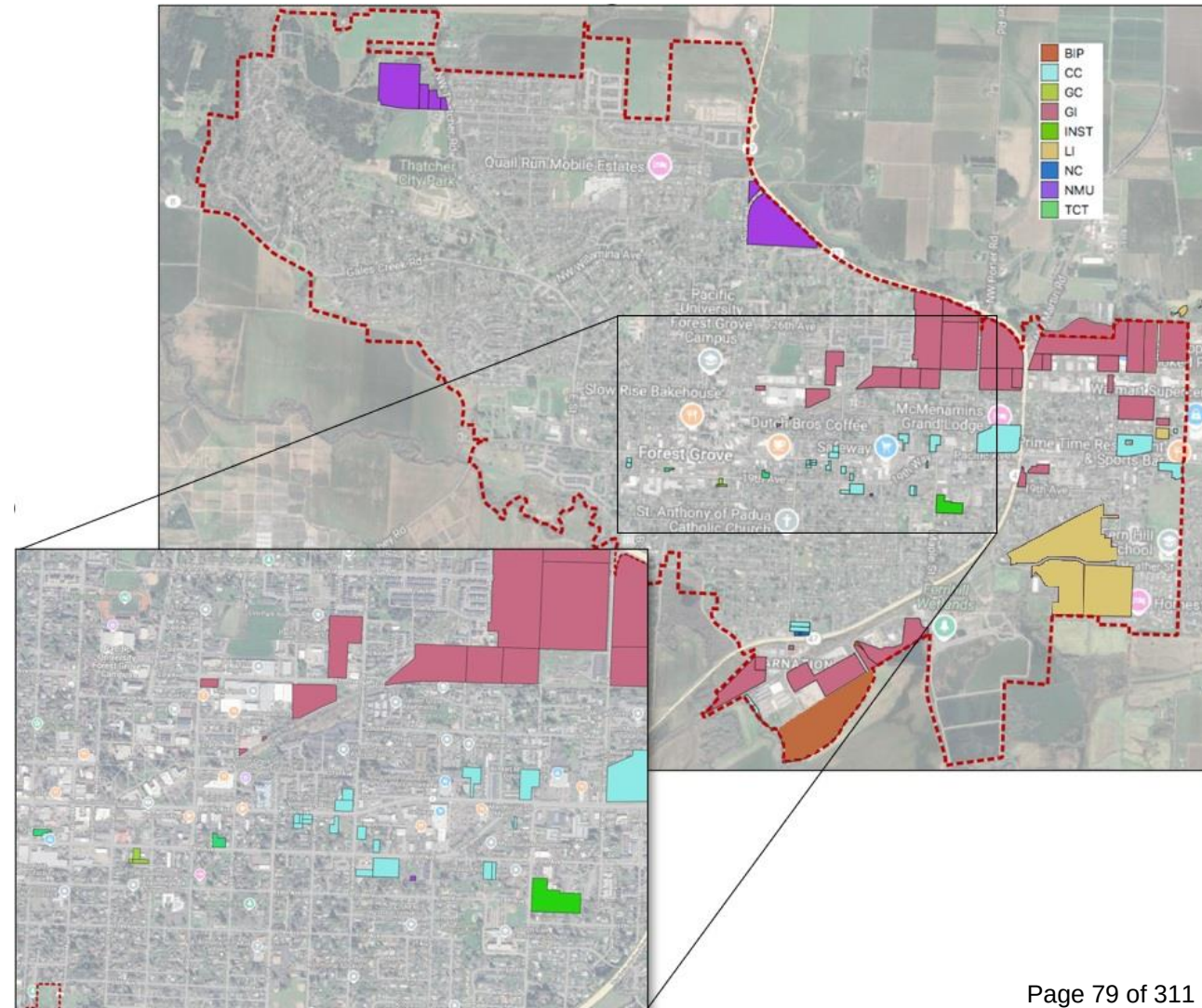
**CITY OF FOREST GROVE, OREGON
ECONOMIC OPPORTUNITIES ANALYSIS**

Prepared For:
CITY OF FOREST GROVE, OREGON
April 2025

BACKGROUND

5

An EOA also assesses the amount of land zoned for employment uses that is vacant or partially vacant and balances the supply with the forecasted demand for a five- and twenty-year planning time horizon.



BACKGROUND

6

An EOA is required by Oregon Statewide Land Use Planning Goal 9 related to economic development.

The purpose of Goal 9 is to ensure that there are adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's residents.

Goal 9 is implemented through the Oregon Administrative Rules. The Rules include approaches for preparing an EOA. If an accepted approach is used the results of the EOA are not vulnerable to challenge or appeal.

BACKGROUND

7

It's considered a best practice to update the EOA every five years.

The last EOA was adopted in 2019. This was before the current interest in Forest Grove for locating data centers due to local advantages including proximity to undersea fiber optic cables serving Asia.

This was also before current interest at the federal level for “reshoring” manufacturing. How such efforts may affect the local economy remain uncertain.



BACKGROUND

8

Three growth scenarios were prepared for the EOA:

Forecast Scenarios

Scenario 1

- This scenario Complies with the Oregon Administrative Rules and is not subject to challenge or appeal
- Based on Oregon Employment Department regional forecast
- 1.3% growth rate = + 2,400 jobs during the next 20 years
- Recommended scenario

Scenario 2

- Based on Metro's Urban Growth Report
- 0.3% growth rate = +589 jobs during the next 20 years
- This scenario was rejected by the Economic Development Commission

Scenario 3

- Adjusted/more optimistic employment forecast with input from technical advisory committee
- Methodology could be challenged or appealed
- 1.9% growth rate = +3,800 jobs during the next 20 years

BACKGROUND

9

The analysis yielded the following results for employment land needs for type of land use by growth scenario:

	DEMAND BY GENERAL USE TYPOLOGY, 2023-2043						Total
	Office	Institutional	Flex/B.P	Gen. Ind.	Warehouse	Retail	
SCENARIO I							
Net Acres Required	23.1	32.9	17.3	13.4	15.7	38.1	140.4
<i>Industrial Acreage</i>	0.0	0.0	17.3	13.4	15.7	0.0	46.3
<i>Commercial Acreage</i>	23.1	32.9	0.0	0.0	0.0	38.1	94.1
SCENARIO II							
Net Acres Required	7.3	4.9	3.3	2.3	1.8	12.6	32.3
<i>Industrial Acreage</i>	0.0	0.0	3.3	2.3	1.8	0.0	7.4
<i>Commercial Acreage</i>	7.3	4.9	0.0	0.0	0.0	12.6	24.8
SCENARIO III							
Net Acres Required	31.4	36.2	32.6	28.8	38.6	64.3	232.0
<i>Industrial Acreage</i>	0.0	0.0	32.6	28.8	38.6	0.0	100.1
<i>Commercial Acreage</i>	31.4	36.2	0.0	0.0	0.0	64.3	131.9

BACKGROUND

Comparing the Buildable Land Inventory to the 20-year land demand forest yields the following results:

	BLI ACRES	DEMAND BY SCENARIO			NEED BY SCENARIO		
		I	II	III	I	II	III
COMMERCIAL	61.7	94.1	24.8	132.6	32.4	(36.9)	70.9
INDUSTRIAL	289.6	46.3	7.4	102.3	(243.2)	(282.1)	(187.3)
TOTAL	351.3	140.4	32.3	235.0	(210.9)	(319.0)	(116.3)

BACKGROUND

1
1

EOA Key Findings:

There is an existing supply of 290 acres of industrial land to meet forecasted demand of 7.4 to 102 acres depending on the growth forecast scenario.

Under “safe harbor” Scenario 1, the 2025 EOA shows an estimated demand of about 46 acres of industrial land during the next 20 years. This is slightly more than the amount of 40 acres in the 2019 EOA.

BACKGROUND

1
2

Industrial land absorption since the 2019 EOA has been about 17 acres.

There are two projects currently in the pipeline including Phase 1A of the Crane Data Center (10 of 35 acres); and

A proposed project at 600 Elm Street consisting of three buildings for warehousing and/or distribution. Total proposed building square footage is about 635,000 square feet on a 39-acre site.

BACKGROUND

1
3

The EOA update was reviewed by the Economic Development Commission which also served as the project's technical advisory committee.

The Planning Commission reviewed the 2025 EOA in March and approved a motion recommending that City Council adopt an ordinance amending the Comprehensive Plan to include the EOA update.

The Planning Commission also recommended that City Council endorse employment Growth Scenario 1 as a basis for making future land use decisions affecting the zoning of employment lands since Scenario 1 is based on a methodology accepted under the Oregon Administrative Rules.

STAFF RECOMMENDATION

14

Staff recommends that the City Council accept the Planning Commission's recommendations to adopt an ordinance amending the Forest Grove Comprehensive Plan to replace the 2019 EOA with the 2025 EOA update and include the 2025 EOA update as a Comprehensive Plan appendix.

Staff also recommends that the City Council accept the Planning Commission's findings of fact attached to the ordinance supporting the Planning Commission's recommendations including endorsing employment growth scenario 1 as the preferred scenario.

ORDINANCE NO. 2025-01

ORDINANCE AMENDING THE FOREST GROVE COMPREHENSIVE PLAN TO REPLACE THE CITY'S 2019 ECONOMIC OPPORTUNITIES ANALYSIS WITH THE 2025 ECONOMIC OPPORTUNITIES ANALYSIS UPDATE AND ADDING THE 2025 ECONOMIC OPPORTUNITIES ANALYSIS UPDATE AS A COMPREHENSIVE PLAN APPENDIX; FILE NUMBER 311-25-000002-PLNG

WHEREAS, An Economic Opportunities Analysis (EOA) is required for local compliance with Statewide Planning Goal 9 (Economic Development) and Oregon Administrative Rules (OAR) Chapter 660, Division, 9, Section 15; and

WHEREAS, The OARs direct that cities review, and as necessary, amend their comprehensive plans and provide an EOA describing national, state, regional, and local economic trends and comparing the demand for industrial and other employment lands to the existing land supply of such lands; and

WHEREAS, an update to the 2019 EOA was prepared by Johnson Economics to provide current and accurate information pertaining to economic trends, economic opportunities, and supply and demand for industrial and other employment uses in the City; and

WHEREAS, the 2025 EOA update provides a factual basis for City decisions affecting the zoning and use of land within the City's boundary; and

WHEREAS, the 2025 EOA update was completed to the satisfaction of the City; and

WHEREAS, the 2025 EOA update was provided to Oregon Department of Land Conservation and Development (DLCD) and Metro for review on January 17, 2025; and

WHEREAS, notice of the Planning Commission's public hearing on the 2025 EOA update was published in the Forest Grove News-Times on February 20, and February 27, 2025; and

WHEREAS, the Planning Commission held a duly noticed public hearing on March 3, 2025, to accept public comment on the 2025 EOA update; and

WHEREAS, the Planning Commission adopted a motion on March 3, 2025, recommending that City Council accept the 2025 EOA update and adopt an ordinance to amend the Forest Grove Comprehensive Plan (Plan) to add the 2025 EOA update as an appendix to the Plan and replace the 2019 EOA update; and

WHEREAS, the City Council held a duly noticed public hearing to consider the Planning Commission's recommendations to adopt an ordinance formally accepting the EOA and amending the Plan on April 28, 2025; and

WHEREAS, the City Council continued the public hearing and conducted second reading of the ordinance on May 12, 2025.

NOW, THEREFORE, THE CITY OF FOREST GROVE ORDAINS AS FOLLOWS:

Section 1. The City Council hereby accepts the 2025 EOA update attached as Exhibit A.

Section 2. The City Council hereby amends the Forest Grove Comprehensive Plan to replace the 2019 EOA update with the 2025 update and add the 2025 EOA update as an appendix to the Plan.

Section 3. The City Council adopts the Planning Commission's findings, attached as Exhibit B.

Section 4. This ordinance is effective 30 days following its enactment by the City Council.

PRESENTED AND PASSED this 28th day of April, 2025.

PASSED the second reading this 12th day of May, 2025.

Mariah S. Woods, City Recorder

APPROVED by the Mayor this 12th day of May, 2025.

Malynda H. Wenzl, Mayor



**CITY OF FOREST GROVE, OREGON
ECONOMIC OPPORTUNITIES ANALYSIS**

Prepared For:
CITY OF FOREST GROVE, OREGON
April 2025

**CITY COUNCIL
PUBLIC HEARING DRAFT**

ACKNOWLEDGMENTS

Johnson Economics prepared this report for the City of Forest Grove. Johnson Economics and the City of Forest Grove thank the many people who helped to develop this document.

This report was prepared in accordance with the requirements of OAR 660 Division 9: Economic Development.

City of Forest Grove
1924 Council Street
P.O. Box 326
Forest Grove, OR. 97116

Johnson Economics
621 SW Alder Street
Suite 605
Portland, OR 97205

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I. INTRODUCTION

This report introduces analytical research presenting an Economic Opportunities Analysis (EOA) for the City of Forest Grove, Oregon.

Cities are required to reconcile estimates of future employment land demand with existing inventories of vacant and redevelopable employment land within their Urban Growth Boundary (UGB). The principal purpose of the analysis is to assess the degree to which the city has an adequate land supply and capacity to accommodate anticipated employment growth.

To this end, this report is organized into six primary sections:

- **Economic Trends:** Provides an overview of national, state, and local economic trends affecting Washington County and the City of Forest Grove, including population projections, employment growth and a demographic profile.
- **Economic Development Potential:** A discussion of the comparative advantages of the local community and work force.
- **Target Industries:** Analysis of key industry typologies the City of Forest Grove should consider targeting as economic opportunities over the planning period.
- **Employment Land Needs:** Examines projected demand for industrial and commercial land based on anticipated employment growth rates by sector.
- **Capacity:** Summarizes the City's inventory of vacant and redevelopable industrial and commercial land (employment land) within City of Forest Grove's UGB.
- **Reconciliation:** Compares short- and long-term demand for employment land to the existing land inventory to determine the adequacy and appropriateness of capacity over a five and twenty-year horizon.
- **Conclusions and Recommendations:** Summary of findings and policy implications.

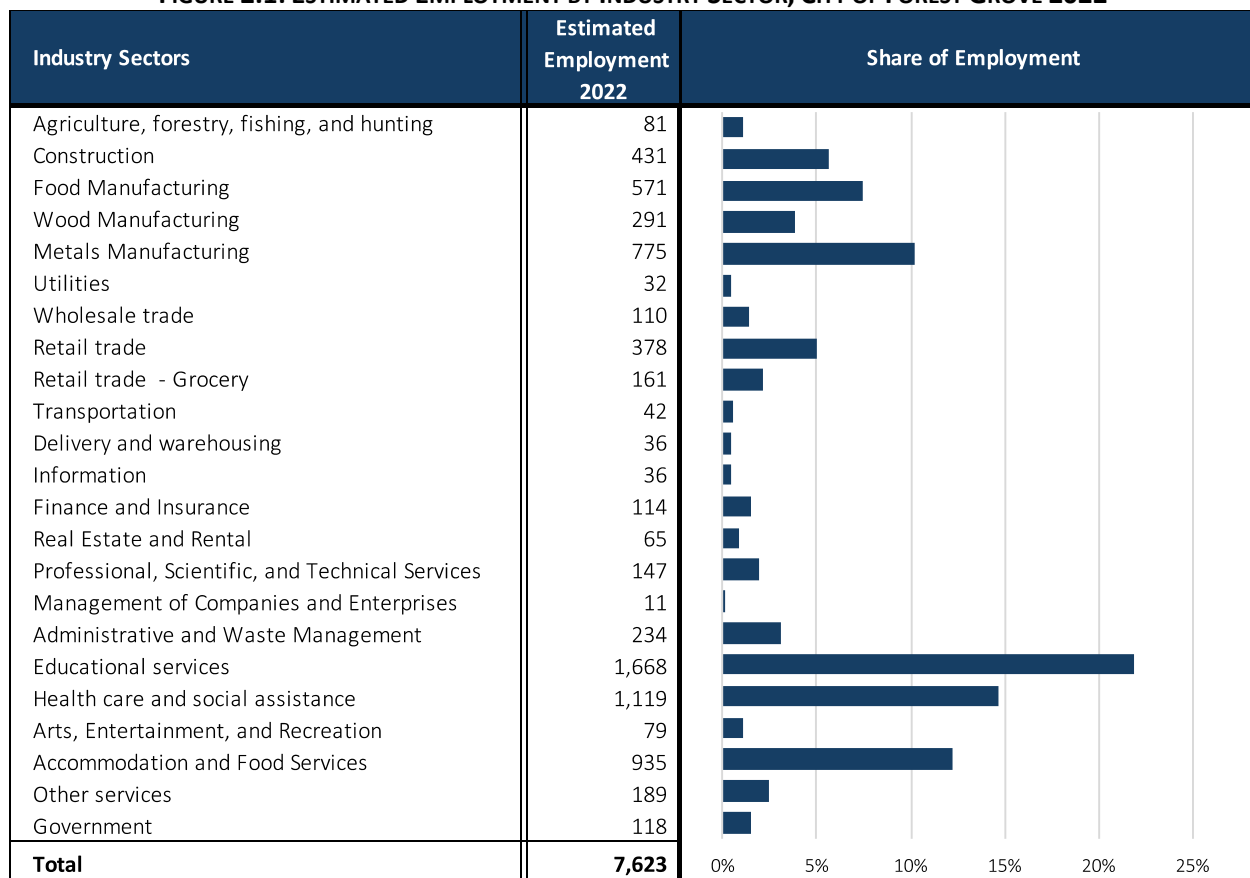
II. FOREST GROVE ECONOMIC TRENDS

This section summarizes employment, demographic, and workforce trends at the local level that will influence economic conditions in the City of Forest Grove over the 20-year planning period. This section provides the economic context for growth projections and includes a socioeconomic profile of the community.

A. FOREST GROVE EMPLOYMENT AND FIRMS

As of 2022, the City of Forest Grove is home to 667 businesses with roughly 7,623 employees. The largest industries by employment are educational services, health care and social services, and accommodation & food services, followed by metals manufacturing, food manufacturing, and construction. Forest Grove has the lowest employment representation in the management of companies and enterprises and utilities sectors. (Industry sectors are discussed in more detail in Section IV of this report.)

FIGURE 2.1: ESTIMATED EMPLOYMENT BY INDUSTRY SECTOR, CITY OF FOREST GROVE 2022

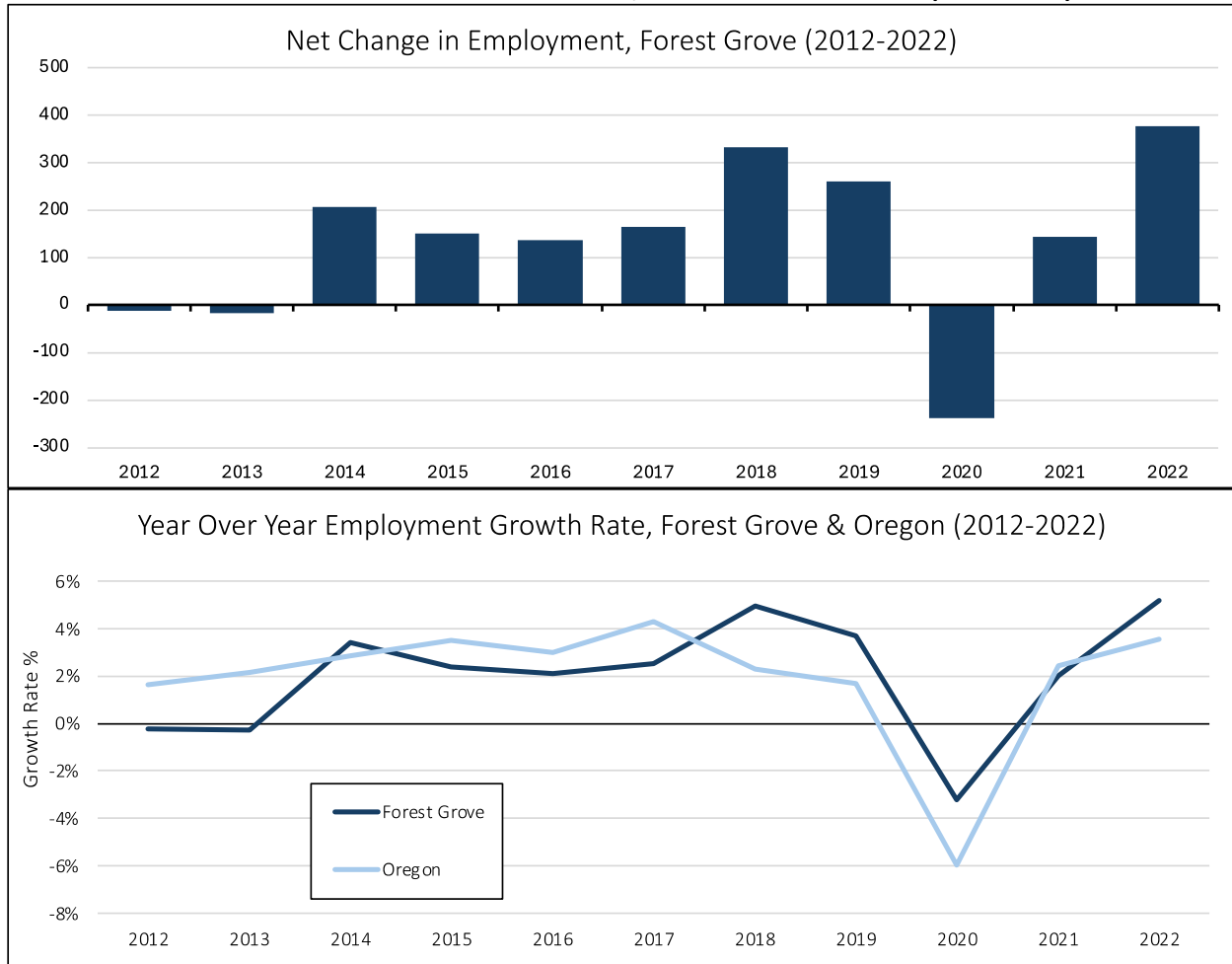


SOURCE: Oregon Employment Department, 2022 QCEW data, Johnson Economics

Forest Grove's rate of employment growth surpassed the state in 2018 and has remained higher every year except for 2021. From 2014 through 2019, Forest Grove experienced a steady rate of employment growth in the 2% to 5% range. While Forest Grove did lose roughly 237 workers in 2020, the employment base displayed resilience during the

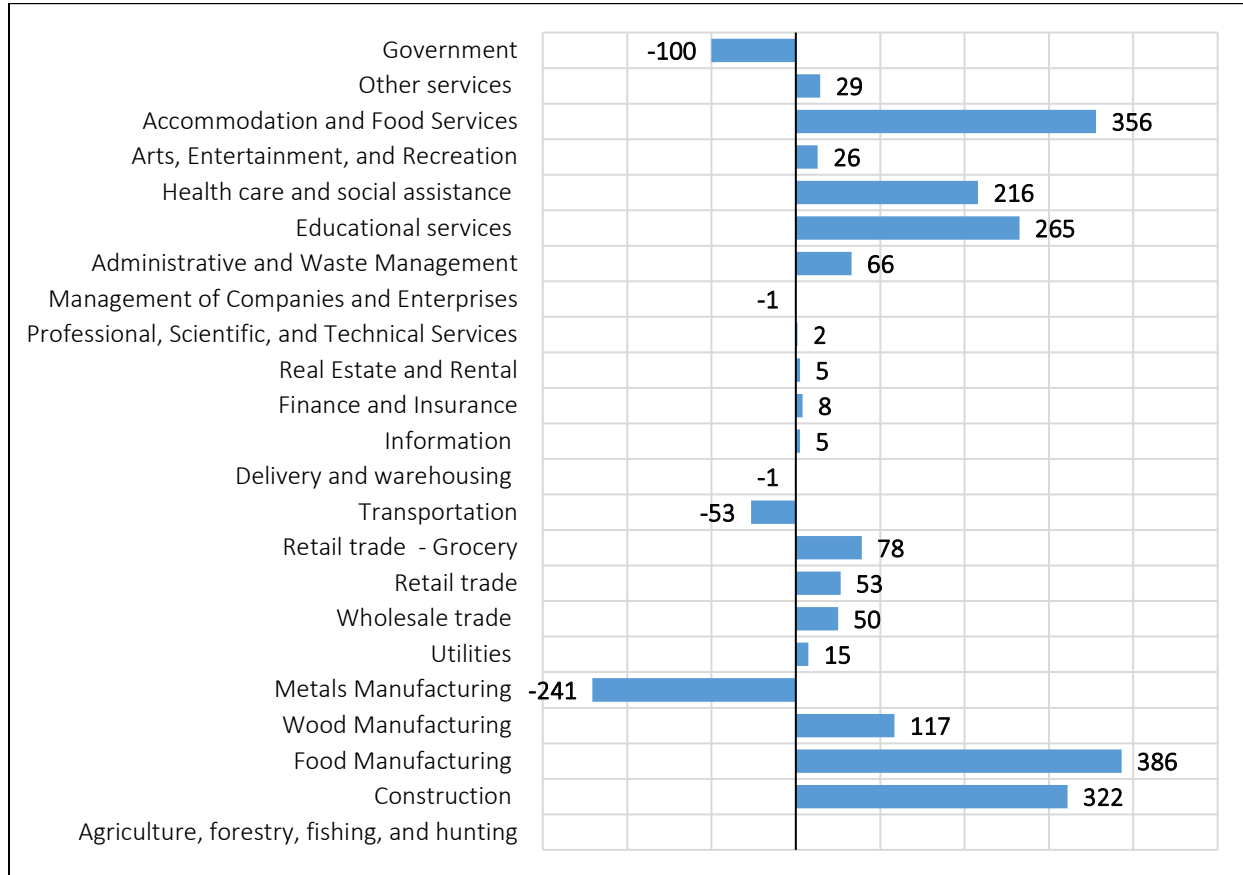
COVID-19 downturn, losing less workers proportionally as compared to the state and experiencing a stronger recovery from 2021 to 2022. In 2022, the city reached a growth rate of 5.2% and added an estimated 376 jobs.

FIGURE 2.2: EMPLOYMENT GROWTH TRENDS, FOREST GROVE & OREGON (2012-2022)



SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

FIGURE 2.3: EMPLOYMENT CHANGE BY SECTOR, CITY OF FOREST GROVE (2012-2022)

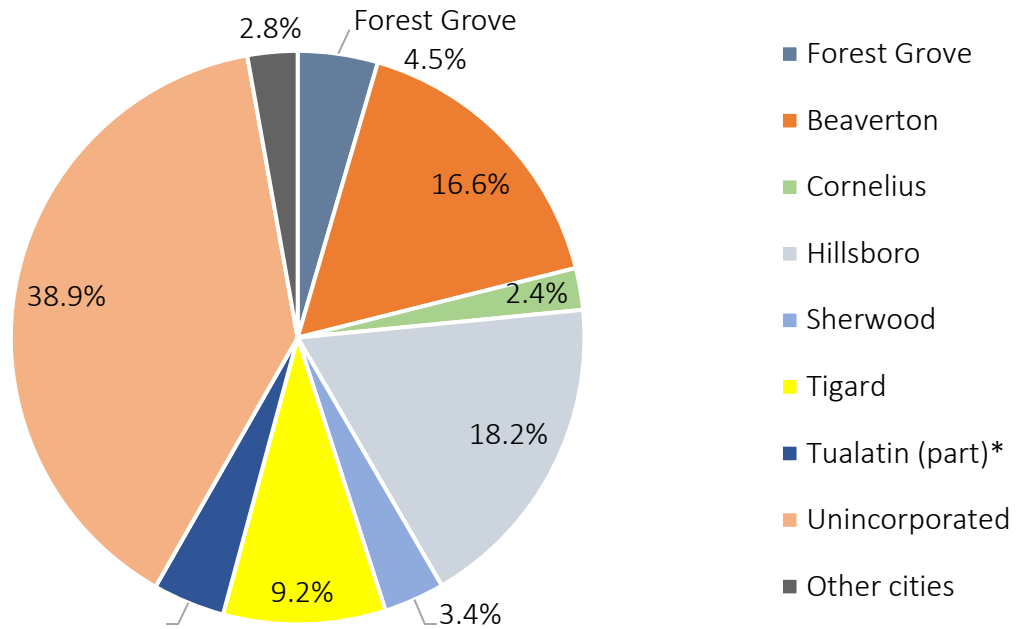


SOURCE: Oregon Employment Department, JOHNSON ECONOMICS

B. LOCAL POPULATION AND WORKFORCE TRENDS

Population: Forest Grove is the fifth largest population group in Washington County, with roughly 4.5% of Washington County's total population. The only groups with a larger share of Washington County's population are Beaverton, Hillsboro, Tigard, and "unincorporated" areas.

FIGURE 2.4: SHARE OF TOTAL POPULATION IN WASHINGTON COUNTY (2023)

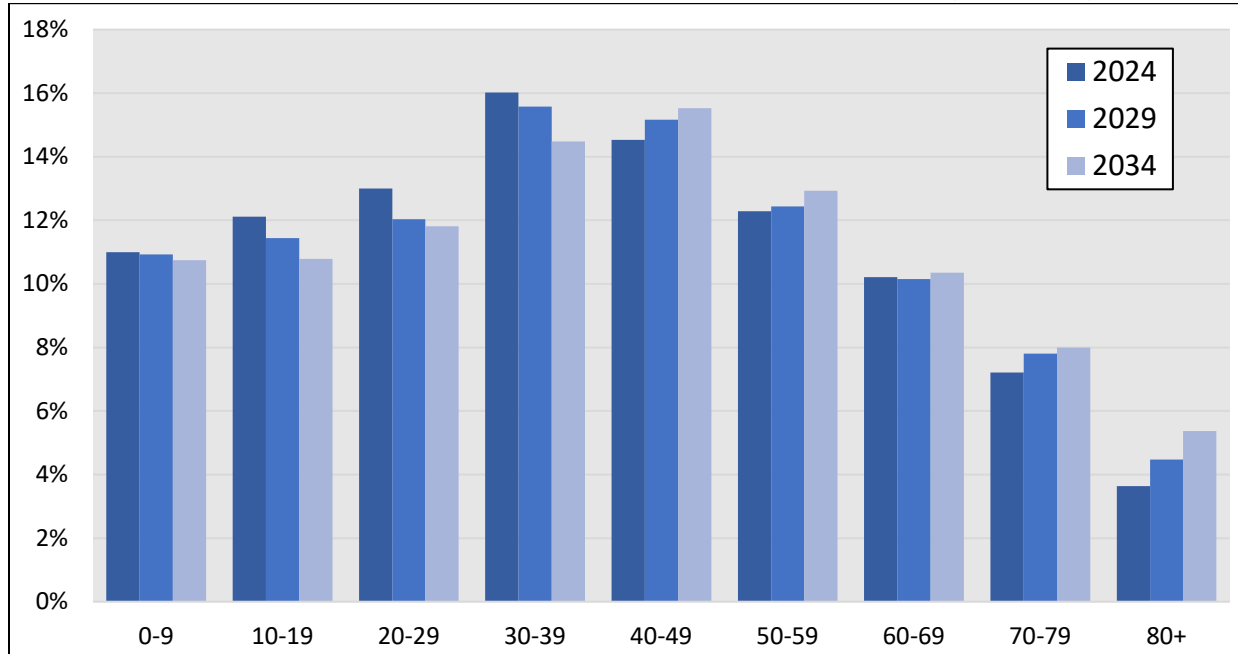


SOURCE: Population Research Center, Portland State University

The City of Forest Grove has grown at an estimated average annual rate of 2.1% per year since 2010, outpacing the county and state's growth rate by a substantial margin. The city saw large growth in 2013 and then dropped below the state and county level in 2017. The rate of population growth jumped back up to over 4% in 2019 and 2020, before seeing a slight decrease in 2021. Since then, the rate of population growth has remained above the state or county.

Washington County has a sizable proportion of all ages 59 and below, particularly in the 30 to 39 age group. Washington County has far fewer people than 60 years old and up when compared to the state. These numbers show that the county has a disproportionately large work force and far less retirees. This is likely in large part due to the presence of Nike and the emergence and concentration of tech employers in Washington County, both of which draw their labor force from a younger age demographic.

FIGURE 2.5: PROJECTED BROAD AGE DISTRIBUTION, WASHINGTON COUNTY (2024-2034)

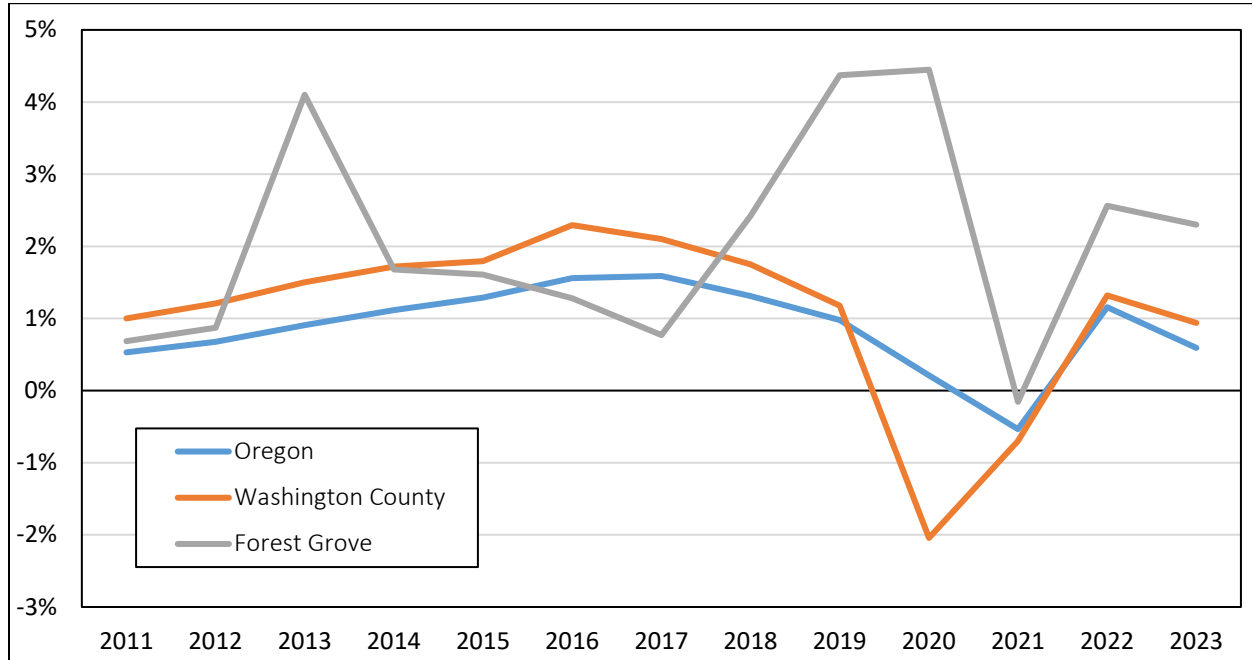


SOURCE: Population Research Center, Portland State University

The Portland State University Population Research Center projects growth in every age group above 40, with the largest growth in the 80+ age group. Each age group under 40 is projected to shrink, with the biggest decrease in the 30 to 39-year-old group. These numbers reflect the general aging of the population in Washington County. This will further the need for nearby healthcare.

Population Growth Rate: The rate of population growth for Forest Grove has consistently been higher than Washington County or the state of Oregon every year since 2018. In 2019 and 2020, the Forest Grove growth rate passed 4%, while Washington County's growth rate dropped to -2% in 2020. These numbers show that Forest Grove's rate of population growth has remained above the county or state level since the beginning of the pandemic, likely in part due to the emergence of work from home and the ongoing construction of residential units in the city. Forest Grove experienced a small dip of negative growth in 2021, before jumping back to 2.5% in 2022. Forest Grove also saw a jump in population in 2019.

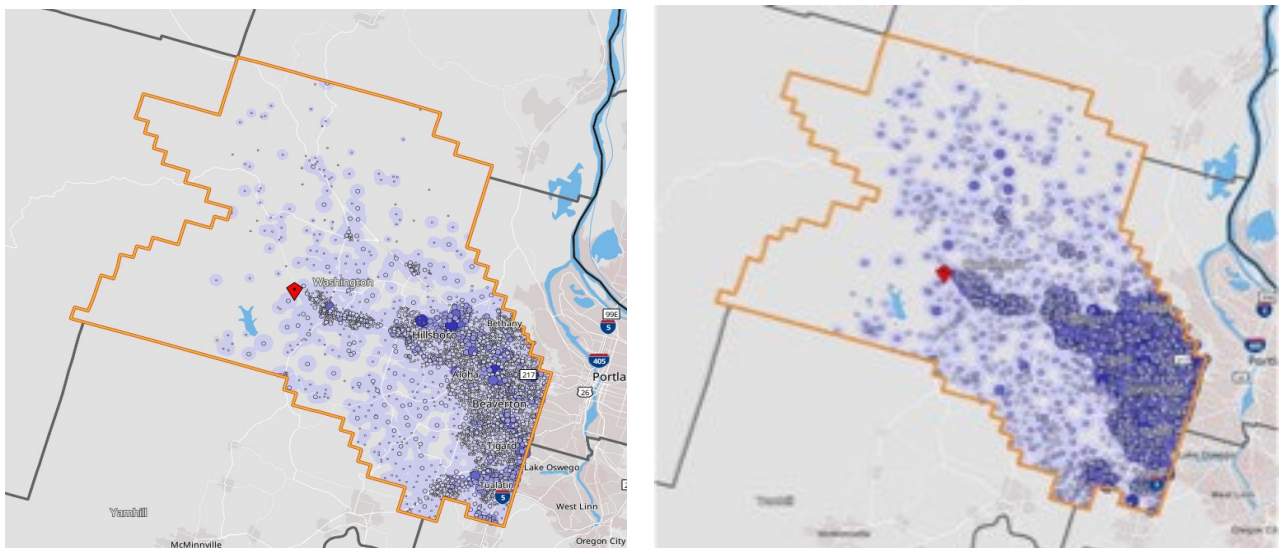
FIGURE 2.6: POPULATION GROWTH OF FOREST GROVE AND WASHINGTON COUNTY, 2021



SOURCE: Population Research Center, Portland State University

Employment and Population Concentrations: The distribution of employment in Washington County is concentrated around the southeastern quadrant of the county, with the distribution of employment greatly dissipating west of Forest Grove (outside of the metro area’s Urban Growth Boundary). The distribution of population is somewhat more evenly distributed across the northern side of the county although it is still mostly concentrated around in the southeastern quadrant.

FIGURE 2.7: DISTRIBUTION OF EMPLOYMENT AND WORKFORCE, WASHINGTON COUNTY, 2021
DISTRIBUTION OF EMPLOYMENT **DISTRIBUTION OF POPULATION**

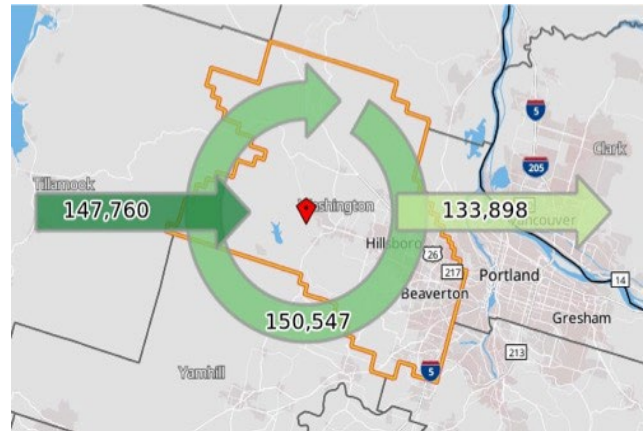
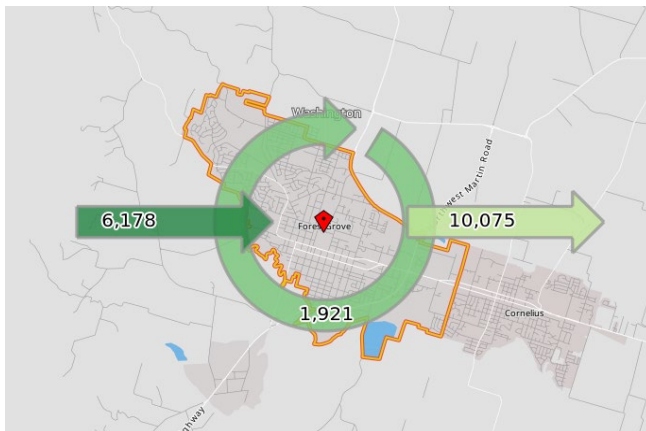


SOURCE: Census Bureau, Longitudinal Employer-Household Dynamics (LEHD) Data

Commuting Trends: In 2021 (the most recent data available), the City of Forest Grove was estimated to have 6,178 people commuting in for work, 10,075 people commuting out and 1,921 residents both lived and worked in the city. These figures reflect “covered employment” as of 2021, the most recent year available. Covered employment refers to those jobs where the employee is covered by federal unemployment insurance. This category does not include many contract employees and the self-employed and therefore is not a complete picture of local employment. The figure discussed here is best understood as indicators of the general pattern of commuting and not exact figures.

Of those residents who work outside of the city, the most common commute destinations are Hillsboro, Cornelius, Portland, and Beaverton. For local employees who commute in from outside of Forest Grove, most live in Hillsboro, Portland, and Beaverton.

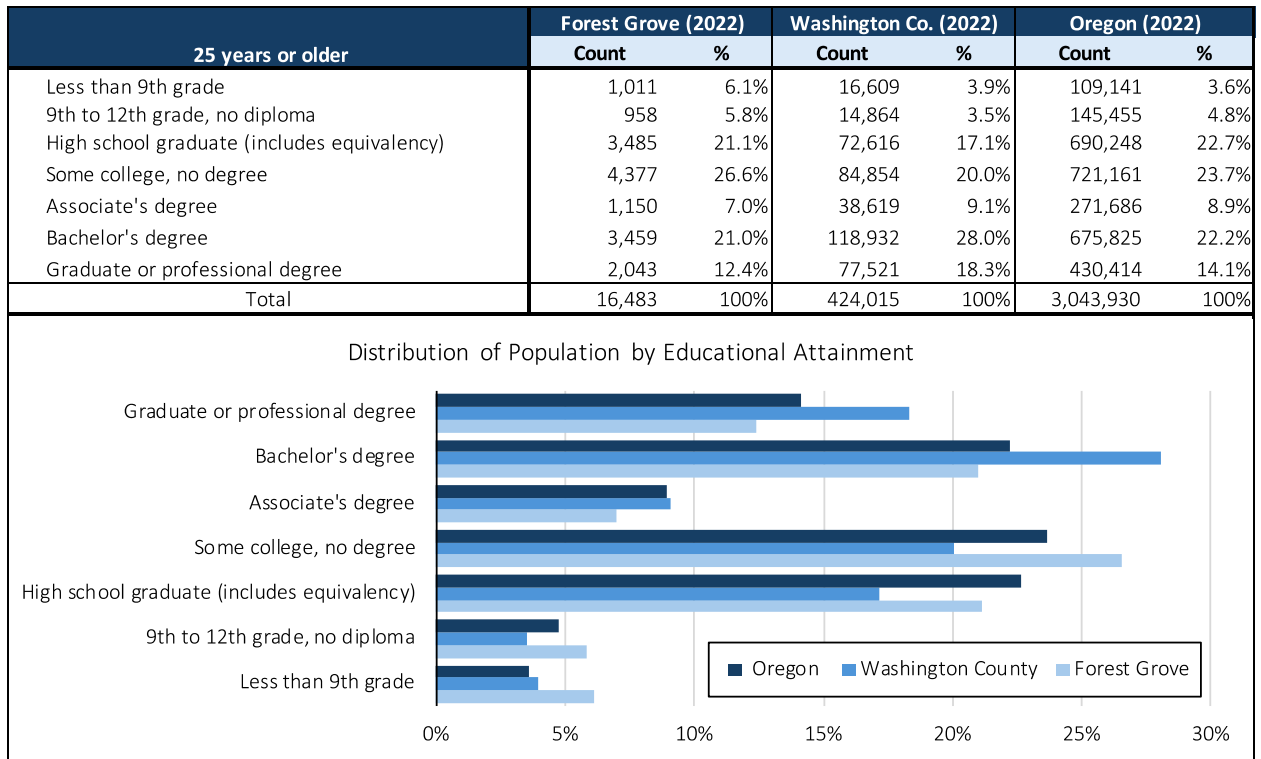
FIGURE 2.8: NET INFLOW-OUTFLOW OF EMPLOYEES, FOREST GROVE AND WASHINGTON COUNTY, 2021
FOREST GROVE COMMUTING TRENDS **WASHINGTON COUNTY COMMUTING TRENDS**



SOURCE: Census Bureau, LEHD Data

Workforce Characteristics: Forest Grove has a smaller share of adults with higher education than the county or state. In contrast, Washington County has a much higher concentration of adults with higher education when compared with the state. The recent residential expansion in the city includes a significant concentration of higher-end homes, which is expected to increase the educational attainment profile in the city over the next decade.

FIGURE 2.9: EDUCATIONAL ATTAINMENT PROFILE, 2022

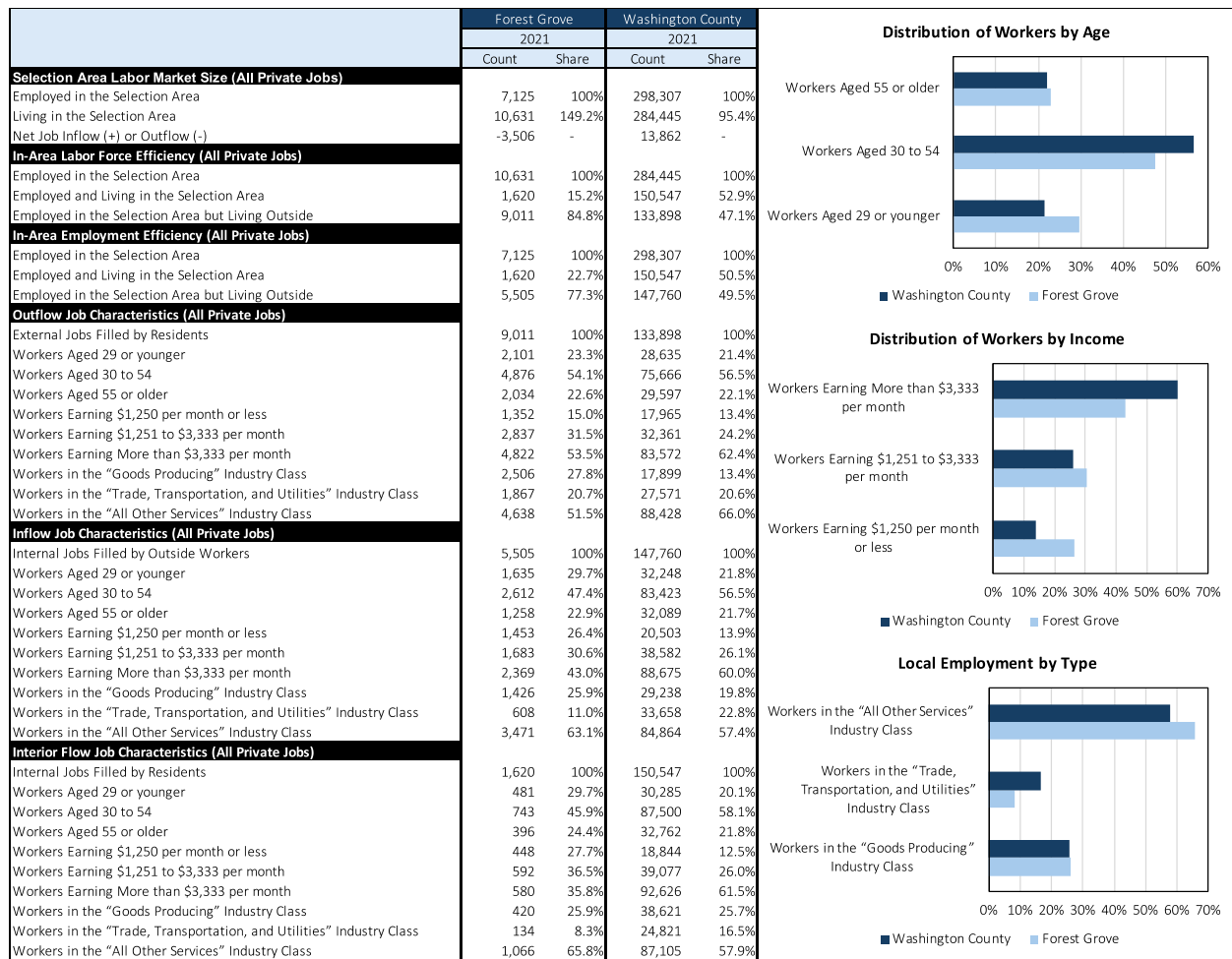


SOURCE: U.S. Census Bureau

- 21% of the local population have a bachelor's degree, as compared to 28% countywide and 22% statewide.
- An additional 12% hold a graduate or professional degree, compared to 18% countywide and 14% statewide. This means nearly a third of the local workforce in Forest Grove has a bachelor's degree or higher.
- Around a third (33%) of Forest Grove's population has a high school degree or less.

The education level in Forest Grove points to a greater presence of blue-collar workforce when compared to the county and state.

FIGURE 2.10: CHARACTERISTICS OF LOCAL WORKFORCE, CITY OF FOREST GROVE AND WASHINGTON COUNTY, 2021



SOURCE: Census Bureau, LEHD Data

- Only 15% of the population of Forest Grove both live and work in the area. Of those, just under 30% are aged 29 or younger. This is significantly higher than the concentration of that age group in Washington County, which comes in at roughly 20%. 66% work in the "All Other Services" industry class¹, compared to 58% countywide. These jobs typically have lower rates of compensation. 28% of workers earn \$1,250 or less, compared to 13% in Washington County. 36% of these workers earn over \$3,333, while 62% of workers countywide earn over \$3,333.
- 54% of residents who live in Forest Grove but commute outside the city for work are between 30 and 54 years old. Among the outflow jobs, the distribution of age is similar to the numbers of the rest of the county. 28% of these jobs are in the "Goods Producing" industry, which is over twice the amount of the same group county wide.
- Forest Grove has a larger proportion of younger workers than the county, with a larger concentration of its workers less than 30 years of age when compared to countywide. However, the county has a larger proportion of workers 30 to 54 years of age.

¹ The "Other Services" category in the LEHD data set represents all employment outside of manufacturing and trade, transportation, and utilities.

III. COMMUNITY ECONOMIC DEVELOPMENT POTENTIAL

The economic climate of a community helps foster growth of existing firms and industry clusters and make the area attractive for new businesses. The City of Forest Grove has several advantages that boost its potential as a location for current and future business.

Location: Forest Grove enjoys proximity to the remainder of the Portland Metro area, as well as the significant technology cluster concentrated in Hillsboro. The location puts the city's businesses near a large, addressable market area and region. At the same time, the city is somewhat separated from the remainder of the metro area, which has allowed it to maintain a small-town identity and establish a durable base of manufacturing industries based in the surrounding area.

Transportation Connectivity: Forest Grove has transportation access via the Tualatin Valley Highway, with the Sunset Highway roughly nine miles away. The area is conveniently located for commuting to the Sunset Corridor, and the expansion of remote-working opportunities has strengthened the area's residential appeal.

Labor Market: The availability of ample and skilled labor is a key factor in economic development potential. Beyond the talent pool of Forest Grove's residents, the city's central location and freeway access give local businesses the ability to draw on a large labor pool from the region. An estimated 76% of the local workforce commutes to Forest Grove, with many coming from the Hillsboro Metro region. While ideally these workers may eventually choose to relocate to the community, in the meantime businesses know they can attract workers with a full range of skills and experience from a broader area if necessary.

The Washington County Chamber of Commerce identified workforce shortage as a major issue in both the county and the state. They recommend providing a tax credit or incentive for qualified work training organizations, as well as promoting specified education programs to help high school and college graduates to be able to find work.

With the potential growth in the manufacturing industries and data centers, Forest Grove will need to continue to find and develop skilled labor with experience in these fields. The continued population growth in Forest Grove and some of the surrounding areas will help this effort. Local businesses coupled with Pacific University and Portland Community College will also assist in developing the specific skills and education they will need from their workforce. Hillsboro and Washington County have partnered with Intel to create a 10-day course designed to train people for semi-conductor fabrication at Portland Community College. As much of the potential employment growth in Forest Grove may be in the manufacturing of products used as inputs for chip manufacturing and data centers, chip manufacturing companies such as Intel would have an incentive to work to develop a nearby complementing industry.

Quality of Life: Forest Grove offers a high quality of life and urban amenities to attract new workers and businesses to the city. The city offers a mixture of small-town lifestyles with access to nature, while also being a quick trip away from larger metro areas with additional urban amenities. The community features relatively affordable housing in comparison to other parts of the region, good schools, parks, and ample shopping and local services. This provides an attractive alternative for people working in Hillsboro.

Forest Grove's location in the northwest Willamette Valley offers ready access to a full range of mountain recreation to the east, Oregon's wine country to the south, and the Tualatin River to the east.

Economic Development Partnerships: Forest Grove has several partners in economic development, including the Forest Grove Economic Development Commission, Forest Grove/Cornelius Chamber of Commerce, Westside Economic Alliance, Columbia Pacific Economic Development District (Col-Pac), the Oregon Main Street Program, and Business Oregon.

Local and regional employers are also key partners in promoting and growing their industries. Forest Grove works with these and other regional partners to provide the infrastructure and services needed to retain and attract businesses to the city.

Economic Development Tools: Forest Grove features an Enterprise Zone and Opportunity Zones which allow for tax abatements to incentivize new business development across the city. The Forest Grove Economic Development program also offers grants through the Urban Renewal Agency and the City's lodging tax revenue. These grants are distributed based on building improvement, storefront improvement, community enhancement, tourism, and community impact. The Forest Grove Economic Development program can assist with site searches, tax incentives, financing, regulatory assistance, market information, and workforce development.

IV. INDUSTRY DIFFERENTIATION ANALYSIS

This element of the Economic Opportunities Analysis utilizes analytical tools to assess the economic landscape in Washington County and the City of Forest Grove. The objective of this process is to identify a range of industry types that can be considered targeted economic opportunities over the planning period.

A range of analytical tools to assess the local and regional economic landscape are used to determine the industry typologies the county and individual cities should consider targeting over the planning period. Where possible, we look to identify the sectors that are likely to drive growth in current and subsequent cycles.



ECONOMIC SPECIALIZATION (WASHINGTON COUNTY)

The most common analytical tool to evaluate economic specialization is location quotient analysis. This metric compares the concentration of employment in an industry at the local level to a larger geography. All industry categories are assumed to have a quotient of 1.0 on the national level, and a locality's quotient indicates if the local share of employment in each industry is greater or less than the share seen nationwide. For instance, a quotient of 2.0 indicates that locally, that industry represents twice the share of total employment as seen nationwide. A quotient of 0.5 indicates that the local industry has half the expected employment.

A location quotient analysis was completed for Washington County, which evaluated the distribution of local employment relative to national averages, as well as average annual wage levels by industry (Figure 4.01). The industries that are well-represented countywide are good candidates for growth in localities such as Forest Grove as the city can tap into some of the regional advantages to grow locally.

FIGURE 4.01: INDUSTRY SECTOR SPECIALIZATION BY MAJOR INDUSTRY, WASHINGTON COUNTY, 2022

Industry	Annual Establishments	Average Employees	Total Annual Wages	Average Annual Wages	Employment LQ
Natural resources and mining	238	3,220	\$ 136,821,489	\$ 42,491	0.79
Construction	1,992	18,517	\$ 1,550,865,903	\$ 83,754	1.07
Manufacturing	903	53,861	\$ 6,985,542,567	\$ 129,696	1.88
Wholesale trade	1,494	13,977	\$ 1,635,286,001	\$ 116,998	1.04
Retail trade	1,560	32,772	\$ 1,473,084,138	\$ 44,949	0.94
Transportation, warehousing & utilities	364	7,480	\$ 411,520,884	\$ 55,016	0.48
Information	830	7,632	\$ 1,021,695,215	\$ 133,870	1.11
Financial activities	2,033	14,305	\$ 1,251,771,827	\$ 87,506	0.74
Professional and business services	4,792	56,570	\$ 6,279,817,664	\$ 111,010	1.11
Education and health services	3,616	37,889	\$ 2,268,190,330	\$ 59,864	0.72
Leisure and hospitality	1,654	25,561	\$ 742,163,893	\$ 29,035	0.72
Other services	3,422	10,214	\$ 711,188,365	\$ 69,629	1.03
Government	308	22,756	\$ 1,639,387,509	\$ 72,042	1.45
Total	23,206	304,754	\$ 26,107,335,785	\$ 85,667	-

SOURCE: U.S. Bureau of Labor Statistics

Among major industries, the “manufacturing” industry was the most strongly represented, with government being the next. The “transportation, warehousing & utilities,” “education and health services,” and “leisure and hospitality” industries were the most under-represented major industries. The information sector provided the highest average wages among these industries, while the other services industry has the lowest average wages.

A more detailed industry analysis shows that the industries with the highest LQ in the county are metal manufacturing, construction, and “administrative and support and waste management.” Metal manufacturing, retail trade, and “health care and social assistance” employ the most people out of all the industries, employing a little over 36% of the county’s entire employment base. The most under-represented industries are federal government, transportation and warehousing, state government, and utilities.

FIGURE 4.02: INDUSTRY SECTOR SPECIALIZATION BY DETAILED INDUSTRY, WASHINGTON COUNTY, 2022

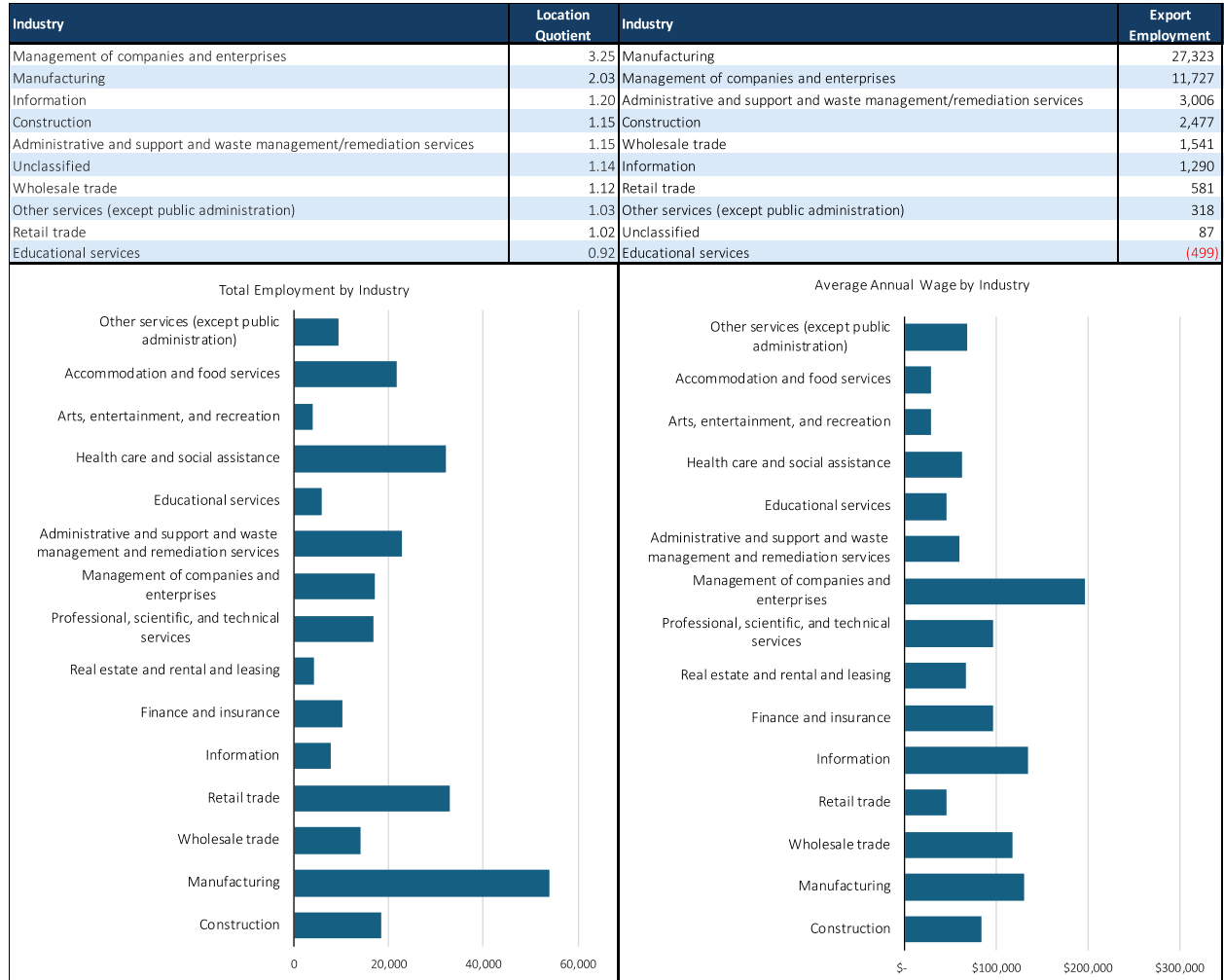
Industry	Annual Establishments	Average Employees	Total Annual Wages	Average Annual Wages	Employment LQ
Natural resources and mining	238	3,220	\$136,821,489	\$42,491	0.87
Construction	1,992	18,517	\$1,550,865,903	\$83,754	1.18
Food manufacturing	166	3,205	\$163,628,223	\$51,054	0.68
Wood product manufacturing	191	5,627	\$387,196,216	\$68,810	0.83
Metal Manufacturing	546	45,011	\$6,433,616,174	\$142,934	3.12
Wholesale trade	1,494	13,977	\$1,635,286,001	\$116,998	1.15
Retail trade	1,560	32,772	\$1,473,084,138	\$44,949	1.04
Transportation and warehousing	354	6,810	\$323,771,471	\$47,544	0.52
Utilities	10	670	\$87,749,413	\$130,969	0.60
Information	830	7,632	\$1,021,695,215	\$133,870	1.23
Finance and insurance	1,070	10,122	\$973,573,681	\$96,184	0.80
Real estate and rental and leasing	962	4,182	\$278,198,146	\$66,523	0.88
Professional, scientific, and technical services	3,230	16,808	\$1,605,073,820	\$95,495	0.78
Management of companies and enterprises	174	16,910	\$3,315,404,959	\$196,062	3.32
Administrative and support and waste management	1,388	22,852	\$1,359,338,885	\$59,484	1.18
Educational services	368	5,728	\$255,541,581	\$44,613	0.94
Health care and social assistance	3,248	32,161	\$2,012,648,749	\$62,580	0.78
Arts, entertainment, and recreation	268	3,839	\$111,669,819	\$29,088	0.82
Accommodation and food services	1,386	21,722	\$630,494,074	\$29,026	0.80
Other services	1,896	9,481	\$649,146,426	\$68,468	1.06
Unclassified	1,527	751	\$63,143,893	\$84,641	1.25
Federal government	28	871	\$77,503,006	\$88,982	0.15
State government	34	2,206	\$170,333,523	\$77,214	0.24
Local government	246	19,680	\$1,391,550,980	\$70,709	0.70
Total	23,206	304,754	\$26,107,335,785	\$85,667	-

SOURCE: State of Oregon Employment Department

The level of indicated export employment is estimated by sector by combining the location quotients and overall employment levels. Export industries are important in that they grow the overall size of the local economy by bringing in dollars from outside the community, rather than recirculating internal spending. The industries with the highest level of export employment are manufacturing, management of companies and enterprises, and “administrative and support and. Waste management and remediation services.”

Furthermore, industries with the highest annual average wages in Washington County are management of companies and enterprises, information, manufacturing, and wholesale trade. All these industries also have location quotients above 1, indicating that these have a high concentration of employment in the region relative to the rest of the nation.

FIGURE 4.03: TOP TEN INDUSTRIES IN TERMS OF TOTAL AND EXPORT EMPLOYMENT, WASHINGTON COUNTY(2022)



SOURCE: U.S. Bureau of Labor Statistics

ECONOMIC SPECIALIZATION (CITY OF FOREST GROVE)

The same analysis for the City of Forest Grove reveals elevated levels of employment concentration in industries such as educational services, food manufacturing, metals manufacturing, wood manufacturing, and accommodation and food services. In terms of employment concentration, educational services far out-perform any other industries in the city with a location quotient of 9.94, with the next highest employment concentration in the city being food manufacturing with a location quotient of 4.37. This is largely due to the presence of Pacific University in Forest Grove.

FIGURE 4.04: INDUSTRY SECTOR SPECIALIZATION BY DETAILED INDUSTRY, CITY OF FOREST GROVE, 2022

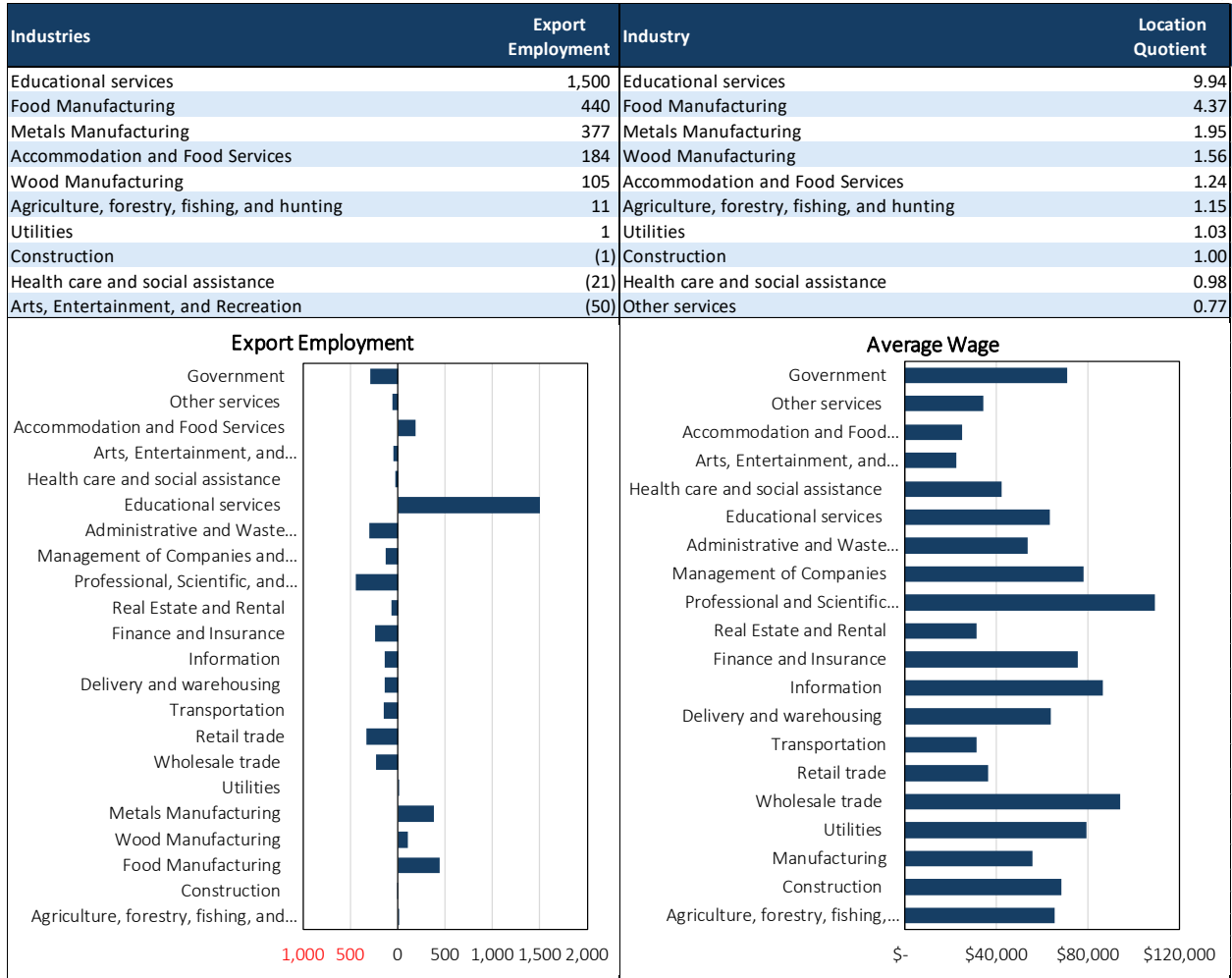
Industry	Average Employment	Annual Establishments	Total Annual Wages	Average Annual Wages	Employment LQ
Agriculture, forestry, fishing, and hunting	81	5	\$5,298,515	\$65,414	1.15
Construction	431	90	\$29,511,626	\$68,472	1.00
Food Manufacturing	571	14	\$31,957,976	\$55,968	4.37
Wood Manufacturing	291	8	\$16,696,298	\$57,376	1.56
Metals Manufacturing	775	13	\$42,591,064	\$54,956	1.95
Utilities	32	4	\$2,541,590	\$79,425	1.03
Wholesale trade	110	25	\$10,343,722	\$94,034	0.33
Retail trade	539	51	\$19,763,643	\$39,388	0.62
Transportation	42	9	\$1,319,937	\$31,427	0.22
Delivery and warehousing	36	4	\$2,291,426	\$63,651	0.21
Information	36	14	\$3,120,955	\$86,693	0.21
Finance and Insurance	114	30	\$8,612,866	\$75,551	0.33
Real Estate and Rental	65	34	\$2,043,570	\$31,440	0.49
Professional, Scientific, and Technical Services	147	50	\$16,037,648	\$109,100	0.25
Management of Companies and Enterprises	11	5	\$858,280	\$78,025	0.08
Administrative and Waste Management	234	27	\$12,553,739	\$53,648	0.44
Educational services	1,668	17	\$105,988,170	\$63,542	9.94
Health care and social assistance	1,119	126	\$47,165,436	\$42,150	0.98
Arts, Entertainment, and Recreation	79	11	\$1,799,323	\$22,776	0.61
Accommodation and Food Services	935	64	\$23,644,828	\$25,289	1.24
Other services	189	63	\$6,524,421	\$34,521	0.77
Government	118	3	\$8,383,959	\$71,051	0.29
Total	7,623	667	\$ 399,048,992	\$ 52,348	

SOURCE: Oregon Employment Department

The top sectors in terms of overall employment were educational services², health care & social assistance, accommodation & food services, and metals manufacturing. There were seven industries with positive export employment, the largest being educational services, food manufacturing, and metals manufacturing. The large concentration of educational services is in large part contributed by Pacific University, who employs 845 people and is the largest employer in Forest Grove.

² Public education is included under educational services (NAICS 61) as opposed to Government (NAICS 92).

FIGURE 4.05: TOP TEN INDUSTRIES IN TERMS OF TOTAL AND EXPORT EMPLOYMENT, CITY OF FOREST GROVE (2022)



SOURCE: Oregon Employment Department and Bureau of Labor Statistics

ECONOMIC DRIVERS

The identification of the economic drivers of a local or regional economy is critical in informing the character and nature of future employment, and by extension land demand over a planning cycle. To this end, we employ a shift-share analysis of the local economy emerging out of the latter half of the recent expansion cycle³.

A shift-share analysis is an analytical procedure that measures the local effect of economic performance within a particular industry or occupation. The process considers local economic performance in the context of national economic trends—indicating the extent to which local growth can be attributed to unique regional competitiveness or simply growth in line with broader trends. For example, consider that Widget Manufacturing is growing at a 1.5% rate locally, about the same rate as the local economy. On the surface we would consider the Widget Manufacturing industry to be healthy and contributing soundly to local economic expansion. However, consider also that Widget Manufacturing is booming across the country, growing at a robust 4% annually. In this context, local widget manufacturers are struggling, and some local or regional conditions are stifling economic opportunities.

³ Measured from 2011 through 2021

We can generally classify industries, groups of industries, or clusters into four groups:

Growing, Outperforming: Industries that are growing locally at a rate faster than the national average. These industries have characteristics locally leading them to be particularly competitive.

Growing, Underperforming: Industries that are growing locally but slower than the national average. These industries generally have a sound foundation, but some local factors are limiting growth.

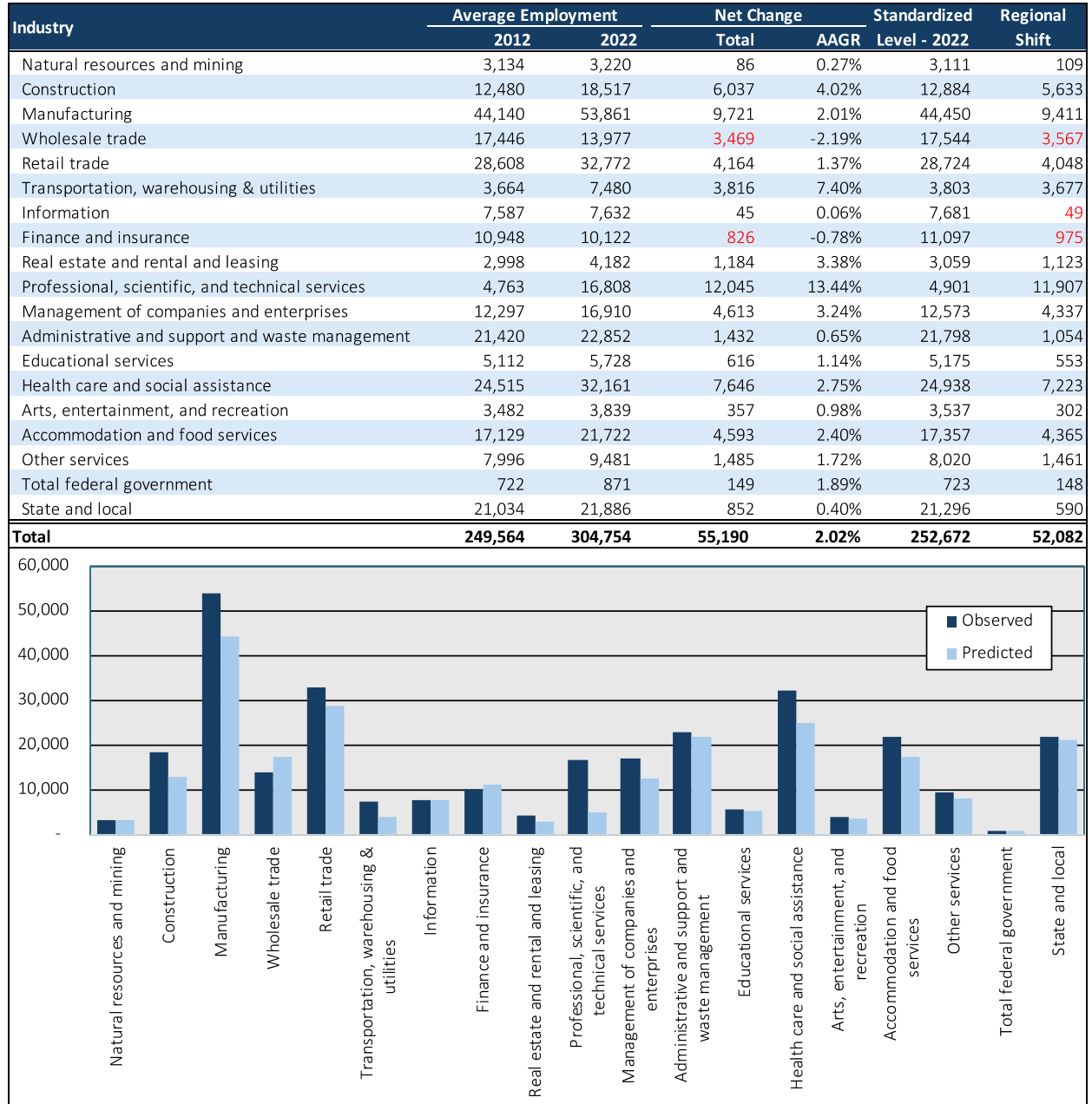
Contracting, Outperforming: Industries that are declining locally but slower than the national average. These industries have structural issues that are impacting growth industry wide. However, local firms are leveraging some local or regional factor that is making them more competitive than other firms on average.

Contracting, Underperforming: Industries that are declining locally at a rate faster than the national average. These industries have structural issues that are impacting growth industry wide. However, some local or regional factors are making it increasingly tough on local firms.

The average annual growth rate by industry from 2012 to 2022 in Washington County was compared to the national rate. The observed local change was compared to a standardized level reflecting what would be expected if the local industry grew at a rate consistent with national rates for that industry.

As shown in Figure 4.07, more county industries grew at a faster rate than the rest of the country than those that grew at a slower rate. Sectors that experienced the most notable positive regional shift in employment during this period were professional, scientific, and technical services, manufacturing, health care & social assistance, construction, and management of companies and enterprises. The sectors that showed negative regional shift in employment were wholesale trade, finance and insurance, and information.

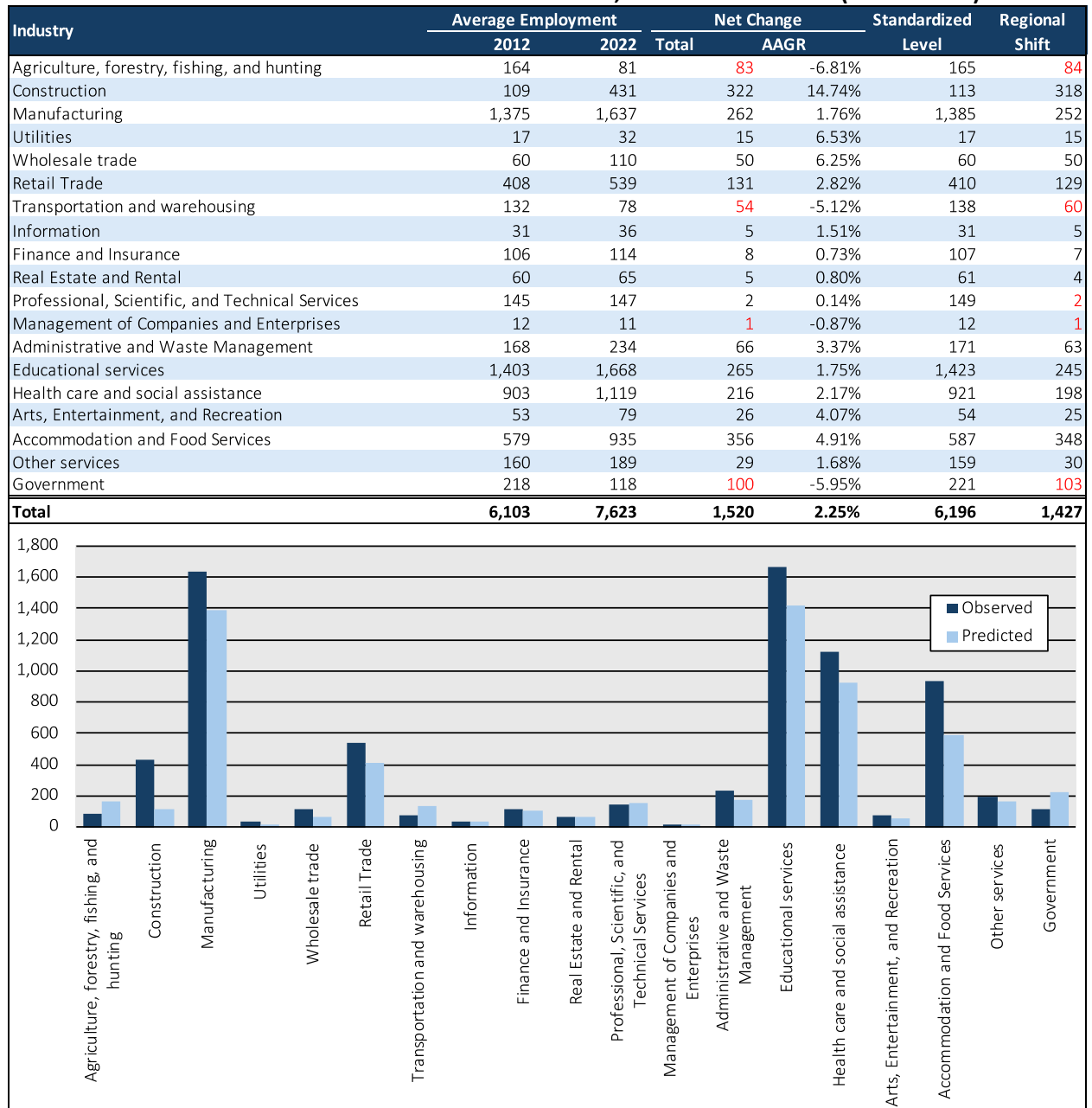
FIGURE 4.07: INDUSTRY SECTOR SHIFT SHARE ANALYSIS, WASHINGTON COUNTY (2012 – 2022)



SOURCE: Oregon Employment Department

When the same analysis is done for the City of Forest Grove, the city's growth outperformed the rest of the country in additional industries. The best performing sectors on this measure in the local economy were accommodation & food services, construction, manufacturing, and educational services. The sectors that showed a negative shift in employment were government, agriculture, forestry, fishing and hunting, and transportation and warehousing.

FIGURE 4.08: INDUSTRY SECTOR SHIFT SHARE ANALYSIS, CITY OF FOREST GROVE (2012 – 2022)



SOURCE: Oregon Employment Department

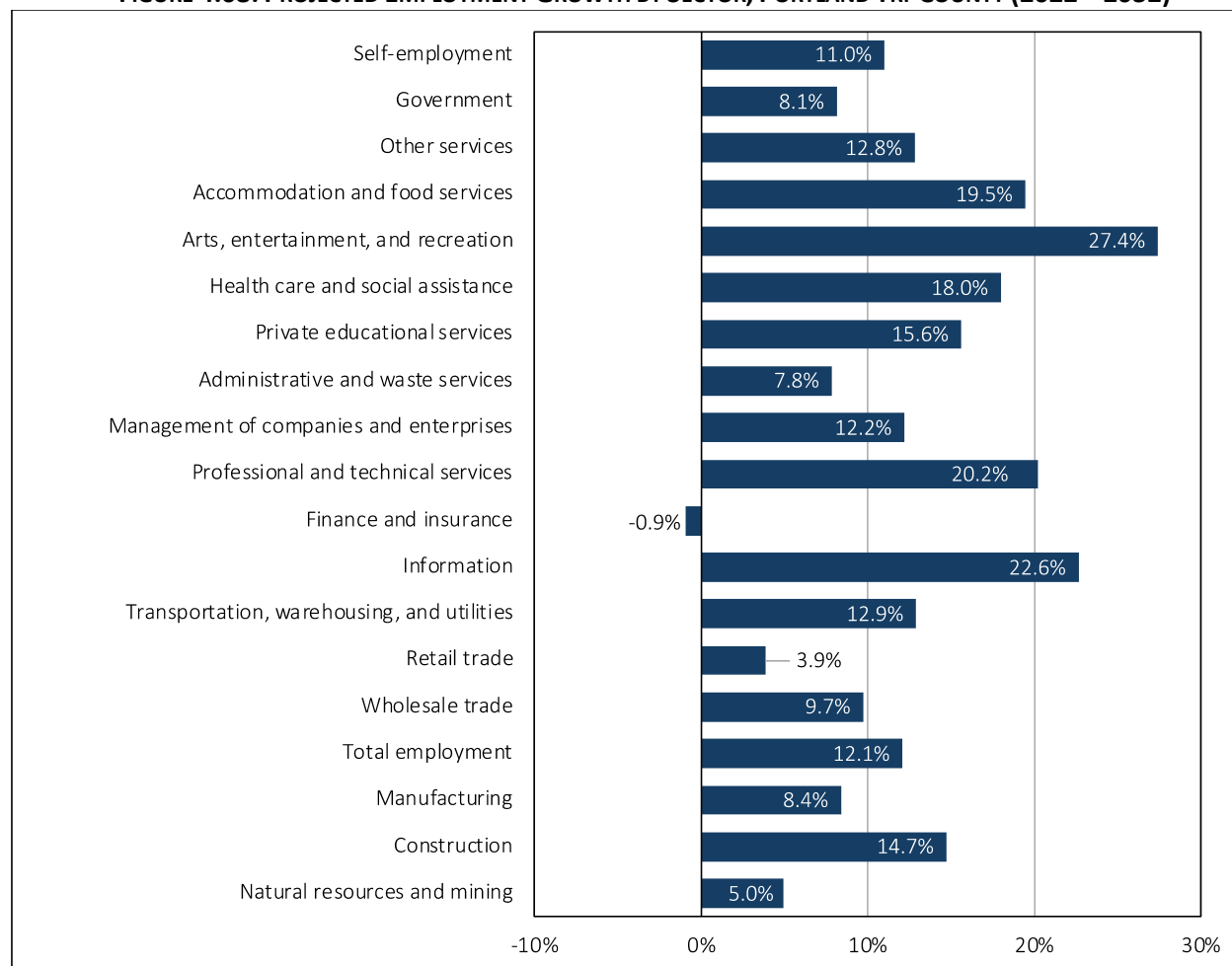
The indicated decline in government reflects a shift in categorization of employment as opposed to an absolute decline. The 2022 reporting for the City of Forest Grove shifted the classification of 46 city jobs to the construction sector, 14 to information, 5 to professional services, and 73 to arts, entertainment, and recreation.

PROJECTED EMPLOYMENT GROWTH (OED)

The State of Oregon produces employment forecasts by sector at the broader regional level, which groups Clackamas, Washington, and Multnomah Counties together into one “Portland Tri-County” region. The most recent forecast anticipates a gain of 127,500 jobs from 2022 through 2032, reflecting an average annual growth rate of about 1.2% during the period.

In this region, the industries with the fastest growth rates are projected to be arts, entertainment, and recreation, information, & professional and technical services, followed by accommodation & food services, and health care and social assistance. Furthermore, the only industry projected to experience negative growth in the coming years is finance and insurance.

FIGURE 4.08: PROJECTED EMPLOYMENT GROWTH BY SECTOR, PORTLAND TRI-COUNTY (2022 – 2032)



SOURCE: Oregon Employment Department, Workforce and Economic Research Division

V. FOREST GROVE TARGET INDUSTRIES ANALYSIS

The preceding analysis provides a basis for narrowing target industries for the City of Forest Grove. These indicators point to sectors of past and potential growth, as well as locally expressed economic development vision for the community. The following is a summary of targeted sectors and indicators for Forest Grove.

FIGURE 5.01: FOREST GROVE TARGET INDUSTRIES AND KEY INDICATORS

TARGET INDUSTRIES	CURRENT LARGEST EMPLOYMENT
Educational Services	Educational Services
Health Care and Social Assistance	Health Care and Social Assistance
Food Product Manufacturing	Accommodation and Food Services
Wood Product Manufacturing	Metals Manufacturing
Metals Manufacturing	Food Manufacturing
Information	Construction
Professional, Scientific, and Technical Services	Retail Trade

STRONG SHIFT SHARE INDICATOR	STRONG LOCATION QUOTIENT
Educational Services	Metal Manufacturing
Metal Manufacturing	Educational Services
Food Manufacturing	Food Manufacturing
Accommodation and Food Services	Wood Manufacturing
Wood Manufacturing	Accommodation and Food Services
	Agriculture, Forestry, Fishing, and Hunting

CITY OF FOREST GROVE TARGET INDUSTRIES

The preceding analysis of industry strengths and regional priorities provided a foundation for the discussion of local target industries for the City of Forest Grove. Through the EOA planning process, the city's Economic Development Commission reviewed the economic goals, priorities, and target industries from the prior adopted plans, and agreed upon the following list of priority sectors to help meet the community's economic development goals.

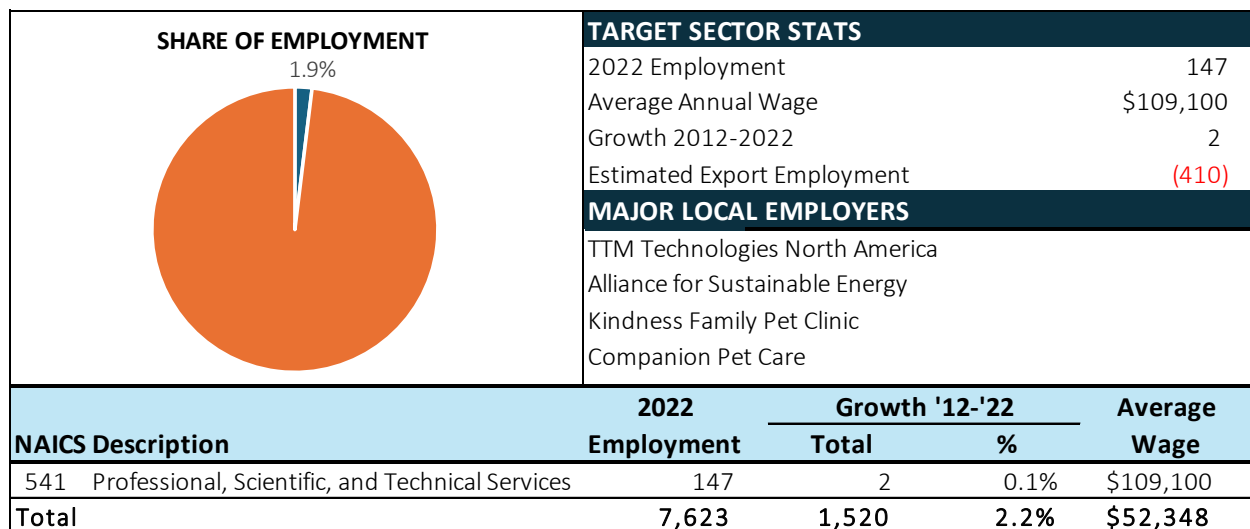
The selected industries reflect the community's historical strengths and advantages, regional trends, and local goals and objectives. These are discussed in more detail in the following pages:

- Professional, Scientific, and Technical Services
- Information
- Health Care and Social Services
- Technology
- Education
- Food Manufacturing
- Wood Manufacturing
- Metal Manufacturing

Note: The following discussion of target sectors relies on the most recent QCEW data from the Oregon Employment Department, dating to 2022.

A. PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES

Professional, scientific, and technical services are not well represented in Forest Grove. This sector has poor location quotient and shift share indicators, with the sector only employing 1.9% of the local population. TTM Technologies North American provide a lot of the jobs in this industry, as well as the metal manufacturing industry. The majority of these jobs from companies providing one to four jobs. The trends in working from home could be a major benefit to this industry. Since the pandemic, work from home jobs have skyrocketed, leading to more people moving away from the city where they can live a quieter life in a more inexpensive living area. As a city that is small but still close in proximity to Portland, Forest Grove has the potential to be attractive to some of these higher-earning individuals.



Professional, scientific, and technical services has a very high average income, at \$109,100. The covered employment level in this sector was 147 in 2022, representing roughly 1.9% of the local employment base. Employment levels in the sector increased by only two people from 2012 through 2022.

Cluster Strengths

- High wages.
- Promising wave of people working from home.

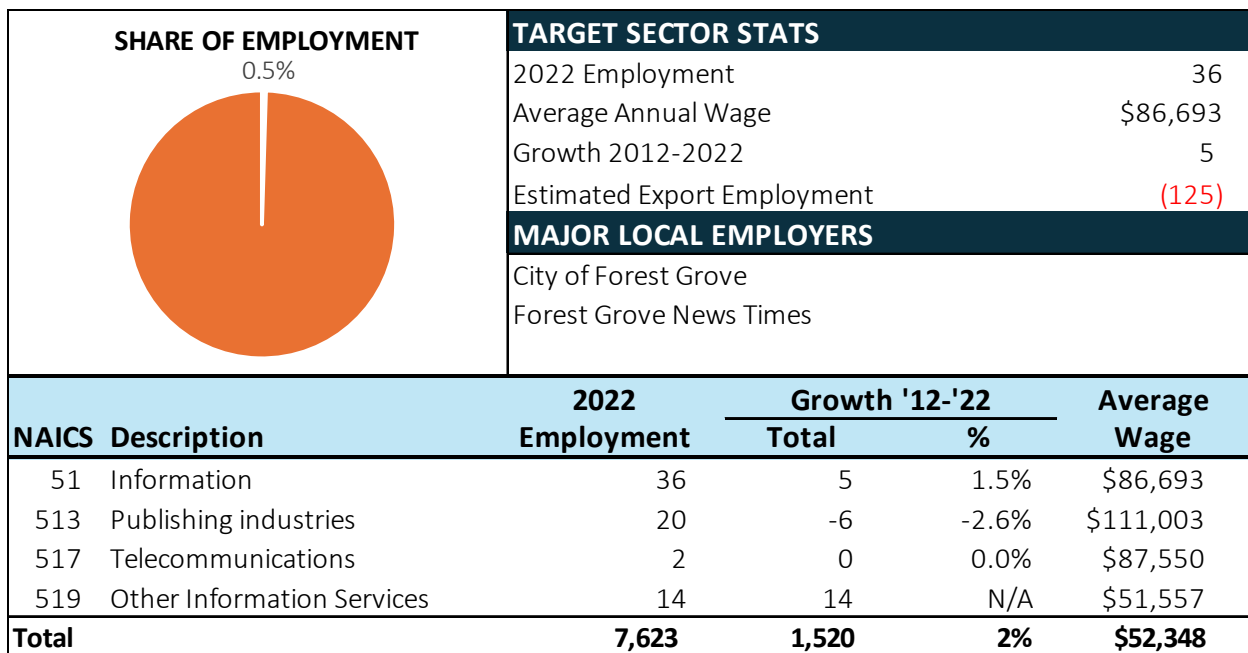
Cluster Challenges

- Very little realized growth.



B. INFORMATION

The Information sector is small and with a small location quotient and negative export employment. The City of Forest Grove and the Forest Grove News Times were the only two significant employers with more than two employees. The overall employment level in this sector was very low, however Forest Grove has the potential to attract a large information center project. An information center like this is unlikely to bring many jobs, but it could provide significant fiscal benefits to the city in terms of taxes and fees without increasing traffic or home prices.



The employment level of the information industry was only 36 in 2022, making up 0.5% of the total employment. The average annual wage was approximately \$86,693 per year in 2022, significantly higher than average. Employment levels in the sector increased by 16% from 2012 through 2022. The key prospects in this sector are data centers, which have seen aggressive expansion nationwide over the last several years.

Cluster Strengths

- High paying jobs.
- Potential to bring in a large information center.
- Can bring the city income by form of energy usage.
- Proximity to high-tech manufacturing and biotechnology firms.
- Low seismic threat relative to other West Coast markets
- Access to subsea cables, reducing latency to high value Asia-Pacific markets.



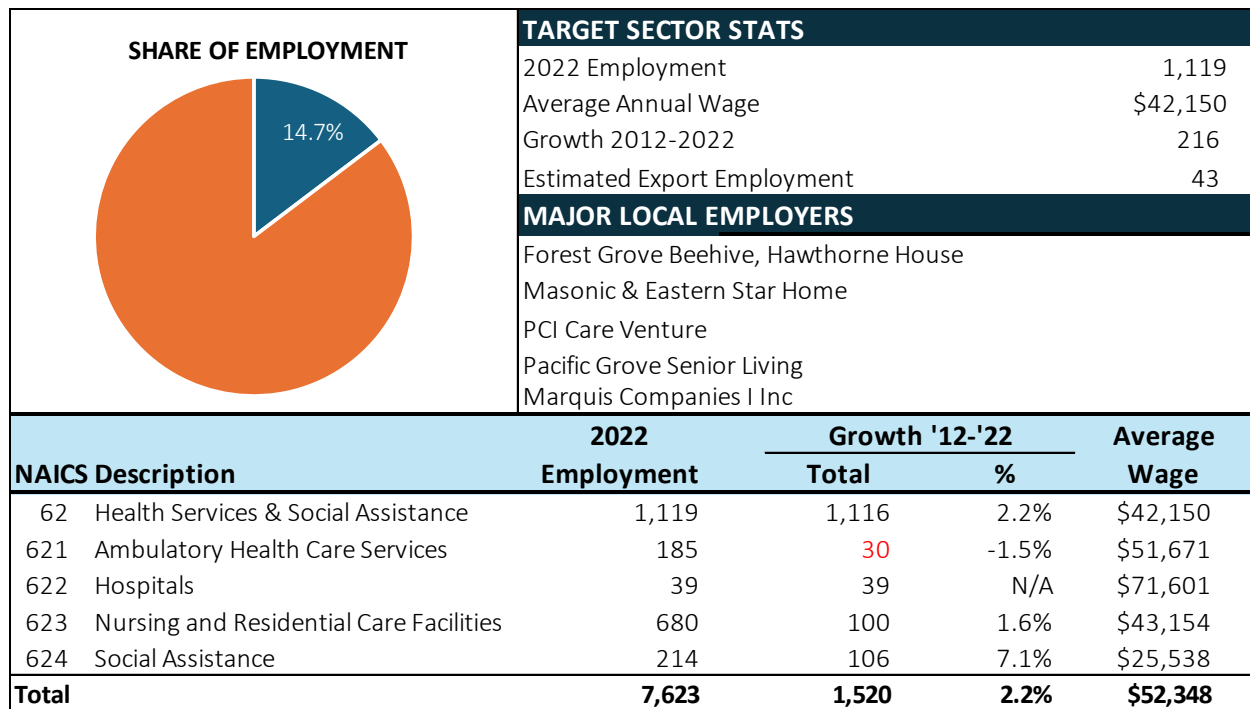
Cluster Challenges

- Low employment densities
- High electrical needs and limited availability
- Potential significant water needs

The information industry, particularly data centers, has a very high level of anticipated growth, but the availability of power will limit the city's ability to accommodate growth in this sector. While the City of Forest Grove manages its own electrical utility, it does not generate its own power and relies upon the Bonneville Power Administration (BPA) for supply. The availability of electricity and transmission line capacity represent significant limiting factors in the ability of the jurisdiction to attract and serve large scale data centers in the future. The city has requested additional power allocation from BPA, but it will be five to seven years at a minimum before any is available.

C. HEALTH CARE AND SOCIAL SERVICES

Like most communities, Forest Grove will increasingly face growing health care needs from a growing and aging population. The health care needs of the Baby Boom generation, the oldest of which are approaching 80 years old and the youngest approaching 60, are expected to increase the need for health care facilities and workforce over the next 20 years. Forest Grove can be an ideal location for retirees, furthering the need for stable healthcare facilities and jobs.



The overall employment level in this sector was 1,119 in 2022, representing just under 15% of the local employment base. The average annual wage was approximately \$42,150 per year in 2022, with an average wage range of \$26,117 for social workers and \$55,202 for ambulatory health care workers. Employment levels in the sector increased by 24% from 2012 to 2022.

Cluster Strengths

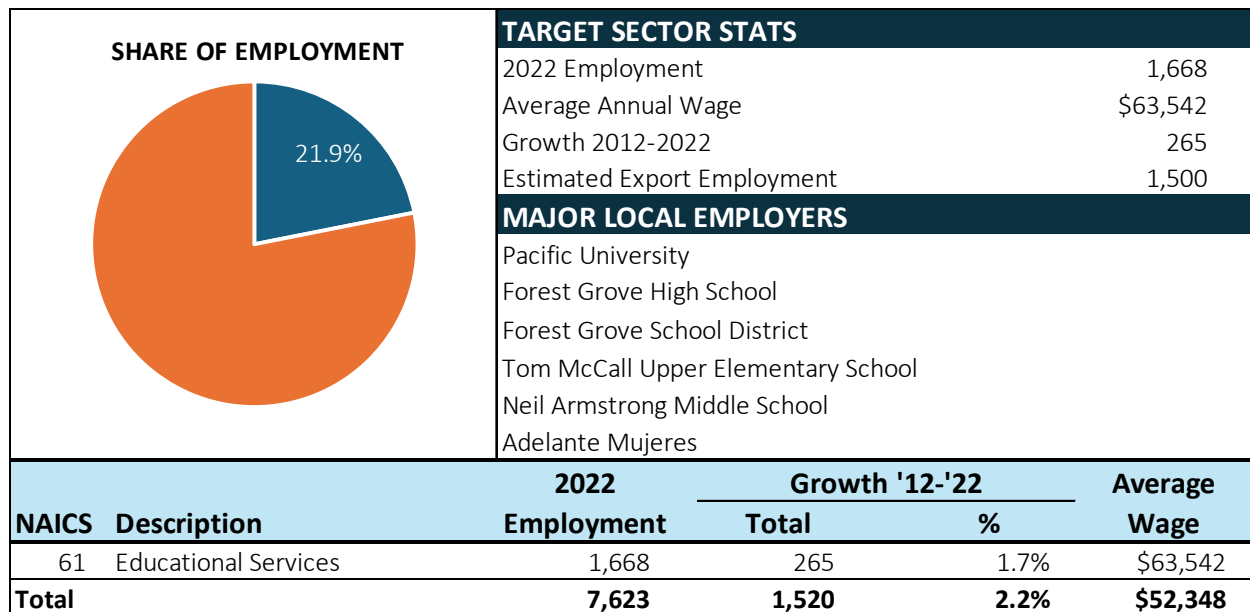
- Growing and aging population base.
- Low local competition for many specialties and more advanced healthcare for rural populations to the north, west, and south of the city.
- Ability to serve larger market of the far western Portland Metro suburbs.

Cluster Challenges

- Attracting a major medical group.
- Potential competition with Hillsboro/Portland Metro market.

D. EDUCATION

Education is one of the most well-represented industries in Forest Grove, with a location quotient of 9.94. A substantial portion of this employment is from Pacific University. Besides professors and other staff, Pacific University also brings in students who would otherwise not spend money in the area. Other major employers are from the public school system. The employment growth of this industry will generally rely on the growth of Pacific University and the youth population.



The overall employment level in this sector was 1,668 in 2022, representing roughly 22% of the local employment base. The average annual wage was \$63,542. Employment levels in the sector grew by roughly 19% from 2012 through 2022.

Cluster Strengths

- Presence of Pacific University.
- Students at the University spend money in Forest Grove.
- Well-paid employees.

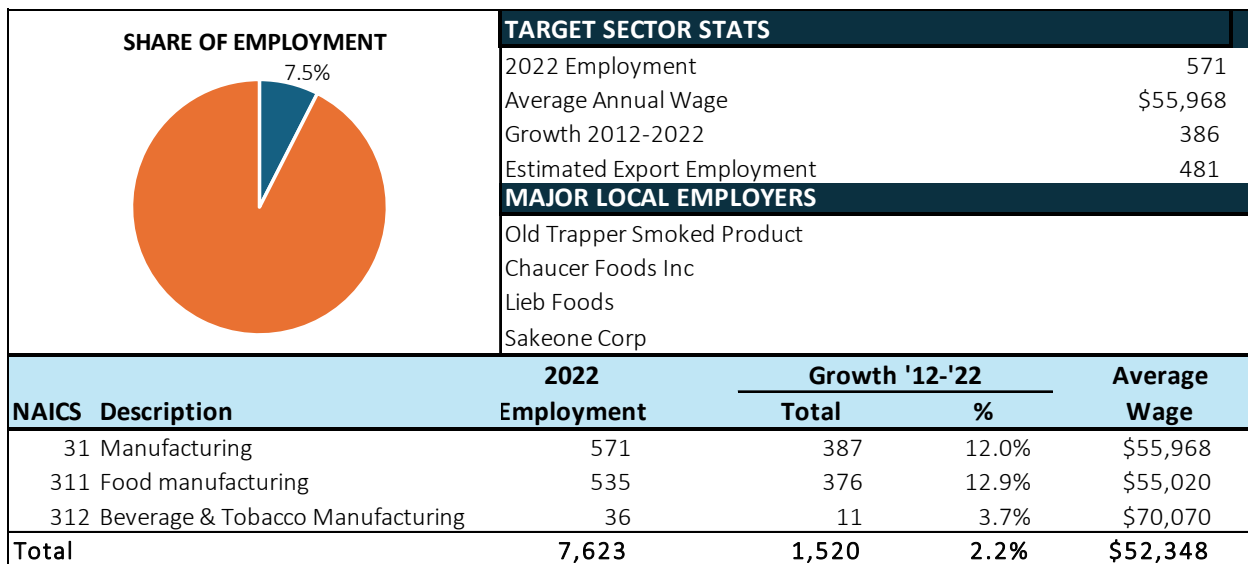
Cluster Challenges

- Reliance on Pacific University for growth.



E. FOOD MANUFACTURING

The food manufacturing industry is much more concentrated in Forest Grove compared to the nation, as shown by high location quotient and export employment numbers. The biggest employer by a significant margin is Old Trapper Smoked Products, followed by Chaucer Foods, Lieb Foods, and SakeOne Corp. Forest Grove's proximity to Portland provides the city a lot of potential for growth in the manufacturing sector, allowing manufacturing companies to quickly transport goods to a larger market while enjoying the friendlier rental prices of Forest Grove.



Cluster Strengths

- Very fast industry growth
- Proximity to agricultural production
- Above average wages.

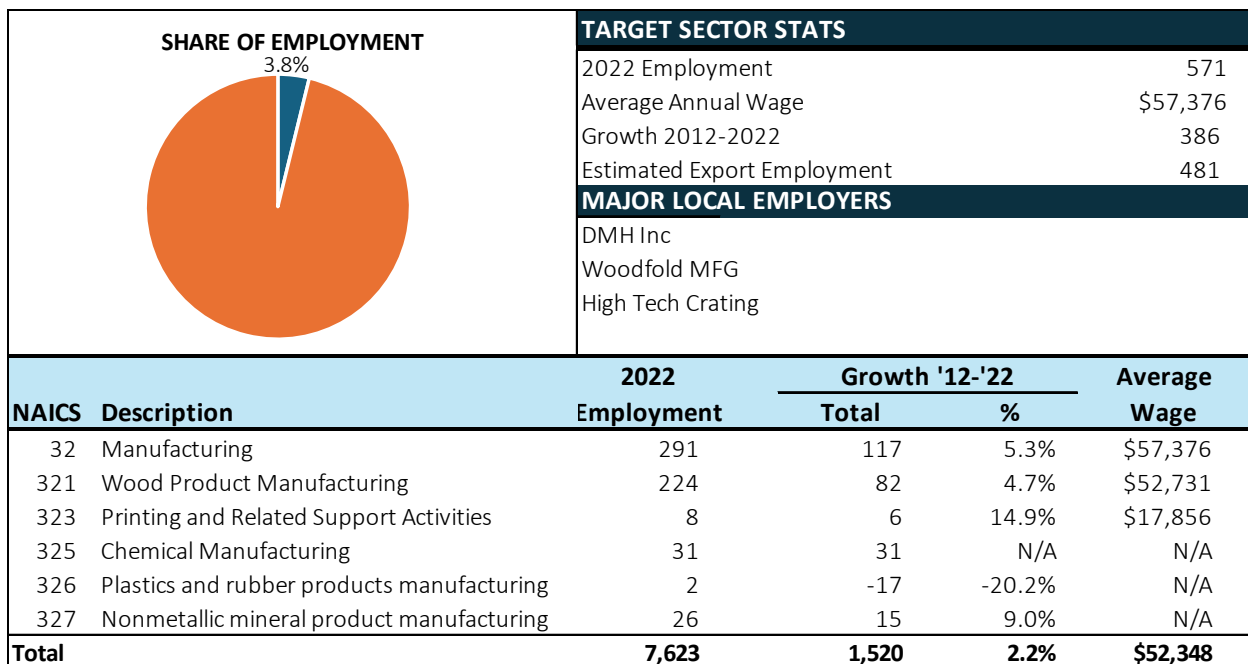
Cluster Challenges

- Other cities surrounding Portland have better access to the I-5 corridor.

The overall employment level in this sector was 571 in 2022, representing roughly 7.5% of the local employment base. The average annual wage was \$53,836 per year in 2022. Employment levels grew at an astonishing rate, increasing by 208.6% from 2012 to 2022.

F. WOOD MANUFACTURING

This sector features a high location quotient and shift share rating, indicating a larger than usual share of employment. The wood manufacturing has grown at a very fast rate, increasing employment by 67% from 2012 to 2022. A lot of this growth is due to DMH Inc, who has increased their employment by 130%, as well as MGC Pure Chemicals moving to Forest Grove in 2017. This industry greatly benefits from the presence of the timber industry in rural western Oregon.



Cluster Strengths

- Fast growing industry.
- Experienced labor force.
- Supported by the timber industry.
- Above average wages

Cluster Challenges

- Strong reliance on one company

The employment level in this sector was roughly 291 in 2022, representing roughly 3.8% of the local employment base. The average annual wage is higher than average at approximately \$57,376 per year in 2022.

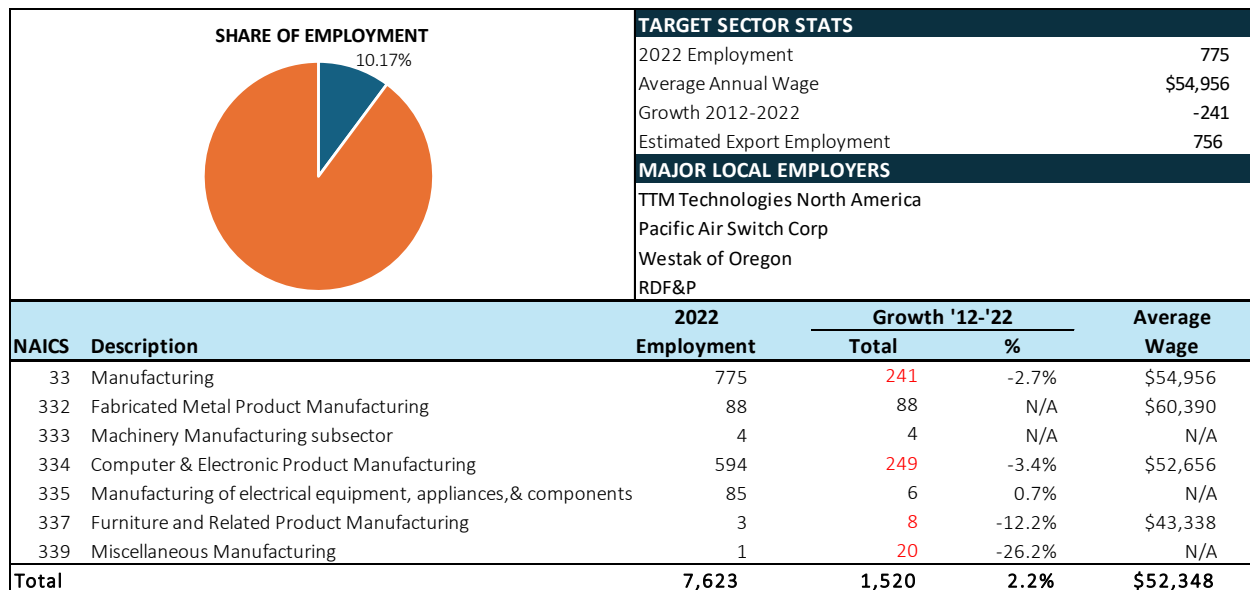
G. METAL MANUFACTURING

Metal manufacturing is one of the most strongly represented industry in Forest Grove when compared with the nation, having a location quotient of 1.95 and an estimated export employment of 377. The majority of these employees work for TTM Technologies, a global corporation whose Forest Grove location specializes in manufacturing circuit boards. Their 2014 acquisition of Viasystems Corporation decreased employment by just under 200 employees, but the large investment in the location provides some employment security. The presence of other chip processing factories and companies in the nearby area can provide an opportunity. Over the last 10 years, the metal manufacturing industry employment has decreased by roughly 24%.



Chip manufacturing can have huge benefits for other related industries, such as industrial gas manufacturing, electric power transmission & distribution, and facilities support services. Like all manufacturing, it also increases the need for warehousing and building the facilities increases construction and concrete manufacturing.

The City of Forest Grove is expected to see opportunities over the planning horizon in the technology sector. While the city is unlikely to capture a major chip manufacturing facility, proximity to the Silicon Forest concentration in Hillsboro will provide opportunities to capture related industries.



The overall employment level in this sector was roughly 775 in 2022, representing roughly 10.2% of the local employment base. The average annual wage is slightly above average in Forest Grove at approximately \$54,956 in 2022.

Cluster Strengths

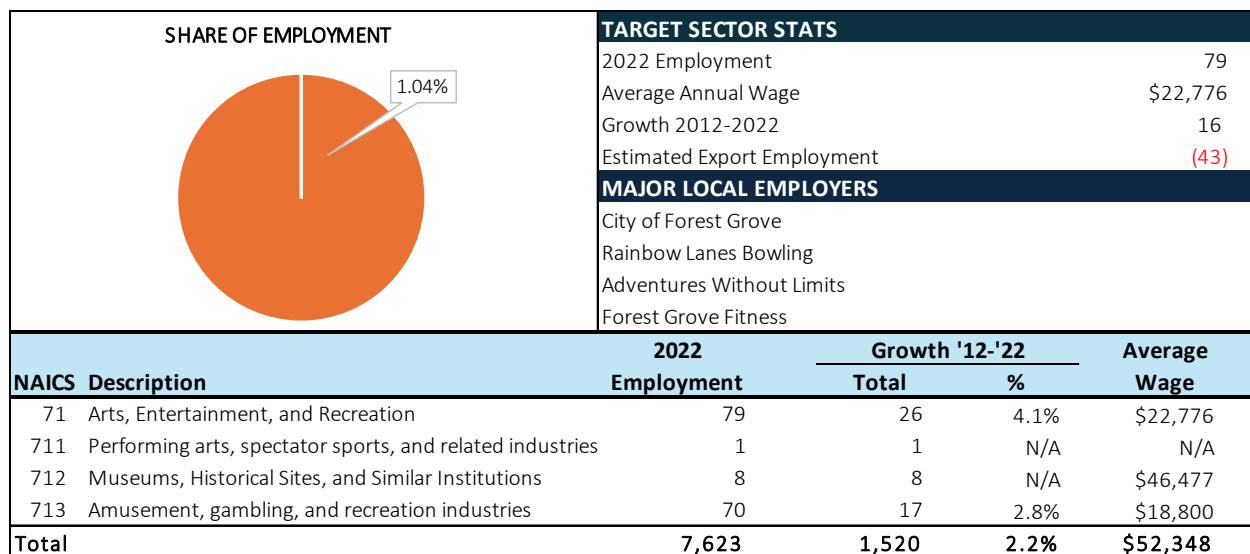
- Large companies anchoring the industry.
- Experienced labor force already living in the surrounding areas, Intel.
- Existence of established chip manufacturing companies in nearby areas gives Forest Grove potential to bring new companies to the city.
- Proximity to Oregon's largest high-tech manufacturing concentration.

Cluster Challenges

- Negative recent growth rate
- Limited supply of industrial land, specifically shovel-ready large parcels.
- Lack of direct transportation connections to the north Hillsboro employment area.

H. ARTS, ENTERTAINMENT, AND RECREATION

The arts, entertainment, and recreation industry has a low location quotient and negative export employment. The industry has grown at a relatively fast rate, averaging a 4.1% increase in employment every year since 2012. There is certainly potential for growth in this industry, especially in targeting the younger population attending Pacific University. Potential entertainment tenants that could fill this role are a pickle ball venue, arcades, or go karts. Creating more night life options such as bars, karaoke, or a comedy club is also a potential option.



Cluster Strengths

- Fast growing industry.
- Large population of potential young consumers due to Pacific University.

Cluster Challenges

- Low wages
- Little current employment

The employment level in this sector was roughly 79 in 2022, representing roughly 1.03% of the local employment base. The average annual wage is significantly lower than average at approximately \$22,776 per year in 2022.

VII. FORECAST OF EMPLOYMENT AND LAND NEED

CITY OF FOREST GROVE EMPLOYMENT FORECAST

Goal 9 requires that jurisdictions plan for a 20-year supply of commercial and industrial capacity. Because employment capacity is the physical space necessary to accommodate new workers in the production of goods and services, employment need forecasts typically begin with a forecast of employment growth in the community. The previous analysis of economic trends and targeted industries set the context for these estimates. This analysis translates those trends into estimates of employment growth by industry sector. Forecasts are produced at the sector or subsector level (depending on available information) and subsequently aggregated into two-digit North American Industry Classification System (NAICS) sectors. Estimates in this analysis are intended for long-range land planning purposes and are not designed to predict or reflect short-term business cycle fluctuation.

The projections in this analysis are built on an estimate of employment in 2024, the commencement year for the planning period. Employment growth will come as the result of net-expansion of existing businesses in the community, new business formation, or the relocation/recruitment of new firms. Forecast scenarios consider a range of factors influencing growth. Long-range forecasts typically rely on a macroeconomic context for growth. The forecast does not consider the impact of a significant exogenous shift in employment such as recruitment of an unforeseen major employer.

OVERVIEW OF EMPLOYMENT FORECAST METHODOLOGY

Our methodology starts with employment forecasts for major commercial and industrial sectors. Forecasted employment is allocated to building type, and a space demand is a function of the assumed square footage per employee ratio multiplied by projected change. The need for space is then converted into land and site needs based on assumed development densities using floor area ratios (FARs).

FIGURE 6.01: UPDATE TO 2024 BASELINE AND CONVERSION OF COVERED TO TOTAL EMPLOYMENT



The first analytical step of the analysis is to update covered employment to the 2024 base year. The Quarterly Census of Employment and Wages (QCEW) data was used to determine the City of Forest Grove's covered employment by industry through 2022, the latest year available. To update these estimates, we use observed industry specific growth rates for Washington County between 2022 and 2024.

The second step in the analysis is to convert “covered”⁴ employment to “total” employment. Covered employment only accounts for a share of overall employment in the economy. Specifically, it does not consider sole proprietors or commissioned workers. Covered employment was converted to total employment based on observed ratios at the national level derived from the Bureau of Economic Analysis from 2014 through 2021. The differential is the most significant in administration services, professional & technical services, and other services. The adjusted 2024 total employment base for the City of Forest Grove is 8,449 jobs.

FIGURE 6.02: UPDATE TO 2022 BASELINE AND CONVERSION OF COVERED TO TOTAL EMPLOYMENT, CITY OF FOREST GROVE (2022 – 2024)

Major Industry Sector	QCEW Employment			Total Emp. Conversion ²	2024 Estimate
	2022 Employment	'22-'24 County Δ ¹	2024 Estimate		
Agriculture	81	0.0%	81	38.5%	210
Construction	431	1.7%	438	77%	569
Manufacturing	1,637	-0.8%	1,624	98%	1,659
Wholesale Trade	110	3.8%	114	98%	116
Retail Trade	539	-1.7%	530	95%	558
T.W.U.	110	0.8%	111	91%	121
Information	36	-2.2%	35	95%	37
Finance & Insurance	114	-3.1%	110	91%	121
Real Estate	65	3.4%	67	91%	74
Professional & Technical Services	147	-2.1%	144	90%	161
Administration Services	245	1.9%	250	90%	279
Education	1,668	-1.1%	1,649	95%	1,735
Health Care & Social Assistance	1,119	11.2%	1,244	95%	1,309
Leisure & Hospitality	1,014	5.8%	1,073	95%	1,132
Other Services	189	6.3%	201	83%	243
Government	118	5.4%	124	100%	124
TOTAL	7,623	2.3%	7,796	92%	8,449

1/Growth rate calculated using CES data for the Portland-Vancouver-Hillsboro, OR-WA MSA

2/ Bureau of Economic Analysis

SCENARIO 1: BASELINE “SAFE HARBOR” FORECAST

The Goal 9 statute does not have a required method for employment forecasting. However, OAR 660-024-0040(9)(a) outlines several safe harbor methods, which are intended to provide jurisdictions with a methodological approach that will not be challenged. The recommended approach for the City of Forest Grove is 660-024-0040(9)(a)(A), which allows reliance on the most recent regional forecast published by the Oregon Employment Department.⁵ This method applies industry specific growth rates for the Workforce Region (Clackamas, Multnomah, and Washington counties) to the City of Forest Grove’s 2024 base employment. This method results in an average annual growth rate of 1.3%, with a total growth of 2,427 jobs over the forecast period.

⁴ The Department of Labor’s Quarterly Census of Employment and Wages (QCEW) tracks employment data through state employment departments. Employment in the QCEW survey is limited to firms with employees that are “covered” by unemployment insurance.

⁵ The second safe harbor method described under OAR 660-024-0040(9)(B) allows using the most recently forecasted population growth rate for the City from the PSU Population Research Center. The employment growth rate may be assumed to match the population growth rate. This option was reviewed by the Technical Advisory Group but ultimately declined.

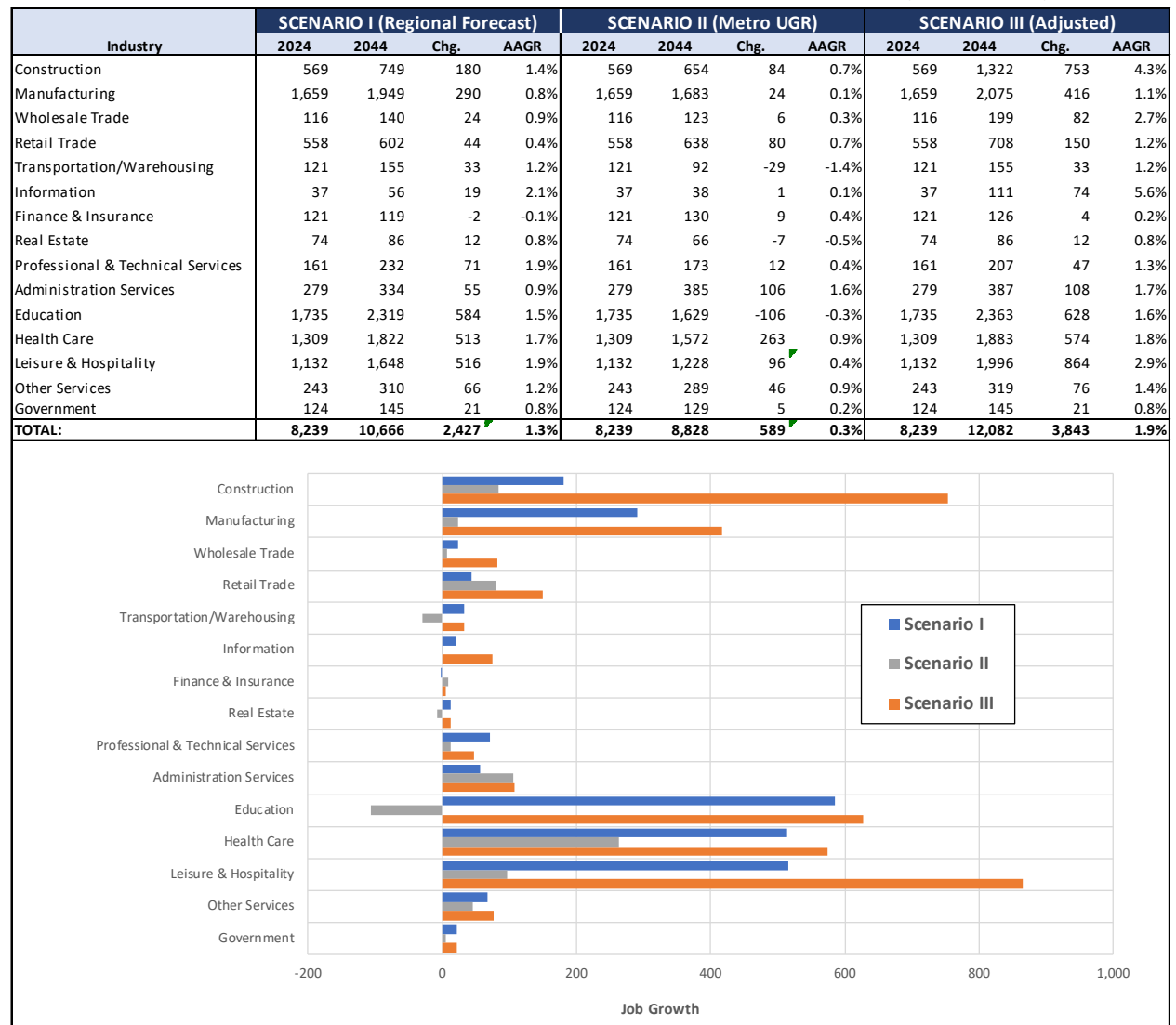
SCENARIO 2: METRO URBAN GROWTH REPORT

Metro's current draft Urban Growth Report (UGR) includes a regional forecast for the Portland metropolitan area. This forecast included projected growth by industrial sector for the region. This scenario applied the projected growth rates at the industry level to the City of Forest Grove's current employment base. The resulting average annual growth rate was a very modest 0.3%, reflecting a net gain of 589 jobs over the next twenty years.

SCENARIO 3: ADJUSTED EMPLOYMENT FORECAST

A third adjusted forecast scenario was informed by the research and analysis conducted in the EOA. This scenario formulates an employment growth trajectory based on identified trends, a more optimistic growth outlook for targeted industries, and input from the project technical advisory group. Further, the alternative scenario recognizes that economic development efforts and public policy can influence realized growth in targeted sectors. Under this scenario employment growth would be 3,843 over the period, reflecting a 1.9% average annual growth rate.

FIGURE 6.03: COMPARISON OF ALTERNATE FORECASTS, CITY OF FOREST GROVE (2024 - 2044)



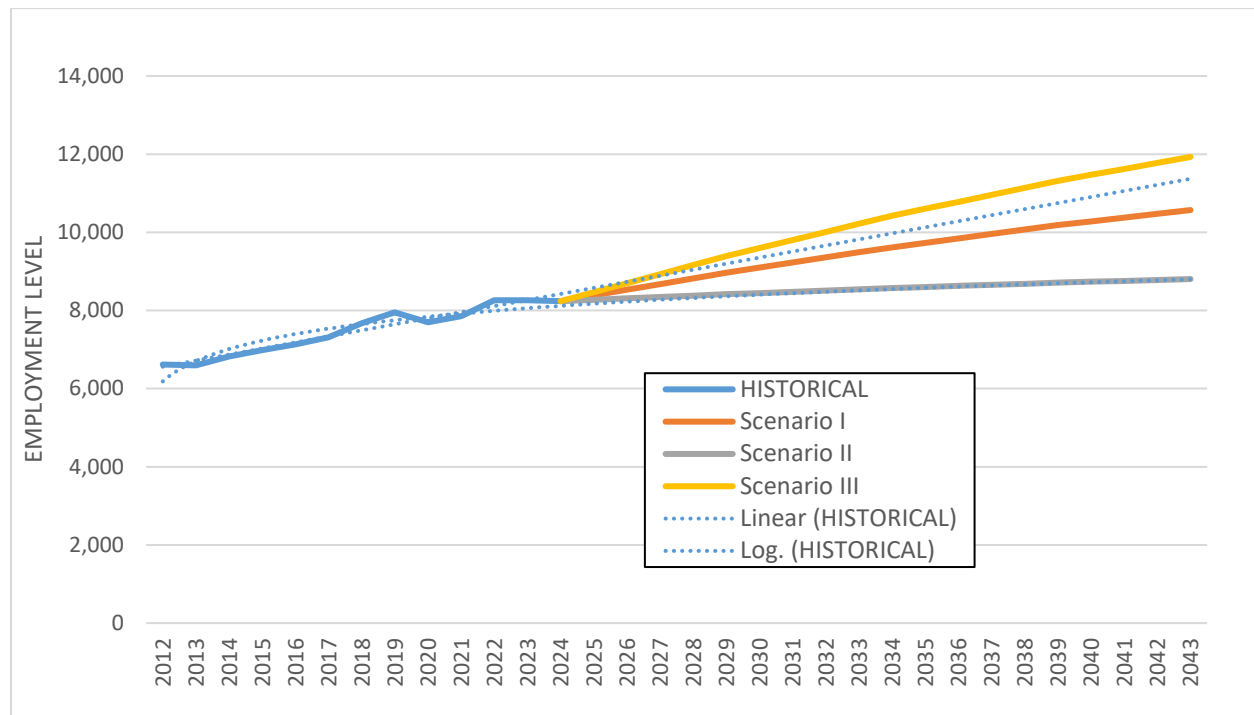
Source: Oregon Employment Department, Johnson Economics

The adjusted scenario considers the influence of known or anticipated development over the near- and medium-term horizon, and local economic development goals. The forecasted rate is consistent with the realized employment growth rate since 2010 of 1.9% per year, (source: Oregon Employment Department, QCEW data).

SUMMARY OF EMPLOYMENT FORECAST SCENARIOS

The three forecast scenarios in this analysis range from 0.3% to 1.9% average annual growth. Job growth estimates range from 589 to 3,786 jobs over the 20-year period. Forecasts grounded in broad based economic variables cannot account for all the realities of local businesses and trends among evolving industries. Any long-term forecast is inherently uncertain and should be updated on a regular basis to reflect more current information. This is particularly true in a smaller jurisdiction such as Forest Grove, in which a single large firm's location and/or operational decision may substantively impact on the rate of growth.

FIGURE 6.04: HISTORIC EMPLOYMENT GROWTH AND PROJECTION SCENARIOS, CITY OF FOREST GROVE



The forecasts were further broken into four five-year increments, assuming a declining rate of growth over the period. We would expect that a twenty-year forecast will include multiple business cycles, and that growth will be more variable than shown.

FIGURE 6.05: SUMMARY OF PROJECTION SCENARIOS, CITY OF FOREST GROVE

Industry	Overall Employment					Net Change by Period				Total 24-44
	2024	2029	2034	2039	2044	24-29	29-34	34-39	39-44	
SCENARIO I (Regional Forecast)	0									
Construction	569	623	672	714	749	54	48	42	36	180
Manufacturing	1,659	1,746	1,823	1,891	1,949	87	78	68	58	290
Wholesale Trade	116	124	130	136	140	7	6	6	5	24
Retail Trade	558	571	583	594	602	13	12	10	9	44
Transportation/Warehousing	121	131	140	148	155	10	9	8	7	33
Real Estate	74	77	81	83	86	4	3	3	2	12
Professional & Technical Services	161	182	201	218	232	21	19	17	14	71
Administration Services	279	295	310	323	334	17	15	13	11	55
Health Care	1,309	1,463	1,601	1,720	1,822	154	138	120	102	513
Leisure & Hospitality	1,132	1,287	1,425	1,545	1,648	155	138	120	102	516
Other Services	243	263	281	296	310	20	18	15	13	66
Government	124	131	136	141	145	6	6	5	4	21
TOTAL:	8,239	8,967	9,619	10,184	10,666	728	651	566	482	2,427
SCENARIO II (Metro UGR)	0									
Construction	569	595	617	637	654	25	23	20	17	84
Manufacturing	1,659	1,666	1,672	1,678	1,683	7	6	6	5	24
Wholesale Trade	116	118	120	122	123	2	2	2	1	6
Retail Trade	558	582	603	622	638	24	21	19	16	80
Transportation/Warehousing	121	113	105	98	92	-9	-8	-7	-6	-29
Real Estate	74	71	70	68	66	-2	-2	-2	-1	-7
Professional & Technical Services	161	164	168	171	173	4	3	3	2	12
Administration Services	279	311	339	364	385	32	29	25	21	106
Health Care	1,309	1,388	1,459	1,520	1,572	79	71	61	52	263
Leisure & Hospitality	1,132	1,161	1,187	1,209	1,228	29	26	22	19	96
Other Services	243	257	269	280	289	14	12	11	9	46
Government	124	126	127	128	129	1	1	1	1	5
TOTAL:	8,239	8,416	8,574	8,711	8,828	177	158	137	117	589
SCENARIO III (Adjusted)	0									
Construction	569	795	997	1,173	1,322	226	202	176	150	753
Manufacturing	1,659	1,784	1,895	1,992	2,075	125	112	97	83	416
Wholesale Trade	116	141	163	182	199	25	22	19	16	82
Retail Trade	558	603	643	678	708	45	40	35	30	150
Transportation/Warehousing	121	131	140	148	155	10	9	8	7	33
Real Estate	74	77	81	84	86	4	3	3	2	12
Professional & Technical Services	161	175	187	198	207	14	13	11	9	47
Administration Services	279	311	340	365	387	32	29	25	21	108
Health Care	1,309	1,481	1,635	1,769	1,883	172	154	134	114	574
Leisure & Hospitality	1,132	1,391	1,623	1,825	1,996	259	232	201	172	864
Other Services	243	266	286	304	319	23	20	18	15	76
Government	124	131	136	141	145	6	6	5	4	21
TOTAL:	8,239	9,392	10,423	11,319	12,082	1,153	1,031	896	763	3,843

Source: Johnson Economics

EMPLOYMENT LAND FORECAST

The next analytical step in our analysis is to convert projections of employment into forecasts of land demand over the planning period. The generally accepted methodology for this conversion begins by allocating employment by sector into a distribution of building typologies those economic activities typically use. As an example, insurance agents typically locate in traditional office space, often along commercial corridors. However, a percentage of these firms are also located in commercial retail space adjacent to retail anchors. Cross tabulating this distribution provides an estimate of employment in each typology.

The next step converts employment into space using estimates of the typical square footage exhibited within each typology. Adjusting for typical stabilized market vacancy we arrive at an estimate of total space demand for each building type. Finally, we can consider the physical characteristics of individual building types and the amount of land they typically require for development. The site utilization metric commonly used is referred to as a “floor area ratio” or FAR. For example, assume a 25,000-square foot general industrial building requires roughly a site of roughly 100k

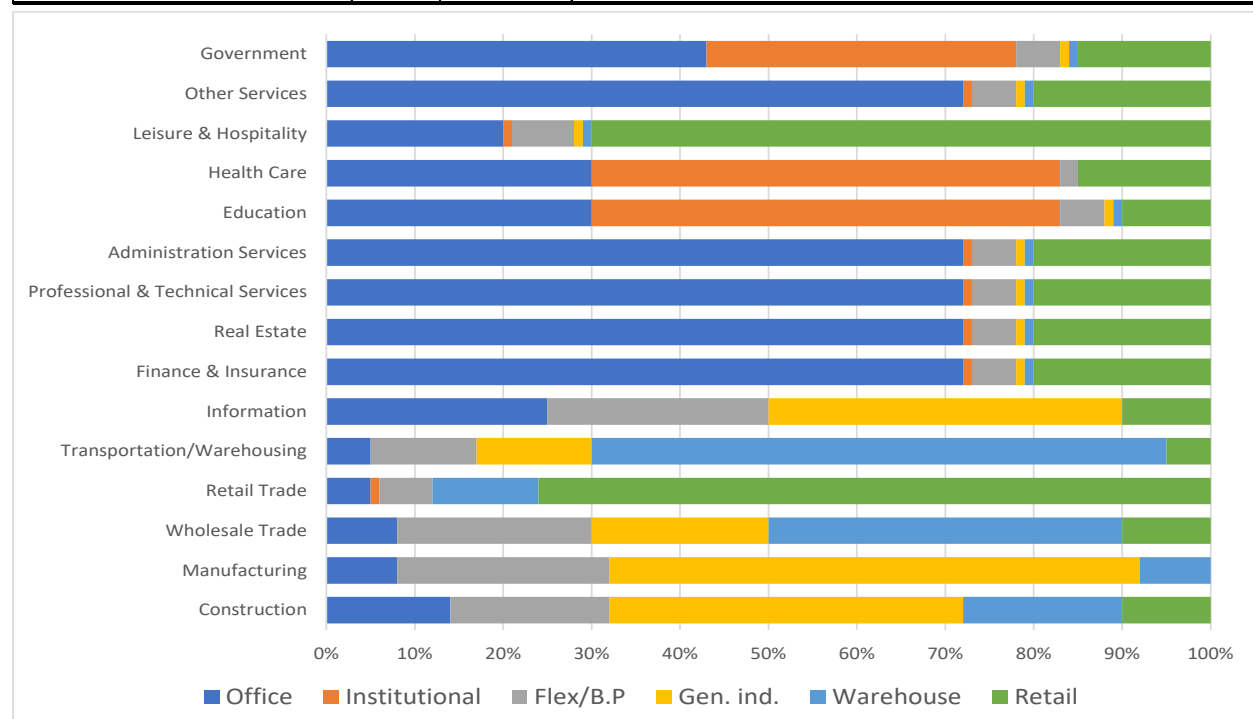
square feet to accommodate its structure, setbacks, parking, and necessary yard/storage space. This building would have a FAR of roughly 0.25. Demand for space is then converted to net acres using a standard floor area ratio FAR for each development form.

LAND DEMAND ANALYSIS – ADJUSTED FORECAST

In this analytical step we allocate employment growth to the standard building typologies. The building typology matrix represents the share of sectoral employment that is located across various building types.

FIGURE 6.05: DISTRIBUTION OF EMPLOYMENT BY SPACE TYPE, CITY OF FOREST GROVE (ADJUSTED FORECAST)

Industry Sector	20-year Job Forecast		BUILDING TYPE MATRIX					
	Number	AAGR	Office	Institutional	Flex/B.P	Gen. ind.	Warehouse	Retail
Construction	753	4.3%	14%	0%	18%	40%	18%	10%
Manufacturing	416	1.1%	8%	0%	24%	60%	8%	0%
Wholesale Trade	82	2.7%	8%	0%	22%	20%	40%	10%
Retail Trade	150	1.2%	5%	1%	6%	0%	12%	76%
Transportation/Warehousing	33	1.2%	5%	0%	12%	13%	65%	5%
Information	74	5.6%	25%	0%	25%	40%	0%	10%
Finance & Insurance	4	0.2%	72%	1%	5%	1%	1%	20%
Real Estate	12	0.8%	72%	1%	5%	1%	1%	20%
Professional & Technical Services	47	1.3%	72%	1%	5%	1%	1%	20%
Administration Services	108	1.7%	72%	1%	5%	1%	1%	20%
Education	628	1.6%	30%	53%	5%	1%	1%	10%
Health Care	574	1.8%	30%	53%	2%	0%	0%	15%
Leisure & Hospitality	864	2.9%	20%	1%	7%	1%	1%	70%
Other Services	76	1.4%	72%	1%	5%	1%	1%	20%
Government	21	0.8%	43%	35%	5%	1%	1%	15%
TOTAL	3,843	1.9%	23%	17%	10%	16%	7%	26%



Source: Johnson Economics

Under the employment forecast scenario, employment housed in retail space accounts for the greatest share of growth, followed by employment housed in office and institutional space. The combined employment forecast for commercially zoned space (~2,500 jobs) is greater than that forecast for industrially zoned space (~1,280 jobs).

FIGURE 6.06: NET GROWTH IN EMPLOYMENT BY BUILDING TYPE, CITY OF FOREST GROVE (ADJUSTED FORECAST)

Industry Sector	NET CHANGE IN EMPLOYMENT BY BUILDING TYPE - 2023-2043						Total
	Office	Institutional	Flex/B.P	Gen. Ind.	Warehouse	Retail	
Construction	105	0	136	301	136	75	753
Manufacturing	33	0	100	250	33	0	416
Wholesale Trade	7	0	18	16	33	8	82
Retail Trade	7	1	9	0	18	114	150
Transportation/Warehousing	2	0	4	4	22	2	33
Information	19	0	19	30	0	7	74
Finance & Insurance	3	0	0	0	0	1	4
Real Estate	9	0	1	0	0	2	12
Professional & Technical Services	34	0	2	0	0	9	47
Administration Services	78	1	5	1	1	22	108
Education	188	333	31	6	6	63	628
Health Care	172	304	11	0	0	86	574
Leisure & Hospitality	173	9	60	9	9	605	864
Other Services	55	1	4	1	1	15	76
Government	9	7	1	0	0	3	21
TOTAL	894	657	402	619	259	1,013	3,843

Source: Johnson Economics

Employment growth estimates by building type are then converted to demand for physical space. This conversion assumes the typical space needed per employee on average. This step also assumes a market average vacancy rate, acknowledging that equilibrium in real estate markets is not 0% vacancy. We assume a 10% vacancy rate for office, retail, and flex uses, as these forms have high rates of speculative multi-tenant usage. A 5% rate is used for general industrial and warehouses. These uses have higher rates of owner occupancy that lead to lower overall vacancy. Institutional uses are assumed to have no vacancy, as they are typically purpose-built for healthcare, nonprofit, government, or related users.

The demand for space is converted into an associated demand for acreage using an assumed Floor Area Ratio (FAR), based upon the observed FAR in existing commercial and industrial properties. The combined space and FAR assumptions further provide estimates indicated of job densities, determined on a net-developable acre basis.

FIGURE 6.08: NET ACRES REQUIRED BY BUILDING TYPOLOGY, CITY OF FOREST GROVE (ADJUSTED FORECAST) – 20-YEAR

	DEMAND BY GENERAL USE TYPOLOGY, 2023-2043						Total
	Office	Institutional	Flex/B.P	Gen. Ind.	Warehouse	Retail	
Employment Growth	894	657	402	619	259	1,013	3,843
Avg. SF Per Employee	350	600	990	600	1,850	500	640
Demand for Space (SF)	313,000	394,000	398,000	371,000	479,000	506,000	2,461,000
Floor Area Ratio (FAR)	0.35	0.35	0.30	0.30	0.30	0.25	
Market Vacancy	10.0%	0.0%	10.0%	5.0%	5.0%	10.0%	
Implied Density (Jobs/Acre)	28.0	18.2	11.9	20.7	6.7	15.7	16.4
Net Acres Required	31.9	36.2	33.8	29.9	38.6	64.5	235.0
Industrial Acreage	0.0	0.0	33.8	29.9	38.6	0.0	102.3
Commercial Acreage	31.9	36.2	0.0	0.0	0.0	64.5	132.6

Source: Johnson Economics

Commercial office and retail densities are 28 and 16 jobs per acre, respectively. Industrial uses range from 21 for general industrial to less than 7 jobs per acre for warehouse/distribution. The overall weighted employment density is 16.4 jobs per acre, with the projected 3,843-job expansion in the local employment base through 2044 requiring an estimated 235 net acres of employment land. An estimated 56% of this forecasted need is commercial land, and 44% industrial land.

VIII. RECONCILIATION OF EMPLOYMENT NEED AND INVENTORY

This section summarizes the demand for employment land as well as the current inventory of land zoned for employment uses.

SUMMARY OF LAND DEMAND (ACRES)

The estimate of future land need is represented below. A total need for 235 net acres was identified across a range of land use and building types under Scenario III, based on the adjusted growth forecast. The need under Scenario I was 140.4 acres, and only 32.3 under Scenario II.

FIGURE 7.1: SUMMARY OF FORECASTED 20-YEAR LAND NEED BY BUILDING TYPOLOGY

	DEMAND BY GENERAL USE TYPOLOGY, 2023-2043						Total
	Office	Institutional	Flex/B.P	Gen. Ind.	Warehouse	Retail	
SCENARIO I							
Net Acres Required	23.1	32.9	17.3	13.4	15.7	38.1	140.4
Industrial Acreage	0.0	0.0	17.3	13.4	15.7	0.0	46.3
Commercial Acreage	23.1	32.9	0.0	0.0	0.0	38.1	94.1
SCENARIO II							
Net Acres Required	7.3	4.9	3.3	2.3	1.8	12.6	32.3
Industrial Acreage	0.0	0.0	3.3	2.3	1.8	0.0	7.4
Commercial Acreage	7.3	4.9	0.0	0.0	0.0	12.6	24.8
SCENARIO III							
Net Acres Required	31.9	36.2	33.8	29.9	38.6	64.5	235.0
Industrial Acreage	0.0	0.0	33.8	29.9	38.6	0.0	102.3
Commercial Acreage	31.9	36.2	0.0	0.0	0.0	64.5	132.6

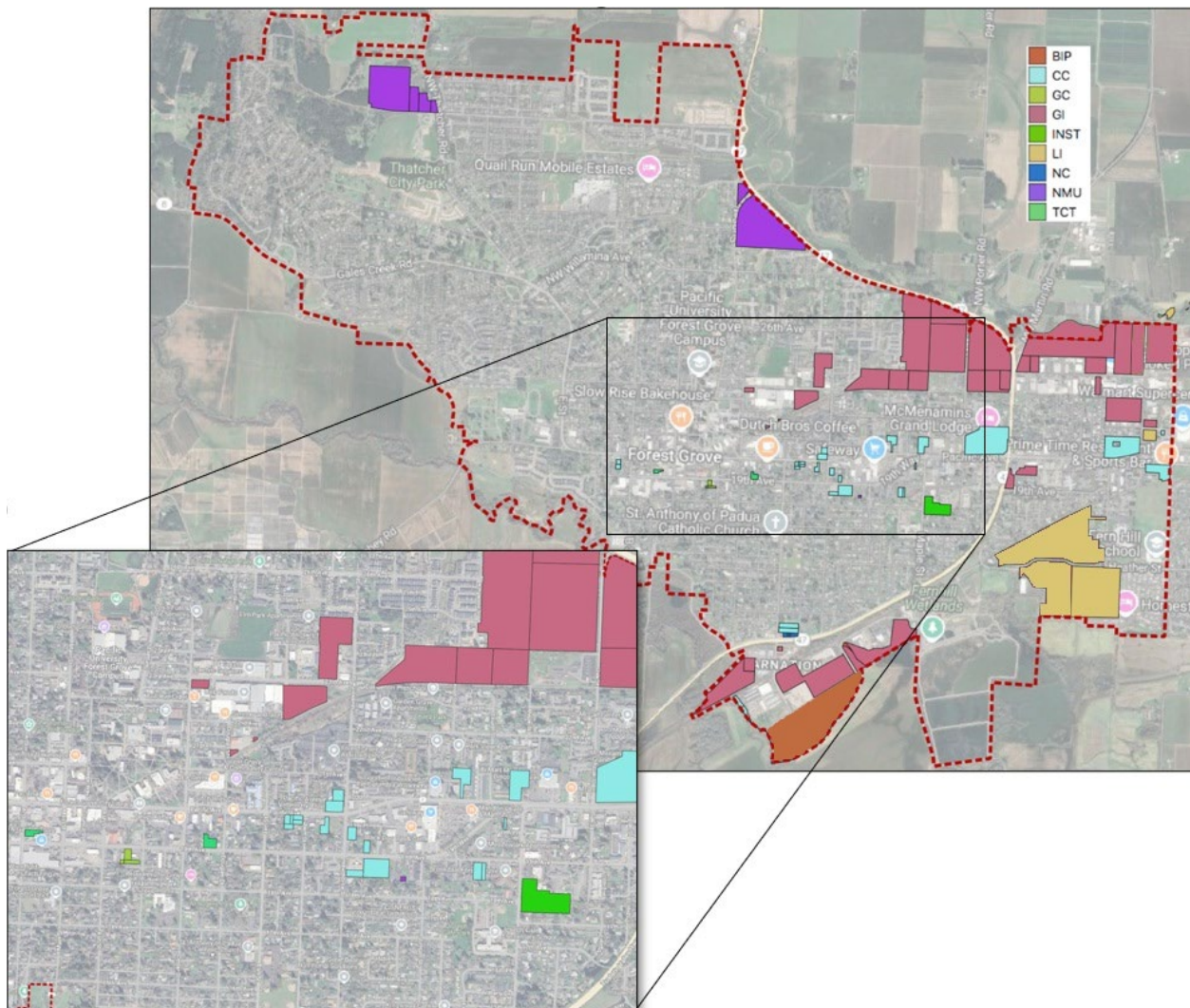
Source: Johnson Economics LLC

An estimated 35% of this forecasted need is industrial land (business park, general industrial, warehouse), and 65% commercial land (office, retail, institutional). There is a forecasted need for a total of 102 net acres of industrial land, and 133 net acres of commercial land.

SUMMARY OF LAND SUPPLY (ACRES)

To assess the remaining supply of buildable employment land suitable to accommodate the 20-year land need, an inventory of land with the proper zoning is required. For this analysis we rely upon the Buildable Lands Inventory maintained by Metro, which was adjusted to reflect local knowledge. The following map depicts Forest Grove’s fully and partially vacant employment land.

FIGURE 7.2: REDEVELOPABLE EMPLOYMENT LANDS BY ZONE, FOREST GROVE (2024)



Source: City of Forest Grove, Metro, JOHNSON ECONOMICS

Most of the city’s vacant employment parcels are made up of industrial-zoned parcels, specifically designated as “General Industrial” (GI). These zones are found along the peripheries to the northeast and southeast of the city’s boundaries. There is also a group of “Light Industrial” (LI) land to the very east of the city. There are also two sizable groups of “Neighborhood Mixed Use” (NMU) parcels in the north and northwest of the city. There are a few

“Community Commercial” (CC), “Institutional” (INT), and “General Commercial” (GC) parcels that are potentially redevelopable along 19th Ave and Pacific Way which are commercial hubs in the city. Overall, the most of the redevelopable employment lands are found towards the east of the city as the west side is made up of mostly residential land.

The following table details the number of parcels and total acreages based on zoning code in the City of Forest Grove. The following is a summary of the results on that inventory.

FIGURE 7.3: LAND INVENTORY BY ZONE, FOREST GROVE (2024)

		Vacant		Partially Vacant		Total	
		Sites	Acres	Sites	Acres	Sites	Acres
COMMERCIAL							
TCT	Town Center Transition	2	0.7	0	0.0	2	0.7
CC	Community Commercial	17	4.6	11	23.0	28	27.5
NC	Neighborhood Commercial	3	0.6	0	0.0	3	0.6
INST	Institutional	0	0.0	1	0.0	1	0.0
NMU	Neighborhood Mixed Use	4	29.6	3	3.3	7	32.9
Total Commercial		26	35.4	15	26.3	41	61.7
INDUSTRIAL							
BIP	Business Industrial Park	1	39.0	0	0.0	1	39.0
LI	Light Industrial	3	12.7	3	30.1	6	42.8
GI	General Industrial	14	68.6	18	139.1	32	207.8
Total Industrial		18	120.3	21	169.2	39	289.6
TOTAL		44	155.7	36	195.6	80	351.3

SOURCE: Metro BLI and Johnson Economics

As shown, there are an estimated 61.7 acres of buildable Commercial land and an estimated 351.3 acres of buildable Industrial land. The BLI filtered all zoned employment land in Forest Grove by Commercial or Industrial zoning category, environmental constraints that will limit development, and whether the parcel is already developed, vacant, or partially vacant. The inventory was vetted to address development projects in the pipeline and known limitations on specific sites that will prevent development on all or a portion of the site.

The BLI was also broken down by site size, which is summarized in the following table.

FIGURE 7.4: VACANCY AND PARTIALLY DEVELOPED PROPERTY, FOREST GROVE (2024)

	< 5		5-10		10-20		20-50		50+	
	Sites	Acres	Sites	Acres	Sites	Acres	Sites	Acres	Sites	Acres
COMMERCIAL										
Town Center Transition	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0
Community Commercial	26	12.5	2	15.1	0	0.0	0	0.0	0	0.0
Neighborhood Commercial	3	0.6	0	0.0	0	0.0	0	0.0	0	0.0
Institutional	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neighborhood Mixed Use	5	4.7	0	0.0	2	28.2	0	0.0	0	0.0
Total Commercial	37	18.4	2	15.1	2	28.2	0	0.0	0	0.0
INDUSTRIAL										
Business Industrial Park	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Light Industrial	3	3.7	1	5.9	1	10.2	1	23.0	0	0.0
General Industrial	19	35.4	6	44.3	6	97.7	1	30.4	0	0.0
Total Industrial	22	39.1	7	50.2	7	107.9	3	92.4	0	0.0
TOTAL	59	57.5	9	65.3	9	136.1	3	92.4	0	0.0

SOURCE: Metro BLI and Johnson Economics

COMPARING RECONCILIATION OF 20-YEAR LAND SUPPLY AND DEMAND

Comparing the Buildable Land Inventory (including known sites under development) to the 20-year forecast of employment land need indicates that the City of Forest Grove has adequate industrial land capacity but may face a shortage of commercial land. A summary of the comparison of land supply and demand is presented below.

FIGURE 7.5: RECONCILIATION OF NEED AND CAPACITY BY SCENARIO

	BLI ACRES	DEMAND BY SCENARIO			NEED BY SCENARIO		
		I	II	III	I	II	III
COMMERCIAL	61.7	94.1	24.8	132.6	32.4	(36.9)	70.9
INDUSTRIAL	289.6	46.3	7.4	102.3	(243.2)	(282.1)	(187.3)
TOTAL	351.3	140.4	32.3	235.0	(210.9)	(319.0)	(116.3)

Source: Johnson Economics LLC

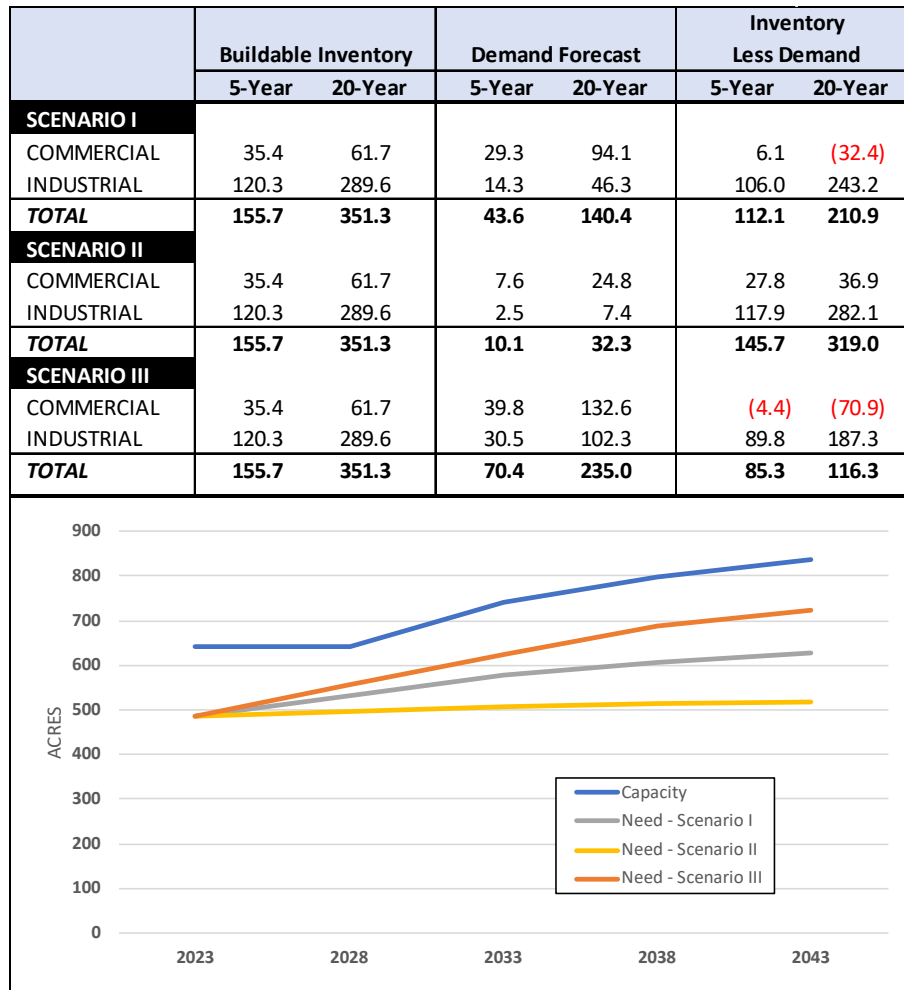
This analysis indicates that the City of Forest Grove faces a deficit of commercial capacity under Scenarios I & II over a twenty-year horizon. This is consistent with the rapidly expanding household base in the city and limited supply of land. The commercial capacity within the UGB is adequate to meet twenty-year needs under the slower growth Scenario II.

The industrial land supply in aggregate appears to be adequate to accommodate anticipated industrial land demand over the next twenty years under all three scenarios. The city has a limited inventory of larger sites, and this could limit the potential to attract and/or retain companies that will require these types of sites. Forest Grove's industrial inventory is highly reliant upon partially developed properties, which account for over 58% of industrial capacity.

It is important to note that some of the forecasted growth will include employers who may have specific site needs and preferences that are not reflected in the available buildable inventory. (See Appendix A for more details on site preferences for certain key industries.)

Some commercial demand is likely to be met on properties zoned for industrial uses, as many industrial developments include an office component. These sites tend to be poorly located for retail commercial uses, and as such are poor candidates to be rezoned to meet commercial needs.

FIGURE 7.6: RECONCILIATION OF LAND SUPPLY AND 20-YEAR DEMAND



Source: Johnson Economics LLC

The five-year buildable lands inventory in the preceding table reflects only vacant sites. It is assumed that partially vacant sites will be available to meet employment needs over a twenty-year period but may not be available to meet short-term needs.

IX. FINDINGS AND RECOMMENDATIONS

SUMMARY OF FINDINGS

The EOA report points to several key conclusions regarding economic development goals and target industries in Forest Grove over the next 20 years. It also quantifies projected employment growth and land need within the UGB, and the adequacy of the current supply of employment land to meet that need.

Employment Growth

Forest Grove is home to an estimated 8,449 jobs as of 2024. Based on a forecasted annual growth rate of 1.9%, the city is expected to add roughly 3,800 jobs by 2044. Employment growth over the next two decades is expected to include substantive growth in leisure and hospitality, construction, education, health care, manufacturing, and retail trade. The city's proximity and access to the broader Silicon Forest technology concentration is expected to drive future growth, while robust demographic growth is expected to drive future need for retail and other services. The education sector is expected to continue to represent a major component of the city's employment profile.

Expanding & Target Industries

The city has current advantages in several key industries including manufacturing, education, and a range of services. The following is a list of priority sectors to help meet the community's economic development goals. The selected industries reflect the community's historical strengths and advantages, regional trends, and local goals and objectives.

- | | |
|--|-----------------------|
| ▪ Professional, Scientific, and Technical Services | ▪ Education |
| ▪ Information | ▪ Food Manufacturing |
| ▪ Health Care and Social Services | ▪ Wood Manufacturing |
| | ▪ Metal Manufacturing |

Supporting growth in a range of industries will help the community build a more diverse and sustainable employment and tax base for the future and be more resilient to economic impacts on the traditional local industries.

Employment Land Need

The EOA analysis finds that the forecasted 20-year job growth by industry will translate to a need for 235 total net acres of land zoned for employment uses. The distribution of land demand between commercial uses (Office, Institutional, Retail) and industrial uses (Industrial, Warehouse, Business Park) leans towards commercial (57% vs. 43%).

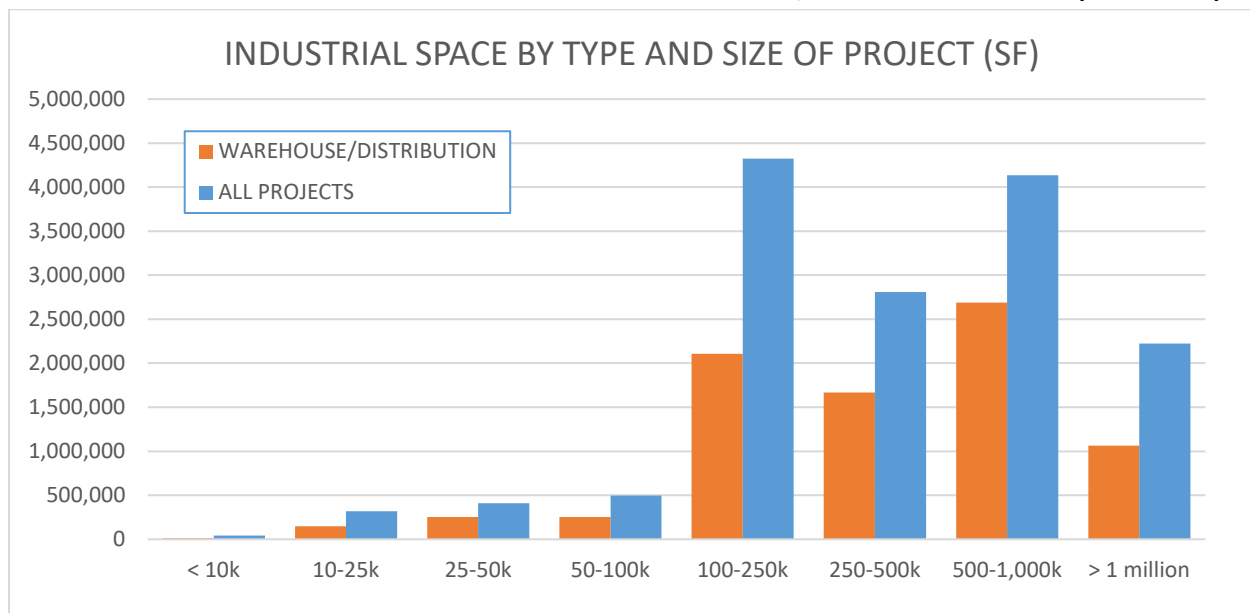
A range of site sizes will be needed, ranging from small to large to accommodate the projected business expansion. Different commercial and industrial users have different site requirements driven by the specific nature of their business operations, firm size, location and infrastructure requirements, and other factors. While the city appears to have an adequate developable inventory to meet its employment needs over the next twenty years in aggregate, it may lack sites meeting the requirements of specific employers.

Adequacy of Employment Land Supply

The Buildable Land Inventory (BLI) of employment lands completed in conjunction with the EOA found a total of 312.3 net buildable acres in Commercial and Industrial zones. This includes both vacant as well as partially vacant sites and was based on Metro's most current regional BLI reviewed and adjusted by city staff.

- The projected 20-year need for commercial land exceeds the available supply under Scenarios I and III, with an estimated 62 acres of commercial land remaining to meet a projected need for 133 acres under Scenario III. This indicates a deficit of 71 acres of commercial land.
- There is a projected supply of 289.6 acres of Industrial land to meet a projected need of 102 acres under Scenario III. This indicates an aggregate surplus of 148 acres of industrial land under the most aggressive of the forecast scenarios.
- The total estimated surplus of employment land ranges from 116 to 319 net acres, depending upon the scenario.
- It is important to recognize that aggregate site balance inherently understates needs, as the character of demand is not identical to supply.
- While the City of Forest Grove has adequate land capacity in aggregate, it currently has only two sites over 20-acres in size, and no sites over 50 acres. This could limit the city’s ability to attract and/or retain businesses that may require larger sites.
 - Over the last decade, demand for industrial space has been dominated by projects over 100,000 SF in size.
 - 62% of space demand in projects over 250,000 SF in size, reflects an approximately 35-acre site.
 - 28% of demand for sites 35-70 acres in size
 - 15% of demand for sites over 70 acres

FIGURE 8.01: INDUSTRIAL SPACE DEVELOPMENT PROFILE BY SIZE OF SITE, PORTLAND METRO AREA (2018-2024)



- It is important to note that some prospective employers may have specific site needs and preferences that are not reflected in the available buildable inventory. (See Appendix A for more details on site preferences for certain key industries.)

EOA IMPLEMENTATION RECOMMENDATIONS

This section discusses a range of strategies and/or action items that the city may consider that are consistent with the findings of this report. (Adoption of this report does not imply official commitment to any of these steps although some of these strategies may be incorporated in Comprehensive Plan policies in some form.)

PROVIDE AN ADEQUATE SUPPLY OF EMPLOYMENT LAND & SITES		
CORE INITIATIVE		
Actions		Notes
MEETING INDUSTRIAL AND COMMERCIAL LAND NEEDS		
1	Establish and maintain a competitive short-term and long-term supply of employment land, in readily developable sites.	The city should maintain an inventory of available employment land to meet the 20-year economic development needs of the community, including identifying sites of varying sizes that can be readily served with new infrastructure in the short-term. The City currently has an adequate capacity to meet employment needs, but it should evaluate options to increase commercial capacity.
2	Prioritize serving key industrial subareas and sites in the TSP and Capital Improvement Plan	Given limited public resources, ensure that all planning efforts reflect the prioritization and sequencing of infrastructure projects to serve key sites identified as providing capacity in the BLI.
3	Encourage infill, redevelopment, and/or adaptive reuse of obsolete or underused properties in current employment zones.	Some existing commercial and retail space in the Downtown area and along commercial corridors might be more intensively used, accommodating more job growth in existing employment areas. More intensive development and mixed-use construction often encounter a feasibility gap between costs and end value. Common approaches to bridging this gap include TIF funding, tax credit programs, tax incentives, and public/private partnerships.
4	Inventory properties that might be good opportunity sites for potential public/private catalyst projects.	Public control of a property by the City, TIF agency, or other public agency provides the public with a valuable incentive with which to forge a public/private deal that provides public benefits that a private development might not. Examples include incentivizing the developer to build at greater density, mixed uses, design elements, transit-oriented or other design elements, and other public goods.
5	Confirm the capacity in the BLI	Evaluate in greater detail the development readiness of the current site inventory in the BLI, including issues such as infrastructure availability, wetland and/or environmental restrictions, or brownfields.

POLICY AND CODE STRATEGIES		
6	Continuing to improve and streamline development regulations and review processes where possible, to reduce cost and time, and provide predictability.	The community and city work to be development and employer friendly.
7	Ensure that applicable Comp Plan designations and zoning allow the mix of uses sought in employment areas, and if necessary, limit those uses that do not contribute to goals.	Ensure that the desired zones are in place and permit the uses that are foreseen in the City's existing and future employment areas. Where current zoning does not match the vision, consider rezoning, or amending zone standards.
8	Review and update Development Code language to support the desired development types and patterns.	A review of code standards can reveal where the adopted standards for elements like building height, setbacks, floor-area-ratio, parking, etc. may be posing difficulties in achieving feasible development in the target industries. Some large commercial businesses and industrial users may benefit from more flexibility in site and building design to allow for creative design solutions and make projects more feasible.

TARGET INDUSTRIES AND BUSINESS DEVELOPMENT		
CORE INITIATIVE		
	Actions	Notes
SUPPORT AND EXPAND EMPLOYMENT IN TARGETED INDUSTRIES		
9	Adopt and regularly update target industry profiles.	Industry patterns can change significantly over time, and target industries should be assessed regularly. This may include shifts in the targeted industries and changes in site requirements for targeted industries.
10	Maintain and enhance business outreach and communication.	Coordinate business cluster and employment district networking opportunities. Participate in efforts of major regional economic development partners. Potential actions in support of this strategy include developing and updating marketing materials, attending industry trade shows, following up on referrals by partner organizations, publicizing the success of local businesses, and highlighting competitive advantages of the area for proposals.
11	Develop a marketing plan to attract businesses within the identified target industry business sectors.	Assemble and distribute materials of specific interest to targeted industries and identify key industry groups.
12	Support and engage regional and statewide partners.	Regularly meet and coordinate with groups such as the Westside Economic Alliance, Greater Portland Inc. (GPI), and Business Oregon. Promote available employment space and land.

13	Regularly update Oregon Prospector to promote available employment space and land to site selectors.	Business Oregon provides the Oregon Prospector tool which provides open, free data on available employment lands across the state, including both industrial and commercial properties. Ensure that all key sites are listed, and information is accurate and up to date.
14	Promote locally available tools: Enterprise Zone and Urban Renewal Grant Programs.	In all site listings and marketing materials, ensure that the benefits of the existing zones are mentioned where applicable.
SUPPORT SMALL BUSINESS DEVELOPMENT		
15	Develop and/or market programs to assist emerging and under-capitalized firms	Technical assistance, micro loans, storefront improvement programs, master leases, and credit enhancement. Refer businesses to partner agencies providing grants, training, and other programs.
16	Evaluate the development of incubator space or shared or collective space.	A shared work or incubator space, often affiliated with a college, economic development agency, or other agency, to provide space for small but promising companies to work and collaborate in a subsidized environment while they grow. These provide small spaces for professionals or craftsmen to work and share tools and knowledge, to incubate new businesses. This can also provide options for remote workers.
17	Connect small business opportunities with property owners.	The City can serve as a clearinghouse or matchmaker, matching business needs with local property owners. This could include food carts, which can serve as an incubator for future food service tenants. Consider using public land for food carts, artisan/craft fairs, or similar options that can support emerging businesses.
WORKFORCE INITIATIVES		
18	Support connections between local industry, K-12, PCC, and state education and training courses.	Help match training programs to employers, potentially coordinating internships, or regular interaction with local businesses. Ensure that these programs address target industries and stay up to speed on rapidly evolving industry norms and technology. Employers often report finding qualified workers to be a key challenge.
19	Promote workforce training resources.	Increase knowledge of existing resources for job seekers.
20	Ensure the housing policies allow for an appropriate mix of housing for the local workforce.	The community should strive to provide the full range of housing types and price points to meet the needs of the full workforce and encourage residents to both live and work in Forest Grove. This can include support for local affordable housing developers.
21	Prioritize childcare as a workforce readiness issue.	Childcare is a commonly identified need for working households. This topic is increasingly raised as an important part of attracting and maintaining an available workforce. Home-based childcare businesses are also usually a category of self-employment.

APPENDIX A: INDUSTRY SITE REQUIREMENTS

This section presents a series of tables that summarize key site requirements for a range of prospective tenant types.⁶ This is followed by further discussion of needs for some industry sectors relevant to the local market.

The 14 site requirements listed on the matrix provide a basis for establishing a profile of the physical and other site needs of the identified industry. The site requirements are intended to address the typical needs of each of the industry categories, and it is recognized that there will likely be unique or non-typical needs of a specific user that will need to be evaluated on a case-by-case basis.

The following describes a few general requirements that apply to *all* industry type categories under consideration and then an overview of the 14 site requirements listed on the matrix.

GENERAL REQUIREMENTS:

- The underlying zoning on the site must allow the use outright within the identified category. For example, no zone change, conditional use, and/or similar land use review is necessary. Many jurisdictions typically require a design or development review which is acceptable, since the timeframe for obtaining such design-related approvals will be addressed in the State's rating system.
- The site under consideration must be located geographically within a UGB.
- The site is not located within a 100-year floodplain as mapped by FEMA, although sites with approved FEMA map amendments (e.g., LOMA & LOMR) are acceptable.
- The net contiguous developable area (NCDA) of the site does not include hazardous contaminants as verified by a Level 1 Environmental Report, or a Level 2 Report that has received a No Further Action approval from DEQ; or existing wetlands or other natural features which are regulated at the State, Federal or local level; or federally endangered species.
- The NCDA does not contain any cultural or historical resources that have been identified for protection at the State, Federal or local level.
- The NCDA does not have mitigation plans that can be implemented in 180 days or less.

SITE REQUIREMENTS:

1. **Total Site Size:** The site size is taken to mean the size of the building footprint and includes buffers, setbacks, parking, mitigation, and expansion space.
2. **Competitive Slope:** Most industrial uses require relatively large building footprints that do not accommodate steps in floor slabs, and sloping topography will require extensive excavation and retaining systems that increase development cost over flat sites. The figures given are the preferred maximum average slope across the developable portion of the site, recognizing that sites with additional area outside the building, or developments with multiple building pads, generally will have lower slope earthwork costs than sites with limited space outside the building footprint.
3. **Trip Generation:** Sites are frequently limited by a jurisdiction to a specified total number of vehicle trips entering and exiting the site. This site requirement is an estimate of the minimum number of average daily trips per acre (based on the range of building coverage) that should be available for each of the industrial categories based on the Institute of Traffic Engineers (ITE) Manual-Ninth Edition. The following table lists

⁶ Business Oregon, Mackenzie.

the ITE codes used to estimate average trips for the industry profiles represented in the matrix.

4. **Miles to Interstate or Freight Route:** With few exceptions, access to major freeways or freight routes is critical for the movement of goods. This site requirement indicates the typical maximum distance, in miles, from the site to the freeway or highway access. The roadways/intersections between the site and freeway/highway must generally operate at a level of service 'D' or better in accordance with the Highway Capacity Manual methodologies and general engineering standards.
5. **Miles to Frequent Transit Service:** **Businesses** located walking distance (within one-quarter of a mile) to a bus stop that is serviced by a frequent bus line enjoy a competitive advantage over others that are more limited in transportation access options.⁷
6. **Railroad Access:** The need for access to railroad for the movement of goods within each industrial category is dependent upon individual users, so the site requirements are identified as either "Preferred," "Not Required," or "Avoid" in some cases where the presence of rail may be considered a deterrent to business.
7. **Proximity to Marine Port:** The need for access to a marine port for the movement of goods within each industrial category is dependent upon individual users.
8. **Proximity to International/Regional Airport:** The need for access to a regional airport for the movement of goods or business travel within each industrial category is dependent upon individual users.
9. **Availability of Water:** This requirement indicates the minimum sizes of domestic water and fire lines immediately available to the site. In certain rural cases, a comparable supply from an on-site water system (i.e., well or reservoir with available water rights) may be acceptable. In addition to lines sizes, preference for high-pressure water capabilities and average flow demand in gallons per day is specified for each industry type.
10. **Availability of Sanitary Sewer:** This requirement indicates the minimum size of public sanitary sewer service line immediately available to the site. In certain rural cases, an on-site subsurface system providing a comparable level of service may be acceptable. Sewer flow requirements were determined by calculating a percentage of the water flow for each industry type.
11. **Natural Gas:** This requirement indicates the minimum size natural gas line that is immediately available to the site. It is assumed that the pressure demand for all industry categories is 40-60 psi.
12. **Electricity:** This requirement indicates the minimum electrical demand readily available to each industry and where proximity to a substation and redundancy dependency rank on the continuum of less critical to more critical. Estimated demand is based on review of existing usage from local utility providers, referencing industrial NAICS codes for the various profiles.
13. **Telecommunications:** This requirement indicates whether the availability of telecommunication systems is readily available, and where major commercial capacity, route diversity and fiber optic lines rank on the continuum of less critical to more critical. All sites are assumed to have a T-1 line readily available.
14. **Special Considerations:** Notes on industry-specific factors.

⁷ We have defined "frequent bus line" as one with service occurring in no longer than 15 minute intervals.

CRITERIA		PROFILE	A	B	C	D	E	F	G	H	I	J
			Computer & Electronic Manufacturing (High-Tech R&D)	Software & Media	Multi-Tenant Office	Food Processing	Other Manufacturing	Life/Bioscience R&D Campus	Wholesaling	Retail	Data Center	Incubator
GENERAL REQUIREMENTS		Use is permitted outright, located in UGB or equivalent and outside flood plain; and site (NCDA) does not contain contaminants, wetlands, protected species, or cultural resources or has mitigation plan(s) that can be implemented in 180 days or less.										
PHYSICAL SITE												
1	TOTAL SITE SIZE*	Competitive Acreage**	5 - 100+	5 - 15	5 - 20	5 - 25+	5 - 50+	20 - 100+	10 - 100+	5 - 20	10 - 100+	5 - 25+
2	COMPETITIVE SLOPE:	Maximum Slope	0 - 5%	0 - 7%	0 - 7%	0 - 5%	0 - 5%	0 - 7%	0 - 3%	0 - 7%	0 - 7%	0 - 5%
TRANSPORTATION												
3	TRIP GENERATION:	Average Daily Trips per Acre	40 - 60	80 - 200 ₁	120 - 240 ₂	50 - 60	40 - 50	60 - 150	50 - 60 ₃	400 - 500 ₄	20 - 30	40 - 50
4	MILES TO INTERSTATE OR FREIGHT ROUTE:	Miles	w/in 10	w/in 5	w/in 5	w/in 30	w/in 20	w/in 5	w/in 5	w/in 5	w/in 30	N/A
5	MILES TO FREQUENT TRANSIT SERVICE (15 MIN OR LESS)	Miles	0.6	0.5	0.8	< 0.1	0.2	0.1	0.3	< 0.1	0.1	< 0.1
6	RAILROAD ACCESS:	Dependency	Preferred	Not Required	Not Required	Preferred	Preferred	Preferred	Preferred	Avoid	Avoid	N/A
7	PROXIMITY TO MARINE PORT:	Dependency	Preferred	Not Required	Not Required	Preferred	Preferred	Preferred	Preferred	Not Required	Not Required	N/A
8	PROXIMITY TO INTERNATIONAL/ REGIONAL AIRPORT:	Dependency	Competitive	Required	Preferred	Preferred	Preferred	Required	Not Required	Not Required	Competitive	N/A
		Distance (Miles)	This criteria cannot be met in Eastern Oregon									

PROFILE			A	B	C	D	E	F	G	H	I	J
			Computer & Electronic Manufacturing (High-Tech R&D)	Software & Media	Multi-Tenant Office	Food Processing	Other Manufacturing	Life/Bioscience R&D Campus	Wholesaling	Retail	Data Center	Incubator
CRITERIA												
9	UTILITIES											
	WATER:	Min. Line Size (Inches/Dmtr)	12" - 16"	6" - 8"	8" - 10"	12" - 16"	6" - 10"	8" - 12"	6" - 10"	8" - 12"	16"	4" - 8"
		Min. Fire Line Size (Inches/Dmtr)	12" - 18"	8" - 10"	8" - 12"	10" - 12"	8" - 10"	8" - 12"	8" - 10"	8" - 12"	10"-12"	6" (or alternate source)
		High Pressure Water Dependency	Required	Not Required	Not Required	Required	Not Required	Preferred	Not Required	Not Required	Required	Not Required
		Flow (Gallons per Day per Acre)	5,200	1,200	1,500	3,150	1,850	2,450	1,200	1,800 _s	50 - 200 [†]	1,200
10	SEWER:	Min. Service Line Size (Inches/Dmtr)	12" - 18"	6" - 8"	8" - 10"	10" - 12"	6" - 8"	10" - 12"	6" - 8"	6" - 10"	8" - 10"	4" - 6" (or on-site source)
		Flow (Gallons per Day per Acre)	4,700	1,000	2,000	2,600	1,700	2,000	1,000	1,500 _s	1,000 [‡]	1,000
11	NATURAL GAS:	Preferred Min. Service Line Size (Inches/Dmtr)	6"	4"	4"	4"	4"	6"	4"	4" - 6"	4"	N/A
		On Site	Competitive	Preferred	Competitive	Preferred	Competitive	Competitive	Preferred	Competitive	Preferred	Preferred
12	ELECTRICITY:	Minimum Service Demand	4 - 6 MW	1 - 2 MW	0.5 - 1 MW	2 - 6 MW	0.5 MW	2 - 6 MW	0.5 MW	0.5 - 1 MW	5 - 25 MW	1 MW
		Close Proximity to Substation	Competitive	Competitive	Preferred	Not Required	Preferred	Competitive	Not Required	Preferred	Required, could be on site	Not Required
		Redundancy Dependency	Preferred	Preferred	Preferred	Not Required	Not Required	Competitive	Not Required	Preferred	Required	Not Required
13	TELECOMMUNICATIONS:	Major Communications Dependency	Required	Required	Required	Preferred	Required	Required	Preferred	Required	Required	Preferred
		Route Diversity Dependency	Required	Required	Required	Not Required	Not Required	Required	Preferred	Preferred	Required	Not Required
		Fiber Optic Dependency	Required	Required	Required	Preferred	Preferred	Required	Competitive	Preferred	Required	Not Required

PROFILE		A	B	C	D	E	F	G	H	I	J
CRITERIA		Computer & Electronic Manufacturing (High-Tech R&D)	Software & Media	Multi-Tenant Office	Food Processing	Other Manufacturing	Life/Bioscience R&D Campus	Wholesaling	Retail	Data Center	Incubator
14	SPECIAL CONSIDERATIONS:	Acreage allotment includes expansion space (often an exercisable option). Very high utility demands in one or more areas common. Sensitive to vibration from nearby uses.	1: Research & Development @ 80 ADTs per acre on the low end, estimated 200 ADTs per acre for general office on the high end. Location specific.	2: Range represents FAR 0.25 - 0.5 of office uses Location to other cluster industries.	May require high volume/supply of water and sanitary sewer treatment. Often needs substantial storage/yard space for input storage. Onsite water pre-treatment needed in many instances.	Adequate distance from sensitive land uses (residential, parks) necessary. Moderate demand for water and sewer. Higher demand for electricity, gas, and telecom.	High diversity of facilities within business parks. R&D facilities benefit from close proximity to higher education facilities. Moderate demand on all infrastructure systems.	3: General warehousing rates	4: Based on discount warehouse @ 0.25 FAR 5: Dependent on use, i.e., brewery vs. restaurant Location to cluster industries.	Site size differs due to land cost and availability. Urban-area centers may require 10-20 acres, while E. Oregon centers will typically use larger sites. Also the trend is towards increasing site size as cloud storage needs continue to increase. Power delivery, water supply, and security are critical. Surrounding environment (vibration, air quality, etc.) is crucial. May require high volume/supply of water and sanitary sewer treatment.	Often established by municipalities and have symbiotic relationships with colleges and/or universities.

Terms:

More Critical ↑ Less Critical	'Required' factors are seen as mandatory in a vast majority of cases and have become industry standards.
	'Competitive' significantly increases marketability and is <i>highly recommended by Business Oregon</i> . May also be linked to financing in order to enhance the potential reuse of the asset in case of default.
	'Preferred' increases the feasibility of the subject property and its future reuse. Other factors may, however, prove more critical.
	'Not Required' does not apply for this industry and/or criteria.
	'Avoid' factors act as deterrents to businesses in these industries because of negative impacts.
*Total Site: Building footprint, including buffers, setbacks, parking, mitigation, and expansion space.	
**Competitive Acreage: Acreage that would meet the site selection requirements of the majority of industries in this sector.	
† Data Center Water Requirements: Water requirement is reported as gallons per MWh to more closely align with the Data Center industry standard reporting of Water Usage Effectiveness (WUE).	
‡ Data Center Sewer Requirements: Sewer requirement is reported as 200% of the domestic usage at the Data Center facility. Water and sewer requirements for Data Centers are highly variable based on new technologies and should be reviewed on a case-by-case basis for specific development requirements.	

Source: Business Oregon, Mackenzie

Planning Commission Findings and Recommendation 25-01
Recommend Adoption of Economic Opportunities Analysis Update
File Number 311-25-000002-PLNG

WHEREAS, Statewide Planning Goal 9 (Oregon Administrative Rules Section 660-009 et. seq.) implements direction from Oregon legislature that local comprehensive plans and land use regulations are updated and provide adequate opportunities for a variety of economic activities throughout the state; and

WHEREAS, Oregon Administrative Rules Section 660-009-0015 requires that cities review, and as necessary, amend their comprehensive plans to provide economic opportunities analyses describing national, state, regional, and local economic trends and comparing the demand for industrial and other employment uses to the existing supply of such land; and

WHEREAS, The City's Economic Opportunities Analysis was last updated and adopted on April 22, 2019; and

WHEREAS, The City has seen increased interest in industrial lands for data center needs not reflected in the 2019 EOA update; and

WHEREAS, The City desires to update the 2019 to reflect development trends affecting employment land needs; and

WHEREAS, The 2025 EOA updated was prepared in compliance with Statewide Planning Goal 9 and associated Oregon Administrative Rules and provides a sound basis for local land use decisions affecting the zoning and development of commercial and industrial lands; and

WHEREAS, the City desires to amend the Forest Grove Comprehensive Plan (Plan) to replace the EOA adopted in 2019 with the 2025 EOA update and include the 2025 EOA as a Plan appendix; and

WHEREAS, on January 17, 2025, the City provided notices to the Oregon Department of Land Conservation and Development (DLCD) and Metro of the City's desire to amend the Plan to incorporate the EOA update; and

WHEREAS, the notices provided to DLCD and Metro were provided more than 35-days prior to the Planning Commission's public hearing for the EOA update; and

WHEREAS, notice of the Planning Commission's public hearing on the EOA update was published in the Forest Grove News-Times on February 20 and February 27, 2025; and

WHEREAS, the Planning Commission held a duly noticed public hearing on March 3, 2025, to accept public comment on the 2025 EOA update and to consider recommending

City Council adopt an ordinance amending the Forest Grove Comprehensive Plan to include the 2025 EOA update.

NOW THEREFORE, the Planning Commission does hereby recommend City Council adopt an ordinance amending the 2014 Forest Grove Comprehensive Plan to incorporate the 2025 EOA update, making the following specific findings in support of this decision:

City of Forest Grove Comprehensive Plan Findings

- 1) The EOA update complies with the Forest Grove Comprehensive Plan Economic Development policies for the following reasons:

- A. Chapter 6: Economic Development Policy 1.3, states “Retain up to date information on available industrial and commercial sites and site attributes.”

Finding: The EOA update in Section VII, Figure 7.4 identifies the inventory of vacant and partially development properties by size for each of the City’s employment zones. EOA update Appendix A provides information on site preferences for certain key industry sectors. This information supports Policy 1.3 by providing up to date information on available industrial and commercial sites and site attributes.

- B. Chapter 6: Economic Development Policy 4.1, states: “Designate a total of between 160 and 300 acres of land on the Comprehensive Plan map to meet projected industrial demand over the next twenty-years.

Finding: The EOA update provides, in Section VII, a reconciliation of industrial land need and capacity for three growth scenarios for each of the City’s industrial land use designations. EOA update Figure 7.05 identifies that approximately 25 to 102 acres of land designated for industrial use is needed to meet projected industrial demand during the 20-year planning period covered by the EOA update. Figure 7.05 also indicates there is approximately 250 acres of land designated for industrial use in the City’s buildable land inventory. This information provides a basis for a revising Policy 4.1 and a subsequent Comprehensive Plan map amendment to reduce the amount of land designated for industrial use.

- C. Chapter 6: Economic Development Policy 5.1 states, “Designate a total of between 100 and 150 acres of land on the Comprehensive Plan map to accommodate the shopping needs of local residents, visitors and persons working in Forest Grove.”

Finding: The EOA update provides, in Section VII a reconciliation of commercial land need and capacity for three growth scenarios for each of the City’s commercial land use designations. EOA update Figure 7.05 identifies that approximately 7 to 133 acres of land designated for commercial use is

needed to meet projected commercial demand during the 20-year planning period covered by the EOA update. Figure 7.05 also indicates there is approximately 62 acres of land designated for commercial use on the City's Comprehensive Plan map. This information provides a basis for amending the Comprehensive Plan map to align the amount of land designated for commercial use with the EOA update growth scenarios.

- D. Chapter 6: Economic Development Policy 5.2 states, Retain a supply of small, medium and large scale retail sites necessary to meet projected twenty-year land needs."

Finding: The EOA update in Section VII on Figure 7.4, provides an inventory of vacant and partially developed sites in the City's buildable lands inventory by size and land use designation. Figure 7.4 shows there are 26 sites designated Community Commercial that are less than five acres in size, 2 site between 5 and 10 acres in size and no site 10 acres in size or larger. The information contained in Figure 7.4 indicates a potential need for large commercial sites greater than 10 acres in area. This finding provides a basis supporting a subsequent amendment to the City's Comprehensive Plan map to redesignate land from other designations, such as industrial, to a commercial land use designation.

Metro Regional Framework Plan Findings

The Metro Regional Framework Plan calls for a strong regional economy. The EOA update complies with the Metro Regional Framework Plan including promoting a strong regional economy for the following reasons:

- A. Metro Regional Framework Plan, Economic Vitality Policy 1.5.3, states "Ensure that all neighborhoods and all people have access to opportunity and share the benefits, as well as burdens, of economic and population growth in the region."

Finding: The EOA update, in Section V, identifies target industries to strengthen Forest Grove's local economy to ensure that residents have access to opportunity within the City and the Portland region. Target industries identified in the EOA update include high wage sectors including professional, scientific and technical services. The EOA update provides a basis for a local economic development strategy, consistent with the Metro Regional Framework Plan to develop a marketing plan to attract businesses within the target industry sectors identified in the EOA update.

Finding: The EOA update provides a basis for implementing workforce initiatives including training programs and resources for job seekers.

Metro Urban Growth Management Functional Plan Findings

Title 4 of the Metro Urban Growth Management Functional Plan (UGMFP) addresses industrial and other employment areas. As stated in the UGMFP §3.07.410, Title 4 seeks to provide and protect a supply of site for employment by limiting the types and scape of non-industrial uses in Regionally Significant Industrial Areas (RSIAS), Industrial and Employment Areas. Title 4 also seeks to provide the benefits of “clustering” to those industries that operate more productively and efficiently in proximity to one another than in dispersed locations.

Finding: The City of Forest Grove does not contain any lands designate by Metro as RSIAS.

Finding: The EOA update does not propose to amend the City’s Development Code to include non-industrial uses on lands designated for industrial or employment areas.

Finding: The EOA update does not propose to amend the City’s Development Code to preclude the clustering of industries that operate more productively and efficiently in proximity to one another than in dispersed locations.

Oregon Statewide Planning Goal 9 (Economic Development) / OAR 660-009 Findings

1) The EOA update complies with Oregon Administrative Rules (OAR) Section 660-009-0015 (Economic Opportunities Analysis) for the following reasons:

A. OAR Section 660-009-0015(1) requires a review of the national, state, regional, county and local economic trends including identification of major categories of industrial or other employment uses that could reasonably be expected to locate or expand in the planning area based on the economic trends.

Finding: EOA Section II provides an overview of employment, demographic, and workforce trends that are expected to influence economic conditions in the City of Forest Grove over a 20-year planning period. Section II provides the economic context for growth projections and includes a socioeconomic profile of Forest Grove. EOA Section II describes the rate of population growth in Forest Grove, employment and population distribution in Washington County, commuting trends, and local workforce characteristics.

Finding: EOA Sections III summarizes the City’s economic development potential based on location, transportation connectivity, labor market and quality of life.

Finding: EOA Section V provides an analysis of key industry types that could reasonably be expected to locate or expand in Forest Grove based on the economic trends described in EOA Section II and the City’s economic development potential described in EOA Section III. Based on the analysis contained in the EOA, industries that could reasonably be expected to locate in Forest Grove include education, metal manufacturing, food manufacturing, accommodation and food services, and wood manufacturing.

- B. OAR Section 660-009-0015(2) stipulates that the economic opportunities analysis must identify the number of sites by type reasonably expected to be needed to accommodate expected employment growth.

Finding: EOA Section VII identifies the number of sites by type reasonably expected to be needed to accommodate expected employment growth.

Finding: EOA Figure 7-3 identifies the employment land inventory by zone. Based on the inventory there are a total of 41 sites that are vacant or partially vacant zoned for commercial uses and 39 sites vacant or partially vacant zoned for industrial use. The inventory includes 61.7 acres of vacant or partially vacant land zoned for commercial use and 250.6 acres of vacant or partially vacant land zoned for industrial use.

Finding: EOA Figure 7-4 identifies the number vacant or partially vacant sites zoned commercial or industrial by size of parcel. Based on the inventory there are 37 vacant or partially vacant sites zoned commercial that are less than five acres, 2 sites that are 5 to 10 acres in size, 2 sites that are 10 to 20 acres in in size and no individual parcels that are 20 or more acres in size.

Finding: EOA Figure 7-4 identifies the number of vacant or partially vacant sites zoned industrial by size of parcel. Based on the inventory there are 23 vacant or partially vacant industrial sites less than five acres, 7 parcels that are 5 to 10 acres in size, 7 parcels that are 10 to 20 acres in size and 2 parcels that are 20 to 50 acres in size and no individual parcels 50 acres or larger in size.

Finding: The EOA indicates on page 41, that the City has a limited inventory of larger sites, and this could limit the potential to attract and/or retain companies that will require these types of sites.

Finding: The EOA on page 43 states that a range of parcel sizes will be needed ranging from small to large to accommodate projected business expansion. The EOA concluded that while the City appears to have an adequate site inventory to meet employment needs over the next twenty years in aggregate, the City may lack sites meeting the requirement of specific employers.

Finding: EOA Appendix A identifies industry site requirements for key industry sectors. This information provides a basis for determining if certain industries could locate in Fores Grove based on site characteristics in the City's buildable land inventory.

- C. OAR Section 660-009-0015(3) stipulates that comprehensive plans for all areas within urban growth boundaries must include an inventory of vacant and developed lands within the planning area designated for industrial or other employment use.

Finding: EOA Section VII summarizes the buildable land inventory (BLI) used to determine the amount of buildable land in major land use categories currently available in Forest Grove. The BLI describes site characteristics including site size and whether the site is vacant or has potential for redevelopment. The BLI identifies approximately 250.6 acres of vacant or partially vacant land for industrial uses in the City's planning area and 61.7 vacant or partially vacant land for commercial use.

Finding: EOA, Figure 7.06 shows a short-term (5-year) demand of 30.5 acres for acres of industrial land and 102.3 acres for long-term (20-year) demand based on the highest growth scenario of a forecasted annual growth rate of 1.9%. The baseline/safe harbor growth scenario allowed by OAR 660-based on the most recent regional forecast published by the Oregon Employment Department provides a forecasted annual growth rate of 1.3%.

Finding: EOA Figure 7.06 shows a short-term (5-year) demand of 39.8 acres of industrial land and a long-term (20-year) demand of 132.6 acres.

Finding: The EOA Figure 7.06 shows a long-term deficit of 70.9 acres of land for commercial use and a surplus of 148.3 acres of land for industrial use.

- D. OAR 660-009-0015(4) stipulates that economic opportunities analysis must estimate the types and amounts of industrial or other uses likely to occur in the planning area. The estimate must be based on information generated above and must consider the planning area's economic advantages and disadvantages.

Finding: EOA Section V provides a target industry analysis for Forest Grove. Target industries are shown on EOA Figure 5.01 and include educational services, health and social assistance, food product manufacturing, wood product manufacturing, metals manufacturing, information, and professional, scientific, and technical services. The analysis contained in Section V identifies industry strengths and challenges by sector.

Finding: The EOA Section III summarizes the City's economic advantages and disadvantages. Identified advantages include the City's proximity to the technology cluster concentrated in Hillsboro, transportation access via the Tualatin Valley Highway, and general quality of life. Disadvantages include distance to US Highway 26 (Sunset Highway) and characteristics of the labor force may not match the needs of certain businesses. As described on EOA page 8, Forest Grove has a smaller share of adults with higher education than Washington County or the state. In addition, the education level in Forest Grove points to a greater presence of blue-collar workforce compared to Washington County and the state as indicated on EOA page 9.

- E. Planning Commission selects Option 1, the safe harbor option, as the preferred growth scenario for land use decisions affecting the designation of land consistent with Oregon Administrative Rules Chapter 660-024-0040(9)(a). The Planning Commission selects Option 1 since the safe harbor option is based on the most recent employment forecast published by the Oregon Employment Department and is a methodological approach that will withstand challenge.

Conclusion: based on the findings identified above and those contained in the EOA update, the Planning Commission determines the EOA update satisfies the requirements of Statewide Planning Goal 9 and OAR 660-009-0015 pertaining to economic opportunity analyses.

Virginia Sanderson
Virginia Sanderson (Mar 5, 2025 17:20 PST)
Virginia "Ginny" Sanderson
Planning Commission, Chair

Mar 5, 2025
Date



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #:	
MEETING DATE:	
FINAL ACTION:	

CITY COUNCIL STAFF REPORT

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

MEETING DATE: *May 12, 2025*

PROJECT TEAM: *Bryan Pohl, CFM, Community Development Director
Daniel Riordan, Senior Planner*

SUBJECT TITLE: *Public Hearing on Ordinance 2025-02; Amending Forest Grove Development Code Articles 8 and 12 to Adopt Revised Floodplain Management Regulations and Definitions In Compliance With Federal Emergency Management Agency 2024 Flood Hazard Management Model Ordinance; File Number 311-25-000005-PLNG*

ACTION REQUESTED:

☒ Ordinance	☐ Order	☐ Resolution	☒ Motion	☐ Informational
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X all that apply

ISSUE STATEMENT: In 2009, several non-profit environmental groups filed a lawsuit against the Federal Emergency Management Agency (FEMA) arguing that FEMA violated the Endangered Species Act (ESA) by not consulting with the National Marine Fisheries Services (NMFS) about how the National Flood Insurance Program (NFIP) could jeopardize threatened species. FEMA resolved the lawsuit by formally consulting with NMFS to review the impact of the NFIP. In April 2016, NMFS issued a Biological Opinion (BiOp) that concludes that the NFIP in Oregon jeopardizes the survival of several threatened species. The BiOp contained a reasonable and prudent alternative (RPA) with recommendations from NMFS to FEMA on how to reduce the negative impacts of the NFIP on threatened species.

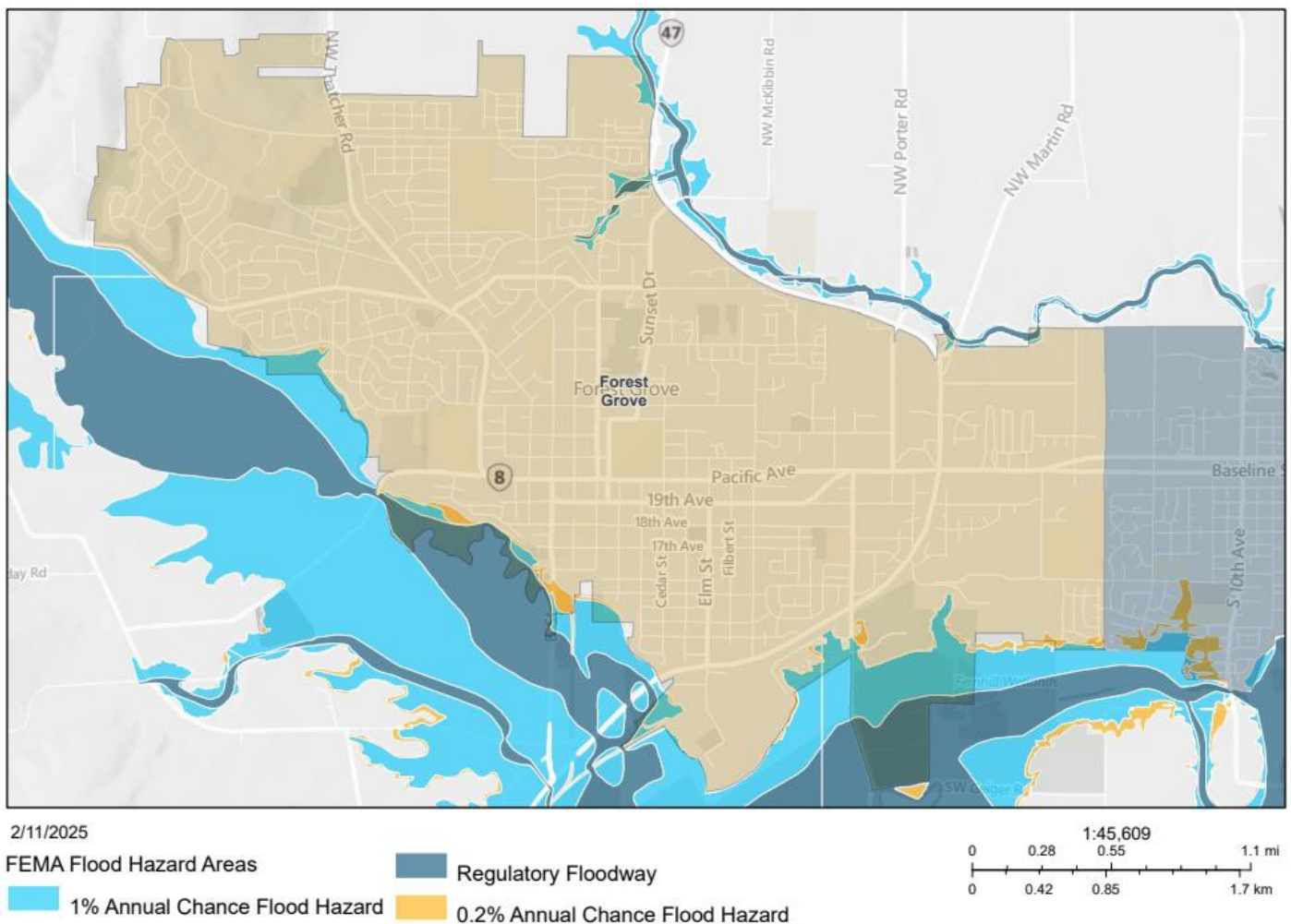
In 2023, FEMA initiated the draft implementation plan using a National Environmental Policy Act (NEPA) process which is still underway. In September 2023, environmental organizations filed a lawsuit alleging that FEMA has been too slow to implement the BiOp. As result FEMA announced a new program of pre-implementation compliance measures (PICMs) for the BiOp. Communities participating in the NFIP must implement one of three PICM options to demonstrate that floodplain development is compliant with the ESA in Special Flood Hazard Areas (SFHAs). The PICM options are summarized in this report.

If adopted by the City Council, the attached ordinance would amend the Forest Grove Development Code to implement the FEMA Model Floodplain Management Ordinance (Model

Ordinance). Adoption of the Model Ordinance would ensure continued local compliance with NFIP standards, and the City will avoid suspension from the NFIP. If the City is suspended from the NFIP no property owner or renter in the City will be able to purchase a flood insurance policy and existing flood insurance policies will not be renewed.

BACKGROUND: The City's Development Code has been amended several times to address evolving FEMA regulations for floodplain management and to ensure ongoing compliance with NFIP requirements. The most recent amendments occurred in 2016 and 2018. The 2016 amendments were based on a model code developed by the Oregon Department of Land Conservation and Development. The 2018 amendments were made in response to FEMA comments after review of the 2016 amendments.

The map below shows areas within Forest Grove subject to floodplain management requirements.



Although there is little developable land within the Forest Grove city limits within the floodplain the City must still select a PICM option to maintain NFIP eligibility. There are three PICM options available for implementation:

1. Prohibit all new development in the floodplain;
2. Adopt the Model Ordinance that considers impacts to fish habitat and requires mitigation to a no net loss standard defined in the Model Ordinance; or
3. Review individual development proposals and require permit-by-permit habitat mitigation to achieve a no net loss of floodplain function standard. Floodplain functions include floodwater storage, water quality, and vegetation.

Option 1: Option 1 is the most stringent approach. Under Option 1, all development in the floodplain is prohibited with limited exceptions. Permitted exceptions include habitat restoration projects and activities identified as exempt from the no net loss standard. Exempt activities must be specified at the time of implementation. Option 1 presents a risk of taking property for a public purpose depending on how much property is impacted by the floodplain.

Option 2: Option 2 is the staff recommended approach since it ensures compliance with the ESA and ensures continued City participation in the NFIP. Under Option 2, the City would not be required to go through a separate process to ensure ESA compliance. In addition, Option 2 establishes specific development standards in the Development Code for development review in advance of land use application submittal consistent with Oregon land use laws.

Option 3: Option 3 is an ad-hoc approach that does not meet requirements for clear and objective development standards applicable to residential development under Oregon land use laws. This is the least desirable option since this option creates potential for appeals of development decisions issued by the City. The City Attorney advised against this option.

Based on initial evaluation of the three PICM options, and after consultation with the City Attorney, Planning staff notified FEMA on November 25, 2024, that the City will proceed with implementation of Option 2, amending the City's Development Code to include the Model Ordinance. The City further notified FEMA on January 16, 2025, the City will implement the Model Ordinance, and the City is taking the steps necessary to do so. Until the Development Code amendments to implement the Model Ordinance are effective, the City will review each application for a floodplain permit in a manner consistent with the current Development Code and State of Oregon law. The Development Code amendments must be effective by July 1, 2025, to comply with FEMA deadlines.

DEVELOPMENT CODE AMENDMENTS OVERVIEW

FEMA prepared a guidance document for implementation of the FEMA Model Floodplain Management Ordinance. The guidance document is attached for reference (Attachment A) and provides the basis for the proposed Development Code amendments attached to Ordinance 2025-02 for City Council's review and adoption (Attachment B).

The proposed amendments include modifications to Development Code Article 8 (General

Development Standards) and Article 12 (Definitions). Specific modifications to the Development Code text are attached to Ordinance 2025-02 as Exhibit A. Text proposed for addition to the Development Code is underlined and text to delete is indicated by strike-out.

A summary of the proposed text amendments is provided below.

Proposed amendments to Development Code Article 12 (Definitions)

The FEMA Model Ordinance includes over 50 terms that are defined. Some terms related to floodplain management conflict with similar terms related to land use actions. If the ordinance is adopted by the City Council, the floodplain management definitions currently in Development Code Article 12 (Definitions) would be moved to Development Code Article 8 (General Development Standards) where the floodplain management development standards would be found.

Proposed amendments to Development Code Article 8 (General Development Standards)

Proposed amendment to Development Code Article 8 include:

- Updating the table of contents for Article 8 to reflect title modifications for consistency with the FEMA Model Ordinance and the addition of new sections.
- Development Code §17.8.315: Floodplain Management Code. This section includes introductory provisions consistent with the FEMA Model Ordinance such as the purpose of the floodplain management requirements.
- Development Code §17.8.320: Floodplain Management Definitions. This section adds the floodplain management related definitions with the floodplain management standards.
- Development Code §17.8.325: Floodplain Management Provisions. This section addresses the lands subject to the floodplain management code, the basis for establishing special flood hazard areas and compliance requirements.
- Development Code §17.8.330: Floodplain Management Administration. This section outlines local floodplain administrator duties and responsibilities including permit review and variance procedures. For Forest Grove the designated floodplain administrator is the Public Works and Engineering Director.
- Development Code §17.8.335: Provisions for Flood Hazard Reduction. This section establishes general development standards for development affecting special flood hazard areas and no net loss of floodplain function standards. Provisions for flood hazard reduction in the Development Code amendments include anchoring structures to prevent flotation, collapse or lateral movement; requiring that all new construction and substantial improvements be constructed using methods that minimize flood damage; or requiring that structures and electrical, heating, ventilation and other service facilities be raised above the base flood elevation.

- Development Code §17.8.340: Standards for Floodways. This section establishes development restrictions for areas designated as floodway. The floodway is the channel or watercourse and adjacent areas that must be reserved for discharging flood waters without increasing the water surface elevations above a designated height.
- Development Code §17.8.345: Standards for Shallow Flooding Areas. This section establishes standards for shallow flooding areas such as where base flood depths range from one to three feet above ground where a defined channel does not exist.
- Development Code §17.8.350: Standards for Protection of Special Flood Hazard Area Floodplain Functions. This section addresses the no net loss standard in detail and required mitigation of development impacts within the Special Flood Hazard Area (i.e. 100-year floodplain). Within the 100-year floodplain no net loss is required for development that reduces undeveloped space, increases impervious surface, or results in a loss of trees 6-inches in diameter or larger.

The Code amendment proposal specifies that no net loss can be achieved by:

1. Avoiding negative impacts to floodplain function;
2. Minimizing remaining impacts if avoidance isn't possible; or
3. Replacing and/or otherwise compensating for residual floodplain impacts.

The Development Code amendments also specifies that no net less must be provided within, in order of preference:

1. The lot or parcel where floodplain impacts will occur;
2. The same waterbody where the development is proposed; or
3. Within the same hydrologically connected area as the proposed development.

The required mitigation necessary to offset development impacts is specified in the Development Code amendments based on the development impacts and the preferences above. Mitigation is required at a ratio of 1:1 for impervious surface impacts, 2:1 for undeveloped space impacts, and 3:1 to 6:1 for impacts to trees depending on tree diameter.

Activities exempt for the no net loss requirements include:

- Normal maintenance of structures;
- Normal street, sidewalk, and road maintenance;
- Routine maintenance of landscaping not involving grading;
- Routine agriculture and tree management practices;
- Normal maintenance of above ground utilities;
- Normal maintenance of flood control facilities;
- Habitat restoration activities; and
- Pre-emptive removal of trees to manage the spread of invasive species.

DEVELOPMENT CODE TEXT AMENDMENT REVIEW CRITERIA

The review criteria for Development Code text amendments are found in Development Code §17.2.630 and include:

- A. The text amendment is consistent with the relevant goals and policies of the Forest Grove Comprehensive Plan; and
- B. The text amendment is consistent with the relevant statewide and regional planning goals, programs and rules.

Findings address the criteria above are attached to Ordinance 2025-02 as Exhibit B.

PLANNING COMMISSION REVIEW

The Planning Commission held a public hearing on the proposed Development Code text amendments on April 21st. Several people attended the public hearing in response to the mailed public hearing notice. Several attendees inquired about how the proposal may affect their property.

On April 21st the Planning Commission adopted a motion recommending City Council approval of an ordinance amending the Forest Grove Development Code to incorporate the FEMA Model Floodplain Management Ordinance.

STAFF RECOMMENDATION: Staff recommends that the City Council approve first reading of Ordinance 2025-02 on May 12th and continue the public hearing to May 27th for second reading and final ordinance adoption.

Adopting the ordinance on May 27th ensures that the Development Code amendments are effective by the FEMA compliance deadline of July 1, 2025.

ATTACHMENTS:

- A. FEMA Model Floodplain Management Ordinance Implementation Guidance Document
- B. Ordinance 2025-02



NFIP Oregon Implementation Program Guidance

Model Floodplain Management Ordinance

For Participating Communities in the
Implementation Plan Area

November 2024



FEMA

Federal Emergency Management Agency
Region X
Department of Homeland Security

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

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Acronyms and Abbreviations

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

SECTION 1. Introduction

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

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

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

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

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

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

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

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

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

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

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

1.1. How to Use this Document

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

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

1.1.1. ORDINANCE LANGUAGE LEGEND:

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

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

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

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

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

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

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

1.3. Community Rating System

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

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

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

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

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

- Compensatory storage requirements in floodways only or in V Zones only, or

- Stormwater management regulations that require a developer to compensate for any increase in runoff created by the development. This is credited under Activity 450.

- Activity 450 Stormwater Management

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

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

SECTION 2. Regulatory Crosswalk

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

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

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

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

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

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

SECTION 3. Model Ordinance Language

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

1.1 STATUTORY AUTHORIZATION

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

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

1.2 FINDINGS OF FACT

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

1.3 STATEMENT OF PURPOSE

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

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

- F. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in special flood hazard areas;
- G. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas so as to minimize blight areas caused by flooding;
- H. Notify potential buyers that the property is in a special flood hazard area;
- I. Notify those who occupy special flood hazard areas that they assume responsibility for their actions;
- J. Participate in and maintain eligibility for flood insurance and disaster relief.

1.4 METHODS OF REDUCING FLOOD LOSSES

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

- A. Restricting or prohibiting development which is dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that development vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage;
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.
- F. Employing a standard of "no net loss" of natural and beneficial floodplain functions.

2.0 DEFINITIONS

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

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

Area of shallow flooding: A designated Zone AO, AH, AR/AO or AR/AH on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel

does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of special flood hazard: The land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR (V, V1-30, VE). “Special flood hazard area” is synonymous in meaning and definition with the phrase “area of special flood hazard.”

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

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

Basement: Any area of the building having its floor subgrade (below ground level) on all sides.

Breakaway wall: A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Coastal high hazard area: An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

Development: Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

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

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

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

Flood or Flooding:

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

(3) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (a)(2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

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

Flood elevation study: an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Flood Insurance Rate Map (FIRM): The official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

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

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Also referred to as "Regulatory Floodway."

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

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

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

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

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

Historic structure: Any structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- (b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- (d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1) By an approved state program as determined by the Secretary of the Interior or
 - (2) Directly by the Secretary of the Interior in states without approved programs.

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

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

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

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

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

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

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

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

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

New construction: For floodplain management purposes, “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by **COMMUNITY NAME** and includes any subsequent improvements to such structures.

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

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

Offsite: Mitigation occurring outside of the project area.

Onsite: Mitigation occurring within the project area.

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

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

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

Recreational vehicle: A vehicle which is:

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

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

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

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

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

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

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

Structure: For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured dwelling.

Substantial damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement: Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

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

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

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

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

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

3.0 GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES

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

3.2 BASIS FOR ESTABLISHING THE SPECIAL FLOOD HAZARD AREAS

The special flood hazard areas identified by the Federal Insurance Administrator in a scientific and engineering report entitled "The Flood Insurance Study (FIS) for **EXACT TITLE OF FLOOD INSURANCE STUDY FOR COMMUNITY**", dated **DATE (MONTH DAY, FOUR DIGIT YEAR)**, with accompanying Flood Insurance Rate Maps (FIRMs) **LIST ALL EFFECTIVE FIRM PANELS HERE (UNLESS ALL PANELS ARE BEING REPLACED THROUGH A NEW COUNTY_WIDE MAP THAT INCORPORATES ALL PREVIOUS PANELS/VERSIONS, IN THAT SITUATION PANELS DO NOT NEED TO BE INDIVIDUALLY LISTED)** are hereby adopted by reference and declared to be a part of this ordinance. The FIS and FIRM panels are on file at **INSERT THE LOCATION (I.E. COMMUNITY PLANNING DEPARTMENT LOCATED IN THE COMMUNITY ADMINISTRATIVE BUILDING)**.

3.3 COORDINATION WITH STATE OF OREGON SPECIALTY CODES

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

3.4 COMPLIANCE AND PENALTIES FOR NONCOMPLIANCE

3.4.1 COMPLIANCE

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

3.4.2 PENALTIES FOR NONCOMPLIANCE

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violations of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a (INFRACTION TYPE (I.E. MISDEMEANOR) AND PENALTIES PER STATE/LOCAL LAW ASSOCIATED WITH SPECIFIED INFRACTION TYPE (I.E. ANY PERSON WHO VIOLATES THE REQUIREMENTS OF THIS ORDINANCE SHALL UPON CONVICTION THEREOF BE FINED NOT MORE THAN A SPECIFIED AMOUNT OF MONEY...)) Nothing contained herein shall prevent the COMMUNITY NAME from taking such other lawful action as is necessary to prevent or remedy any violation.

3.5 ABROGATION AND SEVERABILITY

3.5.1 ABROGATION

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

3.5.2 SEVERABILITY

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

3.6 INTERPRETATION

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

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

3.7 WARNING AND DISCLAIMER OF LIABILITY

3.7.1 WARNING

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply

that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.

3.7.2 DISCLAIMER OF LIABILITY

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

4.0 ADMINISTRATION

4.1 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

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

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

4.2 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

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

4.2.1 PERMIT REVIEW

Review all development permits to:

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

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

- D. Determine if the proposed development qualifies as a substantial improvement as defined in section 2.0.
- E. Determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in section 5.1.1.
- F. Determine if the proposed development activity includes the placement of fill or excavation.
- G. Determine whether the proposed development activity complies with the no net loss standards in Section 6.0.

4.2.2 INFORMATION TO BE OBTAINED AND MAINTAINED

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

- A. The actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation (BFE) data is provided through the Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM), or obtained in accordance with section 5.1.7.
- B. The elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of sections 4.2.1(B), 5.2.4, and 5.3.1(F), are adhered to.
- C. Upon placement of the lowest floor of a structure (including basement) but prior to further vertical construction, documentation, prepared and sealed by a professional licensed surveyor or engineer, certifying the elevation (in relation to mean sea level) of the lowest floor (including basement).
- D. Where base flood elevation data are utilized, As-built certification of the elevation (in relation to mean sea level) of the lowest floor (including basement) prepared and sealed by a professional licensed surveyor or engineer, prior to the final inspection.
- E. Maintain all Elevation Certificates (EC) submitted to the community.
- F. The elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under this ordinance and where

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

G. All floodproofing certificates required under this ordinance.

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

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

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

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

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

4.2.3 REQUIREMENT TO NOTIFY OTHER ENTITIES AND SUBMIT NEW TECHNICAL DATA

4.2.3.1 COMMUNITY BOUNDARY ALTERATIONS

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

4.2.3.2 WATERCOURSE ALTERATIONS

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

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

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

- 463 B. The applicant shall be required to submit a Conditional Letter of Map
464 Revision (CLOMR) when required under section **4.2.3.3**. Ensure
465 compliance with all applicable requirements in sections **4.2.3.3** and
466 **5.1.1**.

467 **4.2.3.3 REQUIREMENT TO SUBMIT NEW TECHNICAL DATA**

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

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

490 **4.2.4 SUBSTANTIAL IMPROVEMENT AND SUBSTANTIAL DAMAGE ASSESSMENTS**
491 **AND DETERMINATIONS**

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

the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

4.3 ESTABLISHMENT OF DEVELOPMENT PERMIT

4.3.1 FLOODPLAIN DEVELOPMENT PERMIT REQUIRED

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

4.3.2 APPLICATION FOR DEVELOPMENT PERMIT

Application for a development permit may be made on forms furnished by the Floodplain Administrator and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

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

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

4.4 VARIANCE PROCEDURE

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

4.4.1 CONDITIONS FOR VARIANCES

- A. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of sections **4.4.1 (C) and (E), and 4.4.2**. As the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases.
- B. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- C. Variances shall not be issued within any floodway if any increase in flood levels during the base flood discharge would result.
- D. Variances shall only be issued upon:
 - i. A showing of good and sufficient cause;
 - ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and,
 - iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
- E. Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of section **4.4.1 (B) – (D)** are met, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.
- F. Variances shall not be issued unless it is demonstrated that the development will not result in net loss of the following proxies for the three floodplain functions in the SFHA: undeveloped space; pervious surface; or trees 6 inches dbh or greater (see Section 6.0 and associated options in Table 1).

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

4.4.2 VARIANCE NOTIFICATION

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

5.0 PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 GENERAL STANDARDS

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

5.1.1 ALTERATION OF WATERCOURSES

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

5.1.2 ANCHORING

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

5.1.3 CONSTRUCTION MATERIALS AND METHODS

- A. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- B. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

5.1.4 UTILITIES AND EQUIPMENT

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

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

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

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

5.1.4.2 ELECTRICAL, MECHANICAL, PLUMBING, AND OTHER EQUIPMENT

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

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

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

5.1.5 TANKS

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

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

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

5.1.6 SUBDIVISION PROPOSALS AND OTHER PROPOSED DEVELOPMENTS

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

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

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

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

5.1.7 USE OF OTHER BASE FLOOD ELEVATION DATA

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

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

5.1.8 STRUCTURES LOCATED IN MULTIPLE OR PARTIAL FLOOD ZONES

In coordination with the State of Oregon Specialty Codes:

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

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

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

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

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

5.2.1 FLOOD OPENINGS

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

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

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

C. Be certified by a registered professional engineer or architect or meet or exceed all of the following minimum criteria:

i. A minimum of two openings;

ii. The total net area of non-engineered openings shall be not less than one square inch for each square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls;

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

iv. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area; and,

v. All additional higher standards for flood openings in the State of Oregon Residential Specialty Codes Section R322.2.2 shall be complied with when applicable.

5.2.2 GARAGES

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

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

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

5.2.3.1 BEFORE REGULATORY FLOODWAY

In areas where a regulatory floodway has not been designated, no new construction, substantial improvement, or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's Flood Insurance Rate Map (FIRM), unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community and will not

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

5.2.3.2 RESIDENTIAL CONSTRUCTION

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

5.2.3.3 NON-RESIDENTIAL CONSTRUCTION

- A. New construction, conversion to, and substantial improvement of any commercial, industrial, or other non-residential structure shall:
 - i. Have the lowest floor, including basement elevated at or above the Base Flood Elevation (BFE) (ANY ADDITIONAL FREEBOARD REQUIREMENTS FOR YOUR COMMUNITY); or
 - ii. Together with attendant utility and sanitary facilities:
 - a. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and,
 - c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this section based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth section 4.2.2.
- B. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in section 5.2.1.

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

5.2.3.4 MANUFACTURED DWELLINGS

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

5.2.3.5 RECREATIONAL VEHICLES

Recreational vehicles placed on sites are required to:

- A. Be on the site for fewer than 180 consecutive days, and
- B. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
- C. Meet the requirements of section 5.2.3.4, including the anchoring and elevation requirements for manufactured dwellings.

5.2.3.6 APPURTENANT (ACCESSORY) STRUCTURES

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

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

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

5.2.4 FLOODWAYS

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

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

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

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

5.2.5 STANDARDS FOR SHALLOW FLOODING AREAS

Shallow flooding areas appear on FIRMs as AO zones with depth designations or as AH zones with Base Flood Elevations. For AO zones the base flood depths range from one (1) to three (3) feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. For both AO and AH zones, adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

5.2.5.1 STANDARDS FOR AH ZONES

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

5.2.5.2 STANDARDS FOR AO ZONES

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

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

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

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

- 895 Maps (FIRMS) (**COMMUNITY FREE BOARD REQUIREMENT**) (at
896 least two (2) feet if no depth number is specified); or
- 897 ii. Together with attendant utility and sanitary facilities, be
898 completely floodproofed to or above the depth number specified
899 on the FIRM (**COMMUNITY FREEBOARD REQUIREMENT**) or a
900 minimum of two (2) feet above the highest adjacent grade if no
901 depth number is specified, so that any space below that level is
902 watertight with walls substantially impermeable to the passage
903 of water and with structural components having the capability of
904 resisting hydrostatic and hydrodynamic loads and the effects of
905 buoyancy. If this method is used, compliance shall be certified
906 by a registered professional engineer or architect as stated in
907 section **5.2.3.3(A)(4)**.
- 908 C. Recreational vehicles placed on sites within AO Zones on the
909 community's Flood Insurance Rate Maps (FIRM) shall either:
- 910 i. Be on the site for fewer than 180 consecutive days, and
- 911 ii. Be fully licensed and ready for highway use, on its wheels or
912 jacking system, is attached to the site only by quick disconnect
913 type utilities and security devices, and has no permanently
914 attached additions; or
- 915 iii. Meet the elevation requirements of section **5.2.5.2(A)**, and the
916 anchoring and other requirements for manufactured dwellings of
917 section **5.2.3.4**.
- 918 D. In AO zones, new and substantially improved appurtenant structures
919 must comply with the standards in section **5.2.3.6**.
- 920 E. In AO zones, enclosed areas beneath elevated structures shall comply
921 with the requirements in section **5.2.1**.

922 **5.3 SPECIFIC STANDARDS FOR COASTAL HIGH HAZARD FLOOD ZONES**

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

5.3.1 DEVELOPMENT STANDARDS

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

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

ii. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those specified by the State of Oregon Specialty Codes;

B. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of this section.

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

D. Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system.

For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or state codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

5.3.1.3 TANK STANDARDS FOR COASTAL HIGH HAZARD ZONES

Tanks shall meet the requirements of section 5.1.5 and 6.0.

6.0 STANDARDS FOR PROTECTION OF SFHA FLOODPLAIN FUNCTIONS

Adherent to the NMFS 2016 Biological Opinion, mitigation is necessary to ensure a no net loss in floodplain functions. FEMA's 2024 Draft Oregon Implementation Plan identifies proxies that provide measurable actions that can prevent the no net loss of the parent floodplain functions. These proxies include undeveloped space, pervious surfaces, and trees to account for a no net loss in respective floodplain functions of floodplain storage, water quality, and vegetation. Mitigation of these proxies must be completed to ensure compliance with no net loss standards. No net loss applies to the net change in floodplain functions as compared to existing conditions at the time of proposed development and mitigation must be addressed to the floodplain function that is receiving the detrimental impact. The standards described below apply to all special flood hazard areas as defined in Section 2.0.

6.1 NO NET LOSS STANDARDS

- A. No net loss of the proxies for the floodplain functions mentioned in Section 1 is required for development in the special flood hazard area that would reduce undeveloped space, increase impervious surface, or result in a loss of trees that are 6-inches dbh or greater. No net loss can be achieved by first avoiding negative effects to floodplain functions to the degree possible, then minimizing remaining effects, then replacing and/or otherwise compensating for, offsetting, or rectifying the residual adverse effects to the three floodplain functions. Prior to the issuance of any development authorization, the applicant shall:

- i. Demonstrate a legal right by the project proponent to implement the proposed activities to achieve no net loss (e.g., property owner agreement);
- ii. Demonstrate that financial assurances are in place for the long-term maintenance and monitoring of all projects to achieve no net loss;
- iii. Include a management plan that identifies the responsible site manager, stipulates what activities are allowed on site, and requires the posting of signage identifying the site as a mitigation area.

- B. Compliance with no net loss for undeveloped space or impervious surface is preferred to occur prior to the loss of habitat function but, at a minimum, shall occur concurrent with the loss. To offset the impacts of delay in implementing no net loss, a 25 percent increase in the required minimum area is added for each year no net loss implementation is delayed.

- C. No net loss must be provided within, in order of preference: 1) the lot or parcel that floodplain functions were removed from, 2) the same reach of the waterbody where the development is proposed, or 3) the special flood hazard area within the same hydrologically connected area as the proposed development. Table 1 presents the no net loss ratios, which increase based on the preferences listed above.

6.1.1 UNDEVELOPED SPACE

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

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

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

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

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

(2) 10-year to 25-year,

(3) 25-year to 50-year,

(4) And 50-year to 100-year

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

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

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

6.1.2 IMPERVIOUS SURFACES

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

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

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

C. If prior methods are not feasible and documented by a qualified professional stormwater retention is required to ensure no increase in peak volume or flow and to maximize infiltration, and treatment is required to minimize pollutant loading. See section 6.2.C for stormwater retention specifications.

6.1.3 TREES

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

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 1.

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

6.2 STORMWATER MANAGEMENT

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

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

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

C. Retention facilities must:

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

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

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

iv. Be certified by a qualified professional.

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

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

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

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

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

6.3 ACTIVITIES EXEMPT FROM NO NET LOSS STANDARDS

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

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

B. Normal street, sidewalk, and road maintenance, including filling potholes, repaving, and installing signs and traffic signals, that does not alter contours, use, or alter culverts 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 that do not meet the definition of development, including harvesting of trees as long as root balls are left in

1147 place and forest road construction or maintenance that does not alter
1148 contours, use, or alter culverts and is less than six inches above grade;

1149 F. Removal of noxious weeds and hazard trees, and replacement of non-native
1150 vegetation with native vegetation;

1151 G. Normal maintenance of above ground utilities and facilities, such as
1152 replacing downed power lines and utility poles provided there is no net
1153 change in footprint;

1154 H. Normal maintenance of a levee or other flood control facility prescribed in
1155 the operations and maintenance plan for the levee or flood control facility.
1156 Normal maintenance does not include repair from flood damage, expansion
1157 of the prism, expansion of the face or toe or addition of protection on the
1158 face or toe with rock armor.

1159 I. Habitat restoration activities.

1160 **6.4 RIPARIAN BUFFER ZONE (RBZ)**

1161 A. The Riparian Buffer Zone is measured from the ordinary high-water line of a
1162 fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream)
1163 or mean higher-high water of a marine shoreline or tidally influenced river
1164 reach to 170 feet horizontally on each side of the stream or inland of the
1165 MHHW. The riparian buffer zone includes the area between these outer
1166 boundaries on each side of the stream, including the stream channel.

1167 B. Habitat restoration activities in the RBZ are considered self-mitigating and
1168 are not subject to the no net loss standards described above.

1169 C. Functionally dependent uses are only subject to the no net loss standards for
1170 development in the RBZ. Ancillary features that are associated with but do
1171 not directly impact the functionally dependent use in the RBZ (including
1172 manufacturing support facilities and restrooms) are subject to the beneficial
1173 gain standard in addition to no net loss standards.

1174 D. Any other use of the RBZ requires a greater offset to achieve no net loss of
1175 floodplain functions, on top of the no net loss standards described above,
1176 through the beneficial gain standard.

1177 E. Under FEMA's beneficial gain standard, an area within the same reach of
1178 the project and equivalent to 5% of the total project area within the RBZ
1179 shall be planted with native herbaceous and shrub vegetation and
1180 designated as open space.
1181

1182 Table 1 No Net Loss Standards

Basic Mitigate Ratios	Undeveloped Space (ft³)	Impervious Surface (ft²)	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
<u>Mitigation multipliers</u>					
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%

1183 Notes:

- 1184 1. Ratios with asterisks are indicated in the BiOp
- 1185 2. Mitigation multipliers of 100% result in the required mitigation occurring at the same value
- 1186 described by the ratios above, while multipliers of 200% result in the required mitigation
- 1187 being doubled.
- 1188 a. For example, if only 500 ft² of the total 1000 ft² of required pervious surface
- 1189 mitigation can be conducted onsite and in the same reach, the remaining 500 ft² of
- 1190 required pervious surface mitigation occurring offsite at a different reach would
- 1191 double because of the 200% multiplier.
- 1192 3. RBZ impacts must be offset in the RBZ, on-site or off-site.
- 1193 4. Additional standards may apply in the RBZ (See 6.4 Riparian Buffer Zone)

APPENDIX A: Section 6.0 Alternate Language to Achieve No Net Loss

6.0 STANDARDS FOR PROTECTION OF SFHA FLOODPLAIN FUNCTIONS

Adherent to the NMFS 2016 Biological Opinion, mitigation is necessary to ensure a no net loss in floodplain functions. FEMA's 2024 Draft Oregon Implementation Plan identifies proxies that provide measurable actions that can prevent the no net loss of the parent floodplain functions. These proxies include undeveloped space, pervious surfaces, and trees to account for a no net loss in respective floodplain functions of floodplain storage, water quality, and vegetation. Mitigation of these proxies must be completed to ensure compliance with no net loss standards. No net loss applies to the net change in floodplain functions as compared to existing conditions at the time of proposed development and mitigation must be addressed to the floodplain function that is receiving the detrimental impact. The standards described below apply to all special flood hazard areas as defined in Section 2.0.

6.1 NO NET LOSS STANDARDS

- A. No net loss of the proxies for the floodplain functions mentioned in Section 1 is required for development in the special flood hazard area that would reduce undeveloped space, increase impervious surface, or result in a loss of trees that are 6-inches dbh or greater. No net loss can be achieved by first avoiding negative effects to floodplain functions to the degree possible, then minimizing remaining effects, then replacing and/or otherwise compensating for, offsetting, or rectifying the residual adverse effects to the three floodplain functions.
- B. Compliance with no net loss for undeveloped space or impervious surface is preferred to occur prior to the loss of habitat function but, at a minimum, shall occur concurrent with the loss.
- C. No net loss must be provided within, in order of preference: 1) the lot or parcel that floodplain functions were removed from, 2) the same reach of the waterbody where the development is proposed, or 3) the special flood hazard area within the same hydrologically connected area as the proposed development. Table 1 presents the no net loss ratios, which increase based on the preferences listed above.

6.1.1 UNDEVELOPED SPACE

- A. Development proposals shall not reduce the fish-accessible and egress-able habitat and flood storage volume created by undeveloped space within the special flood hazard area. A development proposal with an activity that would impact undeveloped space shall achieve no net loss of fish-accessible and egress-able space and flood storage volume.
 - i. Lost undeveloped space must be replaced with fish-accessible and egress-able compensatory volume based on the ratio in Table 1.

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

6.1.2 Designed so that there is no increase in velocity IMPERVIOUS SURFACES

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

- A. Development proposals shall not result in a net increase in impervious surface area within the SFHA through the use of ratios prescribed in Table 1, or
- B. Use low impact development or green infrastructure to infiltrate and treat stormwater produced by the new impervious surface, as documented by a qualified professional, or
- C. If prior methods are not feasible and documented by a qualified professional stormwater retention is required to ensure no increase in peak volume or flow and to maximize infiltration, and treatment is required to minimize pollutant loading. See section 6.2.C for stormwater retention specifications.

6.1.3 TREES

- A. Development proposals shall result in no net loss of trees 6-inches dbh or greater within the special flood hazard area.
 - i. Trees of or exceeding 6-inches dbh that are removed from the RBZ, Floodway, or RBZ-fringe must be replaced at the ratios in Table 1 and planted within the special flood hazard area.
 - ii. Replacement trees must be native species that would occur naturally in the Level III ecoregion of the impact area.

6.2 STORMWATER MANAGEMENT

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

- A. Water quality (pollution reduction) treatment for post-construction stormwater runoff from any net increase in impervious area; and
- B. Water quantity treatment (retention or detention facilities) unless the outfall discharges into the ocean.
- C. Retention and detention facilities must:
 - i. Limit discharge to match the pre-development peak discharge rate (i.e., the discharge rate of the site based on its natural groundcover and grade before any development occurred) for the 10-year peak flow using a continuous simulation for flows between 50 percent of the 2-year event and the 10-year flow event (annual series).

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

iii. Be designed to not entrap fish.

iv. Be certified by a qualified professional.

D. Detention facilities must:

i. Drain to the source of flooding.

ii. Designed by a qualified professional.

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

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

vi. 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.

vii. 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.

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

6.3 ACTIVITIES EXEMPT FROM NO NET LOSS STANDARDS

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

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

- 1301 B. Normal street, sidewalk, and road maintenance, including filling potholes,
1302 repaving, and installing signs and traffic signals, that does not alter
1303 contours, use, or alter culverts and is less than six inches above grade.
1304 Activities exempt do not include expansion of paved areas;
- 1305 C. Routine maintenance of landscaping that does not involve grading,
1306 excavation, or filling;
- 1307 D. Routine agricultural practices such as tilling, plowing, harvesting, soil
1308 amendments, and ditch cleaning that does not alter the ditch configuration
1309 provided the spoils are removed from special flood hazard area or tilled into
1310 fields as a soil amendment;
- 1311 E. Routine silviculture practices (harvesting of trees), including hazardous fuels
1312 reduction and hazard tree removal as long as root balls are left in place;
- 1313 F. Removal of noxious weeds and hazard trees, and replacement of non-native
1314 vegetation with native vegetation;
- 1315 G. Normal maintenance of above ground utilities and facilities, such as
1316 replacing downed power lines and utility poles provided there is no net
1317 change in footprint;
- 1318 H. Normal maintenance of a levee or other flood control facility prescribed in
1319 the operations and maintenance plan for the levee or flood control facility.
1320 Normal maintenance does not include repair from flood damage, expansion
1321 of the prism, expansion of the face or toe or addition of protection on the
1322 face or toe with rock armor.
- 1323 I. Habitat restoration activities.
- 1324 J. Pre-emptive removal of documented susceptible trees to manage the
1325 spread of invasive species.
- 1326 K. Projects that are covered under separate consultations under Section 4(d),
1327 7, or 10 of the Endangered Species Act (ESA).

1328 **6.4 RIPARIAN BUFFER ZONE (RBZ)**

- 1329 A. The Riparian Buffer Zone is measured from the ordinary high-water line of a
1330 fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream)
1331 or mean higher-high water of a marine shoreline or tidally influenced river
1332 reach to 170 feet horizontally on each side of the stream or inland of the
1333 MHHW. The riparian buffer zone includes the area between these outer
1334 boundaries on each side of the stream, including the stream channel.
- 1335 B. Functionally dependent uses are only subject to the no net loss standards in
1336 Section 6.1 for development in the RBZ. Ancillary features that are
1337 associated with but do not directly impact the functionally dependent use in

the RBZ (including manufacturing support facilities and restrooms) are subject to the beneficial gain standard in addition to no net loss standards.

C. Any other use of the RBZ requires a greater offset to achieve no net loss of floodplain functions, on top of the no net loss standards described above, through the beneficial gain standard.

D. Under FEMA's beneficial gain standard, an area within the same reach of the project and equivalent to 5% of the total project area within the RBZ shall be planted with native herbaceous, shrub and tree vegetation.

Table 1 No Net Loss Standards

Basic Mitigate Ratios	Undeveloped Space (ft³)	Impervious Surface (ft²)	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
<u>Mitigation multipliers</u>					
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%

Notes:

1. Mitigation multipliers of 100% result in the required mitigation occurring at the same value described by the ratios above, while multipliers of 200% result in the required mitigation being doubled.
 - a. For example, if a development would create 1,000 square feet of new impervious surface, then 1,000 square feet of new pervious surface would need to be created. However, if only 500 square feet can be created within the same reach, the remaining 500 square feet created within a different reach would need to be double the required amount because of the 200 percent multiplier. In other words, another 1,000 square feet of pervious surface would need to be created at the location in the different reach, in addition to the 500 square feet created within the same reach.

APPENDIX B: Additional and Updated Definitions

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

Fish Accessible Space: The volumetric space available to an adult or juvenile individual of the identified 16 ESA-listed fish to access.

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

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

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.

Pervious Surface: Surfaces that allow rain and snowmelt to seep into the soil and gravel below. Pervious surface may also be referred to as permeable surface.

Undeveloped Space: The volume of flood capacity and fish-accessible/egress-able habitat from the existing ground to the Base Flood Elevation that has not been reduced due to activity that meets FEMA's definition of development. Examples of development that impede undeveloped space includes, but is not limited to, the addition of fill, structures, concrete structures (vaults or tanks), pilings, levees and dikes, or any other development that reduces flood storage volume and fish accessible/egress-able habitat.



FLOODPLAIN MANAGEMENT DEVELOPMENT CODE AMENDMENTS ORDINANCE 2025-02

Bryan Pohl, CFM | Community Development Director

Dan Riordan | Senior Planner

City Council Public Hearing 5|12|25

PUBLIC HEARING PURPOSE

2

On April 28th, City Council held a work session on local compliance options related to floodplain management mandated by the Federal Emergency Management Agency (FEMA).

During the work session, City Council reached consensus to proceed with Option 2 that requires amending the Forest Grove Development Code to incorporate the FEMA Model Floodplain Management Ordinance.

Tonight's public hearing provides an opportunity for Council's consideration of Ordinance 2025-02, for first reading, to amend the Development Code and an opportunity for public comment on the Code amendment proposal.

Floodplain Areas

3



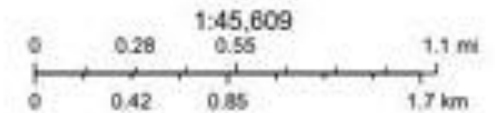
2/11/2025

FEMA Flood Hazard Areas

1% Annual Chance Flood Hazard

Regulatory Floodway

0.2% Annual Chance Flood Hazard



COMPLIANCE OPTIONS

4

FEMA provided three options for meeting the federal mandate:

Option 1: Prohibit all new development in the floodplain.

Option 2: Adopt the FEMA Model Ordinance that considers impacts to fish habitat and requires mitigation to a no net loss standard defined in the Model Ordinance.

Option 3: Review individual development proposals and require permit-by-permit habitat mitigation to achieve a no net loss of floodplain function standard defined on the next slide.

NO NET LOSS AND FLOODPLAIN FUNCTIONS

No Net Loss: A standard where adverse development impacts must be avoided or offset through compliance with requirements so there is no net change in the floodplain function from existing conditions.

Floodplain Functions: Floodwater storage, water quality, and vegetation. These functions must be maintained.

RECOMMENDED APPROACH

6

Option 2 is the recommended approach for the following reasons:

The City Attorney advised that Option 2 complies with Oregon's land use planning rules requiring clear and objective standards in local development codes affecting residential development.

Option 1 is this most restrictive option and could result in a claim that property is being taken for a public purpose.

Option 3 is an ad hoc approach and does not comply with land use planning rules.

DEVELOPMENT CODE AMENDMENTS

7

The amendments include modification to Development Code Article 12 (Definitions):

Floodplain management related definitions will be removed from Article 12 and added to Development Code Article 8 (General Development Standards) with the floodplain management development standards and procedures.

The FEMA Model Floodplain Management Ordinance includes 52 definitions. Some terms used for floodplain management are also used for general land use review but are defined differently. Adding the floodplain management definitions to Article 8 will reduce conflicts and streamline Article 12.

DEVELOPMENT CODE AMENDMENTS

8

The amendments include modification to Development Code Article 8 (General Development Standards):

Article 8 Table of Contents: Update the table of contents for Article 8 to reflect title modifications for consistency with the FEMA Model Ordinance and the addition of new sections.

Section 17.8.315: Floodplain Management Code. This section includes introductory provisions consistent with the FEMA Model Ordinance such as the purpose for the floodplain management requirements.

DEVELOPMENT CODE AMENDMENTS

9

Section 17.8.320: Floodplain Management Definitions. This section adds the floodplain management related definitions with the floodplain management development standards.

Section 17.8.325: Floodplain Management Provisions. This section addresses the lands subject to the floodplain management code, basis for establishing special flood hazard areas and compliance requirements.

DEVELOPMENT CODE AMENDMENTS

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Section 17.8.330: Floodplain Management Administration. This section outlines local floodplain administrator duties and responsibilities including development permit review and variance procedures. For Forest Grove the designated floodplain administrator is the City Engineer (i.e. Public Works and Engineering Director).

Section 17.8.335: Provisions for Flood Hazard Reduction. This section establishes general development standards for development affecting special flood hazard areas and no net loss standards of floodplain function standards.

DEVELOPMENT CODE AMENDMENTS

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Provisions for flood hazard reduction in the Code amendment proposal includes:

Anchoring structures to prevent flotation, collapse or lateral movement;

Requiring that all new construction and substantial improvements be constructed using methods that minimize flood damage; or

Requiring that structures and electrical, heating, ventilation and other service facilities be raised above the base flood elevation.

DEVELOPMENT CODE AMENDMENTS

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Section 17.8.340: Standards for Floodways. This section establishes development restrictions for areas designated as floodway. The floodway is the channel of a watercourse and adjacent areas that must reserved for discharging flood waters without increasing the water surface elevations above a designated height.

Section 17.8.345: Standards for Shallow Flooding Areas. This section establishes standards for shallow flooding areas such as where base flood depths range from one to three feet above ground where a defined channel does not exist.

DEVELOPMENT CODE AMENDMENTS

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Section 17.8.350: Standards for Protection of Special Flood Hazard Area Floodplain Functions. This section addresses the no net loss standard in detail and required mitigation of development impacts within the Special Flood Hazard Area (i.e. 100-year floodplain).

Within the 100-year floodplain no net less is required for development that reduces undeveloped space, increases impervious surface, or results in a loss of trees 6” in diameter or greater.

DEVELOPMENT CODE AMENDMENTS

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The Code amendments specify that no net loss can be achieved by:

- 1. Avoiding negative impacts to floodplain function;**
- 2. Minimizing remaining impacts if avoidance isn't possible; or**
- 3. Replacing and/or otherwise compensating for residual floodplain impacts .**

DEVELOPMENT CODE AMENDMENTS

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The Code amendments specify that no net loss must be provided within, in order of preference:

- 1. The lot or parcel where floodplain impacts will occur;**
- 2. The same waterbody where the development is proposed; or**
- 3. Within the same hydrologically connected area as the proposed development.**

Required mitigation necessary to offset development impacts is specified in the proposed code and is based on the development impacts and preferences above.

Required mitigation is 1:1 for impervious surface, 2:1 for undeveloped space, and 3:1 to 6:1 for impacts to trees depending on tree diameter.

FEMA MODEL ORDINANCE OVERVIEW

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Activities exempt from the no net loss standards include:

- Normal maintenance of structures;**
- Normal street, sidewalk and road maintenance;**
- Routine maintenance of landscaping not involving grading;**
- Routine agriculture and tree management practices;**
- Normal maintenance of above ground utilities;**
- Normal maintenance of flood control facilities;**
- Habitat restoration activities; and**
- Pre-emptive removal of trees to manage the spread of invasive species.**

DEVELOPMENT CODE AMENDMENTS

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Section 17.8.355: Critical Facilities. This section is currently in the Development Code and is proposed to remain. Critical facilities include schools, assisted living facilities, hospitals, emergency response facilities, and installations which produce, use or store hazardous materials or waste.

Section 17.8.360 Environmental Practice. This section identifies habitat friendly development practices. This section is currently in the Development Code and is proposed to remain.

REVIEW CRITERIA

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The review criteria for this proposal are in Development Section 17.2.630 (Development Code Text Amendments)

A. The text amendment is consistent with relevant goals and policies of the Forest Grove Comprehensive Plan; and

B. The text amendment is consistent with relevant statewide and regional planning goals, programs and rules.

The proposed Development Code text amendments are attached to Ordinance 2025-02 as Exhibit A. Findings addressing the criteria above are attached to Ordinance 2025-02 as Exhibit B.

PLANNING COMMISSION REVIEW

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The Planning Commission held a public hearing on the proposed Development Code amendments on April 21st. Several persons attended the public hearing in response to the mailed public hearing notice and asked questions about how the proposal may affect their property.

On April 21st, the Planning Commission adopted a motion recommending City Council approval of an ordinance amending the Forest Grove Development Code to incorporate the FEMA Model Floodplain Management Ordinance.

STAFF RECOMMENDATION

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Staff recommends that City Council approve first reading of Ordinance 2025-02 tonight and continue the public hearing to May 27th for second reading and final ordinance adoption.

Adopting the ordinance on May 27th ensures that the Development Code amendments are effective by the FEMA compliance deadline of July 1, 2025.

Questions for Staff?

ORDINANCE NO. 2025-02

ORDINANCE AMENDING FOREST GROVE DEVELOPMENT CODE ARTICLE 8 AND 12 TO ADOPT REVISED FLOODPLAIN MANAGEMENT REGULATIONS AND DEFINITIONS IN COMPLIANCE WITH THE FEDERAL EMERGENCY MANAGEMENT AGENCY 2024 FLOOD HAZARD MANAGEMENT MODEL ORDINANCE; FILE NO. 311-25-000005-PLNG

WHEREAS, in 2016, the National Marine Fisheries Service (NMFS) issued a biological opinion (BiOp) which recommended changes to the implementation of the National Flood Insurance Program (NFIP) in Oregon on listed endangered species under NMFS authority; and

WHEREAS, as a result of the BiOP issued by NMFS, communities are required to demonstrate how development in the floodplain is compliant with the Endangered Species Act while an Environmental Impact Statement is prepared; and

WHEREAS, the Federal Emergency Management Agency (FEMA) developed a model flood hazard management model ordinance (Model Ordinance) in 2024; and

WHEREAS, the Model Ordinance addresses the requirements outlined in the draft implementation plan for the NFIP; and

WHEREAS, the Model Ordinance provides the regulations necessary to implement the draft implementation plan and serves as one of three actions a community can take under pre-implementation compliance measures (PICM); and

WHEREAS, implementing the Model Ordinance is the preferred PICM action under Oregon land use planning law which requires clear and objectives development standards for certain types of development; and

WHEREAS, implementing the Model Ordinance also ensures the City's continuing eligibility for participation in the NFIP; and

WHEREAS, on March 4, 2025, notice of the proposed Development Code amendments was provided to the Oregon Department of Land Conservation and Development and Metro on; and

WHEREAS, on April 1, 2025, notice of the proposed Development Code amendments were also provided to potentially affected property owners as required by Oregon Ballot Measure 56 and the Development Code; and

WHEREAS, notice of the proposed Development Code amendments was published in the Forest Grove News-Times on April 10, 2025 as required by City Council rules and the Development Code; and

WHEREAS, the Planning Commission held the duly noticed public hearing on the proposed Development Code amendments on April 21, 2025; and

WHEREAS, on April 21, 2025, the Planning Commission adopted Planning Commission Findings and decision No. 2025-02 recommending approval of the proposed Development Code amendments; and

WHEREAS, the City Council held the duly noticed public hearing on the proposed ordinance amending the Development Code for first reading on May 12, 2025; and

WHEREAS, the City Council held the duly noticed public hearing on the proposed ordinance amending the Development Code for second reading on May 27, 2025.

NOW, THEREFORE, THE CITY OF FOREST GROVE ORDAINS AS FOLLOWS:

Section 1. The City Council hereby adopts the text amendments to Development Code Article 8 and Article 12 as described by Exhibit A.

Section 2. The City Council hereby adopts the Planning Commission's findings and Decision No. 2025-02, attached as Exhibit B, recommending approval of the proposed Development Code amendments.

Section 3. This ordinance shall be effective 30 days following its enactment by the City Council.

PRESENTED AND PASSED the first reading the 12th day of May, 2025.

PASSED the second reading the 27th day of May, 2025.

Mariah S. Woods, City Recorder

APPROVED by the Mayor this 27th day of May, 2025.

Malynda H. Wenzl, Mayor

Hazards and Resources

[17.8.300](#) Purpose

[17.8.305](#) Resource areas

[17.8.310](#) Hazard areas

[17.8.315](#) ~~Floodplains and flood management areas~~[Floodplain management code](#)

[17.8.320](#) ~~Establishment of development permit~~[Floodplain management definitions](#)

[17.8.325](#) ~~Designation, duties and responsibilities of the city engineer~~[Floodplain management provisions](#)

[17.8.330](#) ~~Variance procedure~~[Floodplain management administration](#)

[17.8.335](#) Provisions for flood hazard reduction

~~Figure 8-6 Limitations on Below-Grade Crawlspaces~~[17.8.340](#) ~~Before regulatory floodway~~[Standards for Floodways](#)

[17.8.345](#) ~~Standards for Shallow Flooding Areas~~

[17.8.34550](#) ~~Floodways~~[Standards for Protection of Special Flood Hazard Area Floodplain Functions](#)

[17.8.3505](#) Critical facility

[17.8.35560](#) Environmental practice

DEVELOPMENT CODE ARTICLE 8

HAZARDS AND RESOURCES

RESOURCE AREAS, HAZARD AREAS AND FLOODPLAIN MANAGEMENT

§ 17.8.300 PURPOSE.

The purpose of this subarticle is to establish standards and requirements where development is subject to resources or hazards as defined by these provisions. This subarticle also implements provisions contained in the Model Floodplain Management Ordinance prepared by the Federal Emergency Management Agency.

§ 17.8.305 RESOURCE AREAS.

A. Wetlands-, Wetland Buffer Areas, Wildlife Conservation Areas and Vegetated Corridors subject to the provisions of §17.5.005 shall be left undisturbed unless:

1. Division of State Lands has issued a permit to allow fill in a wetland; or
2. Enhancements that are required or allowed either by the report approved by the city for Wildlife Conservation Areas pursuant to §17.5.025 or by the Service Provider Letter issued by Clean Water Service.

B. Wetland buffer areas and vegetated corridors shall be provided consistent with the requirements of Clean Water Service (CWS) Design and Construction Standards. Pursuant to §-17.5.025A., a service provider letter from CWS shall be issued prior to filing for a land use permit with the city-.

C. All development with Natural Resource Areas shall attempt to design development through avoidance of the resource area. If that cannot be achieved through standard development requirements, then the requirements of §§-17.5.005 et seq. shall apply and shall override any conflicting development requirements established by other portions of the Development Code in order to minimize intrusion into the NRA.

D. All wetlands-, wetland buffers, vegetated corridors and wildlife habitats shall be established as follows.

1. For divisions of land, the area shall be placed in an open space tract separate from areas intended for development-. The open space tract is subject to the requirements of §§ 17.8.200 et seq.

2. For development not involved in a division of land, the area shall be held in common for residential condominiums or by the primary land owner for apartment- complexes or non-residential development-. The area shall be placed within an easement and adequate maintenance provisions shall be provided consistent with the requirements of § 17.8.200.

E. Historic structures and trees-. Any modification of historic structures or the removal of trees shall comply with the requirements of §§ 17.5.200 et seq. and 17.5.100 et seq. respectively.

§ 17.8.310 HAZARD AREAS.

A. Information and studies for hazards shall be provided as follows.

1. For development sites partially or totally within ~~Flood Management Areas or~~ areas of special flood hazard ~~as determined by § 17.8.315B, as defined in §17.8.320~~, there shall be provided a study prepared by an engineer certified by the State of Oregon to provide hydraulic, flood plain elevation and any other necessary analysis to meet the requirements of ~~§17.8.325D~~ §17.8.330(B)(2). as determined by the City Engineer-.

2. For development sites having slopes of 10% or more, the following requirements shall be met. To ensure compliance with the provisions of this Code, prior to the issuance of a building permit for the construction of any new building (as defined by § 17.12.210B.8. within the city , and prior to any grading, excavation or filling or other site modification within areas having a slope of 10% or greater, there shall be submitted to the Community Development Department for review and approval, or approval with modifications:

a. A site plan (showing any grading, excavating or filling) drawn to scale of the entire property developed and of the proposed construction; and

b. The submission of a geological assessment and geotechnical report prepared and stamped by a Certified Engineering Geologist who is a registered geologist certified in the specialty of Engineering Geology under provisions of O.R.S. 672.505 to 672.705 and a Geotechnical Engineer under provisions of O.R.S. 672.002 to 672.325. The assessment and report shall address the entire site and meet the following requirements:

i. The geological and engineering assessment shall include information and data regarding the nature, distribution of underlying geology, and the physical and chemical properties of existing soils; an opinion as to stability of the site-, and conclusions regarding the effect of geo-logic conditions on the proposed development-.

ii. The geotechnical report shall include a comprehensive description of the site topography and geology; an opinion as to the adequacy of the proposed development from an engineering standpoint; and opinion as to the extent that instability on adjacent properties may adversely affect the project; a description of the field investigation and findings ; conclusions regarding the effect of geologic conditions on the proposed development ; and specific requirements for plan modification, corrective grading and special techniques and systems to facilitate a safe and stable development . The report shall provide other recommendations as necessary, commensurate with the project grading and development-.

iii. Address the requirements of § 17.8.310B.

B. Through hazard study(ies) required pursuant to § 17.8.310A., the applicant shall establish methods to minimize hazards to acceptable risks by:

1. Site design approaches that avoids development within hazard area;

2. Grading, erosion control and other site preparation techniques to minimize hazard impacts;

3. Techniques to minimize impacts from utility installation; and/or

4. Building and foundation techniques to minimize hazard impacts.

C. Where a hazard area is proposed to be avoided:

1. For divisions of land, the area shall be placed in an open space tract separate from areas intended for development-. The open space tract is subject to the requirements of §§ 17.8.200 et seq.

2. For development not involved in a division of land, the area shall be held in common for residential condominiums or by the primary land owner for apartment complexes or non-residential development. The area shall be placed within an easement and adequate maintenance provisions shall be provided consistent with the requirements of § 17.8.200.

3. The tract or easement area shall be restricted to open space-. Utilities may be located within the area provided that the report proposes acceptable measures to minimize hazard impacts. Open space tracts are subject to the provisions of § 17.8.200.

§ 17.8.315 ~~FLOODPLAINS AND FLOOD MANAGEMENT AREAS.~~ FLOODPLAIN MANAGEMENT CODE

A. Statutory Authorization. The State of Oregon has in ORS 197.175 designated responsibility to local governmental units to adopt floodplain management regulations designed to promote the public health, safety, and general welfare of its residents.

B. Purpose. It is the purpose of the floodplain management code to promote public health, safety and general welfare, and to minimize public and private losses due to flooding in special flood hazard areas by provisions designed to:

1. Protect human life and health;

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

3. Preserve natural and beneficial floodplain functions;

4. Minimize the need for rescue and relief efforts associated with flooding and generally undertake at the expense of the general public;

5. Minimize prolonged business interruptions.

6. Minimize damage to public facilities and utilities such as water and gas mains; electrical, telephone and sewer lines; and streets and bridges located in special flood hazard areas;

7. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas so as to minimize blight areas caused by flooding;
8. Notify potential buyers that the property is in a special flood hazard area;
9. Notify those who occupy special flood hazard areas that they assume responsibility for their actions;
10. Participate in and maintain eligibility for flood insurance and disaster relief.

C. Methods of Reducing Flood Losses. In order to accomplish its purposes, this code includes methods and provision for:

1. Restricting or prohibiting development which is dangerous to health, safety, and property due to water and erosion hazards, or which result in damaging increases in erosion or in flood heights and velocities.
2. Requiring that development vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
3. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters.
4. Controlling filling, grading, dredging, and other development which may increase flood damage;
5. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas;
6. Employment an standard of “no net loss” of natural and beneficial floodplain functions.

§17.8.320 FLOODPLAIN MANAGEMENT DEFINITIONS

- A. ANCILLARY FEATURES: Features of a development that are not directly related to the primary purpose of the development.
- B. APPEAL: For floodplain management purposes, an appeal is a request for a review of the interpretation of any provision of the Floodplain Management Ordinance Code or a request for a variance.
- C. AREA OF SHALLOW FLOODING: A designated zone AO, AH, AR/AO or AR/AH on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

- A.D. AREA OF SPECIAL FLOOD HAZARD: The land in the floodplain within a community subject to a 1percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as Zone A, AO, AH, A1-30, AE, A99, AR (V, V1-30, VE). "Special flood hazard area" is synonymous in meaning and definition with the phrase "area of special flood hazard."
- E. BASE FLOOD: The flood having a one percent chance of being excluded or exceeded in any given year.
- F. BASE FLOOD ELEVATION (BFE): The elevation to which floodwater is anticipated to rise during the base flood.
- G. BASEMENT: For floodplain management purposes, any area of the building having its floor subgrade (below ground level) on all sides.
- H. BREAKAWAY WALL: A wall that is nor part of a structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.
- I. DEVELOPMENT: Any human-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.
- J. FILL: Placement of any materials such as soil, gravel, crushed stone, or other materials that change the elevation of the floodplain. The placement of fill is considered "development."
- K. FISH ACCESSIBLE SPACE: The volumetric space available to fish to access.
- L. FISH EGRESS-ABLE SPACE: The volumetric space available to fish to exit or leave from.
- M. FLOOD OR FLOODING:
- a. A general and temporary condition or partial or complete inundation of normally dry land areas from:
1. The overflow of inland or tidal waters.
 2. The unusual and rapid accumulation or runoff of surface waters from any source.
 3. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (a)(2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is

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

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

N. 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.

O. FLOOD INSURANCE RATE MAP: The official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

P. FLOOD INSURANCE STUDY (FIS): See "Flood elevation study."

Q. 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."

R. 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 the Base Flood Elevation, and the footprint related to water quality refers to the area of impervious surface that the structure creates.

S. FUNCTIONALLY DEPENDENT USE: A use which cannot perform its intended purpose unless it is located or carried out in proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading cargo or passengers, and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

T. 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 greenspace 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.

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

V. HAZARD TREES: For floodplain management purposes, standing dead, dying or diseased trees or ones with a structural defect that makes it likely to fail in whole or in part and that present a potential hazard to a structure or as defined by the City.

W. HIGHEST ADJACENT GRADE: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

X. HISTORIC STRUCTURE: For floodplain management purposes, any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district.
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

1. By an approved state program as determined by the Secretary of the Interior or
2. Directly by the Secretary of the Interior in states without approved programs.

Y. 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.

Z. 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.

AA. 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 of water bodies.

BB. LETTER OF MAP CHANGE (LOMC): An official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps (FIRM) and/or Flood Insurance Studies (FIS). LOMCs are issued in the following categories:

a. Letter of Map Amendment: An amendment to the Flood Insurance Rate Maps 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.

b. Letter of Map Revision (LOMR):

1. LOMR-F (Letter of Map Revision Based on Fill). 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.

2. 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 flood source and thus result in modification to the existing

regulatory floodway, the effective Base Flood Elevation, of the Special Flood Hazard Area. It is recommended a Conditional Letter of Map Revision be approved (CLOMR) be approved by FEMA prior to issuing a permit to start a project if the project has a potential to affect the special flood hazard area.

CC. 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 placement of new impervious surface. Low Impact Development is a subset of Green Infrastructure.

DD. LOWEST FLOOR: The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Code.

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

FF. MANUFACTURED DWELLING PARK OR SUBDIVISION: A parcel (or contiguous parcels) of land divided into two or manufactured dwelling lots for rent or sale.

GG. MEAN HIGHER-HIGH WATER: The average of the higher-high water height of each tidal day observed over the National Tidal Epoch.

HH. 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.

II. 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 the City of Forest Grove and includes any subsequent improvement to such structures.

JJ. NO NET LOSS: A standard where adverse impacts must be avoided or offset through adherence to certain requirements so that there is no net change in the function from the existing condition when a development application is submitted to the state, tribal, or local jurisdiction. The floodplain functions of floodplain storage, water quality and vegetation must be maintained.

KK.OFFSITE: For floodplain management purposes, mitigation occurring outside the project area.

LL. ONSITE: For floodplain management purposes, mitigation occurring within the project area.

MM. 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.

NN. PERVIOUS SURFACE: Surfaces that allow rain and snowmelt to seep into the soil and gravel below. Pervious surface may also be referred to as permeable surface.

OO. QUALIFIED PROFESSIONAL: For floodplain management purposes, an appropriate subject matter expert that is defined by the City.

PP. 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.

QQ. RECREATIONAL VEHICLE: A vehicle which is:

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

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

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

TT. RIPARIAN BUFFER ZONE FRINGE: The area outside of the RBZ and Floodway but still within the Special Flood Hazard Area (SFHA).

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

VV. SPECIAL FLOOD HAZARD AREA (SFHA): See "AREA OF SPECIAL FLOOD HAZARD" for this definition.

WW. START OF CONSTRUCTION: For floodplain management purposes, includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured dwelling on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or sidewalks; 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.

XX. STRUCTURE: For floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground as well as a manufactured dwelling.

YY. SUBSTANTIAL DAMAGE: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

ZZ. SUBSTANTIAL IMPROVEMENT: For floodplain management purposes, Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the Start of Construction of the improvement. The term includes structures which have incurred SUBSTANTIAL DAMAGE, regardless of the actual work per. The term does not, however, include either:

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

b. Any alteration of a Historic Structure, provided that the alteration will not preclude the structure's continued designation as a Historic Structure.

AAA. UNDEVELOPED SPACE: The volume of flood capacity and fish accessible/egress-able habitat from the existing ground to the Base Flood Elevation that is undeveloped. Any form of development including, but not limited to, the addition of fill, structures, concrete structures (vaults or tanks), pilings, levees and dikes, or any other development that reduces flood storage volume and fish accessible/egress-able habitat must achieve no net loss.

BBB. VARIANCE: For floodplain management purposes, a grant of relief by the City from the terms of a floodplain management regulation.

CCC. VIOLATION: For floodplain management purposes, the failure of structure or other development to be fully compliant with the City's floodplain management regulations. A structure or other development with the elevation certificate, other certifications, or other evidence of compliance required in this ~~ordinance~~ Code is presumed to be in violation until such time as the documentation is provided.

§17.8.325 FLOODPLAIN MANAGEMENT PROVISIONS

A. Lands to which this Code applies. This code applies to all areas of special flood hazard within the jurisdiction of the City of Forest Grove.

B. Basis for establishing ~~areas of the~~ special flood hazard areas. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Washington County and

Incorporated Areas” dated November 4, 2016, and as subsequently revised, with accompanying Flood Insurance Rate Maps (FIRM) are hereby adopted by reference and declared to be a part of this Code. The Flood Insurance Study- and FIRM panels is are on file at the Forest Grove Engineering Department located at Forest Grove City Hall. ~~The best available information for flood hazard area identification as outlined in § 17.8.325C. shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized under § 17.8.325C.~~

~~—C. Warning and disclaimer of liability.~~

~~—The degree of flood protection required by this Code is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes.~~

~~—This code 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 code shall not create liability on the part of the City of Forest Grove, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this Code or any administrative decision lawfully made hereunder.~~

C. Coordination with State of Oregon Specialty Codes. Pursuant to the requirement established in Oregon Revised Statutes Chapter 455 that the City administers and enforces the State of Oregon Specialty Codes, the City does hereby acknowledge that the Oregon Specialty Codes contain certain provisions that apply to the design and construction of building and structures located in special flood hazard areas (SFHAs). Therefore, this ordinance-Code is intended to be administered in conjunction with the Oregon Specialty Codes.

D. Compliance.

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

2. Penalties for noncompliance. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Code and other applicable regulations. Violations of the provisions of this Code by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute an infraction subject to the penalties described in Forest Grove Code of Ordinances §10.99. Nothing contained herein shall prevent the City from taking such lawful actions as necessary to prevent or remedy any violation.

~~—Penalties for noncompliance.~~

E. Abrogation and Severability.

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

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

F. Interpretation. In the interpretation and application of this Code, 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.

G. Warning and Disclaimer of Liability.

1. Warning. The degree of flood protection required by this Code is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Code 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.

1.2. Disclaimer of Liability. This Code shall not create liability on the part of the City of Forest Grove, any officer or employee thereof, or the Federal Insurance Administrator for any flood damages that result from reliance on this Code or any administrative decision lawfully made hereunder.

§ 17.8.325 17.8.330 DESIGNATION, DUTIES AND RESPONSIBILITIES OF THE CITY ENGINEER FLOODPLAIN MANAGEMENT ADMINISTRATION.

A. Designation of the Floodplain Administrator. The City Engineer is hereby appointed to administer, ~~and~~ implement, ~~and enforce~~ this Code by granting or denying development permits ~~applications~~ in accordance with its provisions. The Floodplain Administrator may delegate authority to implement these provisions.

B. Duties and Responsibilities of the Floodplain Administrator. The duties of the ~~City Engineer Floodplain Administrator, or their designee,~~ shall include, but not be limited to:

1. —1. Permit Review. Reviewing all development permits to:

a. ~~d~~Determine that the permit requirements of this ~~Code~~ Code have been satisfied;

- ~~b. —2. Reviewing all development permits to d~~b. —2. Reviewing all development permits to determine that all other required necessary permits have been obtained from those federal, state or local, state, and federal permits have been obtained and approved governmental agencies from which prior approval is required;
- ~~c. Determine if the proposed development is located in a floodway. —3. Reviewing all development permits to determine if the proposed development is located in the floodway.~~
 - ~~i. If located in the floodway, ensure assure that the encroachmentfloodway provisions of § 17.8.345. the Floodways in §17.8340 are met; and~~
 - ~~ii. Determine if the proposed development is located in an area where Base Flood Elevation (BFE) data is available either through the Flood Insurance Study (FIS) or from another authoritative source. If BFE data is not available then ensure compliance with the provisions of the Use of Other Base Flood Elevation Data in §17.8.355(A)(7); and~~
 - ~~iii. Provide to building officials the Base Flood Elevation (BFE) applicable to any building requiring a development permit. —4. Providing the base flood elevation as has been determined in accordance with § 17.8.315B., Basis for Establishing Areas of Special Flood Hazard to the Building Official, along with any freeboard requirements established in § 17.8.335B., Specific Standards.~~
- ~~d. Determine if the proposed development qualifies as a substantial improvement as defined in §17.8.320.~~
- ~~e. Determine if the proposed development is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions of the Alteration of Watercourses in §17.8.335(A)(1).~~
- ~~f. Determine if the proposed development activity includes the placement of fill or excavation.~~
- ~~a.g. Determine whether the proposed development activity complies with No Net Loss standards of this Code.~~
- ~~C. Use of other base flood data in “A” Zones. When base flood elevation data has not been provided in accordance with § 17.8.315B., Basis for Establishing the Areas of Special Flood Hazard, the City Engineer shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer §§ 17.8.335B., Specific Standards and 17.8.345, Floodways.~~

2. ~~D.~~ Information to be obtained and maintained. The following information shall be obtained and maintained and shall be made available for public inspection as needed:

a. The actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation (BFE) data is provided through the Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM) or obtained in accordance with the Use of Other Base Flood Elevation Data in §17.8.335(A)(7).

~~1. Where base flood elevation data is provided through the Flood Insurance Study, FIRM or as required in § 17.8.325, the City Engineer shall obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basements and below-grade crawlspaces) of all new or substantially improved structures, and whether or not the structure contains a basement.~~

b. The elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of §17.8.330(B)(1)(b) and, §17.8.340, are adhered to.

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

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

e. Maintain all Elevation Certificates (EC) submitted to the City of Forest Grove.

f. The elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under this Code and where Base Flood Elevation (BFE) data is provided through the FIS, FIRM, or obtained in accordance with §17.8.335(A)(7).

g. All floodproofing certificates required under this Code.

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

i. All hydrologic and hydraulic analyses performed as required under this section.

j. All Substantial Improvement and Substantial Damage calculations and determinations as required under §17.8.330(B)(3)(d).

k. Documentation of how no net less standards have been met. (see §17.8.350).

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

~~— 2. For all new or substantially improved floodproofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM or as required in § 17.8.325, the City Engineer shall:~~

~~— a. Verify and record the actual elevation (in relation to mean seal level);~~

~~— b. Maintain the floodproofing certifications required in § 17.8.320B.3.; and~~

~~— c. Maintain for public inspection all records pertaining to the provisions of this Code.~~

~~— E. Alteration of watercourses—~~

~~— 1. Development shall not diminish the flood-carrying capacity of a watercourse. If any watercourse will be altered or relocated as a result of the proposed development, the applicant shall submit certification by a registered professional engineer that the flood-carrying capacity of the watercourse will not be diminished.~~

~~— 2. The City Engineer shall:~~

~~— a. Notify adjacent communities, the Department of Land Conservation and Development and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration; and~~

~~— b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.~~

~~— 3. Applicants shall obtain a Conditional Letter of Map Revision (CLOMR) from FEMA before any encroachment, including fill, new construction, substantial improvement or other development, in the regulatory floodway is permitted. The applicant shall be responsible for preparing technical data to support the CLOMR application any paying any processing or application fees to FEMA.~~

~~F. 3. Requirement to notify other entities and submit new technical data.~~

a4. Community Boundary Alterations. The Floodplain Administrator shall notify the Federal Insurance Administrator in writing whenever the boundary of the City is modified by annexation or the City 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 City's boundaries. Notification shall

include a copy of the map of the City suitable for reproduction, clearly delineating the new City limits or new area for which the community has assumed or relinquished floodplain management regulation authority.

b. Watercourse Alterations.

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

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

ii. The applicant shall be required to submit a Conditional Letter of Map Revision (CLOMR) when required under §17.8.330(B)(3)(c). Ensure compliance with all applicable requirements in §17.8.330(B)(3)(c) and §17.8.335(A)(1).

c. Requirement to submit new technical data.

i. The City's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but no later than six months after the date such information becomes available, a community shall notify the Federal Insurance Administrator of the changes by submitting technical or scientific data in accordance with Title 44 of the Code of Federal Regulations (CFR), Section 65.3. The City 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.

ii. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for:

1. Proposed floodway encroachments that increase the base flood elevation; and

2. Proposed development which increases the base flood elevation by more than one foot in areas where FEMA provided base flood elevations but no floodway.

iii. An applicant shall notify FEMA within six (6) months of project completion when an applicant has obtained a Conditional Letter of Map Revision (CLOMR) from FEMA. This notification to FEMA shall be provided as a Letter of Map Revision (LOMR).

~~—The City Engineer shall:~~

~~—a. Notify FEMA within six months of project completion when an applicant had obtained a Conditional Letter of Map Revision (CLOMR) from FEMA, or when development altered a watercourse, modified floodplain boundaries or modified base flood elevations. This notification shall be provided as a Letter of Map Revision (LOMR); and~~

~~—b. 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 the requirements of this Code and all applicable State and Federal laws.~~

~~—2. The applicant shall be responsible for preparing technical data to support the LOMR application and paying any processing or application fees to FEMA.~~

d. Substantial improvement and substantial damage assessments and determinations. Conduct Substantial Improvement (SI) (as defined in §17.8.320 reviews for all structural development proposal applications and maintain a record of SI calculations within permit files in accordance with §17.8.330(B)(2). Conduct Substantial Damage (SD) (as defined in §17.8.320) assessments when structures are damaged due to a natural hazard event of other causes. Make SD determinations whenever structures within the Special Flood Hazard Area (as established in §17.8.325(B) are damaged to the extent that the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

~~—G. Non-conversion 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 City Engineer 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 in a “Non-Conversion Deed Declaration for Construction within Flood Hazard Areas” or equivalent. The deed declaration shall be recorded with Washington County and shall be in a form acceptable to the City Engineer.~~

~~—H. Interpretation of FIRM boundaries. The City Engineer shall make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in § 17.8.330.~~

~~§ 17.8.320 ESTABLISHMENT OF DEVELOPMENT PERMIT.~~

C. Establishment of Development Permit

~~—A. 1. Floodplain Development permit required. A development permit shall be obtained before construction or development begins within any area of special flood hazard established in § 17.8.3125(B). The permit shall be for all structures including manufactured homes dwellings, as set forth in the definitions and for all other development including fill and other activities, also as set forth in the definitions defined in § 17.8.320, including fill and other development activities.~~

~~B2.~~ Application for development permit. Application for a development permit shall be made on forms furnished by the ~~Engineering Department~~ City’s Floodplain Administrator and may include but not be limited to plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing. Specifically, the following information is required:

~~1.a.~~ In riverine flood zones, the proposed Elevation (in relation to mean sea level), of the lowest floor (including basement) of all structures and all attendant utilities of all new and substantially improved structures; in accordance with the requirements of § 17.8.330(B)(2);

~~2b.~~ Proposed Elevation in relation to mean sea level to which any non-residential structure will be floodproofed, of floodproofing in any structure;

~~3c.~~ Certification by a registered professional engineer or architect licensed in the State of Oregon that the floodproofing methods for any nonresidential structure meet the floodproofing criteria for non-residential structures in § 17.8.335(B)(3)(c); and

~~d.~~ Description of the extent to which a watercourse will be altered or relocated, ~~as a result of proposed development.~~

e. Base Flood Elevation data for subdivision proposals or other

f. Substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure.

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

~~—C. Land below the elevation of the base flood shall be placed in open space or parking lot and landscaped areas if within the developed portion of the site—~~

§ 17.8.330 VARIANCE PROCEDURE.

D. Variance procedure. The issuance of a variance under this section 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.

1. Conditions for variances

a. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, in conformance with the provisions of §17.8.330(D)(1)(c) and (e) and §17.8.330(D)2). As the lot size increases beyond one-half acre, the technical justification required for issuing a variance increases.

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

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

d. Variances shall only be issued upon:

i. A showing of good and sufficient cause;

ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

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

e. Variances may be issued by the City for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that the criteria of §17.8.330(D)(1). Conditions for Variances, are met, and the structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

f. Variances shall not be issued unless it is demonstrated that the development will not result in net loss of the following proxies for the three floodplain functions in the SFHA: undeveloped space; pervious surface; or trees 6 inches dbh or greater.

2. Variance notification. Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the Base Flood Elevation will result in increased premium rates for flood insurance and that such construction below the base flood elevation increases risks to life and property. Such notification and a record of all variance actions, including justification for their issuance shall be maintained in accordance with §17.8.330(B)(2).

~~A. Appeal Board. The Planning Commission shall hear and decide appeals and requests for variances from the requirements of this Code. The Planning Commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the City of Forest Grove in the enforcement or administration of this Code.~~

~~—B. Any affected party may appeal the decision of the Planning Commission to the City Council, as provided in § 17.1.640.~~

~~—C. In passing upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Code, and:~~

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

~~—2. The danger to life and property due to flooding or erosion damage;~~

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

~~—4. The importance of the services provided by the proposed facility to the community;~~

~~—5. The necessity to the facility of a waterfront location, where applicable;~~

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

~~—7. The compatibility of the proposed use with existing and anticipated development ;~~

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

~~—9. The safety of access to the property in times of flood for ordinary and emergency vehicles;~~

~~—10. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site ; and~~

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

~~—D. Upon consideration of the factors of § 17.8.330C. and the purposes of this Code, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Code.~~

~~—E. The City Engineer shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.~~

~~—F. Conditions for variances:~~

~~—1. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items (1-11) in § 17.8.330C. have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.~~

~~—2. Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the Statewide Inventory of Historic Properties, without regard to the procedures set forth in this section.~~

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

~~—4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.~~

~~—5. Variances shall only be issued upon:~~

~~—a. A showing of good and sufficient cause;~~

~~—b. A determination that failure to grant the variance would result in exceptional hardship to the applicant ; and~~

~~—c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in § 17.8.330C., or conflict with existing local laws or codes.~~

~~—6. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece or property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances, they primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.~~

~~—7. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry floodproofing, where it can~~

~~be determined that such action will have low damage potential, complies with all other variance criteria except § 17.8.330F.1., and otherwise complies with § 17.8.335A.1.3. of the General Standards.~~

~~—8. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.~~

§ 17.8.335 PROVISIONS FOR FLOOD HAZARD REDUCTION.

A. General standards. In all ~~areas of~~ special flood hazards areas, the no net loss standards and the following standards are required shall be adhered to:-

1. —1.Alteration of watercourses. Require that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained. Require that maintenance is provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Require compliance with Section §17.8.330(B)(3)(b) and §17.8.330(B)(3)(c).

2. Anchoring.

a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

b. All manufactured ~~homes dwellings~~ shall be anchored per §17.8.335(B)(3)(d)~~must likewise be anchored to prevent flotation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over the top or frame ties to ground anchors (Refer to FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).~~

2.3. Construction materials and methods.

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

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

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

3.4. Utilities and equipment.

a. Water Supply, Sanitary Sewer, and On-Site Waste Disposal Systems

~~a.i.~~ i. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

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

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

b. Electrical, Mechanical, Plumbing, and Other Equipment.

i. Electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall be elevated at or above the base flood elevation or shall be designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during conditions of flooding.

ii. In addition, electrical, heating, ventilating, air-conditioning, plumbing, duct systems, and other equipment and service facilities shall, if replaced as part of a substantial improvement meet all the requirements of this section and not be mounted on or penetrate through breakaway walls.

5. Tanks

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

b. Above ground tanks shall be installed at or above the base flood level or shall be anchored to prevent flotation, collapse, and lateral movement under conditions of the base flood.

4.6. Subdivision proposals and other proposed developments.

a. — a. All new subdivision proposals and other proposed developments, including proposals for manufactured dwelling parks and subdivisions, greater than 50 lots or 5 acres, whichever is the lesser, shall include within such proposals Base Flood Elevation data. shall be consistent with the need to minimize flood damage;

b. All new subdivision proposals and other proposed new developments, including proposals for manufactured dwelling parks and subdivisions shall:

i. Be consistent with the need to minimize flood damage.

ii. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage.

iii. Have adequate drainage provided to reduce exposure to flood hazards.

iv. Comply with no net loss standards in §17.8.350.

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

~~— c. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and~~

~~— d. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).~~

~~— 5. Review of building permits. Where elevation data is not available either through the Flood Insurance Study, FIRM or from another authoritative source (§ 17.8.325C.), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.~~

~~— B. Specific standards. In all areas of special flood hazards where base flood elevation data has been provided (Zones A1-30, AH and AE) as set forth in § 17.8.315B., Basis for Establishing the Areas of Special Flood Hazard, or § 17.8.325C., Use of Other Base Flood Data in "A" Zones, the following provisions are required:~~

~~— 1. Residential construction.~~

~~— a. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation.~~

~~— b. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must be either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:~~

~~— i. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.~~

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

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

~~—2. Manufactured dwellings.~~

~~—a. Manufactured dwellings supported on solid foundation walls shall be constructed with flood openings that comply with § 17.8.335A.1.b. above.~~

~~—b. The bottom of the longitudinal chassis frame beam in “A” zones, shall be at or above BFE;~~

~~—c. The manufactured dwelling 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 (Refer to FEMA’s “Manufactured Home Installation in Flood Hazard Areas” guidebook for additional techniques); and~~

~~—d. Electrical crossover connections shall be a minimum of 12 inches above BFE.~~

~~—3. Nonresidential construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated at or above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:~~

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

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

~~—c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in § 17.8.320B.3.;~~

~~—d. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in § 17.8.335B.1.b.;~~

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

~~—f. Applicants shall supply a Maintenance Plan for the entire structure to include but not 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.~~

~~—g. Applicants 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. Recreational vehicles. Recreational vehicles placed on sites are required to:~~

~~—a. Be on the site for fewer than 180 consecutive days; and~~

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

~~—c. Meet the requirements of § 17.8.335B.2. above and the elevation and anchoring requirements for manufactured homes.~~

~~—5. Accessory structures. Relief from elevation or floodproofing as required in § 17.8.335B.1. or B.3. above may be granted for accessory structures that are:~~

~~—a. Less than 200 square feet and do not exceed one story;~~

~~—b. Not temperature controlled;~~

~~—c. Not used for human habitation and are used solely for parking of vehicles or storage of items having low damage potential when submerged; not 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 this Code or stored at least one foot above Base Flood Elevation;~~

~~—d. Located and constructed to have low damage potential;~~

~~—e. Constructed with materials resistant to flood damage;~~

~~—f. Anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the base flood; and~~

~~—g. Constructed to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater. Designs for complying with this requirement must be certified by a licensed professional engineer or architect or:~~

~~—i. Provide a minimum of two openings with a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;~~

~~—ii. The bottom of all openings shall be no higher than one foot above the higher of the exterior or interior grade or floor immediately below the opening;~~

~~—iii. The openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwater in both directions without manual intervention; and~~

~~—iv. Be 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.~~

~~—6. Below-grade crawl spaces. Below-grade crawlspaces are allowed subject to the following standards as found in FEMA Technical Bulletin 11-01 Crawlspaces Construction for Buildings Located in Special Flood Hazard Areas:~~

~~—a. 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 b. below. Because of hydrodynamic loads, crawlspace construction is not allowed 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.~~

~~—b. The crawlspace is an enclosed area below the base flood elevation (BFE) 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.~~

~~—c. 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 bottom of joists and all insulation above BFE.~~

~~—d. 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.~~

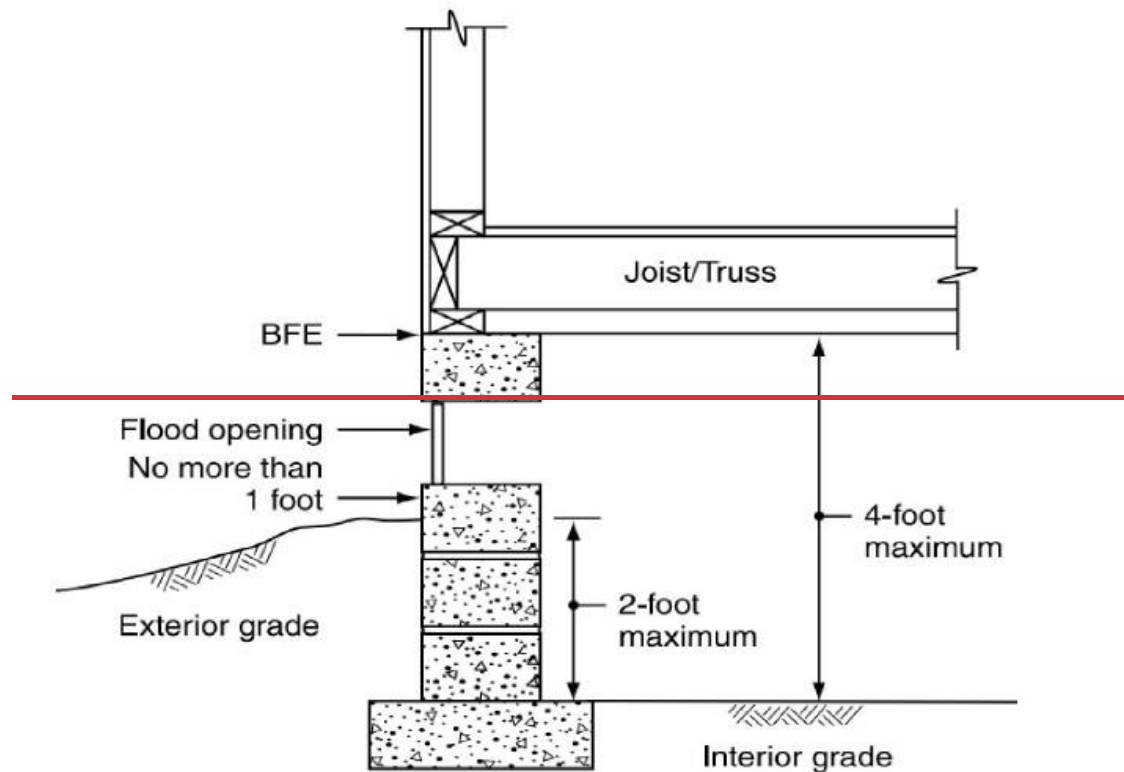
~~—e. The interior grade of a crawlspace below the BFE must not be more than two feet below the lowest adjacent exterior grade.~~

~~—f. The height of the below-grade crawlspace, measured from the interior grade of the crawlspace to the top of the crawlspace foundation wall must not exceed four feet at any point. The height limitation is the maximum allowable unsupported wall height according to the engineering analyses and building code requirements for flood hazard areas.~~

~~—g. 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.~~

—h. 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. For more detailed information, refer to FEMA Technical Bulletin 11-01.

Figure 8-6: Limitations on Below-Grade Crawlspaces



—Residential structures must be elevated a minimum of one foot above the Base Flood Elevation (BFE).

7. Use of Other Base Flood Elevation Data

- a. When base flood elevation data has not been provided in accordance with §17.8.325(B) the local floodplain administrator shall obtain, review, and reasonably utilize any Base Flood Elevation data available from a federal, state, or other source, in order to administer §17.8.335. All new subdivision proposals and other proposed new development developments, including proposals for manufactured dwelling parks and subdivisions, must meet the requirements of §17.8.335(A)(6).

b. Base Flood Elevations shall be determined for development proposals that are 5 acres or more in size or are 50 lots or more, whichever is the lesser in any A zone that does not have an established base flood elevation. Development proposals located within a riverine unnumbered A Zone shall be reasonably safe from flooding; the test of reasonableness includes use of historical data, high water marks, FEMA provided Base Level Engineering data, and photographs of past flooding, etc. where available. The elevation of residential structures and non-residential structures that are not dry floodproofed must be at least two feet above highest adjacent grade. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

8. Structures located in multiple or partial flood zones. In coordination with the State of Oregon Specialty Codes:

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

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

B. Specific Standards for Riverine Including All Non-Coastal Flood Zones. These specific standards shall apply to all new construction and substantial improvements in addition to the General Standards contained on §17.8.335(A) of this Code and no net loss standards in §17.8.350.

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

a. Be designed to automatically equalize hydrostatic flood forces on walls by allowing for entry and exit of floodwaters.

b. Be used solely for parking, storage, or building access.

c. Be certified by a registered professional engineer or architect or meet or exceed all of the following minimum criteria:

i. A minimum of two openings;

ii. The total net are of non-engineered openings shall be not less than one square inch for each square foot of enclosed area, where the enclosed area is measured on the exterior of the enclosure walls;

- iii. The bottom of all openings shall be no higher than one foot above grade;
- iv. Openings may be equipped with screens louvers, valves or other coverings or devices provided that they shall allow the automatic flow of floodwater into and out of the enclosed areas and shall be accounted for in the determination of the net open area; and
- v. All additional higher standards for flood openings in the State of Oregon Residential Specialty Codes Section R322.2 shall be complied with when applicable.

2. Garages

- a. Attached garages may be constructed with the garage floor slab below the Base Flood Elevation (BFE) in riverine flood zones, if the following requirements are met:
 - i. If located within a floodway the proposed garage must comply with the requirements of §17.8.340;
 - ii. The floors are at or above grade on not less than one side;
 - iii. The garage is used solely for parking; building access, and/or storage;
 - iv. The garage is constructed with flood openings in compliance with §17.8.335(B)(1) to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit to floodwater;
 - v. The portions of the garage constructed below Base Flood Elevation are constructed with materials resistant to flood damage.
 - vi. The garage is constructed in compliance with the standards in §17.8.335(A); and
 - vii. The garage is constructed with electrical and other service facilities located and installed so as to prevent water from entering or accumulating within the components during conditions of the base flood.
- b. Detached garages must be constructed in compliance with the standards for appurtenant structures in §17.8.335(B)(4)(f) or non-residential structures in §17.8.335(B)(3)(d) depending on the square footage of the garage.

2. Riverine (Non-Coastal Special Flood Hazard Areas With Base Flood Elevations). In addition to the general standards listed in §17.8.335(A) the following specific

standards shall apply in Riverine (non-coastal) special flood hazard areas with Base Flood Elevations (BFE): Zones A1-A30, AH, and AE.

3. ~~§ 17.8.340 BEFORE REGULATORY FLOODWAY.~~

a. Before Regulatory Floodway. In areas where a regulatory floodway has not been designated, no new construction , substantial improvements or other development (including fill) shall be permitted within Zones A1-30 and AE on the community's FIRM , unless it is demonstrated that the cumulative effect of the proposed development , when combined with all other existing and anticipated development , will not increase the water surface elevation of the base flood more than one foot at any point within the community and will not result in the net loss of storage volume. When determined that structural elevation is not possible and where the placement of fill cannot meet the above standard, impacts to undeveloped space must adhere to the no net loss standards in §17.8.350(A)(3).

b. Residential construction.

i. New construction, conversion to, and substantial improvement of any residential structure shall have the lowest floor, including basement elevated at least one foot above the Base Flood Elevation.

ii. Enclosed areas below the lowest floor shall comply with the flood opening requirements in §17.8.335(B)(1).

c. Non-residential construction.

i. New construction, conversion to and substantial improvement of any commercial, industrial, or other on-residential structure shall:

1. Have the lowest floor, including basement elevated at or above the Base Flood Elevation; or

2. Together with the attendant utility and sanitary facilities:

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

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

c. Be certified by a registered professional engineering or architect that the design methods of construction are in accordance with accepted standards of practice for meeting provisions of this section based on their

development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth in §17.8.330(B)(2).

3. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in §17.8.335(B)(1).
4. Applicants floodproofing non-residential building shall be notified that flood insurance premiums will be based on rates that are one foot below floodproofed level (e.g. building floodproofed to the base flood level will be rates as one foot below).

d. Manufactured Dwellings.

1. Manufactured dwellings to be placed (new or replacement) or substantially improved that are supposed on solid foundation walls shall be constructed with flood openings that comply with §17.8.335(B)(1).
2. The bottom of the longitudinal chassis frame beam shall be at or above Base Flood Elevation;
3. Manufactured dwellings to be placed (new or replacement) or substantially improved shall be anchored to prevent flotation, collapse, and lateral movement during the base flood. Anchoring methods may include but are not limited to, use of over-the-top or frame ties to ground anchors. See FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques, and;
4. Electrical crossover connections shall be a minimum of twelve inches above Base Flood Elevation.

e. Recreational Vehicles. Recreation vehicles placed on sites are required to:

1. Be on the site for fewer than 180 consecutive days; and
2. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.
3. Meet the requirements of §17.8.335(B)(3)(d), including the anchoring and elevation requirements for manufactured dwellings.

f. Appurtenant (Accessory) Structures. Relief from floodproofing requirements for residential and non-residential structures in Riverine (Non-Coastal) flood zones may be granted for appurtenant structures that meet the following requirements:

1. Appurtenant structures located partially or entirely within the floodway must comply with requirements for development within a floodway found in §17.8.340.
2. Appurtenant structures must only be used for parking, access, and/or storage and shall not be used for human habitation.
3. In compliance with State of Oregon Specialty Codes, appurtenant structures on properties that are zoned residential are limited to one-story structures less than 200 square feet, or 400 square feet if the property is greater than two acres in area and the proposed appurtenant structure will be located a minimum of 20 feet from all property lines. Appurtenant structures on properties that are zoned as non-residential are limited to 120 square feet.
4. The portions of the appurtenant structure located below the Base Flood Elevation must be built using flood resistant materials;
5. 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;
6. 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 §17.8.335(B)(1);
7. Appurtenant structures shall be located and constructed to have low damage potential;
8. 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 to a tank installed in compliance with §17.8.335(A)(5); and
9. 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.

§ 17.8.34517.8.340. STANDARDS FOR FLOODWAYS.

Located within areas of special flood hazard established in § 17.8.3125B. are areas designated as floodways . Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions apply:

- A. ~~Except as provided in paragraph C. below, p~~Prohibit encroachments, including fill, new construction, ~~substantial improvements,~~ and other development within the adopted regulatory floodway unless:

1. ~~Ce~~certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels within the community during the occurrence of the base flood discharge.; ~~or~~
2. The City may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that conditional approval has been obtained by the Federal Insurance Administrator through the Conditional Letter of Map Revision (CLOMR) application process, all requirements established under 44 CFR 65.12 are fulfilled, and the encroachment(s) comply with the no net loss standards in §17.8.350.

- B. If the requirements of §17.8.340(A) are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard provisions of §17.8.335 and §17.8.350.

~~—B. If § 17.8.345A. is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of § 17.8.335, Provisions for Flood Hazard Reduction.~~

~~—C. Temporary structures placed in the floodway : Relief from no-rise evaluation, elevation or dry flood proofing standards may be granted for a non-residential structure placed during the dry season (June—October) and for a period of less than 90 days. A plan for the removal of the temporary structure after the dry season or when a flood event threatens shall be provided. The plan shall include disconnecting and protecting from water infiltration and damage all utilities servicing the temporary structure.~~

~~—D. Temporary storage of goods and materials, not including hazardous materials, is allowed in the floodway for a period of less than 90 days within the dry season (June—October).~~

§17.8.345 STANDARDS FOR SHALLOW FLOODING AREAS

Shallow flooding areas appear on FIRMs as AO zones with depth designations or as AH zones with Base Flood Elevations. For AO zones the base flood depths range from one to

three feet above ground where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. For both AO and AH zones, adequate drainage paths are required around structures on slopes to guide floodwaters around and away from proposed structures.

A. Standards for AH zones. Development within AH zones must comply with the standards in §17.8.335(A), §17.8.335(B) and §17.8.345.

B. Standards for AO zones. In AO zones, the following provisions apply in addition to the requirements in §17.8.335 and §17.8.345.

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

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

a. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at a minimum to or above the depth number specified on the Flood Insurance Rate Maps (FIRMs) at least two feet if no depth number is specified.

b. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the depth number specified on the FIRM or a minimum of two feet above the highest adjacent grade if no depth number is specified, so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect.

c. Recreational vehicles placed on sites within AO zones on the community's Flood Insurance Rate Map shall either:

1. Be on the site for fewer than 180 consecutive days, and

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

3. Meet the elevation requirements of section §17.8.345(B)(1), and the anchoring and other requirements for manufactured dwellings in §17.8.335(B)(3)(d).

d. In AO zones, new and substantially improved appurtenant structures must comply with the standards in §17.8.335(B)(4)(f).

e. In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in §17.8.335(B)(1).

§17.8.350 STANDARDS FOR PROTECTION OF SPECIAL FLOOD HAZARD AREA FLOODPLAIN FUNCTIONS

The standards described below apply to all special flood hazard areas as defined in §17.8.320:

A. No net loss of the three proxies for floodplain functions

1. No net loss of the three proxies for 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 area 6-inches dbh or greater. No net loss can be achieved by first avoiding negative effects of floodplain functions to the degree possible, then minimizing remaining effects, then replacing and/or otherwise compensating for, offsetting, or rectifying the residual adverse effects of the three floodplain functions. Prior to issuance of any development authorization, the applicant shall:

a. Demonstrate a legal right by the project proponent to implement the proposed activities to achieve no net loss (e.g., property owner agreement)

b. Demonstrate that financial assurances are in place for the long-term maintenance and monitoring of all projects to achieve no net loss;

c. Include a management plan that identifies the responsible site manager, stipulates which activities are allowed on site, and requires the posting of signage identifying the site as a mitigation area.

2. Compliance with no net loss for undeveloped space or impervious surface is preferred to occur prior to the loss of habitation function but, at a minimum, shall occur concurrent with the loss. To offset the impacts of delay in implementing no net loss, a 25 percent increase in the required minimum area is added for each year no net loss implementation is delayed.

3. No net loss must be provided within, in order of preference: 1) the lot or parcel that floodplain functions were removed from, 2) the same reach of

the waterbody where the development is proposed, or 3) the special flood hazard area within the same hydrologically connected area as the proposed development. The table below presents the no net loss ratios, which increase based on the preferences listed above.

Table 1 No Net Loss Standards

<u>Basic Mitigate Ratios</u>	<u>Undeveloped Space (ft³)</u>	<u>Impervious Surface (ft²)</u>	<u>Trees (6" < dbh ≤ 20")</u>	<u>Trees (20" < dbh ≤ 39")</u>	<u>Trees (39" < dbh)</u>
<u>RBZ and Floodway</u>	<u>2:1*</u>	<u>1:1</u>	<u>3:1*</u>	<u>5:1</u>	<u>6:1</u>
<u>RBZ-Fringe</u>	<u>1.5:1*</u>	<u>1:1</u>	<u>2:1*</u>	<u>4:1</u>	<u>5:1</u>
<u>Mitigation multipliers</u>					
<u>Mitigation onsite to Mitigation offsite, same reach</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>
<u>Mitigation onsite to Mitigation offsite, different reach, same watershed (5th field)</u>	<u>200% *</u>	<u>200%*</u>	<u>200%*</u>	<u>200%</u>	<u>200%</u>

Notes:

- Ratios with asterisks are indicated in the National Marine Fisheries Service (NMFS) Biological Opinion
- Mitigation multipliers of 100% result in the required mitigation occurring at the same value described by the ratios above, while multipliers of 200% result in the required mitigation being doubled. For example, if only 500 square feet of the total 1000 square feet of required pervious surface mitigation can be conducted onsite and in the same reach, the remaining 500 square feet of required pervious surface mitigation occurring offsite at a different reach would double because of the 200% multiplier.
- RBZ impacts must be offset in the RBZ, onsite or offsite.
- Additional standards may apply in the RBZ (See the Riparian Buffer Zone section below).

4. Undeveloped space.

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

- b. A development proposal with an activity that would impact undeveloped space shall achieve no net loss of fish-accessible and egress-able space.
- c. Lost undeveloped space must be replaced with fish-accessible and egress-able compensatory volume based on the ratio in Table 1 and the same flood level at which development causes an impact (i.e., plus or minus one-foot of the hydraulic equivalent elevation.
 - i. Hydraulically equivalent sites must be found within either the equivalent 1-foot elevations or the same flood elevation bands of the development proposal. The flood elevation bands are identified as follows:
 - 1. Ordinary High-Water Mark to 10-year;
 - 2. 10-year to 25-year;
 - 3. 25-year to 50-year; and
 - 4. 50-year to 100-year
 - ii. Hydrologically connected to the waterbody that is the flooding source;
 - iii. Designed so that there is no increase in velocity; and
 - iv. Designed to fill and drain in a manner that minimizes anadromous fish standing to the greatest extent possible.
- 5. Impervious Surfaces. Impervious surface mitigation shall be mitigated through any of the following options:
 - a. Development proposals shall not result in a net increase in impervious surface area within the Special Flood Hazard Area, or
 - b. Use low impact development or green infrastructure to infiltrate and treat stormwater produced by the new impervious surface, as documented by a qualified professional, or
 - c. If prior methods are not feasible and documented by a qualified professional stormwater retention is required to ensure no net increase in peak volume or flow and to maximize infiltration, and treatment is required to minimize pollutant loading. See §17.8.350(B).
 - a.—If prior methods are not feasible and documented by a qualified professional, stormwater retention is required to ensure no increase in peak volume or flow and to maximize infiltration, and treatment is required to minimize pollutant loading. See §17.8.350(B)(3) for stormwater retention specifications.

6. Trees.

a. Development proposals shall result in no net loss of trees 6-inches dbh or greater within the Special Flood Hazard Area. This requirement does not apply to silviculture where there is no development.

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

2. Replacement trees must be native species that would occur naturally in the Level III ecoregion of the impact area. (Willamette Valley).

B. Stormwater Management. Any development proposal that cannot be mitigated must include the following:

1. Water quality (pollution reduction) treatment for post-construction stormwater runoff from any net increase in impervious area: and

2. Water quantity treatment (retention facilities) unless the outfall discharges into the ocean.

3. Retention facilities must:

a. 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).

b. 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.

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

d. Be certified by a qualified professional.

4. 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 must include:

a. Access to stormwater treatment facilities at the site by the City for the purpose of inspection and repair;

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

c. 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.

d. 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.

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

1. 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.

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

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

4. 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 the Special Flood Hazard Area or tilled into fields as a soil amendment.

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

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

7. 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.

8. 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.
9. Habitat restoration activities.
10. Pre-emptive removal of documented susceptible trees to manage the spread of invasive species.
11. Projects that are covered under separate consultation under §4(d), 7 or 10 of the Endangered Species Act.

D. Riparian Buffer Zone (RBZ)

1. The Riparian Buffer Zone is measured from the ordinary high-water line of a fresh waterbody (lake; pond; ephemeral, intermittent, or perennial stream) or mean higher-high water of a marine shoreline or tidally influenced river reach to 170 feet horizontally on each side of the stream or inland of the MHHW. The riparian buffer zone includes the area between these outer boundaries on each side of the stream, including the stream channel.
2. Habitat restoration activities in the RBZ are considered self-mitigating and are not subject to the no net loss standards described above.
3. Functionally dependent uses are only subject to the no net loss standards for development in the RBZ. Ancillary features that are associated with but do not directly impact the functionally dependent use in the RBZ (including manufacturing support facilities and restrooms) are subject to the beneficial gain standard in addition to no net loss standards.
4. 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.
5. Under FEMA's beneficial gain standard, an area within the same reach of the project and equivalent to 5% of the total project area within the RBZ shall be planted with native herbaceous and shrub vegetation and designated as open space.

§ 17.8.3505 CRITICAL FACILITY.

—Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain-). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above BFE or to the height of the 500-year flood-, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not

be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

§ 17.8.35560 ENVIRONMENTAL PRACTICE.

—All property owners, developers or other persons proposing to modify land in the city limits of Forest Grove are encouraged to integrate the habitat-friendly development practices listed in Table 8-1 as part of any modification of the site-. Those practices within road rights-of-way or other public property shall be approved by the City Engineer-. Other practices shall be approved by the Community Development Department. Said approvals shall be obtained:

- A. Where no land use permit is required, prior to any physical modification of the site-;
- B. Where any land use permit is required by the Development Code, concurrent with an approval of the permit; or
- C. Where there is a Natural Resource Area and alternative discretionary development standards are used pursuant to the requirements of § 17.5.040.

Table 8-1: Habitat-Friendly Development Practices*

Part (a): Design and Construction Practices to Minimize Hydrologic Impacts

Table 8-1: Habitat-Friendly Development Practices*

Part (a): Design and Construction Practices to Minimize Hydrologic Impacts

1. Amend disturbed soils to original or higher level of porosity to regain infiltration and stormwater storage capacity.
2. Use pervious paving materials for residential driveways-, parking lots, walkways and within centers of cul-de-sacs-.
3. Incorporate stormwater management in road rights-of-way.
4. Landscape with rain gardens to provide on-lot -detention, filtering of rainwater and groundwater recharge.
5. Use green roofs for runoff reduction, energy savings, improved air quality and enhanced aesthetics.
6. Disconnect downspouts from roofs and direct the flow to vegetated infiltration/filtration areas such as rain gardens.
7. Retain rooftop runoff in a rain barrel for later on-lot- use in lawn and garden watering.
8. Use multi-functional open drainage systems in lieu of more conventional curb-and-gutter systems.
9. Use bioretention cells as rain gardens in landscaped parking lot islands to reduce runoff volume and filter pollutants.
10. Apply a treatment train approach to provide multiple opportunities for stormwater treatment and reduce the possibility of system failure.

11. Reduce sidewalk width and grade- them such that they drain to the ~~front-yard~~front yard of a residential lot or retention area.

12. Reduce impervious impacts of residential driveways- by narrowing widths and moving access- to the rear of the site-.

13. Use shared driveways-.

14. Reduce width of residential streets-, depending on traffic and parking needs.

15. Reduce street- length, primarily in residential areas, by encouraging clustering and using curvilinear designs.

16. Reduce cul-de-sac- radii and use pervious vegetated islands in center to minimize impervious effects, and allow them to be utilized for truck maneuvering/loading to reduce need for wide loading ~~areas-on~~areas on site .

17. Eliminate redundant non-ADA- sidewalks within a site (i.e., sidewalk to all entryways and/or to truck loading areas may be unnecessary for industrial developments).

18. Minimize car spaces and stall dimensions, reduce parking ratios and use shared parking facilities and structured parking.

19. Minimize the number of stream crossings and place crossing perpendicular to stream channel if possible.

20. Allow narrow street ~~right-of-ways~~rights-of-way through stream corridors whenever possible to reduce adverse impacts of transportation corridors.

*These development- practices represent the state of scientific knowledge at the time of this Code's enactment, if more effective habitat-friendly practices become available, they should be used.

Part (b): Design and Construction Practices to Minimize Impacts on Wildlife Corridors and Fish Passage

1. Carefully integrate fencing into the landscape to guide animals toward animal crossings under, over or around transportation corridors.

2. Use bridge crossings rather than culverts wherever possible.

3. If culverts are utilized, install slab, arch or box type culverts, preferably using bottomless designs that more closely mimic stream bottom habitat.

4. Design stream crossings for fish passage with shelves and other design features to facilitate terrestrial wildlife passage.

5. Extend vegetative cover through the wildlife crossing in the migratory route, along with sheltering areas.

Part (c): Miscellaneous Other Habitat-Friendly Design and Construction Practices

1. Use native plants throughout the development- (not just in NRA).

2. Locate landscaping (required by other sections of the Code) adjacent to NRA.

3. Reduce light-spill off into NRAs from development-.

§ 17.12.210 MEANING OF SPECIFIC WORDS AND TERMS.

As used in this Code, the following words and phrases shall mean:

A19. APPEAL. A request that a final decision -be considered by a higher authority. For floodplain management purposes Appeal also means a request for a review of any provision of the floodplain management ordinance described in §17.8.330(D) Variance Procedure.

F7. FLOOD-RELATED DEFINITIONS: See §17.8.320 (Floodplain Management Definitions)

~~—a. AREA OF SPECIAL FLOOD HAZARD. The land in the floodplain within a community subject to a 1% or greater chance of flooding in any given year. Designation on maps always includes the letter “A.”~~

~~—b. BASE FLOOD. The flood having a 1% chance of being equaled or exceeded in any given year. Also referred to as the “100-year flood.” Designation on maps always includes the letter “A.”~~

~~—c. BELOW GRADE CRAWL SPACE. An enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed four feet at any point.~~

~~—d. 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.~~

~~—e. CRITICAL FACILITY. A facility for which even a slight chance of flooding might be too great. CRITICAL FACILITIES include, but are not limited to schools, nursing homes, hospitals, police, fire and emergency response installations, installations which produce, use or store hazardous materials or hazardous waste.~~

~~—f. ELEVATED BUILDING. For insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, post, piers, pilings or columns.~~

~~—g. FLOOD or FLOODING.~~

~~—(1) A general and temporary condition of partial or complete inundation of normally dry land areas from:~~

~~——(A) The overflow of inland or tidal waters.~~

~~——(B) The unusual and rapid accumulation or runoff of surface waters from any source.~~

~~——(C) Mudslides (such as, mudflows) which are proximately caused by flooding as defined in paragraph (g)(1)(B) of this definition and are akin to a river of liquid and flowing~~

mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

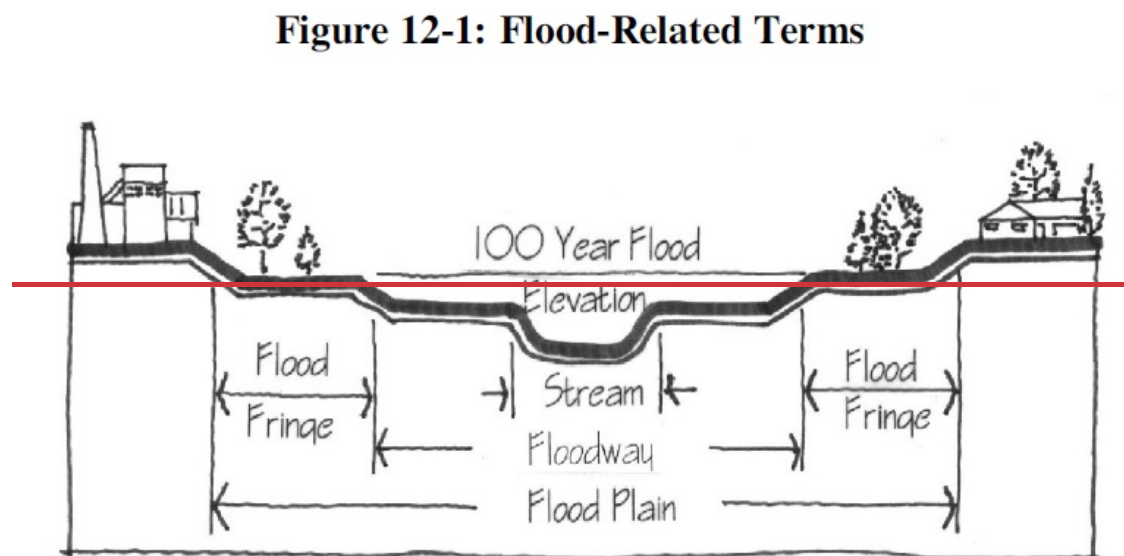
—(2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe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

—h. FLOODPLAIN. The zone along a watercourse enclosed by the outer limits of land which is subject to inundation in its natural or lower revised contours by the base flood.

—i. 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 one foot.

—j. FLOODWAY FRINGE. The area of the floodplain lying outside of the floodway.

Figure 12-1: Flood-Related Terms



—k. FLOOD INSURANCE RATE MAP (FIRM). An official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

—l. FLOOD INSURANCE STUDY. An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determining of mudslide (such as, mudflow) and/or flood-related erosion hazards.

~~—m. FLOOD MANAGEMENT AREA (FMA). Includes land identified within the 100-year flood plain and floodway as shown on the Federal Emergency Management Agency Flood Insurance Maps and land identified in updated flood studies such as Metro's 1996 Flood Inundation Map or any other authoritative data documenting flood elevations as approved by the city.~~

~~—n. HIGHEST ADJACENT GRADE. The highest natural elevation of the ground surface prior to construction, adjacent to the proposed wall of a structure.~~

~~—o. LETTER OF MAP CHANGE (LOMC). An official FEMA determination, by letter, to amend or revise effective Flood Insurance Rate Maps (FIRM) and/or Flood Insurance Studies (FIS). LOMCs are issued in the following categories:~~

~~—1. LETTER OF MAP AMENDMENT. An amendment to the Flood Insurance Rate Maps 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).~~

~~—i. LOMR-F (LETTER OF MAP REVISION BASED ON FILL). 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.~~

~~—ii. 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, of the Special Flood Hazard Area. It is recommended a conditional letter of map revision be approved by FEMA prior to issuing a permit to start a project if the project has a potential to affect the special flood hazard area (see Conditional Letter of Map Revision).~~

~~—p. LOWEST FLOOR. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements.~~

~~12. IMPERVIOUS SURFACE. Any material that prevents absorption of stormwater into the ground. See floodplain management definitions in §17.8.320.~~

M1. MANUFACTURED DWELLING. A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term MANUFACTURED DWELLING does not include a RECREATIONAL VEHICLE. And is synonymous with "manufactured home".

Planning Commission Findings and Decision Number 2025-02

Recommend City Council Approval of an Ordinance Amending the Text of Forest Grove Development Code Articles 8 and 12 Pertaining to Floodplain Management and Related Definitions

File Number 311-25-000005-PLNG

WHEREAS, in 2016, the National Marine Fisheries Service (NMFS) issued a biological opinion (BiOp) which recommended changes to the implementation of the National Flood Insurance Program (NFIP) in Oregon on listed endangered species under NMFS authority; and

WHEREAS, as a result of the BiOp issued by NMFS, communities are required to demonstrate how development in the floodplain is compliant with the Endangered Species Act while an Environmental Impact Statement is prepared; and

WHEREAS, the Federal Emergency Management Agency (FEMA) developed a model flood hazard management model ordinance (Model Ordinance) in 2024; and

WHEREAS, the Model Ordinance addresses the requirements outlined in the draft implementation plan for the NFIP; and

WHEREAS, the Model Ordinance provides the regulations necessary to implement the draft implementation plan and serves as one of three actions a community can take under pre-implementation compliance measures (PICM); and

WHEREAS, implementing the Model Ordinance is the preferred PICM action under Oregon land use planning law which requires clear and objectives development standards for certain types of development; and

WHEREAS, implementing the Model Ordinance also ensures the City's continuing eligibility for participation in the NFIP; and

WHEREAS, on March 4, 2025, notice of the proposed amendments to the Development Code was provided to the Oregon Department of Land Conservation and Development and Metro; and

WHEREAS, on April 1, 2025, notice of the proposed amendments were also provided to potentially affected property owners as required by Oregon Ballot Measure 56 and the Development Code; and

WHEREAS, notice of the proposed amendments was published in the Forest Grove News-Times on April 10, 2025 as required by the Development Code; and

WHEREAS, the Planning Commission held the duly noticed public hearing on the proposed amendments on April 21, 2025.

NOW THEREFORE, The City of Forest Grove Planning Commission does hereby recommend to the City Council approval of an ordinance amending the Forest Grove Development Code to incorporate the FEMA Model Ordinance making the following specific findings in support of the decision:

Development Code Text Amendment Review Criteria (§17.2.630)

- A. The text amendment is consistent with the relevant goals and policies of the Forest Grove Comprehensive Plan.

Finding: If adopted the proposed text amendment will amend Forest Grove Development Code Articles 8 (General Development Standards) and 12 (Definitions) to incorporate the FEMA Model Floodplain Management Ordinance. The text amendment is consistent with the Natural Resources and Natural Hazard Goals related to floodplains areas for the following reasons. The proposed text amendments protect floodplain areas from incompatible uses to reduce potential for property damage by imposing requirements for new construction and substantial improvements. The proposed amendments also include requirements for floodproofing to reduce potential for property damage. In addition, the proposed Development Code amendments require submittal of specific information, including basic environmental data such as base flood elevation data, to address hazard conditions.

- B. The text amendment is consistent with relevant statewide and regional planning goals, program and rules.

Finding: The proposed text amendment is consistent with the Oregon Statewide Land Use Planning Goal 7 (Natural Hazards) since the proposed Development Code amendments including measures to implement the Federal Emergency Management Agency's 2024 Model Ordinance for floodplain management. The Model Ordinance includes developments standards to protect people and property natural hazards consistent with the intent of Goal 7. In addition, incorporating the Model Ordinance into the Development Code ensures that local floodplain regulations meet minimum National Flood Insurance Program NFIP requirements. Under Goal 7 local governments are deemed to comply with Goal 7 for riverine flood hazard areas by adopting local floodplain regulations that minimum NFIP requirements.

Finding: The proposed Development Code amendments are consistent with Metro Regional Framework Plan flood mitigation policies. Metro Framework Plan Chapter 5 addresses regional natural hazards including flood hazards. Chapter 5 encourages local governments to implement approaches for mitigating flood hazards including changing local development ordinances related to height requirement above base flood elevation. The FEMA Model Ordinance and proposed Development Code amendments includes development standards for minimum height required above base flood

elevation for development and substantial improvements within special flood hazard areas.

Finding: The proposed Development Code amendments are consistent with Metro Urban Growth Management Plan Title 3 (Water Quality and Flood Management) since the amendments include measures to protect the beneficial functions of flood management areas by requiring no net change from existing changes for floodplain storage, water quality, and vegetation.

Forest Grove Comprehensive Plan Natural Resources and Natural Hazards Goals

The Forest Grove Comprehensive Plan includes goals for natural resources and natural hazards:

Goal 1) All development shall consider, take into account and demonstrate suitability relative to the natural hazard limitations of the Forest Grove area; and

Goal 2) Flood plain areas shall be protected from incompatible uses to reduce potential for property damage.

Finding: The Model Ordinance and proposed Development Code amendments provide tools to demonstrate the suitability of development sites relative to the natural hazard limitations within Forest Grove including areas identified as areas of special flood hazard. Such tools include methods for reducing flood losses by restricting or prohibiting development which is dangerous to health, safety and property due to erosion hazards and requiring that development vulnerable to floods be protected against flood damage at the time of initial construction. These requirements are identified in Section 5.0 (Provisions for Flood Hazard Reduction) of the Model Ordinance and reflected in proposed Development Code §17.8.335.

Finding: The Model Ordinance and proposed Development Code amendments provide development standards for development subject to the floodplain management requirements to reduce potential for property damage. In addition, the Model Ordinance identifies methods for reducing flood losses including restricting or prohibiting development which is dangerous to health, safety and property due to water or erosion hazards, or which could result in damaging increases in erosion or in flood heights or velocities. These requirements are identified in Section 5.0 (Provisions for Flood Hazard Reduction) of the Model Ordinance and reflected in proposed Development Code §17.8.335.

Forest Grove Comprehensive Plan Natural Resources and Natural Hazard Policies

Policy 2) Those involved in development will be required to address hazard conditions by the inclusion of basic environmental data (i.e. soil type, elevation of the flood plain, geological limitations, etc.) and related designs and engineering solutions in the submittal requirements for the development. The data requirements are identified in

Model Ordinance Section 4.2.2 (Information to be Obtained and Maintained) and in proposed Development Code §17.8.330(B)(2).

Finding: The Model Code identifies the required information for a floodplain development permit. Required information includes base flood elevation and hydrologic and hydraulic analyses.

Policy 3) Adopt as a provision in both the zoning and subdivision ordinances that an environmental report be prepared and certified by a qualified engineer for all development proposals in areas having natural physical hazards and/or limitations. As part of the environmental report, the engineer shall identify the intensity of urban development to be permitted based upon the carrying capacity of the land. Open space may be required within the development to protect the public health and safety.

Finding: The Model Ordinance and proposed Development Code amendments require analyses prepared by a qualified professional in areas the area of special flood hazard. The Model Ordinance defines the area of special flood hazard to include the land in the floodplain with a community subject to 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, A9, AR (V, V1-30), VE).

Policy 4) Permanent structural improvements will not be permitted in areas delineated as being located within the floodway of the 100-year flood plain as indicated from floodplain surface elevations provided by the US Army Corps of Engineers.

Finding: The Model Ordinance and proposed Development Code amendments prohibits encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless certification by a registered civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment will not result in any increase flood levels within the community during the occurrence of the base flood discharge. A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that conditional approval has been obtained by the Federal Insurance Administrator through the Conditional Letter of Map Revision (CLOMR) application that all requirements established under 44 CFR 65.12 are fulfilled, and the encroachment(s) comply with the no net less standards in the Model Ordinance. These restrictions are deemed consistent with Policy 4.

Policy 5) The development of areas delineated as being within the 100-year flood plain as indicated from flood plain surface elevations provided in the most current Washington County, Oregon – US Army Corps of Engineers information shall be limited to appropriate open space uses.

Finding: The Model Ordinance identifies methods of reducing flood losses including employing a standard of “no net loss” of natural and beneficial floodplain functions

including floodplain storage, water quality, and vegetation. The no net loss standards require that adverse development impacts must be avoided or offset through adherence to certain requirements.

Policy 6) Fill and compensatory excavation of the flood plain shall be used only as a final design solution for development adjacent to the floodway. Developers shall be required to spell out how development alternatives were evaluated, and conclusions were made.

Finding: The Model Ordinance identifies methods of reducing flood losses including employing a standard of “no net loss” of natural and beneficial floodplain functions including floodplain storage, water quality, and vegetation. The no net loss standard stipulates that adverse development impacts must be avoided or offset through to the development standards identified in the Model Ordinance.

Metro Framework Plan and Urban Growth Management Functional Plan

The Metro Framework Plan includes policies for flood hazard mitigation that are applicable to the proposed Development Code amendments:

Policy 5.2 Flood Hazard Mitigation Measures

5.2.1 Protect the function of floodplains to safely convey floodwaters in the region.

Finding: A purpose of the FEMA Model Ordinance and proposed Development Code amendments is to protect the three floodplain functions of floodplain storage, water quality, and vegetation. Therefore, the Model Ordinance is consistent with the intent of Policy 5.2.1 to protect the function of floodplains.

5.2.2 Encourage local governments to implement approaches for mitigating flood hazards.

Finding: The Model Ordinance includes implementation approaches for mitigating flood hazards including elevation structures and floodproofing. Standards are included in Model Ordinance Section 5.0 (Provisions for Flood Hazard Reduction) and proposed revisions to Development Code §17.8.335.

5.2.3 Encourage the avoidance of floodplain development and other non-structural flood mitigation measures instead of using levee and dike construction and other structural flood mitigation techniques.

Finding: The Model Ordinance and proposed Development Code amendments encourages avoidance of floodplain development. This is achieved through provisions for no net loss of floodplain functions and with no net loss of undeveloped space or impervious surface being the preferred approach to development. The Model Ordinance in Section 6.0 and proposed Development Code §17.3.350 states that no net loss can be achieved by first avoiding negative effects to floodplain functions to the degree possible, then minimizing remaining effects.

Metro Urban Growth Management Plan Title 3: Water Quality and Flood Management

The purpose of Title 3 is to protect the beneficial water uses and functions and values of resources within the water quality and flood management areas by limiting or mitigating the impact on these areas from development activities and protecting life and property to dangers associated with flooding (§3.07.310).

Finding: the Model Ordinance advances requirements for development affecting flood management areas and addresses requirements outlined in the FEMA draft implementation plan for the National Insurance Flood Insurance program-Endangered Species Act integration in Oregon (aka the Oregon Implementation Plan). As stated in the NFIP Oregon Implementation Program Guidance, the Model Floodplain Management Ordinance provides a set of provisions to protect the built environment from flood damage and to minimize potential impacts of construction and reconstruction on public health and safety, property, water quality, and aquatic and riparian habitats. The requirements pertain to new development in Special Flood Hazard Areas which include maintenance, repair, or remodel of existing structures and utilities when the existing footprint is expanded and/or the floodplain is further encroached upon. This is consistent with the purpose of Title 3 stated above.

Oregon Statewide Land Use Planning Goal 7: Areas Subject to Natural Hazards

A.1 Local governments shall adopt comprehensive plans (inventories, policies and implementing measures) to reduce risk to people and property from natural hazards.

Finding: The FEMA Model Ordinance provides a set of development standards intended to reduce risk to people and property from natural hazards specifically flooding. The standards are consistent with Oregon building codes intended to protect structures from flood damage that are specified in Oregon Structural Specialty Code (OSSC), Section 1612 and Oregon Residential Specialty Code (ORSC), Section R322.

Finding: As stated in the NFIP Oregon Implementation Program Guidance, the Model Floodplain Management Ordinance is based on the minimum requirements of the National Flood Insurance Program found in 44 CFR 59 and 60, Oregon Statewide land use planning Goal 7.

A.2 Natural hazards for purposes of this goal are floods (coastal and riverine), landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires.

Finding: The FEMA Model Ordinance addresses floods including coastal and riverine. Therefore, the Model Ordinance and commensurate Development Code amendments are subject to Goal 7.

###



A place where families and businesses thrive.

CITY RECORDER USE ONLY:

AGENDA ITEM #: _____

MEETING DATE: _____

FINAL ACTION: _____

CITY COUNCIL STAFF REPORT

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

MEETING DATE: *May 12, 2025*

PROJECT TEAM: *Bryan Pohl, Community Development Director
Daniel Riordan, Senior Planner*

SUBJECT TITLE: *Resolution 2025-17 Endorsing a Locally Preferred Alternative for the Tualatin Valley Highway Bus Rapid Transit Project*

ACTION REQUESTED:

☐	Ordinance	☐	Order	☒	X	☐	Resolution	☐	☐	Motion	☐	Informational
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X all that apply

ISSUE STATEMENT: Providing safe, accessible and affordable transportation options has been and remains a local, regional and state priority. While Tri Met Line 57 provides a vital connection to homes, jobs and important destinations there is room for improvement. Pedestrian and bicycle access could be safer, bus stops could be more comfortable, and service could be more frequent and reliable.

In 2022, Metro convened a project Steering Committee (SC) with elected officials and representatives from public agencies and community organizations. After considering community input and technical review, the SC unanimously recommended a Locally Preferred Alternative (LPA) for improving Line 57 in February 2025. The LPA identifies the project extent (Line 57 from the Beaverton Transit Center to the B Street & 19th Avenue terminus), mode of operation (bus rapid transit) and general bus station locations.

Now that the Steering Committee has recommended the LPA, Metro and Tri Met are requesting that each project partner adopt a resolution endorsing the LPA. This demonstration of support is necessary to advance the project into the next phase which is project development/preliminary engineering. This action is also necessary for a federal construction funding request from Tri Met.

After approval of the LPA resolution by the Council, staff will bring forward another resolution authorizing the City Manager to enter into an Intergovernmental Agreement (IGA) with Tri Met for project development. The IGA will identify City and Tri-Met responsibilities and expected commitments for project support including project development funding.

STAFF RECOMMENDATION: Staff recommends that the City Council approve the attached resolution endorsing the TV Highway Bus Rapid Transit Project LPA.



TV HIGHWAY BUS RAPID TRANSIT LOCALLY PREFERRED ALTERNATIVE RESOLUTION

Bryan Pohl | Community Development Director

Dan Riordan | Senior Planner

City Council Public Hearing 5|12|25

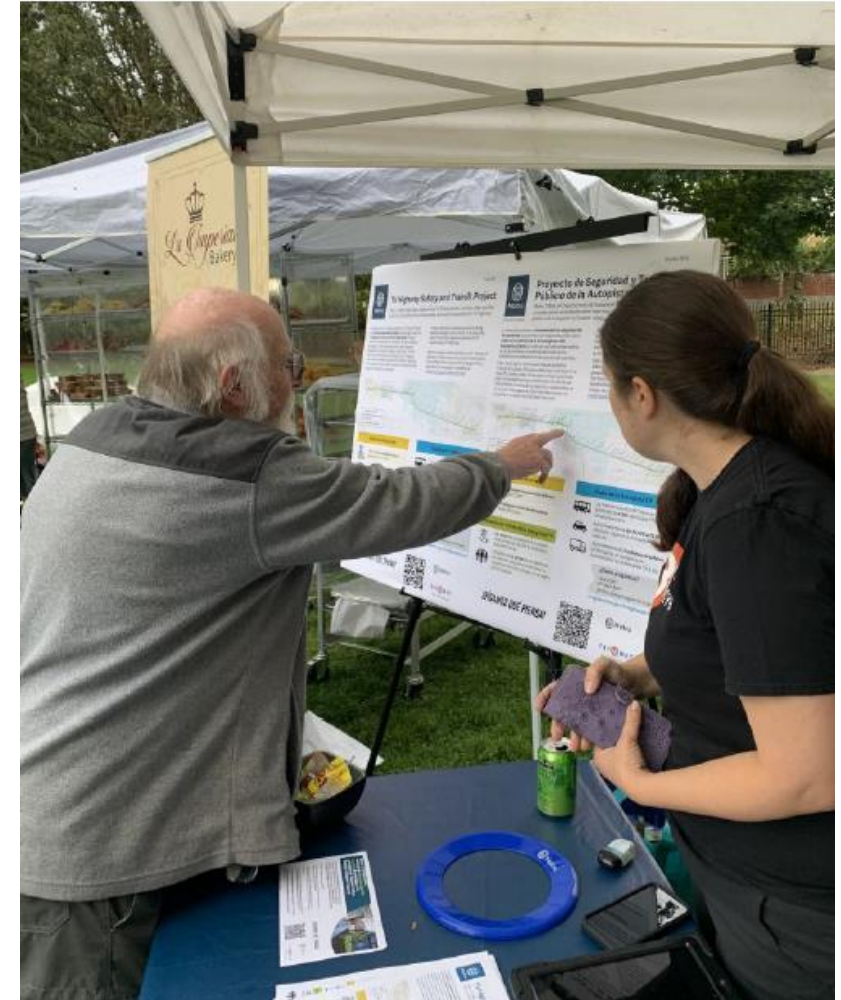
PUBLIC HEARING PURPOSE

2

Tonight, City Council will consider a request from Metro, Tri-Met and City staff to adopt a resolution endorsing the TV Highway Bus Rapid Transit project Locally Preferred Alternative (LPA).

The LPA was recommended by the project streeting committee in February. The Committee included elected leaders and project stakeholders.

City Council held a work session on the LPA on April 28th to review the LPA including proposed bus station locations.



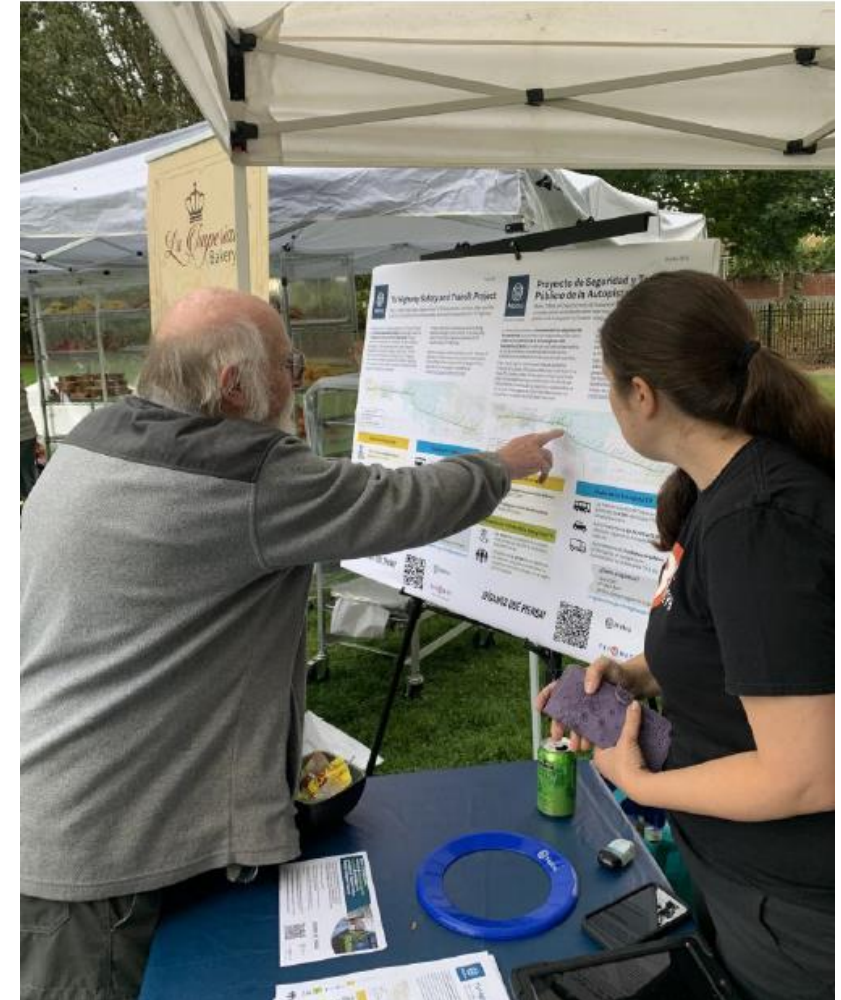
PUBLIC HEARING PURPOSE

3

The LPA is required for federal funding and to advance the project to the next phase which is project development/preliminary engineering.

The LPA is also required for a federal grant from the Federal Transit Administration for construction.

Federal funding in the amount of \$150 million will be requested. The required local, regional, and state match is \$150 million for a total project cost of \$300 million.



LPA OVERVIEW

4

The LPA identifies:

- 1. The project corridor (Beaverton Transit Center to B Street and 19th Avenue in Forest Grove);**
- 2. Mode of operation (bus rapid transit); and**
- 3. General bus station locations.**

LPA DESCRIPTION

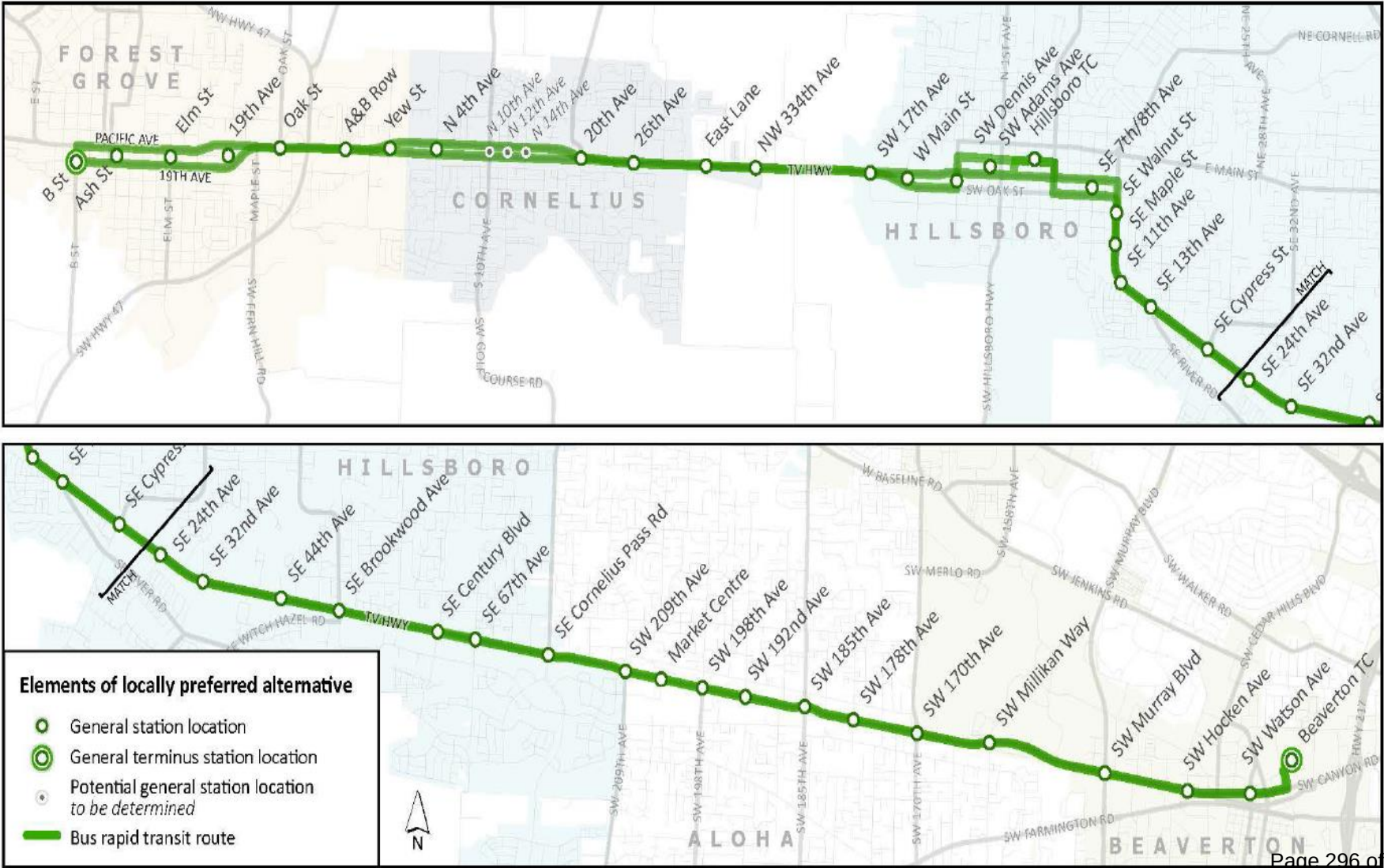
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The following project description is included with the LPA (Resolution Exhibit A):

On February 13, 2025, the TV Highway Steering Committee recommended the TV Highway Transit and Safety Project Locally Preferred Alternative (LPA). The recommended LPA for high-capacity transit in the Tualatin Valley corridor is bus rapid transit with stations at the general locations located on the LPA map, operating between the Beaverton Transit Center and 19th Avenue and B Street in Forest Grove. The route will generally follow the same alignment as TriMet's current Line 57 route.

LPA OVERVIEW

Resolution Exhibit B



PROJECT DEVELOPMENT PHASE

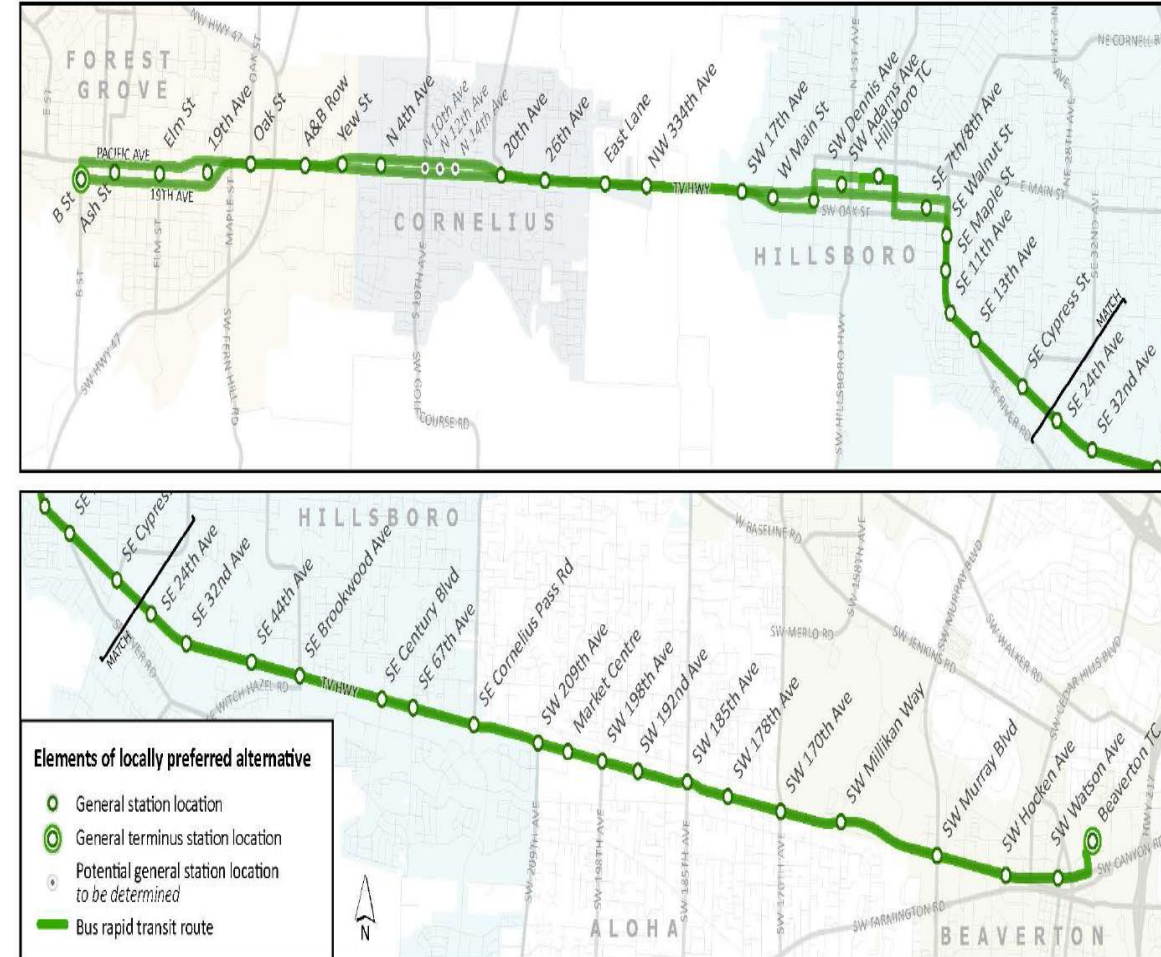
7

A Community Advisory Committee (CAC) will be formed to guide community outreach, project design, station platform locations and other project amenities.

The CAC will include residents, business and property owners, community organizations, persons with disabilities and persons who ride transit.

A Policy and Budget Committee (P&B) will also be established. The P&B will include one elected/executive representative for project partner and one member the CAC.

In addition, there will be a Technical Advisory Committee (TAC) to facilitate continued partner collaboration.



PROPOSED BRT STATION LOCATIONS

8

- *B Street Terminus Station**
- *Ash Street Stations (19th Avenue & Pacific Avenue)**
- *Elm Street Stations (19th Avenue & Pacific Avenue)**
- *19th Avenue Station (Ballad Towne Shopping Center)**
- *Pacific Avenue Station (Ballad Towne Shopping Center)**
- *Oak Street Stations**
- *Rose Grove Station/Stonewood Center Stations**
- *Yew Street Stations (Adair Street & Pacific Avenue)**

PROPOSED BRT STATION LOCATIONS

9

Proposed bus station locations were identified based on several factors including:

Equity, including areas in need of safety improvements especially safe pedestrian and bicycle access to bus stations and important destinations.

Ridership numbers

Lift deployments

Planning considerations, including desire to locate stops at the far side of traffic signals and intersections, existing right-of-way to accommodate bus station improvements, ability to provide safe access including crosswalks and optimizing station locations.

NEXT STEPS

10

City Council consideration and action on a resolution endorsing the LPA tonight.

City Council consideration of a resolution in June authorizing the City Manager to enter into an Intergovernmental Agreement (IGA) with Tri Met for project development in June or July.

The IGA will identify roles and responsibilities for the City and Tri Met and funding commitments for project development including potential use of Transportation Development Tax (TDT) funds.

The City's project development funding commitment is expected to be about \$75,000 over two fiscal years starting in FY '26-'27 and \$175,000 for construction beginning in FY '27.

STAFF RECOMMENDATION

11

Staff recommends that City Council approve the resolution endorsing the LPA so that the project can advance to the project development/preliminary engineering phase.

Questions for staff?

RESOLUTION NO. 2025-17

RESOLUTION ENDORSING A LOCALLY PREFERRED ALTERNATIVE FOR THE TUALATIN VALLEY HIGHWAY BUS RAPID TRANSIT PROJECT

WHEREAS, Metro is the federally designated Metropolitan Planning Organization for the Portland region and Metro is responsible for preparing and updating the federally required Regional Transportation System Plan (RTP); and

WHEREAS, the 2023 RTP identified a major high-capacity transit investment in the Tualatin Valley (TV) Highway corridor as a project priority; and

WHEREAS, in 2020 Metro was awarded a grant from the Federal Transit Administration (FTA) for initial planning, engineering and development of transit improvements for the TV Highway corridor; and

WHEREAS, the TV Highway Transit and Safety Project is a partnership among Metro, Tri Met, the Oregon Department of Transportation, Washington County, and the cities of Forest Grove, Cornelius, Hillsboro, and Beaverton; and

WHEREAS, Tri Met is the regional transit provider for Forest Grove; and

WHEREAS, in January 2022 Metro and Tri Met convened a Steering Committee (SC) for the TV Highway Transit and Safety Project, consisting of agency leaders, elected officials, and community representatives; and

WHEREAS, the SC was charged with recommending a Locally Preferred Alternative (LPA) and funding strategy for the TV Highway Transit and Safety Project; and

WHEREAS, in June 2023, a community-led effort identified actions that nonprofit, government and private sector partners can take to support equitable community improvements throughout the TV Highway corridor and identified Bus Rapid Transit (BRT) in the TV Highway corridor as a community priority action; and

WHEREAS, in February 2025, the SC unanimously recommended the LPA for high-capacity transit improvements including the mode of transportation, alignment, and general bus station locations; and

WHEREAS, a demonstration of local support for the LPA by partner jurisdictions, Tri Met, and Metro is essential to advance the project into the project development phase and request for FTA construction funding; and

WHEREAS, City Council endorsement of the LPA as described in the exhibits attached to this resolution would allow the Tri Met Board of Directors to also endorse

the LPA and will allow Metro to amend the RTP to include the TV Highway and Safety project as described in the LPA.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE AS FOLLOWS:

Section 1. The Forest Grove City Council does hereby endorse the LPA recommended by the Steering Committee as described in Exhibits A and B.

Section 2. This resolution is effective immediately upon its enactment by the City Council.

PRESENTED AND PASSED this 12th day of May, 2025.

Mariah S. Woods, City Recorder

APPROVED by the Mayor this 12th day of May, 2025.

Malynda H. Wenzl, Mayor

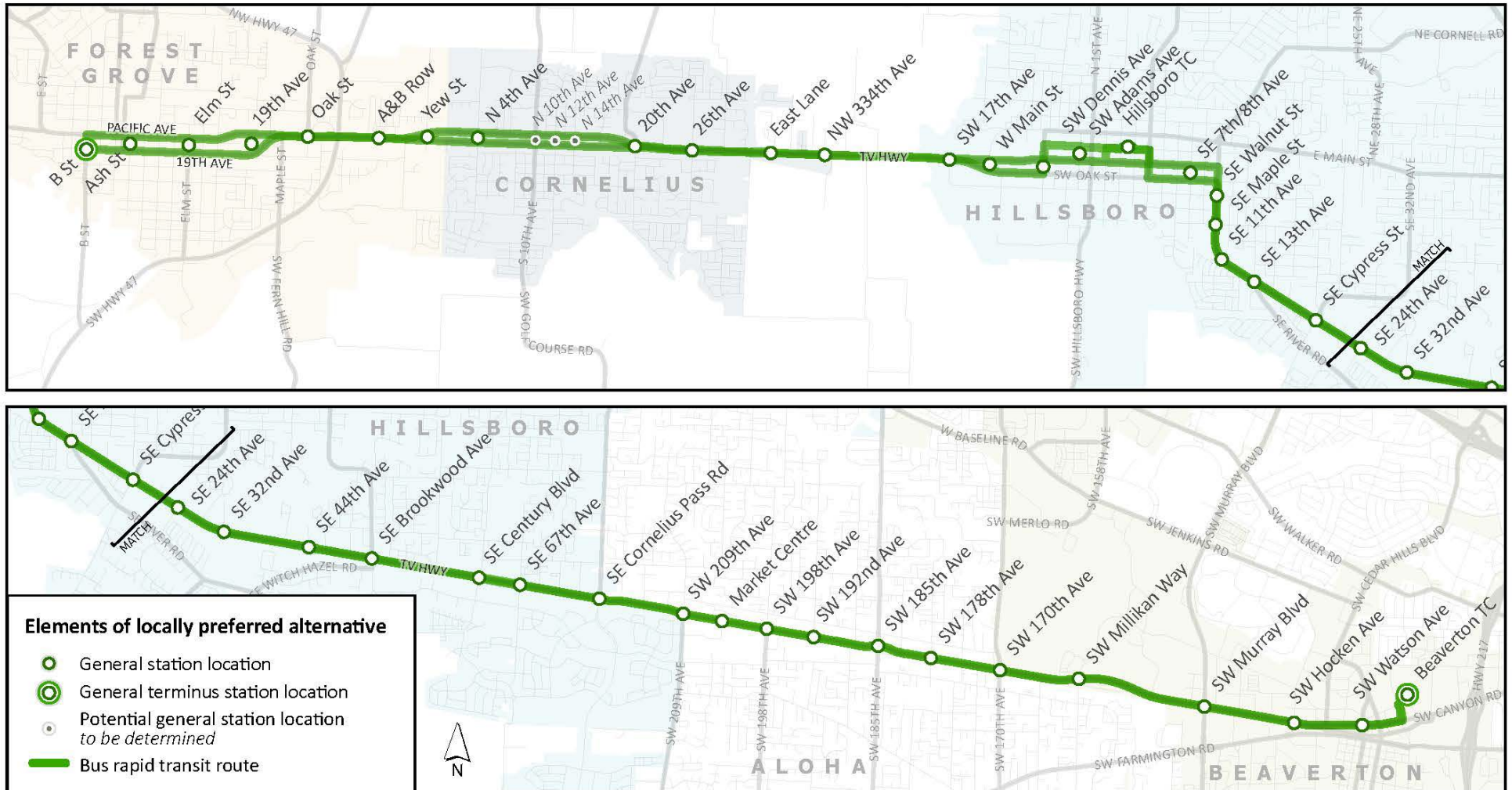
Exhibit A
Tualatin Valley Highway Transit and Safety Project
Locally Preferred Alternative (LPA) Description

On February 13, 2025, the TV Highway Steering Committee recommended the TV Highway Transit and Safety Project Locally Preferred Alternative (LPA). The recommended LPA for high-capacity transit in the Tualatin Valley Highway corridor is bus rapid transit with stations at the general locations indicated on the attached map, operating between Beaverton Transit Center and 19th Avenue and B Street in Forest Grove. The route will generally follow the same alignment as TriMet's current Line 57 route.

Exhibit B

TV Highway Transit and Safety Project

Locally Preferred Alternative Map



CITY COUNCIL STAFF MEMORANDUM

TO: *City Council*

FROM: *Jesse VanderZanden, City Manager*

PROJECT TEAM: *Mariah Woods, City Recorder*

MEETING DATE: *May 12, 2025*

SUBJECT TITLE: *Resolution 2025-18 Amending Council Rules Subsections 4.1, 6.4.2, 9.2, 10.2, 11.2, and 14.3; and Deleting Subsection 3.12 in its Entirety*

ACTION REQUESTED:

☐	☐	☐	☒	☐	☐	☐	☐	
	Ordinance		Order	X	Resolution		Motion	Informational

X all that apply

BACKGROUND

The City Council held a work session on April 28, 2025, to discuss updates to the City Council Rules of Procedure. City Council reached consensus on the following items:

- Research shortening the Council Rules to ensure they are not redundant with the City Charter and/or find examples of 1-2 page Council agreements that may alleviate the need for Council Rules by providing an overall framework for communications.
- Create a Boards and Commissions handbook that includes the Council rules and other relevant information pertaining to all Boards and Commissions.
- Council reached consensus to make the following rule changes while the above research moves forward:
 - Remove the section pertaining to excused/unexcused absences (Section 3.12). Removal of this section is consistent with the City Charter. Further, this section is not in the League of Oregon Cities Model Rules and is uncommon in Council Rules.
 - Update Council Rules to match voter-approved changes to the City Charter (Sections 4.1, 9.2, 10.2, and 11.2). This change is to assure the Council Rules are consistent with the City Charter.
 - Change “place of residence” to “city of residence or business” to alleviate the requirement of providing a specific address for public comment (Section 6.4.2).
 - Remove “so long as they [Board and Commission members] live within the Forest Grove School District”, thereby allowing 2 members from each Board and Commission to reside outside the city (Section 14.3).
- There was consensus to consider extending absence from the city from 45 to 60 days, however, upon further research, it would require a change to the City Charter.

The changes below correspond with the order they are listed in the resolution. Strikethrough indicates text to be removed and underlined text indicates added language.

PROPOSED COUNCIL RULE AMENDMENTS:

SECTION 3 –COUNCIL MEETINGS

~~SECTION 3.12: Excused/Unexcused Absence — When a Councilmember cannot attend a meeting, the member shall notify the City Recorder, who will notify the Mayor or Presiding Officer, prior to the meeting. The Mayor or Presiding Officer will determine if the absence is considered “excused” or “unexcused”. If the absence is for good cause and there are no objections from other Councilmembers who are present, the City Recorder shall record the absence in the minutes as excused. If the Councilmembers, upon an affirmative vote of the majority of the Councilmembers present, determine the absence is not for good cause, the City Recorder shall record the absence in the minutes as unexcused. Lack of notification will constitute as an unexcused absence.~~

SECTION 4 – THE PRESIDING OFFICER

4. 1 Mayor – Pursuant to City Charter, Section 8, the Mayor shall preside over and facilitate all Council meetings, preserve order, enforce Council Rules, and determine the order of business pursuant to Council Rules, Section 6. The Mayor is a voting member of the Council and has no veto authority. The Mayor, with the consent of the Council, shall appoint members of boards, commissions, and committees established by ordinance or resolution. The Mayor shall sign all records of Council decisions. The Mayor serves as the ~~political head of the City~~ primary representative of the Council for the City. In the absence of the Mayor, the Council President shall act as Mayor and serve as the Presiding Officer.

SECTION 6 – AGENDA AND ORDER OF BUSINESS

6.4.2 (D) Generally, the Presiding Officer will call speakers in the order in which they signed the sign-in sheet. Speakers shall identify themselves by their names and by their ~~place of residence~~ city of residence or business.

SECTION 9 – ORDINANCES (LEGISLATIVE AUTHORITY)

9.2 (c) Any substantive amendment to a proposed ordinance must be read aloud ~~before the Council enacts the ordinance~~ or made available in writing to the public before the Council adopts the ordinance at that meeting.

SECTION 10 – RESOLUTIONS (ADMINISTRATIVE AUTHORITY)

10.2 (b) Any substantive amendment to a resolution must be read aloud ~~before the Council adopts the resolution~~ or made available in writing to the public before the Council adopts the resolution at that meeting.

SECTION 11 – ORDERS (QUASI-JUDICIAL AUTHORITY)

11.2 (b) Any substantive amendment to an order must be read aloud ~~before the Council adopts the order~~ or made available in writing to the public before the Council adopts the order at that meeting.

SECTION 14 – ADVISORY BOARDS, COMMISSIONS, AND COMMITTEES

14.3 Membership Qualifications – To be eligible for appointment, a person must be 18 years of age or older and a Forest Grove resident for the duration of the appointed term. A maximum of two members of each B/C may reside outside of Forest Grove, ~~so long as they reside within the Forest Grove School District.~~ Student appointees must be high school grade level and residing or attending school, including home-schooled, in Forest Grove. All appointed B/C members are required to attend training courses as assigned and approved by Council. An individual B/C member may not act in an official capacity. The Council may in its discretion at any time remove a member for any reason, including inefficiency, neglect of duty, or malfeasance in office. Voting members may not be employees of the City. B/C members serve without compensation.

STAFF RECOMMENDATION

Staff recommends City Council consider the attached resolution.

ATTACHMENT

- Resolution 2025-18

RESOLUTION NO. 2025-18

RESOLUTION AMENDING COUNCIL RULES SUBSECTIONS 4.1, 6.4.2, 9.2, 10.2, 11.2, AND 14.3; AND DELETING SUBSECTION 3.12 IN ITS ENTIRETY

WHEREAS, the City Council held a work session on April 28, 2025, to discuss updating the City Council Rules of Procedure; and

WHEREAS, the League of Oregon Cities (LOC) "Model Rules for Council Procedure" serves as the basis for Council Rule revisions; and

WHEREAS, the Council reached consensus to amend the following subsections of the Council Rules.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE AS FOLLOWS:

Section 1. The City Council amends the City Council Rules of Procedure as follows:

SECTION 3 –COUNCIL MEETINGS

~~3. 12 Excused/Unexcused Absence—When a Councilmember cannot attend a meeting, the member shall notify the City Recorder, who will notify the Mayor or Presiding Officer, prior to the meeting. The Mayor or Presiding Officer will determine if the absence is considered "excused" or "unexcused". If the absence is for good cause and there are no objections from other Councilmembers who are present, the City Recorder shall record the absence in the minutes as excused. If the Councilmembers, upon an affirmative vote of the majority of the Councilmembers present, determine the absence is not for good cause, the City Recorder shall record the absence in the minutes as unexcused. Lack of notification will constitute as an unexcused absence.~~

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PRESENTED AND PASSED this 12th day of May, 2025.

Mariah S. Woods, City Recorder

APPROVED by the Mayor this 12th day of May, 2025.

Malynda H. Wenzl, Mayor