City *of* Tigard

Tigard Business Meeting –Agenda

TIGARD CITY COUNCIL

MEETING DATE AND TIME:	DECEMBER 12, 2023 - 6:30 p.m. Business Meeting
MEETING LOCATION:	Hybrid - City of Tigard - Town Hall - 13125 SW Hall Blvd., Tigard, OR 97223 - See PUBLIC NOTICE below

PUBLIC NOTICE: In accordance with Oregon House Bill 2560, this will be a hybrid meeting where some Council, staff or public will participate in person and some will participate remotely.

How to comment:

- Written public comment may be submitted electronically at www.tigard-or.gov/Comments by noon the day before the meeting date.
- If attending the meeting in person, please fill out the public comment sign-in sheet at the front of the room and come to the microphone when your name is called.
- If you prefer to call in, please call 503-966-4101 when instructed to be placed in the queue. We ask that you plan on limiting your testimony to three minutes.
- You may comment by video through the Teams app. Go to this link to learn how to participate by video: December 12, 2023 Council Meeting (https://www.tigard-or.gov/Home/Components/Calendar/Event/4511/372).

Upon request, the City will endeavor to arrange for the following services:

- Qualified sign language interpreters for persons with speech or hearing impairments; and
- Qualified bilingual interpreters.

Since these services must be scheduled with outside service providers, it is important to allow as much lead time as possible. Please notify the City of your need by 5:00 p.m. on the Thursday preceding the meeting by calling: 503-718-2419 (voice) or 503-684-2772 (TDD - Telecommunications Devices for the Deaf).

SEE ATTACHED AGENDA

VIEW LIVESTREAM ONLINE: https://www.tigard-or.gov/boxcast

CABLE VIEWERS: The City Council meeting will be shown live on Channel 21 (1st Tuesdays) and Channel 28 (2nd & 4th Tuesdays) at 6:30 p.m. The meeting will be rebroadcast at the following times on Channel 28:

Thursday 6:00 p.m. Friday 10:00 p.m. Saturday 7:30 p.m. Sunday 11:30 a.m. Monday 6:00 a.m.

City *of* Tigard

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MEETING DATE AND TIME: DECEMBER 12, 2023 - 6:30 p.m. Business Meeting
MEETING LOCATION: Hybrid - City of Tigard - Town Hall - 13125 SW Hall Blvd., Tigard, OR 97223

6:30 PM

1. BUSINESS MEETING

   A. Call to Order

   B. Roll Call

   C. Pledge of Allegiance

   D. Call to Council and Staff for Non-Agenda Items

2. PROCLAMATIONS AND RECOGNITION

3. PUBLIC COMMENT

   A. Follow-up to Previous Public Comment

   B. Tigard Area Chamber of Commerce

   C. Tigard High School Student Envoy

   D. Police Chief/Police Department Update

   E. Public Comment – Written

F. Public Comment – In Person

G. Public Comment – Phone-In

H. Public Comment – Video

4. CITY MANAGER REPORT **6:50 p.m. estimated time**

5. UPDATE FROM WASHINGTON COUNTY SHERIFF MASSEY **6:55 p.m. estimated time**

6. RESOLUTION IN SUPPORT OF ENDING THE SALE OF FLAVORED TOBACCO PRODUCTS **7:10 p.m. estimated time**

7. PUBLIC HEARING: DCA2023-00002 REQUIRED FEMA NFIP REGULATORY UPDATES **7:20 p.m. estimated time**

8. DOWNTOWN PARKING MANAGEMENT UPDATE **7:50 p.m. estimated time**

9. NON-AGENDA ITEMS

10. EXECUTIVE SESSION: The Tigard City Council may go into Executive Session. If an Executive Session is called to order, the appropriate ORS citation will be announced identifying the applicable statute. All discussions are confidential and those present may disclose nothing from the Session. Representatives of the news media are allowed to attend Executive Sessions, as provided by ORS 192.660(4), but must not disclose any information discussed. No Executive Session may be held for the purpose of taking any final action or making any final decision. Executive Sessions are closed to the public.

11. ADJOURNMENT **8:30 p.m. estimated time**

AIS-5394 **5.**

Business Meeting

Meeting Date: 12/12/2023

Length (in minutes): 15 Minutes

Agenda Title: UPDATE FROM WASHINGTON COUNTY SHERIFF MASSEY

Authored By: Carol Krager

Presented By: Washington County Sheriff Caprice Massey

Item Type: Update, Discussion, Direct Staff

Public Hearing Legal Ad Required?: No

Publication Date:

Information

EXPLANATION OF ISSUE

Update from Washington County Sheriff Massey

ACTION REQUESTED

No action required.

BACKGROUND INFORMATION

Washington County Sheriff Caprice Massey was sworn in on December 1st. This will be the first opportunity for the Tigard City Council to welcome Sheriff Massey and receive a report on the jail staffing situation at Washington County. There will be a slide presentation.

ALTERNATIVES & RECOMMENDATION

N/A

ADDITIONAL RESOURCES

N/A

Attachments

Presentation



Jail Staffing – Tigard City Council Meeting

December 2023

INTRODUCTION

- **Current situation**
  - How did we get here?
- **Staffing**
  - Effective strength, assignments, below minimum per shift; turnover.
- **Adults In Custody (AIC) Population**
  - Higher management, more assaultive.
- **Services**
  - Mandated responsibilities.
  - Near term imperative: safety, retention, align jail size to available staff, mandated responsibilities.
- **Decisions, Recommendations & Recovery**



SHERIFF
WASHINGTON COUNTY

CURRENT SITUATION – How did we get here?

COVID-19 Staffing Impacts

Stress & workload increase causing burnout:
- Higher rates of Adult In Custody (AIC) mental illness and addiction.
- Pre-sentenced AICs who have higher management needs rose from 50% to 80%.
- Dangerous AICs remain in jail longer.
- Staff remained masked for over two years.
- Other employment opportunities became more appealing

Recruitment & Retention Challenges Intensified

- Advertising budget cut in FY2022/23.
- Recruitment decline; 1st Qtr 2020 to 4th Qtr 2022; applicants to backgrounds dropped 62%.
- Burnout intensifies; more work, fewer staff.
- Retirement eligible staff depart sooner.
- Police recruitment new and very attractive.
- Increased turnover:
  - FY 2018 jail departures from agency 7%.
  - FY 2023 27%.
- Mandatory overtime limitations; emergency response imperatives.
- Past year onboarded 10 deputies, 20 departed.

Deputy Vacancies – 42

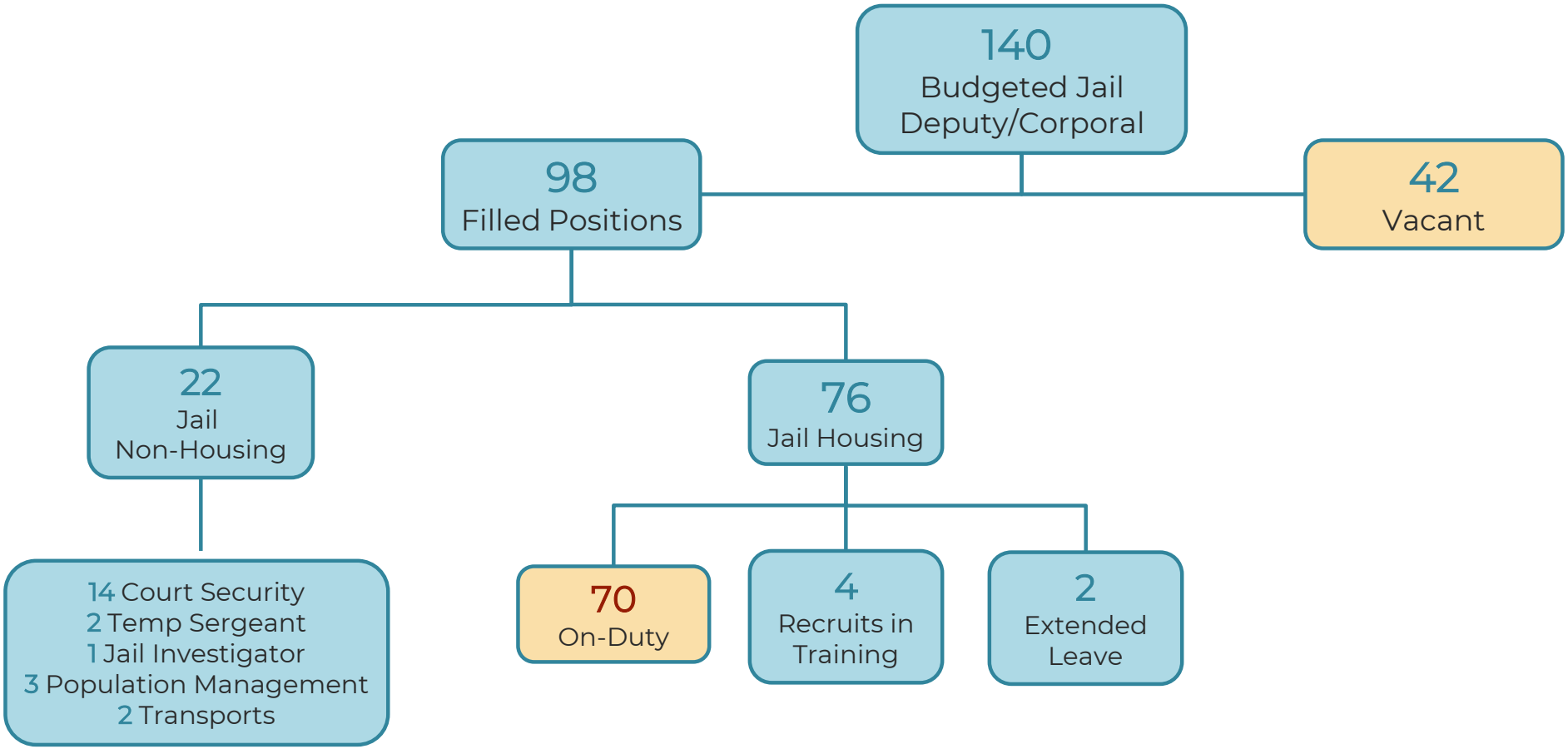
Jail Effective Strength

- 35% deputy vacancy rate for Housing, Intake and Release (77 deputies/corporals, 118 budgeted).

AIC Population Trends

- Increased lethality with rise in fentanyl & other addictions.
- Early onset mental illness from methamphetamine use.
- More assaultive.
- High management needs = ↑ mandated responsibilities: detox, attorney visits, social visits, medications, out-time.

JAIL DIVISION CERTIFIED STAFFING BREAKDOWN



Extended leave include injuries, FMLA/OFLA, military leave, work comp, etc.

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Updated: 12/04/23

SHIFT MINIMUM BREAKDOWN

Jail Housing Deputies | Corporals

- To operate with Pods 1, 6 and 8 closed, swing and graveyard shifts start below minimum required staffing levels before sick and other leaves, with no headroom on day shift.

3-10 SCHEDULE				
SHIFTS	**POST MINIMUMS**	**AVAILABLE FTE ALLOCATIONS**	**ON DUTY** (7-DAY AVG.)	**MINIMUMS +/-**
DAY SHIFT (SHIFT 1)	16	28	16	0
SWING SHIFT (SHIFT 2)	15	25	14.3	-0.7
GRAVEYARD SHIFT (SHIFT 3)	12	17	9.7	-2.3
		70	**40**	

- We have 70 available staff; 113 staff needed for minimal overtime.
- 42 mandatory posts to run the Jail across a 24-hour day; our seven-day staffing average is 40, with significant overtime.

Current Operation (Pods 1, 6, and 8 Closed)		
Posts	**Shifts per Day**	**FTE Total**
Intake 1	3	8.1
Intake 2	3	8.1
Release	3	8.1
~~**Pod 1**~~	0	0
Pod 2	3	8.1
Rover 1	3	8.1
Pod 4	2	5.4
Pod 5	3	8.1
~~**Pod 6**~~	0	0
Pod 7	3	8.1
~~**Pod 8**~~	0	0
Pod 9	2	5.4
MOU	3	8.1
Rover 2	2	5.4
Rover 3	3	8.1
Rover 4	3	8.1
Lobby Deputy	2	5.4
IWC	1	2.7
Rover 5	3	8.1
Total	**42**	**113.4**

Shift Relief Factor: 2.7

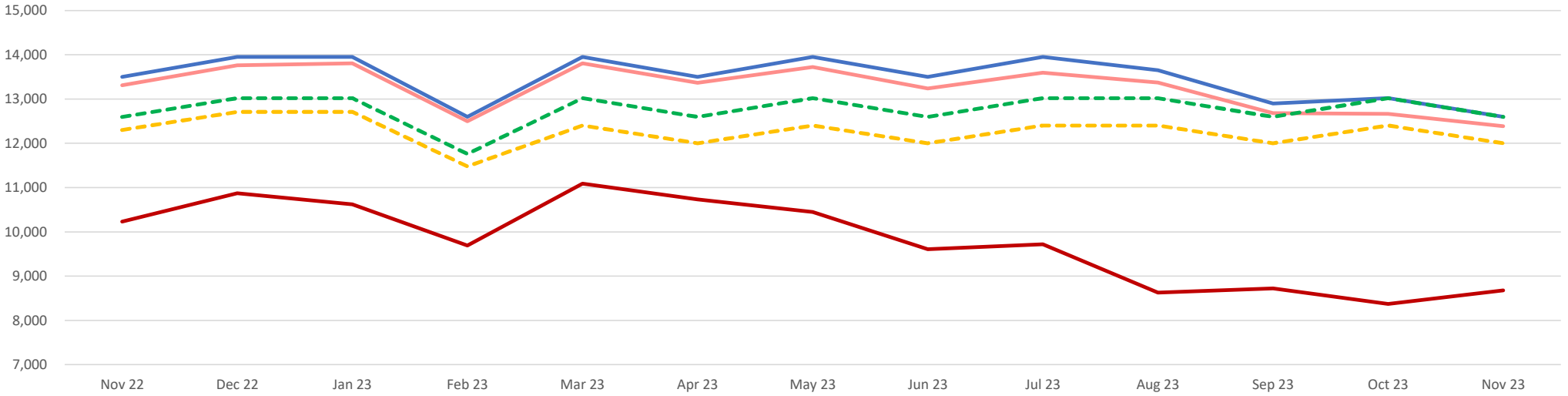
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FTE BELOW MINIMUM PER SHIFT

Deputy / Corporal

- When account for leave, November averaged 4.4 FTE below minimum per shift before overtime.
  - Leave includes sick leave, vacation, limited duty, critical incident protocol.
- Closing 2 pods reduces daily posts from 45 to 42 (graveyard uses one deputy to cover two pods).
- Closing 3 pods provides the flexibility to reinstate Rover 5 to assist with mandated tasks including medication pass, detox checks, AIC escorts, etc.

Monthly Unfilled Posts (Hours)



Corporal/Deputy	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23
Minimum Hours Required	13,500	13,950	13,950	12,600	13,950	13,500	13,950	13,500	13,950	13,650	12,900	13,020	12,600
Hours worked after OT	13,310	13,763	13,805	12,500	13,809	13,365	13,722	13,239	13,596	13,371	12,681	12,666	12,390
Minimum Hours Required (2 Pods Closed)	12,600	13,020	13,020	11,760	13,020	12,600	13,020	12,600	13,020	13,020	12,600	13,020	12,600
Minimum Hours Required (3 Pods Closed)	12,300	12,710	12,710	11,480	12,400	12,000	12,400	12,000	12,400	12,400	12,000	12,400	12,000
Hours on-duty Before OT	10,230	10,870	10,620	9,690	11,090	10,730	10,450	9,610	9,720	8,630	8,720	8,370	8,680
Avg. FTE Below Minimum Per Shift (Current)	2.6	2.5	2.7	2.6	3.1	3.1	3.8	4.3	4.5	5.4	4.6	5.0	4.4
Avg. FTE Below Minimum Per Shift (2 Pods Closed)	1.9	1.7	1.9	1.7	2.1	2.0	2.8	3.2	3.5	4.7	4.2	5.0	4.4
Avg. FTE Below Minimum Per Shift (3 Pods Closed)	1.7	1.5	1.7	1.4	1.4	1.4	2.1	2.6	2.9	4.1	3.5	4.3	3.6

STAFFING IMPACTS

Recruitment and Retention

RECRUIT DEPUTIES			
	HIRE	LOSS	RETENTION
2019	29	5	85%
2020	24	8	65%
2021	19	9	50%
2022	10	3	78%
2023 YTD	14	5	65%

PROBATIONARY PERIOD UNDERWAY

STATS SUBJECT TO CHANGE

ALL JAIL DEPUTY / CORPORAL SUMMARY STATISTICS

	FY 19/20	FY 20/21	FY 21/22	FY 22/23
OPERATIONAL GAIN	28	24	28	16
OPERATIONAL LOSS	26	23	5	31
TURNOVER RATE	21.6%	18%	17.2%	25.7%

Operational Gain / Loss | Any vacancies to the deputy/corporal group that impact their operation effective strength. Includes temp assignments to Sgt., full-time assignments, promotions, transfer to other workgroups, etc.

- Recruit deputy losses result from not successfully passing training or probation, including deputies who decide the work is not for them.
- FY 22/23 losses outpace gains.
- 4 recruit deputies are in training with a coach.
- One is scheduled to start in January 2024, more in process.

Updated: 12/04/23

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WASHINGTON COUNTY

POD LOCKDOWNS DUE TO LOW STAFFING

Monthly Pod Lockdowns (Hours)

Pod & Lobby Closure (In Hours)												
2023	**MOU**	**Pod 1**	**Pod 2**	**Pod 3**	**Pod 4**	**Pod 5**	**Pod 6**	**Pod 7**	**Pod 8**	**Pod 9**	**Lobby**	**Total (In Hours)**
January	0	Closed	8.5	0	4.5	3.5	4.5	3.5	4.25	1	15.5	45.25
February	0	Closed	5	0	12.5	2	9.5	2	2	2	13.5	48.5
March	0	Closed	3	0	9	1	9	0	8	0	16.25	46.25
April	0	Closed	9.25	0	10	0	14	1.75	17.25	1.75	31.25	85.25
May	0	Closed	28.25	0	28.25	1.5	19.25	6.75	19.25	5.25	61.5	170
June	0	Closed	59.5	0	56.5	32.5	41.5	45	38.5	18	43.5	335
July	0	Closed	59.75	0	61.5	24.5	51	30.5	41	7.25	57.75	333.25
August	0	Closed	16.5	0	43.75	12.75	35.25	17.25	14	0	29.5	169
September	0	Closed	15.5	0	20.5	17	13.25	14	Closed	3.5	3	86.75
October	0	Closed	23	0	33.5	22	22	20	Closed	3	9.5	133
November	0	Closed	2	0	2	5	Closed	5	Closed	0	10.75	24.75
YTD Total	**0**	**0**	**230.25**	**0**	**282**	**121.75**	**219.25**	**145.75**	**144.25**	**41.75**	**292**	**1477**

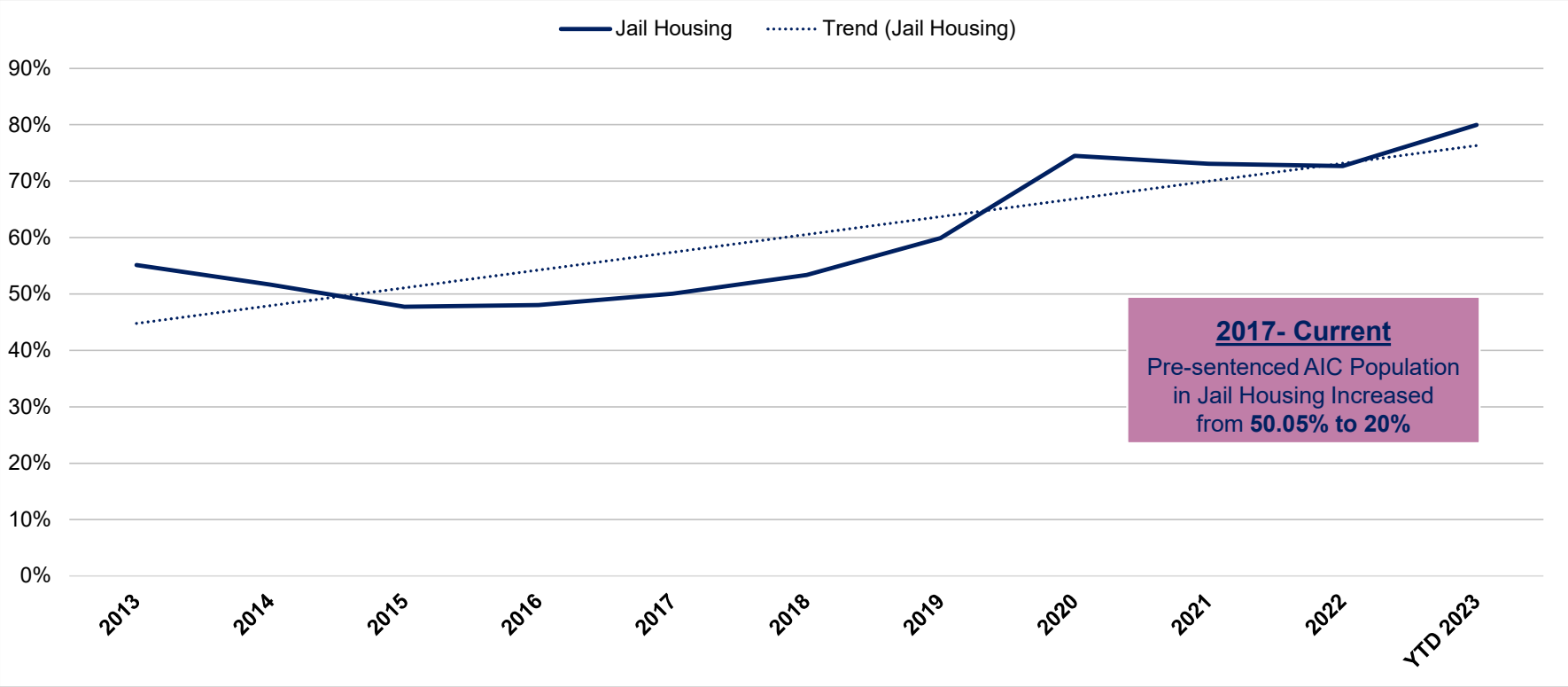
Pods are generally open daily from 06:00 AM - 10:00 PM.
*Pod 6 closed on 10/26/23.

Critical Responsibilities Impacted

- Out-Time
- Attorney Visits
- Social Visits
- Med Pass
- Detox Checks

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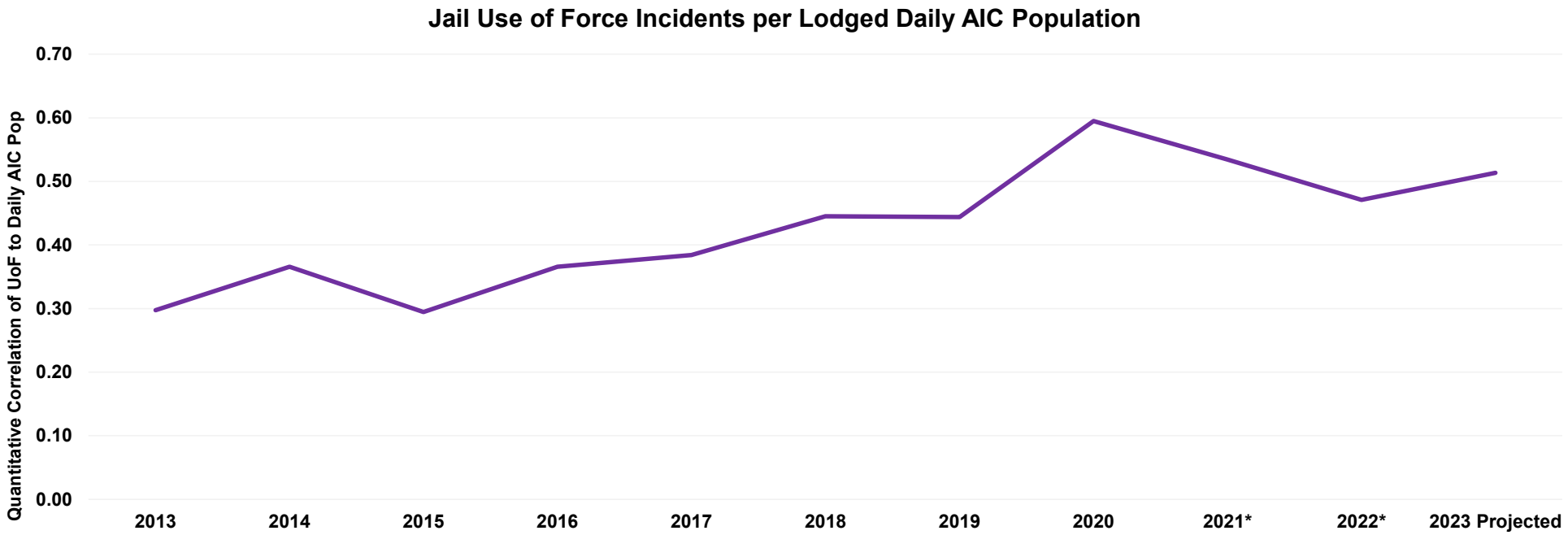
PRE-SENTENCED JAIL AIC POPULATION



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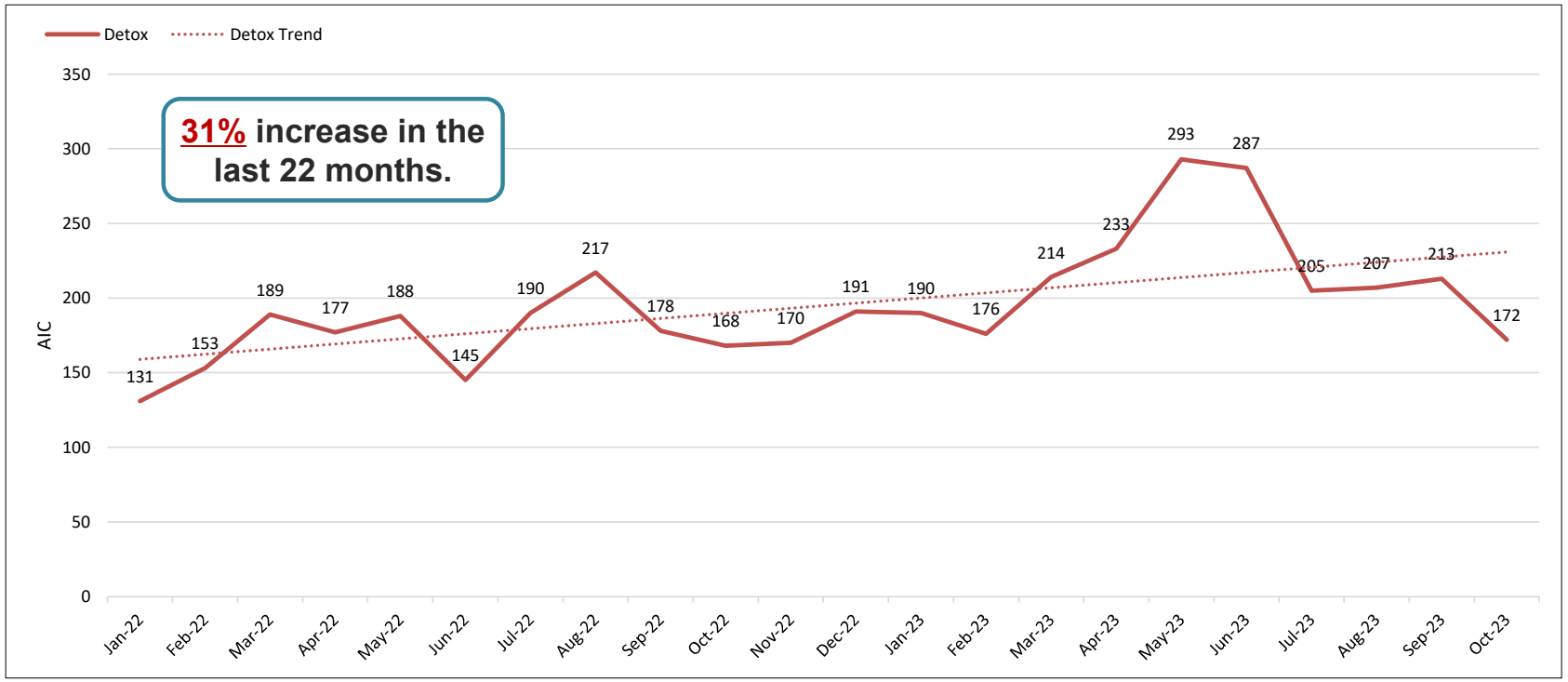
STAFFING IMPACTS

Tension in the Facility



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AIC ON DETOX PROTOCOL



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Updated: 10/31/23

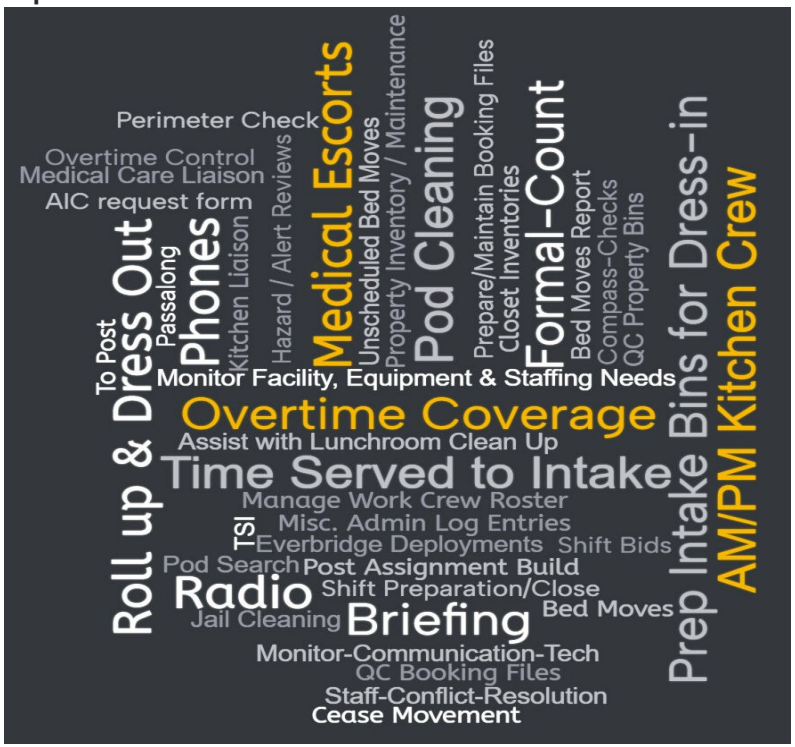
CRITICAL RESPONSIBILITIES

Mandated: 78



- Large Font = Tasks that occur multiple times a day/week.
- Yellow Font = Tasks often delayed or take longer to complete due to low staffing.

Operational Need: 43





Other: 7



WCSO Policy: 4

SAFETY, RETENTION, AND MANDATED RESONSIBILITIES



- Maintain a fully functioning jail – safely:
  - Ability to adequately respond to emergencies.
  - Federal and State mandated responsibilities **must** get done.
  - Align jail capacity with existing staff.
- Maintain **sustainable** workload:
  - Staff are burned out and leaving.
  - Discretionary days off and breaks during shift required to keep staff.

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WASHINGTON COUNTY

BOOKING CRITERIA

- Reduce the pressure at intake and enable reliable emergency response.
- Assist with reducing AIC population with available staff.
- Criteria:
  - All felonies.
  - Person Class A Misdemeanors.
  - DUII, if no responsible person available.
  - Criminal Trespass I.
  - Any offense subject to mandatory arrest under Oregon Law (domestic violence, sex crimes, violation of restraining order or a court stalking protective order, etc.)
  - Exceptions as needed in community; patrol sergeant to jail sergeant phone call.
  - Arrest warrants for above crimes.



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WASHINGTON COUNTY

DECISIONS & RECOMMENDATIONS

- Reduce AIC Capacity; align with available staff.
- Rent beds at other local jails.
- Recruitment:
  - Additional background investigators.
  - Ongoing contracted marketing specialist.
  - Retention bonus.
  - Lateral hiring bonus.
  - Direct Support From County Talent Acquisition Liaison; at least until fully staffed.
  - Partner agency referrals.
  - Community college partnerships.
- Patrol, trainers, court security/transports assist with overtime (court security frequently understaffed to meet court needs).
- Continue or expand Variable Hour Jail Deputies.

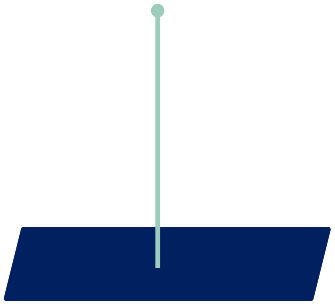


SHERIFF
WASHINGTON COUNTY

RECOVERY ROADMAP

Fall 2023 Shift Bid: 74
64 Jail Deputies | 10 Jail Corporals

Increase Booking Limits
Dependent on Staffing



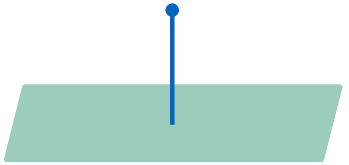
Assess Re-opening Pod
Shift Bid: **102-107**



Assess Re-opening 2nd Pod
Shift Bid: **107-112**



Assess Re-opening 3rd Pod
Shift Bid: **113-118**



SHIFT BIDS

	SPRING	FALL
2020	95	99
2021	95	96
2022	98	92
2023	86	**74**

SHERIFF
WASHINGTON COUNTY

AIS-5400 **6.**

Business Meeting

Meeting Date: 12/12/2023

Length (in minutes): 10 Minutes

Agenda Title: Resolution in Support of Ending the Sale of Flavored Tobacco Products

Presented By: Steve Rymer or Mayor Lueb

Item Type:

Public Hearing
Legal Ad Required?:

Publication Date:

Information

EXPLANATION OF ISSUE

On November 15, 2023, Connie Ramaekers, Prevention Specialist for Tigard Turns the Tide, a local non-profit organization, asked Tigard City Council to consider a resolution in support of banning retail sales of flavored tobacco to help prevent substance abuse among our youth and communities of color.

Tigard Turns the Tide is working with the American Heart Association to enforce the 'Ban on Flavored Tobacco', approved by voters and the Board of Washington County Commissioners. The Tobacco Industry continues to create ways to prevent enforcement of a ban, and while the issue works its way through the legal system, Connie is asking for Tigard's Resolution of Support for a ban on flavored tobacco sales.

She shared the signed resolution approved by the Tigard Tualatin School District Board at their last meeting.

ACTION REQUESTED

Mrs. Ramaekers would like Tigard City Council or issue a Resolution of Support banning flavored tobacco sales.

BACKGROUND INFORMATION

Dates of Previous and Potential Future Considerations
This is the first time the issue has come before City Council.

Public Involvement
The American Heart Association and Tigard Turns the Tide have put a significant amount of effort into public involvement with students, parents and community members.

Impacts (Community, Budget, Policies and Plans/Strategic Connection)
Passage of this resolution doesn't have a financial impact on the city budget and illustrates the city council's advocacy for youth and community members targeted by tobacco conglomerates marketing flavored nicotine products.

ALTERNATIVES & RECOMMENDATION

Council could decide not to issue a resolution in support of banning retail sales of flavored tobacco products.

The city has a history of supporting Tigard Turns the Tide's efforts to prevent substance abuse among youth and therefore, teammates recommend issuing the resolution.

ADDITIONAL RESOURCES

Attachments

TTSD Resolution in support of banning flavored tobacco products

Resolution

Resolution - Citations

Resolution 2324-06
In Support of Restricting the Sale of Flavored Tobacco Products and Protecting Kids from a Lifetime of Nicotine Addiction

WHEREAS, Big Tobacco's use of candy flavors like bubblegum, blue raspberry, root beer, and minty menthol hooks generations of consumers – especially kids, students and communities of color – on the massive hits of nicotine their tobacco products can deliver; and

WHEREAS, the millions Big Tobacco spends on lobbying so retailers can continue selling their predatory, candy-flavored products has triggered what the Surgeon General and the FDA have called an "epidemic" of e-cigarette use across the nation; and

WHEREAS, big Tobacco spends $115 million for marketing in Oregon each year; and

WHEREAS, 10.8% of Oregon 11th grade students use e-cigarettes, and 5,000 Oregon kids under 18 try cigarettes for the first time each year; and

WHEREAS, tobacco companies are creating a cycle of addiction that puts taxpayers – whether they smoke or not – on the hook for $373.6 million in annual Medicaid costs caused by smoking in Oregon; and

WHEREAS, each year, tobacco use kills over 8,000 Oregonians and costs almost $5.7 billion in medical expenses and lost productivity; and

WHEREAS, in 2022, 25% of tobacco retailers inspected in Oregon sold tobacco to underage buyers; and

WHEREAS, nine of 10 adults who smoke report that they started smoking by 18; and

WHEREAS, two thirds of Oregon youth tobacco users use flavored tobacco compared to about 26% of older adult tobacco users, thus beginning a life of addiction because of the attraction of flavors;

NOW, THEREFORE, BE IT RESOLVED, that the Tigard-Tualatin School District Board strongly encourages the Oregon Legislature to pass legislation ending the sale of flavored tobacco products. We must protect kids from Big Tobacco's candy-flavored and minty-menthol tobacco used to lure young people into a lifetime of addiction.

Adopted this 6th day of November, 2023.

Attest:

Tristan Irvin, Chair

Dr. Sue Rieke-Smith, Superintendent

CITY OF TIGARD, OREGON
TIGARD CITY COUNCIL
RESOLUTION NO. 23-

A RESOLUTION IN SUPPORT OF ENDING THE SALE OF FLAVORED TOBACCO PRODUCTS.

WHEREAS, the City of Tigard's Strategic Vision is an equitable community that is walkable, healthy, and accessible for everyone; and

WHEREAS, tobacco use is the single most preventable cause of disease and death in Oregon; and

WHEREAS, each year, tobacco use kills over 8,500 Oregonians, more than those caused by alcohol, car crashes, and illegal drugs combined, and costs almost $5.7 billion in medical expenses and lost productivity; and

WHEREAS, a disproportionate number of these deaths occur in historically marginalized communities; and

WHEREAS, lifetime smoking, and other tobacco use almost always begins in adolescence; and

WHEREAS, nine out of ten adults who smoke, report they started smoking before turning age 18; and

WHEREAS, the connection between children and tobacco is so strong that the U.S. Food and Drug Administration (FDA) has declared that smoking is a "pediatric disease;" and

WHEREAS, tobacco products with flavors such as electronic cigarettes, little cigars and hookah are more popular among youth and young adults compare to older adults; and

WHEREAS, two third of Oregon youth tobacco users use flavored tobacco compared to about 26 percent of older adult tobacco users; and

WHEREAS, 93 percent of stores in Oregon that sell tobacco, sell flavored tobacco products; and

WHEREAS, with colorful packaging and sweet flavors, these products are often hard to distinguish from the candy displays that they are frequently placed near at the cash register in retail outlets; and

WHEREAS, flavored tobacco products are often sold individually, or in two-packs, making them more affordable and appealing to children; and

WHEREAS, in 2022, 26 percent of tobacco retailers inspected in Oregon sold tobacco to underage buyers; and

WHEREAS, a survey of 6,800 youth reveals that three-fourths of flavored product users would no longer use the product if it was not flavored; and

WHEREAS, a recent study by researchers at U.S. Centers for Disease Control and Prevention (CDC) further reveals that statewide restrictions on the sale of flavored e-cigarettes in Massachusetts, New York,

Rhode Island, and Washington between 2014 and 2020 were associated with a reduction in total e-cigarette sales in those states.

NOW, THEREFORE, BE IT RESOLVED by the Tigard City Council that:

SECTION 1: The Tigard City Council encourages the Oregon Legislature to pass legislation ending the sale of flavored tobacco products to protect youth and community members targeted for sales from Big Tobacco's candy-flavored and minty-menthol tobacco, resulting in a lifetime of addiction.

SECTION 2: This resolution is effective immediately upon passage.

PASSED: This 12th day of December 2023.

_____
Heidi Lueb, Mayor
City of Tigard

ATTEST:

_____
Carol A. Krager, City Recorder

CITY OF TIGARD, OREGON
TIGARD CITY COUNCIL
RESOLUTION NO. 23-

A RESOLUTION IN SUPPORT OF ENDING THE SALE OF FLAVORED TOBACCO PRODUCTS.

WHEREAS, the City of Tigard's Strategic Vision is an equitable community that is walkable, healthy, and accessible for everyone; and

WHEREAS, tobacco use is the single most preventable cause of disease and death in Oregon;[1] and

WHEREAS, each year, tobacco use kills over 8,500 Oregonians, more than those caused by alcohol, car crashes, and illegal drugs combined, and costs almost $5.7 billion in medical expenses and lost productivity;[2] and

WHEREAS, a disproportionate number of these deaths occur in historically marginalized communities;[3] and

WHEREAS, lifetime smoking and other tobacco use almost always begins in adolescence;[4] and

WHEREAS, nine out of ten adults who smoke, report they started smoking before turning age 18;[5] and

WHEREAS, the connection between children and tobacco is so strong that the U.S. Food and Drug Administration (FDA) has declared that smoking is a "pediatric disease;"[6] and

WHEREAS, tobacco products with flavors such as electronic cigarettes, little cigars and hookah are more popular among youth and young adults compare to older adults;[7] and

WHEREAS, two third of Oregon youth tobacco users use flavored tobacco compared to about 26 percent of older adult tobacco users;[8] and

WHEREAS, 93 percent of stores in Oregon that sell tobacco, sell flavored tobacco products;[9] and

WHEREAS, with colorful packaging and sweet flavors, these products are often hard to distinguish from the candy displays that they are frequently placed near at the cash register in retail outlets;[10] and

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[1] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[2] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[3] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[4] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[5] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[6] *https://www.federalregister.gov/documents/2010/03/19/2010-6087/regulations-restricting-the-sale-and-distribution-of-cigarettes-and-smokeless-tobacco-to-protect*
[7] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[8] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[9] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*
[10] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*

WHEREAS, flavored tobacco products are often sold individually, or in two-packs, making them more affordable and appealing to children;[11] and

WHEREAS, in 2022, 26 percent of tobacco retailers inspected in Oregon sold tobacco to underage buyers;[12] and

WHEREAS, a survey of 6,800 youth reveals that three-fourths of flavored product users would no longer use the product if it was not flavored;[13] and

WHEREAS, a recent study by researchers at U.S. Centers for Disease Control and Prevention (CDC) further reveals that statewide restrictions on the sale of flavored e-cigarettes in Massachusetts, New York, Rhode Island, and Washington between 2014 and 2020 were associated with a reduction in total e-cigarette sales in those states.[14]

NOW, THEREFORE, BE IT RESOLVED by the Tigard City Council that:

SECTION 1: The Tigard City Council encourages the Oregon Legislature to pass legislation ending the sale of flavored tobacco products to protect youth and community members targeted for sales from Big Tobacco's candy-flavored and minty-menthol tobacco, resulting in a lifetime of addiction.

SECTION 2: This resolution is effective immediately upon passage.

PASSED: This 12th day of December 2023.

_____

Heidi Lueb, Mayor
City of Tigard

ATTEST:

_____

Carol A. Krager, City Recorder

[11] *https://www.oregon.gov/oha/ph/preventionwellness/tobaccoprevention/pages/oregon-tobacco-facts.aspx*

[12] *https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/TOBACCOPREVENTION/Documents/Tobacco%20Inspections%20Report_2022_Final.pdf?utm_medium=email&utm_source=govdelivery*

[13] *https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5536860/*

[14] *https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2788925*

AIS-5353 **7.**

Business Meeting

Meeting Date: 12/12/2023

Length (in minutes): 30 Minutes

Agenda Title: DCA2023-00002 Required FEMA NFIP Regulatory Updates

Authored By: Agnes Lindor

Presented By: Agnes Lindor, Senior Planner

Item Type:

Public Hearing

Legal Ad Required?:

Publication Date: 11/23/2023

Information

EXPLANATION OF ISSUE

The City is proposing development code and municipal code amendments to the Area of Special Flood Hazard regulations. These amendments are necessary to incorporate regulatory changes required by the Federal Emergency Management Agency (FEMA). These regulatory changes are required in order for the City of Tigard to continue participation in the National Flood Insurance Program (NFIP). The proposed amendments include:

- A new Municipal Code Title 9 that contains definitions, applicability, general provisions, NFIP standards, and violation procedures;
- Updates to Tigard Community Development Code (TCDC) Chapter 18.30, Definitions; and
- Updates to TCDC Chapter 18.510, Sensitive Lands, that move procedural requirements and general standards to the new Title 9.

The NFIP is a federal program that was established in 1968 through the passage of the National Flood Insurance Act and administered by FEMA. The program allows owners of properties within the Area of Special Flood Hazard to obtain federally-backed insurance for their properties in jurisdictions that have adopted land use regulations for development in the floodplain.

The Area of Special Flood Hazard is a term that has evolved over the years and, to avoid confusion, needs some explanation. In the past, this area was often referred to, erroneously, as the "100-year floodplain." Technically, it is an area near water bodies that has a statistical one percent chance of flooding in any given year. The term 100-year floodplain is misleading because it gives the impression that the area will only flood once every 100 years. In reality, that level of flooding or higher could occur in consecutive years as the one percent chance is estimated based on only decades of data. Additionally, urban development can increase flooding levels over time. The term "Special Flood Hazard Area" was used for a time by FEMA, but they have now changed that term again to "Area of Special Flood Hazard" (ASFH), which is the term used throughout this report and the proposed new regulations.

In addition to providing insurance, the NFIP provides maps of the Nation's floodplains, known as Flood Insurance Rate Maps (FIRM), and that are created from a Flood Insurance Study. The FIRM is an official map on which FEMA has delineated both the ASFH and other flood zones within a community. The FIRM is used in determining which properties are subject to a jurisdiction's floodplain regulations and whether a property owner is required to obtain flood insurance as well as providing information on the

insurance rate.

Floodplain boundaries do not stay constant but rather undergo change over time due to the effects of erosion, development impacts, vegetation removal, and other factors. To account for floodplain boundary changes, FEMA periodically adjusts the ASFH maps used by local jurisdictions. The City of Tigard does not conduct floodplain inventories and relies on FEMA for the determination of the ASFH boundary. Prior to amending the FIRM and/or developing new or revised floodplain requirements as part of the NFIP updates, FEMA coordinates with local jurisdictions to determine changes in local flood conditions. Updates to the local FIRM and a corresponding Flood Insurance Study (FIS) Report for all of Washington County were most recently completed by FEMA in 2017. Additionally, FEMA periodically amends the regulatory requirements of the NFIP.

In 2018, the City adopted a new FIRM. At that time, the City was notified that with the adoption of the new FIRM, FEMA Region 10 was requiring jurisdictions to review their current floodplain regulations to ensure they continue to meet the requirements for participation in the NFIP. Also in 2018, the City adopted new development code amendments (DCA2018-00002) in accordance with FEMA's review.

In 2021, the City was notified by the Oregon Department of Land Conservation and Development (DLCD) through FEMA's Community Assistance Contact (CAC) process that Tigard was due for a FEMA audit. Periodic FEMA audits are conducted by DLCD staff on behalf of FEMA. The FEMA Community Assistance Program helps states proactively identify, prevent, and resolve floodplain management issues in participating communities before a flood event occurs. As part of the audit, DLCD staff notified Tigard that further amendments to the ASFH regulations would be required to meet the minimum standards for participation in the NFIP. Tigard was informed by FEMA that adoption of their model ordinance would be required in order for the City of Tigard to remain a participant in NFIP.

ACTION REQUESTED

Adoption of the proposed municipal code and development code text amendments related to FEMA regulations. Adoption of these amendments is required in order for the City of Tigard to continue to participate in the National Flood Insurance Program (NFIP).

BACKGROUND INFORMATION

None.

ALTERNATIVES & RECOMMENDATION

Planning Commission recommends the City Council adopt the proposed amendments.

The City Council may also:
1. Modify the proposal and adopt; or
2. Deny the proposal.

ADDITIONAL RESOURCES

Attachments

Ordinance

Exhibit A: PC Recommendation To CC

Exhibit B Chapter 9.10

Exhibit C Chapter 18.30

Exhibit D Chapter 18.510

CITY OF TIGARD, OREGON
TIGARD CITY COUNCIL
ORDINANCE NO. 23-_____

AN ORDINANCE AMENDING TIGARD COMMUNITY DEVELOPMENT CODE CHAPTERS 18.30 (DEFINITIONS) AND 18.510 (SENSITIVE LANDS) AND ADOPTING A NEW TITLE 9 OF THE TIGARD MUNICIPAL CODE (AREAS OF SPECIAL FLOOD HAZARD) TO ADOPT UPDATED FLOODPLAIN REGULATIONS IN ORDER TO MAINTAIN PARTICIPATION IN THE NATIONAL FLOOD INSURANCE PROGRAM.

WHEREAS, the State of Oregon has, in ORS 197.175, 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; and

WHEREAS, the flood hazard areas of the City of Tigard 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; and

WHEREAS, these flood losses may be caused by the cumulative effect of obstructions in areas of special flood hazard 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; and

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

A. Protect human life and health;
B. Minimize expenditure of public money for costly flood control projects;
C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
D. Minimize prolonged business interruptions;
E. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;
F. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas so as to minimize blight areas caused by flooding;
G. Notify potential buyers that the property is in an area of special flood hazard;
H. Notify those who occupy areas of special flood hazard that they assume responsibility for their actions; and
I. Participate in and maintain eligibility for flood insurance and disaster relief; and

WHEREAS, 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; and
E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas; and

WHEREAS, in the interpretation and application of this ordinance, all provisions will 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; and

WHEREAS, this ordinance will not create liability on the part of the City of Tigard, 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; and

WHEREAS, the Assistant Community Development Director, serving as the City's Floodplain Administrator, or their designee 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; and

WHEREAS, the duties of the Floodplain Administrator, or their designee, include, but are not limited to review all development permits to determine that:
A. The permit requirements of this ordinance have been satisfied;
B. All other required local, state, and federal permits have been obtained and approved;
C. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway assure that the floodway provisions are met;
D. Review all development permits to determine if the proposed development is located in an area where Base Flood Elevation (BFE) data is available either through the Flood Insurance Study (FIS) or from another authoritative source. If BFE data is not available then ensure compliance with the provisions of Code of Federal Regulations (CFR) 60.3(a)(3); 60.3(b)(4); 60.3(b)(3); and Technical Bulletin 10-01;
E. Provide to building officials the Base Flood Elevation (BFE) applicable to any building requiring a development permit;
F. Review all development permit applications to determine if the proposed development qualifies as a substantial improvement as defined by CFR 59.1;
G. Review all development permits to determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in CFR 60.3(b)(6) and (7); and
H. Review all development permits to determine if the proposed development activity includes the placement of fill or excavation; and

WHEREAS, the Floodplain Administrator will 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; and

WHEREAS, amendments to the Tigard Community Development Code Chapter 18.30, Chapter 18.510, and amendments to the Tigard Municipal Code to create a new Title 9, Areas of Special Flood Hazard, would ensure the City's participation in the National Flood Insurance Program; and

WHEREAS, FEMA reviewed the amendments and approved the changes as being compliant with the National Flood Insurance Program requirements; and

WHEREAS, notice was provided to the Department of Land Conservation and Development at least 35 days prior to the first evidentiary public hearing; and

WHEREAS, notice of the public hearing was given in conformance with Community Development Code Section 18.710.120; and

WHEREAS, the Tigard Planning Commission held a duly noticed public hearing on November 13, 2023 and recommended with a unanimous vote that Council approve the proposed code amendment, as amended; and

WHEREAS, the Tigard City Council held a public hearing on December 12, 2023 to consider the proposed amendments; and

WHEREAS, the Tigard City Council has considered the Planning Commission recommendation; and

WHEREAS, the Tigard City Council has considered the applicable Statewide Planning Goals and Guidelines adopted under Oregon Revised Statutes Chapter 197; applicable federal and state statutes and regulations; applicable Metro regulations; applicable Comprehensive Plan Policies; and applicable provisions of the City's implementing ordinances; and

WHEREAS, the Tigard City Council has determined that the proposed development code amendments are consistent with the applicable review criteria and approves amendments to the Tigard Community Development Code as being in the best interest of the City of Tigard.

NOW, THEREFORE, THE CITY OF TIGARD ORDAINS AS FOLLOWS:

SECTION 1: Council adopts the findings recommended by the Planning Commission as contained in the November 20, 2023 Staff Report to the City Council, included as **"Exhibit A"** to this Ordinance, as the basis in support of the corresponding code amendments.

SECTION 2: Tigard Municipal Code Title 9 is a new title for Areas of Special Flood Hazard as shown in **"Exhibit B"** to this Ordinance.

SECTION 3: Tigard Community Development Code Chapter 18.30 Definitions is amended as shown in **"Exhibit C"** and Chapter 18.510 Sensitive Lands is amended as shown in **"Exhibit D"** to this Ordinance.

SECTION 4: If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, such invalidity does not affect the other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are severable. This City Council hereby declares that it would have adopted this ordinance irrespective of the invalidity of any particular portion thereof and intends that the invalid portions should be severed and the balance of the ordinance be enforced.

SECTION 5: This ordinance shall be effective 30 days after its passage by the council, signature by the mayor, and posting by the city recorder.

PASSED: By _____ vote of all Council members present after being read by

number and title only, this _____ day of _____, 2023.

_____
Carol Krager, City Recorder

APPROVED: By Tigard City Council this _____ day of _____, 2023.

_____
Heidi Lueb, Mayor

Approved as to form:

_____
City Attorney

_____
Date

EXHIBIT A

Agenda Item: # 1
Hearing Date: December 12, 2023 Time: 6:30 PM

PLANNING COMMISSION RECOMMENDATION TO THE CITY COUNCIL FOR THE CITY OF TIGARD, OREGON

SECTION I. APPLICATION SUMMARY

CASE NAME: **REQUIRED FEMA NFIP REGULATORY UPDATES**

CASE NO.: **Development Code Amendment (DCA)** **DCA2023-00002**

PROPOSAL: The City is proposing development code and municipal code amendments to the Area of Special Flood Hazard regulations. These amendments are necessary to incorporate regulatory changes required by the Federal Emergency Management Agency (FEMA). These regulatory changes are required in order for the City of Tigard to continue participation in the National Flood Insurance Program (NFIP). The proposed amendments include:

- A new Municipal Code Title 9 that contains definitions, applicability, general provisions, NFIP standards, and violation procedures;
- Updates to Tigard Community Development Code (TCDC) Chapter 18.30, Definitions; and
- Updates to TCDC Chapter 18.510, Sensitive Lands, that move procedural requirements and general standards to the new Title 9.

The proposed text amendments for the City Council's review are included in **Attachment 1,** and summarized below in this report.

APPLICANT: City of Tigard
13125 SW Hall Blvd.
Tigard, OR 97223

ZONES: Citywide

LOCATION: Citywide

APPLICABLE REVIEW CRITERIA: Statewide Planning Goals 1 (Citizen Involvement), 2 (Land Use Planning), 7 (Areas subject to Natural Hazards); METRO's Urban Growth Management Functional Plan Titles 3, and 8; Comprehensive Plan Goals 1.1.2, 2.1.1, 2.1.2,

2.1.3, 2.1.11, 2.1.20, 7.1.4, 7.1.5, 7.1.7, 7.1.8, 7.1.9, 7.1.11, 7.1.14, and 11.1.1; and TCDC Chapters 18.790.

SECTION II. PLANNING COMMISSION RECOMMENDATION

Planning Commission recommends approval by ordinance of the proposed development code and municipal code text amendments (Attachment 1)

SECTION III. BACKGROUND INFORMATION AND PROJECT SUMMARY

Required FEMA NFIP Regulatory Update

The purpose of the proposed amendments is to incorporate regulatory changes required by the Federal Emergency Management Agency (FEMA). These regulatory changes are required in order for the City of Tigard to continue participation in the National Flood Insurance Program (NFIP). A brief summary of the National Flood Insurance Program and the proposed changes is provided below.

The NFIP is a federal program that was established in 1968 through the passage of the National Flood Insurance Act and administered by FEMA. The program allows owners of properties within the Area of Special Flood Hazard to obtain federally-backed insurance for their properties in jurisdictions that have adopted land use regulations for development in the floodplain.

The Area of Special Flood Hazard is a term that has evolved over the years and, to avoid confusion, needs some explanation. In the past, this area was often referred to, erroneously, as the "100-year floodplain." Technically, it is an area near water bodies that has a statistical one percent chance of flooding in any given year. The term 100-year floodplain is misleading because it gives the impression that the area will only flood once every 100 years. In reality that level of flooding or higher could occur in consecutive years as the one percent chance is estimated based on only decades of data. Additionally, urban development can increase flooding levels over time. The term "Special Flood Hazard Area" was used for a time by FEMA but they have now changed that term again to "Area of Special Flood Hazard" (ASFH), which is the term used throughout this report and the proposed new regulations.

In addition to providing insurance, the NFIP provides maps the Nation's floodplains, known as Flood Insurance Rate Maps (FIRM) which results from a Flood Insurance Study. The FIRM is an official map on which FEMA has delineated both the ASFH and other flood zones within a community. The FIRM is used in determining which properties are subject to a jurisdiction's floodplain regulations and whether a property owner is required to obtain flood insurance as well as providing information on the insurance rate.

Floodplain boundaries do not stay constant but rather undergo change over time due to the effects of erosion, development impacts, vegetation removal, and other factors. To account for floodplain boundary changes, FEMA periodically adjusts the ASFH maps used by local jurisdictions. The City of Tigard does not conduct floodplain inventories and relies on FEMA for the determination of the ASFH boundary. Prior to amending the FIRM and/or developing new or revised floodplain requirements as part of the NFIP updates, FEMA coordinates with local jurisdictions to determine

changes in local flood conditions. Updates to the local FIRM and a corresponding Flood Insurance Study (FIS) Report for all of Washington County were most recently completed by FEMA in 2017. Additionally, FEMA periodically amends the regulatory requirements of the NFIP.

In 2018, the City adopted a new FIRM. At that time the City was notified that with the adoption of the new FIRM, FEMA Region 10 was requiring jurisdictions to review their current floodplain regulations to ensure they continue to meet the requirements for participation in the NFIP. Also in 2018, the City adopted new development code amendments (DCA2018-00002) in accordance with FEMA's review.

In 2021, the City was notified by the Oregon Department of Land Conservation and Development (DLCD) through FEMA's Community Assistance Contact (CAC) process that Tigard was due for a FEMA audit. Periodic FEMA audits are conducted by DLCD staff on behalf of FEMA. The FEMA Community Assistance Program helps states proactively identify, prevent, and resolve floodplain management issues in participating communities before a flood event occurs. As part of the audit DLCD staff notified Tigard that further amendments to the ASFH regulations would be required to meet the minimum standards for participation in the NFIP. Tigard was informed by FEMA that adoption of their model ordinance would be required in order for the City of Tigard to remain a participant in NFIP.

Tigard was given no choice in the matter and the proposed amendments reflect the exact language in FEMA's model ordinance. However, Tigard was allowed some flexibility in where to place the model ordinance language within our municipal and development codes. Given the complexity and breadth of the model ordinance language, staff is proposing a new Municipal Code Title—Title 9 Areas of Special Flood Hazard—for exclusive placement of the ASFH regulations.

The new title will contain definitions, applicability, general provisions, NFIP standards, and violation procedures. The creation of the new Title 9 also necessitates changes to the development code to reflect the transfer of some of the regulations and to add cross references. Most of the standards and language contained in TCDC Chapter 18.510 is out of compliance with the model ordinance language, as described below. Finally, having the regulations in a new Title 9 will allow for easier future changes to the regulations in compliance with FEMA direction.

Proposed Amendments

Amend the Tigard Community Development Code Definitions (TCDC 18.30) and Sensitive Lands Chapter (TDC 18.510) as proposed:

- Text Amendments to Chapter 18.30 (Definitions) to establish a new definition for "Area of Special Flood Hazard" and move definitions for "Critical Facilities" to new Title 9;
- Text Amendments to Chapter 18.510 (Sensitive Lands) to add references to standards in the new Title 9;
- Text Amendments to Chapter 18.510 (Sensitive Lands) to move the administrative provisions to new Title 9 (Areas of Special Flood Hazard) under General Provisions;
- Text Amendments to Chapter 18.510 (Sensitive Lands) to move development standards to new Title 9 (Areas of Special Flood Hazard) under NFIP Standards;

- Text Amendments to Chapter 18.510 (Sensitive Lands) to move definitions to new Title 9 (Areas of Special Flood Hazard) under Definitions; and
- Text Amendments to Chapter 18.510 (Sensitive Lands) to move violation language to new Title 9 (Areas of Special Flood Hazard) under Violations.

SECTION V. SUMMARY OF APPLICABLE REVIEW CRITERIA

This section contains all of the applicable city, state, and Metro policies, provisions, and criteria that apply to the proposed amendments.

City of Tigard Community Development Code:
Chapter 18.790: Text and Map Amendments

City of Tigard Comprehensive Plan:
Chapter 1: Citizen Involvement
Chapter 2: Land Use Planning
Chapter 7: Hazards
Chapter 11: Public Facilities

Metro Functional Plan:
Title 3: Water Quality and Flood Management
Title 8: Compliance Procedures

Statewide Planning Goals:
Goal 1: Citizen Involvement
Goal 2: Land Use Planning
Goal 7: Areas subject to Natural Hazards
Goal 11: Public Facilities and Services

SECTION IV. APPLICABLE CRITERIA AND FINDINGS

18.790.020 Legislative Amendments

A. Legislative amendments shall be processed through a Legislative procedure, as provided in Section 18.710.120.

FINDING: The proposed amendments are legislative in nature. Therefore, the amendments will be reviewed under the Legislative procedure. This procedure requires public hearings by both the Planning Commission and City Council. Public hearings are scheduled for November 13, 2023 and December 12, 2023. This standard is satisfied.

B. Approval considerations. A recommendation or a decision for a legislative amendment application may be based on consideration of the applicable legal requirements. They may, but do not necessarily include: Oregon Revised Statutes, Oregon Administrative

Rules, one or more Statewide Planning Goals, Metro's Urban Growth Management Functional Plan and any other regional plans.

FINDING: Findings and conclusions are provided in this staff report for the applicable legal requirements on which the recommendation by the Commission and the decision by the Council must be based. This standard is satisfied.

CONCLUSION: Based on the findings above, staff concludes that the proposed code text amendments are consistent with the requirements for legislative amendments.

TIGARD COMPREHENSIVE PLAN

State planning regulations require cities to adopt and amend Comprehensive Plans and land use regulations in compliance with the state land use goals and consistent with State Goals and Policies. Because the development code amendments have a limited scope and the text amendments address only some of the topics in the Tigard Comprehensive Plan, only applicable comprehensive plan goals and associated policies are addressed below.

Comprehensive Plan Goal 1: Citizen Involvement

Policy 1.1.2: The City shall define and publicize an appropriate role for citizens in each phase of the land use planning process.

FINDING: This policy has been met by complying with the Tigard Community Development Code notice requirements set forth in Section 18.710.120. Planning Commission public hearing notices were sent by US Postal Service on October 16, 2023 to affected government agencies and the latest version of the City's interested parties list. A notice was published in the Tigard Times newspaper October 19, 2023. City Council public hearing notices were sent by US Postal Service on November 20, 2023 to affected government agencies and the latest version of the City's interested parties list. A notice was published in the Tigard Times newspaper November 23, 2023. Project information and documents were published to the City website prior to the public hearing. A minimum of two public hearings will be held where an opportunity for public input is provided. The Planning Commission hearing was held on November 13, 2023 and a City Council hearing is scheduled for December 12, 2023. This policy is met.

Comprehensive Plan Goal 2: Land Use Planning

Policy 2.1.1: The City's land use program shall establish clear policy direction, comply with state and regional requirements, and serve its citizens' own interests.

FINDING: As demonstrated in this staff report, the proposed amendments to the Tigard Community Development Code continue to establish clear policy direction, comply with state and regional requirements, serve the City's citizens' own interests, and are consistent with the Tigard Comprehensive Plan. This policy is satisfied.

Policy 2.1.2: The City's land use regulations, related plans, and implementing actions shall be consistent with and implement its Comprehensive Plan.

FINDING: As demonstrated in this staff report, the proposed land use regulations (amendments to the Tigard Community Development Code), related plans, and implementing actions continue to be consistent with and implement the Tigard Comprehensive Plan. This policy is satisfied.

Policy 2.1.3: The City shall coordinate the adoption, amendment, and implementation of its land use program with other potentially affected jurisdictions and agencies.

FINDING: Copies of the proposed text amendments were sent to other affected jurisdictions and agencies, who were invited to comment on the proposal. Responses are discussed in Section V of this report. Comments submitted by affected agencies have been incorporated into this report and the proposed amendments. This policy is satisfied.

Policy 2.1.11: The City shall adopt regulations and standards to protect public safety and welfare from hazardous conditions related to land use activities.

FINDING: The proposed amendments include the adoption of regulatory changes required by FEMA, which will maintain the City's participation in the National Flood Insurance Program and protect public safety and welfare for properties located within the ASFH. This policy is satisfied.

Policy 2.1.20: The City shall periodically review and, if necessary, update its Comprehensive Plan and regulatory maps and implementing measures to ensure they are current and responsive to community needs, provide reliable information, and conform to applicable state law, administrative rules, and regional requirements.

FINDING: In 2021, the City was notified by DLCD through FEMA's Community Assistance Contact process that amendments to the special flood hazard area regulations are required to meet the minimum standards for participation in the NFIP. FEMA's Community Assistance Program helps states proactively identify, prevent, and resolve floodplain management issues in participating communities before a flood event occurs. The proposed amendments include the adoption of regulatory changes required by FEMA, which will maintain the City's participation in the National Flood Insurance Program and protect the public welfare for properties located within the ASFH. The proposed amendments ensure that the City's implementing measures are current and responsive to community needs, provide reliable information, and conform to applicable state law, administrative rules, and regional requirements. This policy is satisfied.

Comprehensive Plan Goal 7: Hazards

Policy 7.1.4: The City shall design and construct public facilities to withstand hazardous events with a priority on hazard protection of public services and facilities that are needed to provide emergency response services.

FINDING: The proposed amendments include the adoption of updated regulations for the design and construction of public facilities to withstand hazardous events—with specific regulations that prioritize hazard protection of public services and facilities that are needed to provide emergency response services. These amendments include a new Title 9 that provides standards for various development activities including the design and construction of critical public facilities. Additionally,

adoption of these amendments will ensure the City's continued participation in the NFIP. This policy is satisfied.

Policy 7.1.5: The City shall apply and enforce the most current building code standards to protect the built environment from natural disasters and other hazards.

FINDING: The City of Tigard administers and enforces the State of Oregon Specialty Codes, which contain certain provisions that apply to the design and construction of buildings and structures located in ASFH. The proposed amendments will to be administered and enforced in conjunction with the Oregon Specialty Codes. The proposed amendments include the adoption of updated regulations for development within the ASFH. These amendments, together with the Oregon Specialty Codes, will ensure that the City will apply and enforce the most current building code standards to protect the built environment from natural disasters and flood hazards. This policy is satisfied.

Policy 7.1.7: The City shall comply with the Federal Emergency Management Agency (FEMA) flood regulations, which include standards for base flood levels, flood proofing, and minimum finished floor elevations.

FINDING: The proposed amendments implement the latest FEMA required regulatory updates including standards for base flood level, flood proofing, and minimum finished floor elevations. This policy is satisfied.

Policy 7.1.8: The City shall prohibit any land form alterations or developments in the 100-year floodplain which would result in any rise in elevation of the 100-year floodplain.

FINDING: The City's current development code prohibits landform alterations or developments in the 100-year floodplain that would result in any rise in elevation of the 100-year floodplain. Changes to this requirement are not proposed. Under the proposed amendments all new development will continue to meet this requirement. This policy is satisfied.

Policy 7.1.9: The City shall not allow land form alterations of development within the 100-year floodplain outside the zero-foot rise floodway unless:

A. The streamflow capacity of the zero-foot rise and floodway is maintained; and
B. Engineered drawings and/or documentation shows there will be no detrimental upstream or downstream effects in the floodplain area.

FINDING: The City's current development code prohibits landform alterations or developments in the 100-year floodplain that would result in any rise in elevation of the 100-year floodplain. Changes to this requirement are not proposed Under the proposed amendments all new development will continue to meet this requirement and will need to provide the required documentation and engineered drawings. This policy is satisfied.

Policy 7.1.11: The City shall comply with Metro Title 3 Functional Plan requirements for balanced fill and removal in the floodplain.

FINDING: The proposed amendments will ensure that the City's regulations will continue to comply with Metro Title 3 Functional Plan requirements for balanced fill and removal in the

floodplain. This is a basic requirement of the FEMA regulations, which is also a component of Metro Title 3 regulations. This policy is satisfied.

Policy 7.1.14: The City shall work to reduce the risk of loss of life and damage to property from severe weather events.

FINDING: The proposed amendments included in the new Title 9 reduce the risk of loss of life and damage to property from severe weather events, particularly flooding events. These standards are applied in conjunction with the state building code to reduce the risk of damage to property. This policy is satisfied.

Comprehensive Plan Goal 11: Public Facilities and Services

Policy 11.1.1: The City shall require that all new development:

C. Meet or exceed regional, state, and federal standards for water quality and flood protection.

FINDING: The proposed amendments adopt the FEMA required regulatory updates for development within the ASFH—meeting federal standards for flood protection. The purpose of the proposed amendments is to incorporate regulatory changes required by the Federal Emergency Management Agency (FEMA) to comply with the latest standards and continue participation in the NFIP. This policy is satisfied.

CONCLUSION: Based on the findings above, staff concludes that the proposed code text amendments are consistent with applicable provisions of the Tigard Comprehensive Plan.

METRO Urban Growth Management Functional Plan

State planning regulations require cities to adopt and amend Comprehensive Plans and land use regulations in compliance with the state land use goals. Within the Portland metropolitan region, METRO also has responsibility for administering state planning regulations. This is accomplished through METRO's adopted Urban Growth Management Functional Plan (UGMFP). Because the proposed Code Amendments have a limited scope and the text amendments address only some of the topics in the UGMFP, only applicable UGMFP Titles are addressed below.

Title 3: Water Quality and Flood Management:

The intent of this goal 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 from dangers associated with flooding.

FINDING: The proposed amendments will ensure that the City's regulations will continue to comply with Metro Title 3 UGMFP requirements for limiting or mitigating the impact from development activities on Metro's designated Water Quality and Flood Management Areas as well as protecting life and property from the dangers associated with flooding. This is a basic requirement of the FEMA regulations, which is also a component of Metro Title 3 regulations. This policy is satisfied.

Title 8: Compliance Procedures
The purposes of this chapter are to establish a process for ensuring city or county compliance with requirements of the Urban Growth Management Functional Plan and for evaluating and informing the region about the effectiveness of those requirements.

FINDING: This title has been met by complying with the Tigard Community Development Code notice requirements set forth in Section 18.710.120. Planning Commission public hearing notices were sent by US Postal Service on October 16, 2023 to affected government agencies and the latest version of the City's interested parties list. A notice was published in the Tigard Times newspaper October 19, 2023. City Council public hearing notices were sent by US Postal Service on November 20, 2023 to affected government agencies and the latest version of the City's interested parties list. A notice was published in the Tigard Times newspaper November 23, 2023. Project information and documents were published to the City website prior to the public hearing. A minimum of two public hearings will be held where an opportunity for public input is provided. The Planning Commission hearing was held on November 13, 2023 and a City Council hearing is scheduled for December 12, 2023. These actions meet or exceed the specific requirements contained in Metro Title 8. This title is satisfied.

CONCLUSION: Based on the findings above, staff finds that the proposed code amendments are consistent with Metro's Urban Growth Management Functional Plan.

Statewide Planning Goals
Goal 1 – Citizen Involvement:
This goal outlines the citizen involvement requirement for the land use planning process, including the adoption of Comprehensive Plans and changes to the Comprehensive Plan and implementing documents.

Goal 2 – Land Use Planning:
This goal outlines the land use planning process and policy framework.

Goal 7 – Areas Subject to Natural Hazards:
This goal requires that local comprehensive plans to address Oregon's natural hazards. Protecting people and property from natural hazards requires knowledge, planning, coordination, and education.

Goal 11 – Public Facilities and Services:
This goal requires that local comprehensive plans to address Oregon's natural hazards. Protecting people and

The proposed amendments comply with Statewide Planning Goals 1, 2, 7, and 11 through the implementation of the City of Tigard Comprehensive Plan, which was most recently acknowledged by the State on June 23. 2022. The applicable City Comprehensive Plan goals and polices have been addressed previously in this report. These goals and policies are satisfied.

CONCLUSION: Based on the findings above, staff finds the proposed code amendments are consistent with applicable Statewide Planning Goals.

SUMMARY CONCLUSION: As shown in the findings provided in this report, staff concludes that the proposed amendments are consistent with the applicable Statewide Planning Goals; METRO's UGMFP; applicable Comprehensive Plan goals and policies, and the applicable provisions of the City's implementing ordinances.

SECTION V. AGENCY COMMENTS

Washington County, Metro, ODOT, DLCD, DEQ, ODFW, OR Dept. of Geo. & Mineral Ind., Beaverton School District, CWS, Comcast, Lumen, NW Natural, PGE, Portland & Western Railroad, TTSD, Tri-Met, TVWD, TVF&R, Pride Disposal, Union Pacific Railroad, Waste Management, Ziply Fiber were notified of the proposed code text amendments but provided no comment.

SECTION VI. PUBLIC COMMENTS

The City had not received any public comments at the time this report was written.

ATTACHMENTS:

Attachments:

1. Text Amendments

Agnes Lindor — November 20, 2023

PREPARED BY: Agnes Lindor, Senior Planner — DATE

Tom McGuire — November 20, 2023

APPROVED BY: Tom McGuire, Assistant Community Development Director — DATE

Chapter 9.10
AREAS OF SPECIAL FLOOD HAZARD

Sections:

9.10.010 Purpose
9.10.020 Definitions
9.10.030 Applicability
9.10.040 General Provisions
9.10.050 National Flood Insurance Program Standards
9.10.060 Violations

9.10.010 Purpose

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

A. Protect human life and health;

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

C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. Minimize prolonged business interruptions;

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

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

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

H. Notify those who occupy areas of special flood hazard that they assume responsibility for their actions; and

I. Participate in and maintain eligibility for flood insurance and disaster relief.

9.10.020 Definitions

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as

to give them the meaning they have in common usage. These definitions are only applicable to this chapter and Tigard Community Development Code (TCDC) Chapter 18.510, Sensitive Lands.

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

B. Area of shallow flooding: A designated Zone AO, AH, AR/AO or AR/AH (or VO) on the city'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.

C. Area of Special Flood Hazard: The land in the floodplain within the city 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. "Special flood hazard area" is synonymous in meaning and definition with the phrase "area of special flood hazard".

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

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

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

G. 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; new and replacement bridges; hospitals; police, fire, and emergency response installations; and installations that produce, use, or store hazardous materials or hazardous waste.

H. 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.

I. 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 (i.e., mudflows) which are proximately caused by flooding as defined in Tigard Municipal Code (TMC) 9.10.020.I.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 flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in TMC 9.10.020.I.1.a of this definition.

J. Flood elevation study: See “Flood Insurance Study.”

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

L. Flood Insurance Study (FIS): 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) or flood-related erosion hazards.

M. Flood proofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

N. 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. Also referred to as "Regulatory Floodway."

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

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

Q. Historic structure: Any structure that is:

1. 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 the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

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

4. Individually listed on a City of Tigard Historic Resources list acknowledged by the Secretary of the Interior.

R. 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 chapter.

S. 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."

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

U. 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 the city's Flood Insurance Rate Map are referenced.

V. New construction: For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by City of Tigard and includes any subsequent improvements to such structures.

W. Recreational vehicle: A vehicle which is:

1. Built on a single chassis;

2. 400 square feet or less when measured at the largest horizontal projection;

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

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

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

Y. 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.

Z. 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.

AA. 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.

BB. 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:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

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

9.10.030 Applicability

A. All development within areas of special flood hazard is subject to the terms of this chapter and is required to comply with its provisions and all other applicable regulations including but not limited to TCDC Chapter 18.510, Sensitive Lands.

B. The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas effective October 19, 2018" with accompanying Flood Insurance Map (FIRM Panels:41067C0529F, 41067C0533E, 41067C0534E, 41067C0541E through 41067C0544E, and 41067C0563E*)* is hereby adopted by reference and declared to be a part of this ordinance.

9.10.040 General Provisions

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

B. Warning. The degree of flood protection required by this chapter 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 chapter 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.

C. Permit Review. The duties of the Floodplain Administrator, or their designee, shall include, but not be limited to review all development permits to determine that:

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

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

3. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway assure that the floodway provisions are met;

4. Review all development permits to determine if the proposed development is located in an area where Base Flood Elevation data is available either through the Flood Insurance Study or from another authoritative source. If Base Flood Elevation data is not available then ensure compliance with the provisions of TMC 9.10.050.J;

5. Provide to building officials the Base Flood Elevation applicable to any building requiring a development permit;

6. Review all development permit applications to determine if the proposed development qualifies as a substantial improvement as defined by TMC 9.10.020;

7. Review all development permits to determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in TMC 9.10.050.C; and

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

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:

1. Obtain, record, and maintain the actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation data is provided through the Flood Insurance Study, Flood Insurance Rate Map, or obtained in accordance with TMC 9.10.050.J.

2. Obtain and record the elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of TMC 9.10.050.N are adhered to and all other required local, state, and federal permits have been obtained and approved.

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

4. Where base flood elevation data are utilized, obtain record drawing 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.

5. Maintain all Elevation Certificates submitted to the City of Tigard.

6. Obtain, record, and maintain the elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under this chapter and where Base Flood Elevation data is provided through the FIS, FIRM, or obtained in accordance with TMC 9.10.050.J.

7. Maintain all floodproofing certificates required under this chapter.

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

9. Obtain and maintain all hydrologic and hydraulic analyses performed as required under TMC 9.10.050.N.

10. Record and maintain all Substantial Improvement and Substantial Damage calculations and determinations as required under TMC 9.10.040.H.

11. Maintain for public inspection all records pertaining to the provisions of this chapter.

E. City Boundary Alterations. The Floodplain Administrator shall notify the Federal Insurance Administrator in writing whenever the boundaries of the city have been 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 and Flood Insurance Rate Maps accurately represent the city's boundaries. The notification will include a copy of a map of the city suitable for reproduction, clearly delineating the new corporate limits or new area for which the city has assumed or relinquished floodplain management regulatory authority.

F. Watercourse Alterations. The Floodplain Administrator shall 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 along with either a proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance. The applicant shall be required to submit a Conditional Letter of Map Revision when required under TMC 9.10.040.G to ensure compliance with all applicable requirements in TMC 9.10.040.G and 9.10.050.C.

G. Requirement to Submit New Technical Data. The city's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, the city must 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 process. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for proposed floodway encroachments that increase the base flood elevation and proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway. An applicant shall notify FEMA within six months of project completion when an applicant has obtained a Conditional Letter of Map Revision from FEMA. This notification to FEMA shall be provided as a Letter of Map Revision.

H. Substantial Improvement and Substantial Damage Assessments and Determinations. The Floodplain Administrator shall:

1. Conduct Substantial Improvement (as defined in TMC 9.10.020) reviews for all structural development proposal applications and maintain a record of Substantial Improvement calculations within permit files in accordance with TMC 9.10.040.D.

2. Conduct Substantial Damage assessments when structures are damaged due to a natural

hazard event or other causes.

3. Make Substantial Damage determinations whenever structures within the area of special flood hazard (as established in TMC 9.10.030.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.

I. Floodplain Development Permit Required. A development permit shall be obtained before construction or development begins within any area horizontally within the area of special flood hazard established in TMC 9.10.030.B. The development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in TMC 9.10.020, including fill and other development activities.

J. 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:

1. 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 TMC 9.10.040.D;

2. Proposed elevation in relation to mean sea level to which any non-residential structure will be floodproofed;

3. 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 TMC 9.10.050.M.3;

4. Description of the extent to which any watercourse will be altered or relocated;

5. Base Flood Elevation data for subdivision proposals or other development when required by this chapter;

6. Substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure; and

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

K. Severability. This chapter and the various parts thereof are hereby declared to be severable. If any section clause, sentence, or phrase of this chapter 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 chapter.

L. 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.

9.10.050 National Flood Insurance Program General Standards

In all areas of special flood hazard, the following standards shall be adhered to:

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. Alteration of watercourses. The Floodplain Administrator shall require that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained and that maintenance is provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Compliance with TMC 9.10.040.F and 9.10.040.G.

D. Anchoring. 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. All manufactured dwellings shall be anchored in accordance with TMC 9.10.050.M.4.

E. Water Supply, Sanitary Sewer, and On-Site Waste Disposal Systems.

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

2. 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.

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

F. 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 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, if replaced as part of a substantial improvement, meet all the requirements of this section.

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

H. Critical facilities. Construction of new critical facilities must be, to the extent practicable, located outside areas of special flood hazard.

1. Construction of new critical facilities, other than critical bridges, are allowed within areas of special flood hazard if no feasible alternative site is available and the following applicable criteria are met:

   a. Critical facilities constructed within areas of special flood hazard must have the lowest floor elevated 3 feet above base flood elevation or to the height of the 500-year flood, whichever is higher.

   b. To the extent practicable, access to and from the critical facility should also be protected to 3 feet above base flood elevation or to the height of the 500-year flood, whichever is higher.

   c. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters.

2. All new and replacement critical bridges must have the lowest extension of the bridge superstructure elevated 3 feet above base flood elevation or to the height of the 500-year flood, whichever is higher.

3. Where standard TMC 9.10.050.H.2 cannot be met, an analysis of alternative bridge designs is required by a registered professional civil engineer. The proposed encroachment will result in the least impact to base flood levels in the area of special flood hazard of the practicable alternative bridge designs—as demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice.

I. Subdivision Proposals.

1. 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.

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

   a. Be consistent with the need to minimize flood damage;

   b. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage; and

   c. Have adequate drainage provided to reduce exposure to flood hazards.

J. Use of Other Base Flood Data. When Base Flood Elevation data has not been provided in accordance with TCDC 9.10.030.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 TMC 9.10.050. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) must meet the requirements of TMC 9.10.050.I. 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. When no base flood elevation data is available, the elevation requirement for development proposals within a riverine unnumbered A Zone is a minimum of two (2) feet above the highest adjacent grade, to be reasonably safe from flooding. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

K. Structures Located in Multiple or Partial Flood Zones. In coordination with the State of Oregon Specialty Codes:

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

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

L. 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 TMC 9.10.050.A through K.

   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 exist of floodwaters;

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

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 (1) 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 (1) 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.

2. Garages. Attached garages may be constructed with the garage floor slab below the Base Flood Elevation in riverine flood zones, if the following requirements are met:

a. If located within a floodway the proposed garage must comply with the requirements of TMC 9.10.050.N;

b. The floors are at or above grade on at least than one side;

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

d. The garage is constructed with flood openings in compliance with TMC 9.10.050.L.1 to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater;

e. The portions of the garage constructed below the Base Flood Elevation are constructed with materials resistant to flood damage;

f. The garage is constructed in compliance with the general standards TMC 9.10.050.A through K; and

g. 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.

3. Detached Garages. Detached garages must be constructed in compliance with the standards for appurtenant structures in TMC 9.10.050.M.6 or non-residential structures in TMC 9.10.050.M.3 depending on the square footage of the garage.

M. For Riverine (non-coastal) Areas of Special Flood Hazard with Base Flood Elevations. In addition to the general standards in TMC 9.10.050.A through K, the following specific standards shall apply in riverine (non-coastal) areas of special flood hazard with Base Flood Elevations: Zones A1-A30, AH, and AE.

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 city'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 at any point within the city.

2. Residential Construction.

a. New construction, conversion to, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at one (1) foot above the Base Flood Elevation.

b. Enclosed areas below the lowest floor shall comply with the flood opening requirements in TMC 9.10.050.L.1.

3. Non-Residential Construction.

a. New construction, conversion to, and substantial improvement of any commercial, industrial, or other non-residential structure shall have the lowest floor, including basement elevated at one (1) foot above the Base Flood Elevation. Or, together with attendant utility and sanitary facilities:

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

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

iii. 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 or review of the

structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth TMC 9.10.040.D.

b. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in TMC 9.10.050.L.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.

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 TMC 9.10.050.L.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. 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 TMC 9.10.050.M.4, including the anchoring and elevation requirements for manufactured dwellings.

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 TMC 9.10.050.N;

b. Appurtenant structures must only be used for parking, access, or storage and shall not be used for human habitation;

c. Appurtenant structures on properties are limited to one-story structures less than 600 square feet in A zones and must meet applicable setbacks from property lines;

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 TMC 9.10.050.L.1;

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

h. Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed incompliance with TMC 9.10.050.G; 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.

N. Floodways. Located within the areas of special flood hazard established in TMC 9.10.030.B are areas designated as floodways. Because 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:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless:

a. 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 city during the occurrence of the base flood discharge; or,

b. A city may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that a Conditional Letter of

Map Revision is applied for and approved by the Federal Insurance Administrator, and the requirements for such revision as established under Volume 44 of the Code of Federal Regulations, Section 65.12 are fulfilled.

2. If the requirements of TMC 9.10.050.N.1 are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard reduction provisions of TMC 9.10.050.

O. 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.

1. Standards for AH Zones. Development within AH Zones must comply with the standards in TMC 9.10.050.A through O.

2. Standards for AO Zones. In AO zones, the following provisions apply in addition to the requirements in TMC 9.10.050.A through K and TMC 9.10.050.O.

   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 or at least two (2) feet if no depth number is specified. For manufactured dwellings the lowest floor is considered to be the bottom of the longitudinal chassis frame beam.

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

      i. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at minimum to or above the depth number specified on the Flood Insurance Rate Maps or at least two (2) feet if no depth number is specified; or

      ii. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the depth number specified on the Flood Insurance Rate Map or a minimum of two (2) feet above the highest adjacent grade if no depth number is specified, so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of

buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as stated in TMC 9.10.050.M.3.a.iii.

c. Recreational vehicles placed on sites within AO Zones on the city's Flood Insurance Rate Maps shall either:

   i. Be on the site for fewer than 180 consecutive days, and

   ii. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

   iii. Meet the elevation requirements of TMC 9.10.050.O.2.a, and the anchoring and other requirements for manufactured dwellings of TMC 9.10.050.M.4.

d. In AO zones, new and substantially improved appurtenant structures must comply with the standards in TMC 9.10.050.M.6.

e. In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in TMC 9.10.050.L.1.

9.10.060 Violations

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations including but not limited to TCDC Chapter 18.510, Sensitive Lands. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a Class 1 civil infraction, processed according to the procedures in the civil infractions ordinance, set out in TMC Chapter 1.16. Each violation of a separate provision of this chapter shall constitute a separate infraction, and each day that a violation of this chapter is committed or permitted to continue shall constitute a separate infraction. A finding of a violation of this chapter shall not relieve the responsible party of the duty to abate the violation. The penalties imposed by this section are in addition and not in lieu of any remedies available to the city. If a provision of this chapter is violated by a firm or corporation, the officer or officers, or person or persons responsible for the violation shall be subject to the penalties imposed by this chapter. Nothing contained herein shall prevent the City of Tigard from taking such other lawful action as is necessary to prevent or remedy any violation.

Chapter 18.30
DEFINITIONS

Sections:

18.30.010 List of Terms
18.30.020 Definitions

18.30.010 List of Terms

- A-

Area of Special Flood Hazard - *See Flood-Related Definitions*

-C-

~~Critical Facility - *See Flood-Related Definitions*~~

-F-

Flood-Related Definitions:

- **Area of Special Flood Hazard**
- Base Flood
- ~~Critical Facility~~
- Flood **or Flooding**
- Floodway
- Floodway Fringe
- Special Flood Hazard Area

Flood or Flooding - See Flood-Related Definitions

18.30.020 Definitions

As used in this title and corresponding administrative rules, terms, and phrases are defined as provided in this section. For additional definitions, see Chapter 18.60, Use Categories; Chapter 18.435, Signs; and Chapter 18.510, Sensitive Lands.

F. "F" definitions.

7. Flood-related definitions:

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

b. "Base flood" - ~~The~~**A** flood having a one percent chance of being equaled or exceeded in any given year. ~~Also referred to as the "100-year flood."~~

~~b. "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; and installations that produce, use, or store hazardous materials or hazardous waste.~~

c. "Flood **or Flooding**" - A general and temporary condition of partial or complete inundation of normally dry land areas from**:** ~~the overflow of inland or tidal waters or the unusual and rapid accumulation of runoff of surface waters from any source.~~

i. The overflow of inland or tidal waters.

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

iii. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in TMC 18.30.020.F.7.c.ii 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.

d. "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.

e. "Floodway fringe" - The area of the special flood hazard area lying outside of the floodway.

f. "Special Flood Hazard Area" - **See "Area of special flood hazard" for this definition.** ~~The land area covered by the floodwaters of the base flood is the Special Flood Hazard Area (SFHA) on NFIP maps. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The SFHA includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V. Also referred to as the "100-year floodplain."~~

Chapter 18.510
SENSITIVE LANDS

Sections:

18.510.010 Purpose
18.510.020 Applicability
18.510.030 Administrative Provisions
18.510.040 ~~General Provisions for Special Flood Hazard Areas~~ Reserved
18.510.050 General Provisions for Wetlands
18.510.060 Approval Period and Extensions
18.510.070 Sensitive Lands Applications
18.510.080 Development within Locally Significant Wetlands and Along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek
18.510.090 Density Transfer and Reductions
18.510.100 Plan Amendment Option
18.510.110 Significant Habitat Areas Map Verification Procedures

18.510.010 Purpose

A. Maintain integrity of rivers, streams, and creeks. Sensitive land regulations in this chapter are intended to maintain the integrity of the rivers, streams, and creeks in Tigard by minimizing erosion, promoting bank stability, maintaining and enhancing water quality and fish and wildlife habitats, and preserving scenic quality and recreation potential.

B. Implement comprehensive plan and floodplain management program. The regulations of this chapter **apply to all areas of special flood hazard within the City of Tigard. These regulations** are intended to implement the comprehensive plan and the city's floodplain management program as required by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program, to help to preserve sensitive land areas from encroaching use, and to maintain the October 19, 2018, zero-foot rise floodway elevation. **All development within the areas of special flood hazard are subject to the terms of this ordinance and required to comply with its provisions and all other applicable regulations including Tigard Municipal (TMC) Chapter 9.10.**

C. Implement Clean Water Service (CWS) design and construction standards. The regulations of this chapter are intended to protect the beneficial uses of water within the Tualatin River Basin in compliance with the CWS "Design and Construction Standards."

D. Implement the Metro Urban Growth Management Functional Plan. The regulations of this chapter are intended to protect the beneficial water uses and functions and values of resources within water quality and flood management areas and to implement the performance standards of the Metro Urban Growth Management Functional Plan.

E. Implement Statewide Planning Goal 5 (Natural Resources). The regulations in this chapter are intended to address the requirements of Statewide Planning Goal 5 (Natural Resources)

and the safe harbor provisions of the Goal 5 administrative rule pertaining to wetland and riparian corridors.

F. Protect public health, safety, and welfare. Sensitive land areas are designated as such to protect the public health, safety, and welfare of the community through the regulation of these sensitive land areas.

G. Location. Sensitive lands are lands potentially unsuitable for development because of their location within:

1. The ~~special flood hazard area~~**areas of special flood hazard** or 1996 flood inundation line, whichever is greater;

2. Natural drainageways;

3. Wetland areas that are regulated by the other agencies including the U.S. Army Corps of Engineers and the Division of State Lands, or are designated as significant wetland on the City of Tigard "Wetland and Stream Corridors Map";

4. Steep slopes of 25 percent or greater and unstable ground;

5. Significant fish and wildlife habitat areas designated on the City of Tigard "Significant Habitat Areas Map"; and

6. Significant tree groves as shown on the "City of Tigard Significant Tree Grove Map." (Ord. 20-01 §1; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.020 Applicability

A. CWS stormwater connection permit. All proposed development must obtain a stormwater connection permit from CWS in compliance with its design and construction standards.

B. Allowed uses with no approval required. Except as provided below and by Subsections 18.510.020.D, F, and G of this section, the following uses are allowed uses within drainageways, slopes that are 25 percent or greater, and unstable ground when the use does not involve paving. For the purposes of this chapter, the word "structure" excludes: children's play equipment, picnic tables, sand boxes, grills, basketball hoops, and similar recreational equipment.

1. Accessory uses such as lawns, gardens, or play areas; except in a water quality sensitive area or vegetated corridor, as defined in the CWS "Design and Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

2. Farm uses conducted without locating a structure within the sensitive land area; except in a water quality sensitive area or vegetative corridor, as defined in CWS "Design and

Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

3. Community recreation uses, excluding structures; except in a water quality sensitive area or vegetated corridor, as defined in the CWS "Design and Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

4. Public and private conservation areas for water, soil, open space, forest, and wildlife resources.

5. Removal of poison oak, tansy ragwort, blackberry, English ivy, or other noxious vegetation.

6. Maintenance of floodway excluding re-channeling; except in a water quality sensitive area or vegetated corridor, as defined in the CWS "Design and Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

7. Fences; except in a water quality sensitive area or vegetated corridor, as defined in the CSW "Design and Construction Standards"; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

8. Accessory structures that are less than 120 square feet in size; except in a water quality sensitive area or vegetated corridor, as defined in the CSW "Design and Construction Standards"; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

9. Land form alterations involving up to 10 cubic yards of material; except in a water quality sensitive area or vegetated corridor, as defined in the CSW "Design and Construction Standards"; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

C. Exemptions. When performed under the direction of the city, the following are exempt from the provisions of this section:

1. Responses to public emergencies, including emergency repairs to public facilities;

2. Stream and wetlands restoration and enhancement programs, except in **areas of** special flood hazard ~~areas~~ when meeting the definition of development in ~~Paragraph 18.510.040.R.1~~**TMC 9.10.020**;

3. Non-native vegetation removal;

4. Planting of native plant species; and

5. Routine maintenance or replacement of existing public facilities projects, except in ~~special flood hazard areas~~**areas of special flood hazard** when meeting the definition of development in **TMC 9.10.020**~~Paragraph 18.510.040.R.1~~.

D. Jurisdictional wetlands. Landform alterations or developments that are only within wetland areas that meet the jurisdictional requirements and permit criteria of the U.S. Army Corps of Engineers, Division of State Lands, CWS, or other federal, state, or regional agencies, and are not designated as significant wetlands on the City of Tigard "Wetland and Streams Corridors Map," do not require a sensitive lands review. The city will require that all necessary approvals from other agencies are obtained. All other applicable city requirements must be met, including sensitive land reviews for areas within the ~~special flood hazard areas~~**areas of special flood hazard**, slopes of 25 percent or greater or unstable ground, drainageways, and wetlands that are not under state or federal jurisdiction.

E. Administrative sensitive lands review.

1. Administrative sensitive lands reviews within~~ the special flood hazard area (excluding the floodway),~~ drainageway**s**, slopes that are 25 percent or greater, and unstable ground are processed through a Type I procedure, as provided in Section 18.710.050, for the following actions:

a. The repair, reconstruction, or improvement of an existing structure or utility, the cost of which is less than 50 percent of the market value of the structure prior to the improvement or the damage requiring reconstruction.

b. Minimal ground disturbance or landform alteration involving 10 to 50 cubic yards of material; and

c. Building permits for accessory structures that are 120 to 528 square feet in size.

2. Administrative sensitive lands reviews within the areas of special flood hazard are processed through a Type I procedure, as provided in Section 18.710.050, for the following actions:

a. Within the areas of special flood hazard but outside the floodway (floodway fringe):

i. The construction of accessory structures up to 528 square feet in size; and

ii. Any landform alteration involving up to 50 cubic yards of material.

b. Stream and wetland restoration and enhancement programs, including work in the floodway, when performed under the direction of the city.

~~b. Actions within the special flood hazard area:~~

~~iii. The construction of accessory structures up to 528 square feet in size; and~~

~~iv. Any landform alternation involving up to 50 cubic yards of material.~~

~~c. Actions within drainageways and slopes that are 25 percent or greater, and unstable ground:~~

~~i. Minimal ground disturbances or landform alterations involving 10 to 50 cubic yards of material; and~~

~~ii. Building permits for accessory structures that are 120 to 528 square feet in size.~~

3~~2~~. The approval authority will approve, approve with conditions, or deny a sensitive land review application using the standards and approval criteria Sections 18.510.040, 18.510.050, 18.510.070 and 18.510.080.

F. Sensitive lands approvals issued by the director.

1. Sensitive land reviews within drainageways, slopes that are 25 percent or greater or unstable ground, and wetland areas that are not regulated by other local, state, or federal agencies ~~and are designated as significant wetlands on the City of Tigard "Wetland and Streams Corridors Map"~~ are processed through a Type II procedure, as provided in Section 18.710.060, for the following actions:

   a. Ground disturbance or land form alterations involving more than 50 cubic yards of material;

   b. Repair, reconstruction, or improvement of an existing structure or utility, the cost of which equals or exceeds 50 percent of the market value of the structure prior to the improvement or the damage requiring reconstruction;

   c. Residential and nonresidential structures intended for human habitation; and

   d. Accessory structures that are greater than 528 square feet in size.

2. The approval authority will approve, approve with conditions, or deny a sensitive lands review application using the approval criteria provided in Section 18.510.070.

G. Sensitive lands approvals issued by the hearings officer.

1. Sensitive land reviews within ~~special flood hazard areas~~**areas of special flood hazard** are processed through a Type III-HO procedure, as provided in Section 18.710.07**8**0, for the following actions:

   a. Ground disturbance or landform alterations in all floodway areas;

   b. Ground disturbance or landform alterations in floodway fringe locations involving more than 50 cubic yards of material;

c. Repair, reconstruction, or improvement of an existing structure or utility, the cost of which equals or exceeds 50 percent of the market value of the structure prior to the improvement or the damage requiring reconstruction provided no development occurs in the floodway;

d. Structures intended for human habitation; and

e. Accessory structures that are greater than 528 square feet in size, outside of floodway areas.

2. The approval authority will approve, approve with conditions, or deny a sensitive lands review application using the approval criteria provided in Section 18.510.070.

H. Other uses. Except as explicitly authorized by other provisions of this chapter, all other uses are prohibited on sensitive land areas.

I. Nonconforming uses. A use established prior to the effective date of this title, which would be prohibited by this chapter or that would be subject to the limitations and controls imposed by this chapter, shall be considered a nonconforming use. Nonconforming uses shall be subject to the provisions of Chapter 18.50, Nonconforming Circumstances. (Ord. 20-01 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.030 Administrative Provisions

A. Interagency coordination. The approval authority will review all applications for a sensitive lands review to determine that all necessary approvals be obtained from those federal, state, or local governmental agencies, from which prior approval is also required.

As provided in CWS "Design and Construction Standards," the necessary permits for all "development" must comply include a CWS service provider letter, which specifies the conditions and requirements necessary, if any, for an applicant to comply with CWS water quality protection standards and for the agency to issue a stormwater connection permit.

~~B. Alteration or relocation of water course.~~

~~1. The director will notify communities adjacent to the affected area and the State Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;~~

~~2. The director will require that maintenance is provided within the altered or relocated portion of a watercourse so that the flood-carrying capacity is not diminished.~~

~~C~~**B**. Applicable standards and criteria. The approval authority will apply the standards and criteria provided in this chapter when reviewing an application for a sensitive lands review.

~~D. Elevation and floodproofing certification. The approval authority will require that the elevations and floodproofing certification required in Subsection 18.510.030.E be provided prior to permit issuance and verification upon occupancy and final approval.~~

~~E. Maintenance of records.~~

~~1. Where base flood elevation data is provided through the flood insurance study, the building official will obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement;~~

~~2. For all new or substantially improved floodproofed structures, the building official will:~~

~~a. Verify and record the actual elevation (in relation to mean sea level); and~~

~~b. Maintain the floodproofing certifications required in this chapter.~~

~~3. The director will maintain for public inspection all other records pertaining to the provisions in this chapter. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)~~

18.510.040 ~~General Provisions for Special Flood Hazard Areas~~ Reserved

~~A. Review. The approval authority will review all applications to determine whether proposed building sites will minimize the potential for flood damage.~~

~~B. Special flood hazard. The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas effective October 19, 2018" with accompanying Flood Insurance Map is hereby adopted by reference and declared to be a part of this ordinance.~~

~~C. Base flood elevation data. When base flood elevation data has not been provided in compliance with Subsection 18.510.040.B, the approval authority will obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer Subsections 18.510.040.M and N.~~

~~D. Test of reasonableness. Where elevation data is not available either through the flood insurance study or from another authoritative source, applications for building permits will be reviewed to assure that the potential for flood damage to the proposed construction will be minimized. 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 2 feet above grade in these sensitive land areas may result in higher insurance rates.~~

~~E. Resistant to flood damage. All new construction and substantial improvements, including manufactured homes, must be constructed with materials and utility equipment resistant to flood damage.~~

F. Minimize flood damage. All new construction and substantial improvements, including manufactured homes, must be constructed using methods and practices that minimize flood damage.

G. Equipment protection. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities must be designed or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

H. Water supply systems. All new and replacement water supply systems must be designed to minimize or eliminate infiltration of floodwater into the system.

I. Anchoring. All new construction, all manufactured homes and substantial improvements must be anchored to prevent flotation, collapse, or lateral movement of the structure.

J. Sanitary sewerage systems. New and replacement sanitary sewerage systems must be designed to minimize or eliminate infiltration of floodwater into the systems and discharge from the systems into floodwater.

K. On-site waste disposal systems. On-site waste disposal systems must be located to avoid impairment to them or contamination from them during flooding.

L. Residential construction.

1. New construction and substantial improvement of any residential structure, including manufactured homes, must have the lowest floor, including the basement, elevated at least 1 foot above base flood elevation;
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited or must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

    a. A minimum of 2 openings having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding must be provided;

    b. The bottom of all openings must be no higher than 1 foot above grade; and

    c. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of flood waters.

3. Manufactured homes must be securely anchored to an adequately anchored permanent foundation system 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. Electrical crossover connections shall be a minimum of 12 inches above BFE.

M. Nonresidential construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure must either have the lowest floor, including basement, elevated to the level of the base flood elevation, or together with attendant utility and sanitary facilities, must:

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

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

3. Be certified by a registered professional engineer or architect that the design and methods of construction are in compliance with accepted standards of practice for meeting provisions of this subsection based on their development or review of the structural design, specifications and plans. Such certifications must be provided to the building official as provided in Paragraph 18.510.030.E.2; and

4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in Paragraph 18.510.040.L.2. Applicants flood-proofing nonresidential buildings must be notified that flood insurance premiums will be based on rates that are 1 foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as 1 foot below that level).

N. Subdivisions and partitions in special flood hazard areas. Subdivisions and partitions in the special flood hazard area must meet the following criteria:

1. The design must minimize the potential for flood damage;

2. Public utilities and facilities such as sewer, gas, electrical, and water systems must be located and constructed so as to minimize flood damage;

3. Adequate drainage must be provided to reduce exposure to flood damage; and
4. For subdivisions or partitions that contain more than 50 lots or 5 acres and where base flood elevation data is not available from the Federal Emergency Management Agency (FEMA) or another authoritative source, the applicant must generate base flood elevation data to be reviewed as part of the application.

O. Recreational vehicles. Recreational vehicles placed on sites within Zones A1-A30, AH, and AE on the flood insurance rate map either:

1. Are on the site for fewer than 180 consecutive days;

2. Are fully licensed and ready for highway use:

a. Are on wheels or jacking system,

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

c. Meet the requirements of Subsections 18.510.040.E, F, I, and L and the elevation and anchoring requirements for manufactured homes.

P. Critical facilities. Construction of new critical facilities must be, to the extent possible, located outside of the limits of the special flood hazard area. Construction of new critical facilities are allowed within the special flood hazard area if no feasible alternative site is available. Critical facilities constructed within the special flood hazard area must have the lowest floor elevated 3 feet above base flood elevation 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 must be provided to all critical facilities to the extent possible.

Q. Severability. 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 will in no way affect the validity of the remaining portions of this chapter.

R. Definitions. The following definitions are only applicable to this chapter:

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

2. 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.

3. Elevated Building – For insurance purposed, a non-basement building and that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

4. 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).

5. Flood Insurance Study (FIS) - The official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

6. 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 Section 60.3.~~

~~7. Manufactured Home – A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured" home does not include a "recreational vehicle."~~

~~8. Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale~~

~~9. New Construction – For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. 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 a community and includes any subsequent improvements to such structures.~~

~~10. 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.~~

~~11. Start of Construction – Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets 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.~~

~~12. Structure – for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground.~~

~~13. Substantial Damage – means 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.~~

~~14. 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 either:~~

~~a. Before the "start of construction" of the improvement; or~~

~~b. If the structure has been damaged and is being restored, before the damage occurred.~~

~~c. The term does not, however, include either:~~

~~i. 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~~

~~ii. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places, provided that the alteration will not preclude the structure's designation as a "historic structure."~~

~~15. Violation - The failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.~~

~~S. Disclaimer of liability. This section provides a reasonable degree of flood protection but does not imply total flood protection.~~

~~T. Greater restriction. This section does not in any way impair or remove the necessity of compliance with any other applicable laws, ordinances, regulations, etc. Where this section imposes a greater restriction, the provisions of this section govern.~~

~~U. New technical data. Notify FEMA within 6 months of project completion when an applicant has 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). (Ord. 20-01 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)~~

18.510.050 General Provisions for Wetlands

A. Code compliance requirements. Wetland regulations apply to those areas classified as significant on the City of Tigard "Wetland and Streams Corridors Map," and to a vegetated corridor ranging from 25 to 200 feet wide, measured horizontally, from the defined boundaries of the wetland, as provided in "Table 3.1, Vegetated Corridor Widths," and "Appendix C, Natural Resource Assessments," of the CWS "Design and Construction Standards." Wetland locations may include but are not limited to those areas identified as wetlands in "Wetland Inventory and Assessment for the City of Tigard, Oregon," Fishman Environmental Services, 1994.

B. Delineation of wetland boundaries. Precise boundaries may vary from those shown on wetland maps; specific delineation of wetland boundaries may be necessary. Wetland delineation will be done by qualified professionals at the applicant's expense. (Ord. 18-21 §2; Ord. 17-22 §2)

18.510.060 Approval Period and Extensions

Expirations and extensions of approvals are provided in Subsection 18.20.040.G. (Ord. 18-28 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.070 Sensitive Lands Applications

A. Approval required. An applicant, who wishes to develop within a sensitive area, as defined in this chapter, must obtain approval in certain situations. Depending on the nature and intensity of the proposed activity within a sensitive area, either a Type II or Type III review is required, as provided in Subsections 18.510.020.F and G. The approval criteria for different types of sensitive areas are provided in Subsections 18.510.070.B–E.

B. Within the ~~special flood hazard areas~~**areas of special flood hazard**. The approval authority will approve or approve with conditions an application for sensitive lands review within the ~~special flood hazard areas~~**areas of special flood hazard** when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title **and TMC Chapter 9.10**;

2. Land form alterations must preserve or enhance the ~~special flood hazard areas~~**areas of special flood hazard** storage function and maintenance of the zero-foot rise floodway must not result in any encroachments, including fill, new construction, substantial improvements and other development unless certified by a registered professional engineer that the encroachment will not result in any increase in flood levels during the base flood discharge;

   a. If in the floodway and no-rise requirement is met, the development will comply with all applicable flood hazard reduction provisions.

3. Land form alterations or developments within the ~~special flood hazard areas~~**areas of special flood hazard** are allowed only in areas designated as commercial**,** ~~, or~~ industrial**, or parks and recreation** on the comprehensive plan land use map, except that alterations or developments associated with community service uses, utilities, or public support facilities are allowed on residentially zoned properties subject to applicable zoning standards;

4. Where a land form alteration or development is allowed to occur within the ~~special flood hazard areas~~**areas of special flood hazard** it will not result in any increase in the water surface elevation of the 100-year flood;

5. The land form alteration or development plan includes a pedestrian or bicycle pathway in compliance with the adopted Transportation System Plan or Greenways Trail System Master Plan, unless the construction of said pathway is deemed as untimely;

6. Pedestrian or bicycle pathway projects within the ~~special flood hazard areas~~**areas of special flood hazard** must include a wildlife habitat assessment that shows the proposed

alignment minimizes impacts to significant wildlife habitat while balancing the community's recreation and environmental educational goals;

7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS permits and approvals must be obtained; and

8. Where land form alterations or development are allowed within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard**, the city will require the consideration of dedication of sufficient open land area within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the comprehensive plan. This area must include portions of a suitable elevation for the construction of a pedestrian or bicycle pathway within the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the adopted Transportation System Plan or Greenways Trail System Master Plan.

C. With steep slopes. The approval authority will approve or approve with conditions an application for a sensitive lands review on slopes of 25 percent or greater or unstable ground when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title;

2. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

3. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;

4. The structures are appropriately sited and designed to ensure structural stability and proper drainage of foundation and crawl space areas for development with any of the following soil conditions: wet or high water table; high shrink-swell capability; compressible or organic; and shallow depth-to-bedrock; and

5. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in compliance with CWS "Design and Construction Standards".

D. Within drainageways. The approval authority will approve or approve with conditions an application for a sensitive lands review within drainageways when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title;

2. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

3. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;

4. The water flow capacity of the drainageway is not decreased;

5. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in compliance with CWS "Design and Construction Standards";

6. The drainageway will be replaced by a public facility of adequate size to accommodate maximum flow in compliance with Clean Water Services requirements and the city's adopted stormwater master plan;

7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals must be obtained;

8. Where land form alterations or development are allowed within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard**, the city will require the consideration of dedication of sufficient open land area within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the comprehensive plan. This area will include portions of a suitable elevation for the construction of a pedestrian or bicycle pathway within the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the adopted pedestrian bicycle pathway plan.

E. Within wetlands. The approval authority will approve or approve with conditions an application for a sensitive lands review within wetlands when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title;

2. The proposed land form alteration or development is neither on wetland in an area designated as significant wetland on the comprehensive plan ~~special flood hazard areas~~**areas of special flood hazard** and wetland map nor is within the vegetative corridor as provided in "Table 3.1 Vegetative Corridor Widths" and "Appendix C: Natural Resources Assessments" of the CWS "Design and Construction Standards," for such a wetland;

3. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than the minimum required for the use;

4. Any encroachment or change in on-site or off-site drainage that would adversely impact wetland characteristics have been mitigated;

5. Where natural vegetation has been removed due to land form alteration or development, erosion control provisions of the Surface Water Management program of Washington County must be met and areas not covered by structures or impervious surfaces will be

replanted in like or similar species in compliance with CWS "Design and Construction Standards";

6. All other sensitive lands requirements of this chapter have been met;

7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals must be obtained;

8. Physical limitations and natural hazards, ~~special flood hazard areas~~**areas of special flood hazard** and wetlands, natural areas, and parks, recreation and open space policies of the comprehensive plan have been met. (Ord. 18-28 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.080 Special Provisions within Locally Significant Wetlands and Along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek

A. In order to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule (OAR 666-023-0030) pertaining to wetlands, all wetlands classified as significant on the City of Tigard "Wetlands and Streams Corridors Map" are protected. No land form alterations or developments are allowed within or partially within a significant wetland, except as allowed or approved in compliance with Section 18.510.100.

B. In order to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule (OAR 660-023-0030) pertaining to riparian corridors, a standard setback distance or vegetated corridor area, measured horizontally from and parallel to the top of the bank, is established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek.

1. The standard width for "good condition" vegetated corridors along the Tualatin River is 75 feet, unless wider in compliance with CWS "Design and Construction Standards," or modified in compliance with Section 18.510.100. If all or part of a locally significant wetland (a wetland identified as significant on the City of Tigard "Wetlands and Streams Corridors Map") is located within the 75-foot setback area, the vegetated corridor is measured from the upland edge of the associated wetland.

2. The standard width for "good condition" vegetated corridors along Fanno Creek, Ball Creek, and the South Fork of Ash Creek is 50 feet, unless wider in compliance with CWS "Design and Construction Standards," or modified in compliance with Section 18.510.100. If all or part of a locally significant wetland (a wetland identified as significant on the City of Tigard "Wetlands and Streams Corridors Map") is located within the 50-foot setback area, the vegetated corridor is measured from the upland edge of the associated wetland.

3. The minimum width for "marginal or degraded condition" vegetated corridors along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek is 50 percent

of the standard width, unless wider in compliance with CWS "Design and Construction Standards," or modified in compliance with Section 18.510.100.

4. The determination of corridor condition is based on the natural resource assessment guidelines as provided in the CWS "Design and Construction Standards."

5. The standard setback distance or vegetated corridor area applies to all development proposed on property located within or partially within the vegetated corridors, except as allowed below:

   a. Roads, pedestrian or bike paths crossing the vegetated corridor from one side to the other in order to provide access to the sensitive area or across the sensitive area, as approved by the city in compliance with Section 18.510.070 and by CWS "Design and Construction Standards";

   b. Utility or service provider infrastructure construction (i.e. storm, sanitary sewer, water, phone, gas, cable, etc.), if approved by the city and CWS;

   c. A pedestrian or bike path, not exceeding 10 feet in width and in compliance with the CWS "Design and Construction Standards";

   d. Grading for the purpose of enhancing the vegetated corridor, as approved by the city and CWS;

   e. Measures to remove or abate hazards, nuisances, or fire and life safety violations, as approved by the regulating jurisdiction;

   f. Enhancement of the vegetated corridor for water quality or quantity benefits, fish, or wildlife habitat, as approved by the city and CWS;

   g. Measures to repair, maintain, alter, remove, add to, or replace existing structures, roadways, driveways, utilities, accessory uses, or other developments provided they are in compliance with city and CWS regulations, and do not encroach further into the vegetated corridor or sensitive area than allowed by the CWS "Design and Construction Standards."

6. Land form alterations or developments located within or partially within the Goal 5 safeharbor setback or vegetated corridor areas established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek that meet the jurisdictional requirements and permit criteria of the CWS, U.S. Army Corps of Engineers, Department of State Lands, or other federal, state, or regional agencies, are not subject to this subsection B, except where the:

   a. Land form alterations or developments are located within or partially within a good condition vegetated corridor, as provided in Paragraphs 18.510.080.B.1 and 2;

b. Land form alterations or developments are located within or partially within the minimum width area established for marginal or a degraded condition vegetated corridor, as provided in Paragraph 18.510.080.B.3.

These exceptions reflect instances of the greater protection of riparian corridors provided by the safe harbor provisions of the Goal 5 administrative rule. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.090 Density Transfer and Reductions

A. Density transfer. Required residential density for apartments, rowhouses, and single detached houses may be transferred from sensitive lands using the following methods:

1. The units per acre calculated by subtracting land areas listed in Subparagraphs 18.40.020.A.1.a–c from the gross acres may be transferred to the remaining buildable land areas subject to the following limitations:

   a. The number of units that can be transferred is limited to the number of units that would have been allowed on 25 percent of the unbuildable area if not for these regulations; and

   b. The total number of units per site does not exceed 125 percent of the maximum number of units per gross acre allowed.

2. Units per acre calculated by subtracting land areas listed in Subparagraph 18.40.020.A.1.d from the gross acres may be transferred to the remaining buildable land areas on land zoned R-12, R-25, and R-40 subject to the following limitations:

   a. The number of units that can be transferred is limited to the number of units that would have been allowed on the wetland area, if not for these regulations;

   b. The total number of units per site does not exceed the maximum number of units per gross acre allowed.

B. Density reduction. The minimum number of residential units required in a development may be reduced if necessary to ensure that impacts on habitat areas are minimized. The amount of reduction in the minimum density is calculated by subtracting the square footage of inventoried significant habitat that is permanently protected from the total square footage used to calculate the minimum density requirement. The approval authority may impose any reasonable condition necessary to mitigate identified impacts resulting from development on otherwise unbuildable land.

The approval authority will approve, approve with conditions, or deny the density reduction provided that the proposal will directly result in the protection of significant habitat areas through placement in a non-buildable tract or protected with a restrictive easement. (Ord. 18-28 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.100 Plan Amendment Option

A. Comprehensive plan amendment. Any owner of property affected by the Goal 5 safeharbor (1) protection of significant wetlands or (2) vegetated areas established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek may apply for a comprehensive plan amendment as provided in Chapter 18.790, Text and Map Amendments. This amendment must be based on a specific development proposal. The effect of the amendment would be to remove Goal 5 protection from the property, but not to remove the requirements related to the CWS Stormwater Connection Permit, which must be addressed separately through an alternatives analysis, as described in Section 3.02.5 of the CWS "Design and Construction Standards." The applicant must demonstrate that such an amendment is justified by either of the following:

B. ESEE analysis. The applicant may prepare an environmental, social, economic and energy (ESEE) consequences analysis prepared in compliance with OAR 660-23-040.

1. The analysis must consider the ESEE consequences of allowing the proposed conflicting use, considering both the impacts on the specific resource site and the comparison with other comparable sites within the Tigard Planning Area;

2. The ESEE analysis must demonstrate to the satisfaction of the city council that the adverse economic consequences of not allowing the conflicting use are sufficient to justify the loss, or partial loss, of the resource;

3. In particular, ESEE analysis must demonstrate why the use cannot be located on buildable land, consistent with the provisions of this chapter, and that there are no other sites within the Tigard Planning Area that can meet the specific needs of the proposed use;

4. The ESEE analysis must be prepared by a team consisting of a wildlife biologist or wetlands ecologist and a land use planner or land use attorney, all of whom are qualified in their respective fields and experienced in the preparation of Goal 5 ESEE analysis;

5. If the application is approved, then the ESEE analysis must be incorporated by reference into the Tigard Comprehensive Plan, and the "Tigard Wetland and Stream Corridor Map" be amended to remove the site from the inventory.

C. Demonstration of change. In this case, the applicant must demonstrate that the sensitive area site no longer meets the applicable significance threshold defined by the Goal 5 administrative rule, relative to other comparable resources within the Tigard Planning Area.

1. Significance thresholds are described and applied in the addendum to the City of Tigard Local Wetlands Inventory adopted by reference as part of this chapter.

2. To approve this claim, the city council must find that the decline in identified resource values did not result from a violation of this title. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.110 Significant Habitat Areas Map Verification Procedures

A. Applicants who concur that the significant habitat areas map is accurate must submit the following information to serve as the basis for verifying the boundaries of inventoried habitat areas:
   1. Submission requirements.

      a. A detailed property description;

      b. A scale map of the property showing the locations of significant habitat areas, any existing built area, wetlands or water bodies, Clean Water Services' vegetated corridor, the ~~special flood hazard areas~~**areas of special flood hazard**, the 1996 flood inundation line, and contour lines (2-foot intervals for slope less than 15 percent and 10-foot intervals for slopes 15 percent or greater); and

      c. A current aerial photograph of the property.

   2. The approval authority's decision will be based on consideration of submitted information, site visit information, and other factual information. Should the applicant disagree with the determination on the location of significant habitat areas on the property, the precise boundaries must be verified by the applicant in compliance with the detailed delineation methodology outlined in Subsection 18.510.110.B.

B. Applicants who believe that the map is inaccurate must submit a detailed delineation conducted by a qualified professional in compliance with the following methodology to verify the precise boundaries of the inventoried habitat areas by means of a Type II procedure.

   1. Verifying boundaries of inventoried riparian habitat. Locating habitat and determining its riparian habitat class is a 4-step process:

      a. Locate the water feature that is the basis for identifying riparian habitat.

         i. Locate the top of bank of all streams, rivers, and open water within 200 feet of the property.

         ii. Locate the ~~special flood hazard areas~~**areas of special flood hazard** or 1996 flood inundation line, whichever is greater, within 100 feet of the property.

         iii. Locate all wetlands within 150 feet of the property. Identified wetlands on the property must be further delineated consistent with methods currently accepted by the Oregon Division of State Lands and the U.S. Army Corps of Engineers.

      b. Identify the vegetative cover status of all areas on the property that are within 200 feet of the top of bank of streams, rivers, and open water, are wetlands or are within 150 feet of wetlands, and are flood areas and within 100 feet of flood areas.

i. Vegetative cover status must be as identified on the metro vegetative cover map.

ii. The vegetative cover status of a property may be adjusted only if (a) the property was developed prior to the time the regional program was approved; or (b) an error was made at the time the vegetative cover status was determined. To assert the latter type of error, applicants must submit an analysis of the vegetative cover on their property using summer 2002 aerial photographs and the following definition of vegetative cover types in Table 18.510.1.

Table 18.510.1
Definitions of Vegetative Cover Types

Type	Definition
Low structure vegetation or open soils	Areas that are part of a contiguous area 1 acre or larger of grass, meadow, croplands, or areas of open soils located within 300 feet of a surface stream (low structure vegetation areas may include areas of shrub vegetation less than 1 acre in size if they are contiguous with areas of grass, meadow, croplands, orchards, Christmas tree farms, holly farms, or areas of open soils located within 300 feet of a surface stream and together form an area of 1 acre in size or larger).
Woody vegetation	Areas that are part of a contiguous area 1 acre or larger of shrub or open or scattered forest canopy (less than 60 percent crown closure) located within 300 feet of a surface stream.
Forest canopy	Areas that are part of a contiguous grove of trees 1 acre or larger in area with approximately 60 percent or greater crown closure, irrespective of whether the entire grove is within 200 feet of the relevant water feature.

c. Determine whether the degree that the land slope upward from all streams, rivers, and open water within 200 feet of the property is greater than or less than 25 percent (using the vegetated corridor measurement methodology as provided in Clean Water Services Design and Construction Standards; and

d. Identify the riparian habitat classes applicable to all areas on the property using Table 18.510.2 and Table 18.510.3.

Table 18.510.2
Method for Locating Boundaries of Class I and II Riparian Areas

Distance in feet from water feature	**Development/Vegetation Status[1]**			
	Developed areas not providing vegetative cover	***Low structure vegetation or open soils***	***Woody vegetation (shrub and scattered forest canopy)***	***Forest canopy (closed to open forest canopy)***

Surface streams				
0-50	Class II	Class I	Class I	Class I
50-100		Class II [2]	Class I	Class I
100-150		Class II [2] if slope > 25 percent	Class II [2] if slope > 25 percent	Class II [2]
150-200		Class II [2] if slope > 25 percent	Class II [2] if slope > 25 percent	Class II [2] if slope > 25 percent
Wetlands (Wetland feature itself is a Class I Riparian Area)				
0-100		Class II [2]	Class I	Class I
100-150				Class II [2]
Flood Areas (Undeveloped portion of flood area is a Class I Riparian Area)				
0-100			Class II [2]	Class II [2]

[1] The vegetative cover type assigned to any particular area was based on 2 factors: the type of vegetation observed in aerial photographs and the size of the overall contiguous area of vegetative cover to which a particular piece of vegetation belonged. As an example of how the categories were assigned, in order to qualify as a "forest canopy" the forested area had to be part of a larger patch of forest land at least 1 acre in size.

[2] Areas that have been identified as habitats of concern, as designated on the Metro Habitats of Concern Map, will be treated as Class I riparian habitat areas in all cases, subject to the provision of additional information that establishes that they do not meet the criteria used to identity habitats of concern as described in Metro's Technical Report for Fish and Wildlife. Examples of habitats of concern include: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

Table 18.510.3
Tualatin Basin "Limit" Decision [1]

	Conflicting Use Category			
Resource Category	***High Intensity Urban***	***Other Urban***	***Future Urban (2002 and 2004 additions)***	***Non-Urban (outside UGB)***
Class I & II Riparian inside vegetated corridor	Moderately Limit	Strictly Limit	Strictly Limit	N/A
Class I & II Riparian outside vegetated corridor	Moderately Limit	Moderately Limit	Moderately Limit	Moderately Limit
All other Resource Areas	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit
Inner Impact Area	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit
Outer Impact Area	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit

[1] Vegetated corridor standards are applied consistently throughout the District; in HIU areas they supersede the "limit" decision.

2. Verifying boundaries of inventoried upland habitat was identified based on the existence of contiguous patches of forest canopy, with limited canopy openings. The "forest canopy" designation is made based on analysis of aerial photographs as part of determining the vegetative cover status of land within the region. Upland habitat is as identified on the Significant Habitat Areas Map unless corrected as provided in this subsection.

    a. The only allowed corrections to the vegetative cover status of a property area as follows:

        i. To correct errors made when the vegetative status of an area was determined based on analysis of the aerial photographs used to inventory the habitat. The perimeter of an area delineated as "forest canopy" on the Metro Vegetative Cover Map may be adjusted to more precisely indicate the dripline of the trees within the canopied area provided that no areas providing greater than 60 percent canopy crown closure are de-classified from the "forest canopy" designation. To assert such errors, applicants must submit an analysis of the vegetative habitat cover on their property using the aerial photographs that were used to inventory the habitat and the definitions of the different vegetative cover types provided in Table 18.510.1; and

        ii. To remove tree orchards and Christmas tree farms from inventoried habitat; provided, however, that Christmas tree farms where the trees were planted prior to 1975 and have not been harvested for sale as Christmas trees may not be removed from the habitat inventory.

    b. If the vegetative cover status of any area identified as upland habitat is corrected in compliance with Subparagraph 18.510.110.B.2.a to change the status of an area originally identified as "forest canopy," then such area will not be considered upland habitat unless it remains part of a forest canopy opening less than 1 acre in area completely surrounded by an area of contiguous forest canopy. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2) ■

Chapter 9.10
AREAS OF SPECIAL FLOOD HAZARD

Sections:

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9.10.020 Definitions
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9.10.010 Purpose

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

A. Protect human life and health;

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

C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. Minimize prolonged business interruptions;

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

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

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

H. Notify those who occupy areas of special flood hazard that they assume responsibility for their actions; and

I. Participate in and maintain eligibility for flood insurance and disaster relief.

9.10.020 Definitions

Unless specifically defined below, words or phrases used in this chapter shall be interpreted so as

to give them the meaning they have in common usage. These definitions are only applicable to this chapter and Tigard Community Development Code (TCDC) Chapter 18.510, Sensitive Lands.

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

B. Area of shallow flooding: A designated Zone AO, AH, AR/AO or AR/AH (or VO) on the city'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.

C. Area of Special Flood Hazard: The land in the floodplain within the city 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. "Special flood hazard area" is synonymous in meaning and definition with the phrase "area of special flood hazard".

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

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

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

G. 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; new and replacement bridges; hospitals; police, fire, and emergency response installations; and installations that produce, use, or store hazardous materials or hazardous waste.

H. 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.

I. 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 (i.e., mudflows) which are proximately caused by flooding as defined in Tigard Municipal Code (TMC) 9.10.020.I.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 flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in TMC 9.10.020.I.1.a of this definition.

J. Flood elevation study: See “Flood Insurance Study.”

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

L. Flood Insurance Study (FIS): 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) or flood-related erosion hazards.

M. Flood proofing: Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents.

N. 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. Also referred to as "Regulatory Floodway."

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

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

Q. Historic structure: Any structure that is:

1. 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 the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

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

4. Individually listed on a City of Tigard Historic Resources list acknowledged by the Secretary of the Interior.

R. 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 chapter.

S. 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."

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

U. 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 the city's Flood Insurance Rate Map are referenced.

V. New construction: For floodplain management purposes, "new construction" means structures for which the "start of construction" commenced on or after the effective date of a floodplain management regulation adopted by City of Tigard and includes any subsequent improvements to such structures.

W. Recreational vehicle: A vehicle which is:

1. Built on a single chassis;

2. 400 square feet or less when measured at the largest horizontal projection;

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

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

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

Y. 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.

Z. 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.

AA. 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.

BB. 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:

1. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

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

9.10.030 Applicability

A. All development within areas of special flood hazard is subject to the terms of this chapter and is required to comply with its provisions and all other applicable regulations including but not limited to TCDC Chapter 18.510, Sensitive Lands.

B. The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas effective October 19, 2018" with accompanying Flood Insurance Map (FIRM Panels:41067C0529F, 41067C0533E, 41067C0534E, 41067C0541E through 41067C0544E, and 41067C0563E*)* is hereby adopted by reference and declared to be a part of this ordinance.

9.10.040 General Provisions

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

B. Warning. The degree of flood protection required by this chapter 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 chapter 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.

C. Permit Review. The duties of the Floodplain Administrator, or their designee, shall include, but not be limited to review all development permits to determine that:

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

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

3. Review all development permits to determine if the proposed development is located in a floodway. If located in the floodway assure that the floodway provisions are met;

4. Review all development permits to determine if the proposed development is located in an area where Base Flood Elevation data is available either through the Flood Insurance Study or from another authoritative source. If Base Flood Elevation data is not available then ensure compliance with the provisions of TMC 9.10.050.J;

5. Provide to building officials the Base Flood Elevation applicable to any building requiring a development permit;

6. Review all development permit applications to determine if the proposed development qualifies as a substantial improvement as defined by TMC 9.10.020;

7. Review all development permits to determine if the proposed development activity is a watercourse alteration. If a watercourse alteration is proposed, ensure compliance with the provisions in TMC 9.10.050.C; and

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

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:

1. Obtain, record, and maintain the actual elevation (in relation to mean sea level) of the lowest floor (including basements) and all attendant utilities of all new or substantially improved structures where Base Flood Elevation data is provided through the Flood Insurance Study, Flood Insurance Rate Map, or obtained in accordance with TMC 9.10.050.J.

2. Obtain and record the elevation (in relation to mean sea level) of the natural grade of the building site for a structure prior to the start of construction and the placement of any fill and ensure that the requirements of TMC 9.10.050.N are adhered to and all other required local, state, and federal permits have been obtained and approved.

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

4. Where base flood elevation data are utilized, obtain record drawing 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.

5. Maintain all Elevation Certificates submitted to the City of Tigard.

6. Obtain, record, and maintain the elevation (in relation to mean sea level) to which the structure and all attendant utilities were floodproofed for all new or substantially improved floodproofed structures where allowed under this chapter and where Base Flood Elevation data is provided through the FIS, FIRM, or obtained in accordance with TMC 9.10.050.J.

7. Maintain all floodproofing certificates required under this chapter.

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

9. Obtain and maintain all hydrologic and hydraulic analyses performed as required under TMC 9.10.050.N.

10. Record and maintain all Substantial Improvement and Substantial Damage calculations and determinations as required under TMC 9.10.040.H.

11. Maintain for public inspection all records pertaining to the provisions of this chapter.

E. City Boundary Alterations. The Floodplain Administrator shall notify the Federal Insurance Administrator in writing whenever the boundaries of the city have been 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 and Flood Insurance Rate Maps accurately represent the city's boundaries. The notification will include a copy of a map of the city suitable for reproduction, clearly delineating the new corporate limits or new area for which the city has assumed or relinquished floodplain management regulatory authority.

F. Watercourse Alterations. The Floodplain Administrator shall 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 along with either a proposed maintenance plan to assure the flood carrying capacity within the altered or relocated portion of the watercourse is maintained; or Certification by a registered professional engineer that the project has been designed to retain its flood carrying capacity without periodic maintenance. The applicant shall be required to submit a Conditional Letter of Map Revision when required under TMC 9.10.040.G to ensure compliance with all applicable requirements in TMC 9.10.040.G and 9.10.050.C.

G. Requirement to Submit New Technical Data. The city's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, the city must 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 process. The Floodplain Administrator shall require a Conditional Letter of Map Revision prior to the issuance of a floodplain development permit for proposed floodway encroachments that increase the base flood elevation and proposed development which increases the base flood elevation by more than one foot in areas where FEMA has provided base flood elevations but no floodway. An applicant shall notify FEMA within six months of project completion when an applicant has obtained a Conditional Letter of Map Revision from FEMA. This notification to FEMA shall be provided as a Letter of Map Revision.

H. Substantial Improvement and Substantial Damage Assessments and Determinations. The Floodplain Administrator shall:

1. Conduct Substantial Improvement (as defined in TMC 9.10.020) reviews for all structural development proposal applications and maintain a record of Substantial Improvement calculations within permit files in accordance with TMC 9.10.040.D.

2. Conduct Substantial Damage assessments when structures are damaged due to a natural

hazard event or other causes.

3. Make Substantial Damage determinations whenever structures within the area of special flood hazard (as established in TMC 9.10.030.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.

I. Floodplain Development Permit Required. A development permit shall be obtained before construction or development begins within any area horizontally within the area of special flood hazard established in TMC 9.10.030.B. The development permit shall be required for all structures, including manufactured dwellings, and for all other development, as defined in TMC 9.10.020, including fill and other development activities.

J. 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:

1. 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 TMC 9.10.040.D;

2. Proposed elevation in relation to mean sea level to which any non-residential structure will be floodproofed;

3. 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 TMC 9.10.050.M.3;

4. Description of the extent to which any watercourse will be altered or relocated;

5. Base Flood Elevation data for subdivision proposals or other development when required by this chapter;

6. Substantial improvement calculation for any improvement, addition, reconstruction, renovation, or rehabilitation of an existing structure; and

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

K. Severability. This chapter and the various parts thereof are hereby declared to be severable. If any section clause, sentence, or phrase of this chapter 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 chapter.

L. 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.

9.10.050 National Flood Insurance Program General Standards

In all areas of special flood hazard, the following standards shall be adhered to:

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. Alteration of watercourses. The Floodplain Administrator shall require that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained and that maintenance is provided within the altered or relocated portion of said watercourse to ensure that the flood carrying capacity is not diminished. Compliance with TMC 9.10.040.F and 9.10.040.G.

D. Anchoring. 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. All manufactured dwellings shall be anchored in accordance with TMC 9.10.050.M.4.

E. Water Supply, Sanitary Sewer, and On-Site Waste Disposal Systems.

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

2. 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.

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

F. 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 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, if replaced as part of a substantial improvement, meet all the requirements of this section.

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

H. Critical facilities. Construction of new critical facilities must be, to the extent practicable, located outside areas of special flood hazard.

1. Construction of new critical facilities, other than critical bridges, are allowed within areas of special flood hazard if no feasible alternative site is available and the following applicable criteria are met:

   a. Critical facilities constructed within areas of special flood hazard must have the lowest floor elevated 3 feet above base flood elevation or to the height of the 500-year flood, whichever is higher.

   b. To the extent practicable, access to and from the critical facility should also be protected to 3 feet above base flood elevation or to the height of the 500-year flood, whichever is higher.

   c. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters.

2. All new and replacement critical bridges must have the lowest extension of the bridge superstructure elevated 3 feet above base flood elevation or to the height of the 500-year flood, whichever is higher.

3. Where standard TMC 9.10.050.H.2 cannot be met, an analysis of alternative bridge designs is required by a registered professional civil engineer. The proposed encroachment will result in the least impact to base flood levels in the area of special flood hazard of the practicable alternative bridge designs—as demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice.

I. Subdivision Proposals.

1. 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.

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

   a. Be consistent with the need to minimize flood damage;

   b. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage; and

   c. Have adequate drainage provided to reduce exposure to flood hazards.

J. Use of Other Base Flood Data. When Base Flood Elevation data has not been provided in accordance with TCDC 9.10.030.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 TMC 9.10.050. All new subdivision proposals and other proposed new developments (including proposals for manufactured dwelling parks and subdivisions) must meet the requirements of TMC 9.10.050.I. 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. When no base flood elevation data is available, the elevation requirement for development proposals within a riverine unnumbered A Zone is a minimum of two (2) feet above the highest adjacent grade, to be reasonably safe from flooding. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

K. Structures Located in Multiple or Partial Flood Zones. In coordination with the State of Oregon Specialty Codes:

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

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

L. 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 TMC 9.10.050.A through K.

   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 exist of floodwaters;

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

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 (1) 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 (1) 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.

2. Garages. Attached garages may be constructed with the garage floor slab below the Base Flood Elevation in riverine flood zones, if the following requirements are met:

a. If located within a floodway the proposed garage must comply with the requirements of TMC 9.10.050.N;

b. The floors are at or above grade on at least than one side;

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

d. The garage is constructed with flood openings in compliance with TMC 9.10.050.L.1 to equalize hydrostatic flood forces on exterior walls by allowing for the automatic entry and exit of floodwater;

e. The portions of the garage constructed below the Base Flood Elevation are constructed with materials resistant to flood damage;

f. The garage is constructed in compliance with the general standards TMC 9.10.050.A through K; and

g. 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.

3. Detached Garages. Detached garages must be constructed in compliance with the standards for appurtenant structures in TMC 9.10.050.M.6 or non-residential structures in TMC 9.10.050.M.3 depending on the square footage of the garage.

M. For Riverine (non-coastal) Areas of Special Flood Hazard with Base Flood Elevations. In addition to the general standards in TMC 9.10.050.A through K, the following specific standards shall apply in riverine (non-coastal) areas of special flood hazard with Base Flood Elevations: Zones A1-A30, AH, and AE.

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 city'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 at any point within the city.

2. Residential Construction.

a. New construction, conversion to, and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated at one (1) foot above the Base Flood Elevation.

b. Enclosed areas below the lowest floor shall comply with the flood opening requirements in TMC 9.10.050.L.1.

3. Non-Residential Construction.

a. New construction, conversion to, and substantial improvement of any commercial, industrial, or other non-residential structure shall have the lowest floor, including basement elevated at one (1) foot above the Base Flood Elevation. Or, together with attendant utility and sanitary facilities:

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

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

iii. 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 or review of the

structural design, specifications and plans. Such certifications shall be provided to the Floodplain Administrator as set forth TMC 9.10.040.D.

b. Non-residential structures that are elevated, not floodproofed, shall comply with the standards for enclosed areas below the lowest floor in TMC 9.10.050.L.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.

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 TMC 9.10.050.L.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. 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 TMC 9.10.050.M.4, including the anchoring and elevation requirements for manufactured dwellings.

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 TMC 9.10.050.N;

b. Appurtenant structures must only be used for parking, access, or storage and shall not be used for human habitation;

c. Appurtenant structures on properties are limited to one-story structures less than 600 square feet in A zones and must meet applicable setbacks from property lines;

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 TMC 9.10.050.L.1;

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

h. Appurtenant structures shall not be used to store toxic material, oil, or gasoline, or any priority persistent pollutant identified by the Oregon Department of Environmental Quality unless confined in a tank installed incompliance with TMC 9.10.050.G; 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.

N. Floodways. Located within the areas of special flood hazard established in TMC 9.10.030.B are areas designated as floodways. Because 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:

1. Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless:

a. 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 city during the occurrence of the base flood discharge; or,

b. A city may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that a Conditional Letter of

Map Revision is applied for and approved by the Federal Insurance Administrator, and the requirements for such revision as established under Volume 44 of the Code of Federal Regulations, Section 65.12 are fulfilled.

2. If the requirements of TMC 9.10.050.N.1 are satisfied, all new construction, substantial improvements, and other development shall comply with all other applicable flood hazard reduction provisions of TMC 9.10.050.

O. 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.

1. Standards for AH Zones. Development within AH Zones must comply with the standards in TMC 9.10.050.A through O.

2. Standards for AO Zones. In AO zones, the following provisions apply in addition to the requirements in TMC 9.10.050.A through K and TMC 9.10.050.O.

   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 or at least two (2) feet if no depth number is specified. For manufactured dwellings the lowest floor is considered to be the bottom of the longitudinal chassis frame beam.

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

      i. Have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, at minimum to or above the depth number specified on the Flood Insurance Rate Maps or at least two (2) feet if no depth number is specified; or

      ii. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the depth number specified on the Flood Insurance Rate Map or a minimum of two (2) feet above the highest adjacent grade if no depth number is specified, so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of

buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect as stated in TMC 9.10.050.M.3.a.iii.

c. Recreational vehicles placed on sites within AO Zones on the city's Flood Insurance Rate Maps shall either:

   i. Be on the site for fewer than 180 consecutive days, and

   ii. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

   iii. Meet the elevation requirements of TMC 9.10.050.O.2.a, and the anchoring and other requirements for manufactured dwellings of TMC 9.10.050.M.4.

d. In AO zones, new and substantially improved appurtenant structures must comply with the standards in TMC 9.10.050.M.6.

e. In AO zones, enclosed areas beneath elevated structures shall comply with the requirements in TMC 9.10.050.L.1.

9.10.060 Violations

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations including but not limited to TCDC Chapter 18.510, Sensitive Lands. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a Class 1 civil infraction, processed according to the procedures in the civil infractions ordinance, set out in TMC Chapter 1.16. Each violation of a separate provision of this chapter shall constitute a separate infraction, and each day that a violation of this chapter is committed or permitted to continue shall constitute a separate infraction. A finding of a violation of this chapter shall not relieve the responsible party of the duty to abate the violation. The penalties imposed by this section are in addition and not in lieu of any remedies available to the city. If a provision of this chapter is violated by a firm or corporation, the officer or officers, or person or persons responsible for the violation shall be subject to the penalties imposed by this chapter. Nothing contained herein shall prevent the City of Tigard from taking such other lawful action as is necessary to prevent or remedy any violation.

EXHIBIT C

Chapter 18.30
DEFINITIONS

Sections:

18.30.010 List of Terms
18.30.020 Definitions

18.30.010 List of Terms

- A-

Area of Special Flood Hazard - *See Flood-Related Definitions*

-C-

~~Critical Facility - *See Flood-Related Definitions*~~

-F-

Flood-Related Definitions:

- **Area of Special Flood Hazard**
- Base Flood
- ~~Critical Facility~~
- Flood **or Flooding**
- Floodway
- Floodway Fringe
- Special Flood Hazard Area

Flood or Flooding - See Flood-Related Definitions

18.30.020 Definitions

As used in this title and corresponding administrative rules, terms, and phrases are defined as provided in this section. For additional definitions, see Chapter 18.60, Use Categories; Chapter 18.435, Signs; and Chapter 18.510, Sensitive Lands.

F. "F" definitions.

7. Flood-related definitions:

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

b. "Base flood" - ~~The~~**A** flood having a one percent chance of being equaled or exceeded in any given year. ~~Also referred to as the "100-year flood."~~

~~b. "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; and installations that produce, use, or store hazardous materials or hazardous waste.~~

c. "Flood **or Flooding**" - A general and temporary condition of partial or complete inundation of normally dry land areas from**:** ~~the overflow of inland or tidal waters or the unusual and rapid accumulation of runoff of surface waters from any source.~~

i. The overflow of inland or tidal waters.

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

iii. Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in TMC 18.30.020.F.7.c.ii 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.

d. "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.

e. "Floodway fringe" - The area of the special flood hazard area lying outside of the floodway.

f. "Special Flood Hazard Area" - **See "Area of special flood hazard" for this definition.** ~~The land area covered by the floodwaters of the base flood is the Special Flood Hazard Area (SFHA) on NFIP maps. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The SFHA includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V. Also referred to as the "100-year floodplain."~~

EXHIBIT D

Chapter 18.510
SENSITIVE LANDS

Sections:

18.510.010 Purpose
18.510.020 Applicability
18.510.030 Administrative Provisions
18.510.040 ~~General Provisions for Special Flood Hazard Areas~~ Reserved
18.510.050 General Provisions for Wetlands
18.510.060 Approval Period and Extensions
18.510.070 Sensitive Lands Applications
18.510.080 Development within Locally Significant Wetlands and Along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek
18.510.090 Density Transfer and Reductions
18.510.100 Plan Amendment Option
18.510.110 Significant Habitat Areas Map Verification Procedures

18.510.010 Purpose

A. Maintain integrity of rivers, streams, and creeks. Sensitive land regulations in this chapter are intended to maintain the integrity of the rivers, streams, and creeks in Tigard by minimizing erosion, promoting bank stability, maintaining and enhancing water quality and fish and wildlife habitats, and preserving scenic quality and recreation potential.

B. Implement comprehensive plan and floodplain management program. The regulations of this chapter **apply to all areas of special flood hazard within the City of Tigard. These regulations** are intended to implement the comprehensive plan and the city's floodplain management program as required by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program, to help to preserve sensitive land areas from encroaching use, and to maintain the October 19, 2018, zero-foot rise floodway elevation. **All development within the areas of special flood hazard are subject to the terms of this ordinance and required to comply with its provisions and all other applicable regulations including Tigard Municipal (TMC) Chapter 9.10.**

C. Implement Clean Water Service (CWS) design and construction standards. The regulations of this chapter are intended to protect the beneficial uses of water within the Tualatin River Basin in compliance with the CWS "Design and Construction Standards."

D. Implement the Metro Urban Growth Management Functional Plan. The regulations of this chapter are intended to protect the beneficial water uses and functions and values of resources within water quality and flood management areas and to implement the performance standards of the Metro Urban Growth Management Functional Plan.

E. Implement Statewide Planning Goal 5 (Natural Resources). The regulations in this chapter are intended to address the requirements of Statewide Planning Goal 5 (Natural Resources)

and the safe harbor provisions of the Goal 5 administrative rule pertaining to wetland and riparian corridors.

F. Protect public health, safety, and welfare. Sensitive land areas are designated as such to protect the public health, safety, and welfare of the community through the regulation of these sensitive land areas.

G. Location. Sensitive lands are lands potentially unsuitable for development because of their location within:

1. The ~~special flood hazard area~~**areas of special flood hazard** or 1996 flood inundation line, whichever is greater;

2. Natural drainageways;

3. Wetland areas that are regulated by the other agencies including the U.S. Army Corps of Engineers and the Division of State Lands, or are designated as significant wetland on the City of Tigard "Wetland and Stream Corridors Map";

4. Steep slopes of 25 percent or greater and unstable ground;

5. Significant fish and wildlife habitat areas designated on the City of Tigard "Significant Habitat Areas Map"; and

6. Significant tree groves as shown on the "City of Tigard Significant Tree Grove Map." (Ord. 20-01 §1; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.020 Applicability

A. CWS stormwater connection permit. All proposed development must obtain a stormwater connection permit from CWS in compliance with its design and construction standards.

B. Allowed uses with no approval required. Except as provided below and by Subsections 18.510.020.D, F, and G of this section, the following uses are allowed uses within drainageways, slopes that are 25 percent or greater, and unstable ground when the use does not involve paving. For the purposes of this chapter, the word "structure" excludes: children's play equipment, picnic tables, sand boxes, grills, basketball hoops, and similar recreational equipment.

1. Accessory uses such as lawns, gardens, or play areas; except in a water quality sensitive area or vegetated corridor, as defined in the CWS "Design and Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

2. Farm uses conducted without locating a structure within the sensitive land area; except in a water quality sensitive area or vegetative corridor, as defined in CWS "Design and

Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

3. Community recreation uses, excluding structures; except in a water quality sensitive area or vegetated corridor, as defined in the CWS "Design and Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

4. Public and private conservation areas for water, soil, open space, forest, and wildlife resources.

5. Removal of poison oak, tansy ragwort, blackberry, English ivy, or other noxious vegetation.

6. Maintenance of floodway excluding re-channeling; except in a water quality sensitive area or vegetated corridor, as defined in the CWS "Design and Construction Standards" or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

7. Fences; except in a water quality sensitive area or vegetated corridor, as defined in the CSW "Design and Construction Standards"; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

8. Accessory structures that are less than 120 square feet in size; except in a water quality sensitive area or vegetated corridor, as defined in the CSW "Design and Construction Standards"; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

9. Land form alterations involving up to 10 cubic yards of material; except in a water quality sensitive area or vegetated corridor, as defined in the CSW "Design and Construction Standards"; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.510.080.

C. Exemptions. When performed under the direction of the city, the following are exempt from the provisions of this section:

1. Responses to public emergencies, including emergency repairs to public facilities;

2. Stream and wetlands restoration and enhancement programs, except in **areas of** special flood hazard ~~areas~~ when meeting the definition of development in ~~Paragraph 18.510.040.R.1~~**TMC 9.10.020**;

3. Non-native vegetation removal;

4. Planting of native plant species; and

5. Routine maintenance or replacement of existing public facilities projects, except in ~~special flood hazard areas~~**areas of special flood hazard** when meeting the definition of development in **TMC 9.10.020**~~Paragraph 18.510.040.R.1~~.

D. Jurisdictional wetlands. Landform alterations or developments that are only within wetland areas that meet the jurisdictional requirements and permit criteria of the U.S. Army Corps of Engineers, Division of State Lands, CWS, or other federal, state, or regional agencies, and are not designated as significant wetlands on the City of Tigard "Wetland and Streams Corridors Map," do not require a sensitive lands review. The city will require that all necessary approvals from other agencies are obtained. All other applicable city requirements must be met, including sensitive land reviews for areas within the ~~special flood hazard areas~~**areas of special flood hazard**, slopes of 25 percent or greater or unstable ground, drainageways, and wetlands that are not under state or federal jurisdiction.

E. Administrative sensitive lands review.

1. Administrative sensitive lands reviews within ~~the special flood hazard area (excluding the floodway),~~ drainageway**s**, slopes that are 25 percent or greater, and unstable ground are processed through a Type I procedure, as provided in Section 18.710.050, for the following actions:

a. The repair, reconstruction, or improvement of an existing structure or utility, the cost of which is less than 50 percent of the market value of the structure prior to the improvement or the damage requiring reconstruction.

b. Minimal ground disturbance or landform alteration involving 10 to 50 cubic yards of material; and

c. Building permits for accessory structures that are 120 to 528 square feet in size.

2. Administrative sensitive lands reviews within the areas of special flood hazard are processed through a Type I procedure, as provided in Section 18.710.050, for the following actions:

a. Within the areas of special flood hazard but outside the floodway (floodway fringe):

i. The construction of accessory structures up to 528 square feet in size; and

ii. Any landform alteration involving up to 50 cubic yards of material.

b. Stream and wetland restoration and enhancement programs, including work in the floodway, when performed under the direction of the city.

~~b. Actions within the special flood hazard area:~~

~~iii. The construction of accessory structures up to 528 square feet in size; and~~

~~iv. Any landform alternation involving up to 50 cubic yards of material.~~

~~c. Actions within drainageways and slopes that are 25 percent or greater, and unstable ground:~~

~~i. Minimal ground disturbances or landform alterations involving 10 to 50 cubic yards of material; and~~

~~ii. Building permits for accessory structures that are 120 to 528 square feet in size.~~

3~~2~~. The approval authority will approve, approve with conditions, or deny a sensitive land review application using the standards and approval criteria Sections 18.510.040, 18.510.050, 18.510.070 and 18.510.080.

F. Sensitive lands approvals issued by the director.

1. Sensitive land reviews within drainageways, slopes that are 25 percent or greater or unstable ground, and wetland areas that are not regulated by other local, state, or federal agencies ~~and are designated as significant wetlands on the City of Tigard "Wetland and Streams Corridors Map"~~ are processed through a Type II procedure, as provided in Section 18.710.060, for the following actions:

   a. Ground disturbance or land form alterations involving more than 50 cubic yards of material;

   b. Repair, reconstruction, or improvement of an existing structure or utility, the cost of which equals or exceeds 50 percent of the market value of the structure prior to the improvement or the damage requiring reconstruction;

   c. Residential and nonresidential structures intended for human habitation; and

   d. Accessory structures that are greater than 528 square feet in size.

2. The approval authority will approve, approve with conditions, or deny a sensitive lands review application using the approval criteria provided in Section 18.510.070.

G. Sensitive lands approvals issued by the hearings officer.

1. Sensitive land reviews within ~~special flood hazard areas~~**areas of special flood hazard** are processed through a Type III-HO procedure, as provided in Section 18.710.07**8**0, for the following actions:

   a. Ground disturbance or landform alterations in all floodway areas;

   b. Ground disturbance or landform alterations in floodway fringe locations involving more than 50 cubic yards of material;

c. Repair, reconstruction, or improvement of an existing structure or utility, the cost of which equals or exceeds 50 percent of the market value of the structure prior to the improvement or the damage requiring reconstruction provided no development occurs in the floodway;

d. Structures intended for human habitation; and

e. Accessory structures that are greater than 528 square feet in size, outside of floodway areas.

2. The approval authority will approve, approve with conditions, or deny a sensitive lands review application using the approval criteria provided in Section 18.510.070.

H. Other uses. Except as explicitly authorized by other provisions of this chapter, all other uses are prohibited on sensitive land areas.

I. Nonconforming uses. A use established prior to the effective date of this title, which would be prohibited by this chapter or that would be subject to the limitations and controls imposed by this chapter, shall be considered a nonconforming use. Nonconforming uses shall be subject to the provisions of Chapter 18.50, Nonconforming Circumstances. (Ord. 20-01 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.030 Administrative Provisions

A. Interagency coordination. The approval authority will review all applications for a sensitive lands review to determine that all necessary approvals be obtained from those federal, state, or local governmental agencies, from which prior approval is also required.

As provided in CWS "Design and Construction Standards," the necessary permits for all "development" must comply include a CWS service provider letter, which specifies the conditions and requirements necessary, if any, for an applicant to comply with CWS water quality protection standards and for the agency to issue a stormwater connection permit.

~~B. Alteration or relocation of water course.~~

~~1. The director will notify communities adjacent to the affected area and the State Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;~~

~~2. The director will require that maintenance is provided within the altered or relocated portion of a watercourse so that the flood-carrying capacity is not diminished.~~

~~C~~**B**. Applicable standards and criteria. The approval authority will apply the standards and criteria provided in this chapter when reviewing an application for a sensitive lands review.

D. Elevation and floodproofing certification. The approval authority will require that the elevations and floodproofing certification required in Subsection 18.510.030.E be provided prior to permit issuance and verification upon occupancy and final approval.

E. Maintenance of records.

1. Where base flood elevation data is provided through the flood insurance study, the building official will obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement;

2. For all new or substantially improved floodproofed structures, the building official will:

a. Verify and record the actual elevation (in relation to mean sea level); and

b. Maintain the floodproofing certifications required in this chapter.

3. The director will maintain for public inspection all other records pertaining to the provisions in this chapter. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.040 General Provisions for Special Flood Hazard Areas Reserved

A. Review. The approval authority will review all applications to determine whether proposed building sites will minimize the potential for flood damage.

B. Special flood hazard. The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled "The Flood Insurance Study for Washington County, Oregon and Incorporated Areas effective October 19, 2018" with accompanying Flood Insurance Map is hereby adopted by reference and declared to be a part of this ordinance.

C. Base flood elevation data. When base flood elevation data has not been provided in compliance with Subsection 18.510.040.B, the approval authority will obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer Subsections 18.510.040.M and N.

D. Test of reasonableness. Where elevation data is not available either through the flood insurance study or from another authoritative source, applications for building permits will be reviewed to assure that the potential for flood damage to the proposed construction will be minimized. 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 2 feet above grade in these sensitive land areas may result in higher insurance rates.

E. Resistant to flood damage. All new construction and substantial improvements, including manufactured homes, must be constructed with materials and utility equipment resistant to flood damage.

F. Minimize flood damage. All new construction and substantial improvements, including manufactured homes, must be constructed using methods and practices that minimize flood damage.

G. Equipment protection. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities must be designed or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

H. Water supply systems. All new and replacement water supply systems must be designed to minimize or eliminate infiltration of floodwater into the system.

I. Anchoring. All new construction, all manufactured homes and substantial improvements must be anchored to prevent flotation, collapse, or lateral movement of the structure.

J. Sanitary sewerage systems. New and replacement sanitary sewerage systems must be designed to minimize or eliminate infiltration of floodwater into the systems and discharge from the systems into floodwater.

K. On-site waste disposal systems. On-site waste disposal systems must be located to avoid impairment to them or contamination from them during flooding.

L. Residential construction.

1. New construction and substantial improvement of any residential structure, including manufactured homes, must have the lowest floor, including the basement, elevated at least 1 foot above base flood elevation;
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited or must be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

    a. A minimum of 2 openings having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding must be provided;

    b. The bottom of all openings must be no higher than 1 foot above grade; and

    c. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of flood waters.

3. Manufactured homes must be securely anchored to an adequately anchored permanent foundation system 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. Electrical crossover connections shall be a minimum of 12 inches above BFE.

M. Nonresidential construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure must either have the lowest floor, including basement, elevated to the level of the base flood elevation, or together with attendant utility and sanitary facilities, must:

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

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

3. Be certified by a registered professional engineer or architect that the design and methods of construction are in compliance with accepted standards of practice for meeting provisions of this subsection based on their development or review of the structural design, specifications and plans. Such certifications must be provided to the building official as provided in Paragraph 18.510.030.E.2; and

4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in Paragraph 18.510.040.L.2. Applicants flood-proofing nonresidential buildings must be notified that flood insurance premiums will be based on rates that are 1 foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as 1 foot below that level).

N. Subdivisions and partitions in special flood hazard areas. Subdivisions and partitions in the special flood hazard area must meet the following criteria:

1. The design must minimize the potential for flood damage;

2. Public utilities and facilities such as sewer, gas, electrical, and water systems must be located and constructed so as to minimize flood damage;

3. Adequate drainage must be provided to reduce exposure to flood damage; and
4. For subdivisions or partitions that contain more than 50 lots or 5 acres and where base flood elevation data is not available from the Federal Emergency Management Agency (FEMA) or another authoritative source, the applicant must generate base flood elevation data to be reviewed as part of the application.

O. Recreational vehicles. Recreational vehicles placed on sites within Zones A1-A30, AH, and AE on the flood insurance rate map either:

1. Are on the site for fewer than 180 consecutive days;

2. Are fully licensed and ready for highway use:

a. Are on wheels or jacking system,

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

c. Meet the requirements of Subsections 18.510.040.E, F, I, and L and the elevation and anchoring requirements for manufactured homes.

P. Critical facilities. Construction of new critical facilities must be, to the extent possible, located outside of the limits of the special flood hazard area. Construction of new critical facilities are allowed within the special flood hazard area if no feasible alternative site is available. Critical facilities constructed within the special flood hazard area must have the lowest floor elevated 3 feet above base flood elevation 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 must be provided to all critical facilities to the extent possible.

Q. Severability. 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 will in no way affect the validity of the remaining portions of this chapter.

R. Definitions. The following definitions are only applicable to this chapter:

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

2. 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.

3. Elevated Building – For insurance purposed, a non-basement building and that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

4. 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).

5. Flood Insurance Study (FIS) - The official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.

6. 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 Section 60.3.~~

~~7. Manufactured Home – A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured" home does not include a "recreational vehicle."~~

~~8. Manufactured Home Park or Subdivision – A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale~~

~~9. New Construction – For the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. 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 a community and includes any subsequent improvements to such structures.~~

~~10. 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.~~

~~11. Start of Construction – Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets 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.~~

~~12. Structure – for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground.~~

~~13. Substantial Damage – means 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.~~

~~14. 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 either:~~

~~a. Before the "start of construction" of the improvement; or~~

~~b. If the structure has been damaged and is being restored, before the damage occurred.~~

~~c. The term does not, however, include either:~~

~~i. 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~~

~~ii. Any alteration of a structure listed on the National Register of Historic Places or a State Inventory of Historic Places, provided that the alteration will not preclude the structure's designation as a "historic structure."~~

~~15. Violation - The failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Section 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.~~

~~S. Disclaimer of liability. This section provides a reasonable degree of flood protection but does not imply total flood protection.~~

~~T. Greater restriction. This section does not in any way impair or remove the necessity of compliance with any other applicable laws, ordinances, regulations, etc. Where this section imposes a greater restriction, the provisions of this section govern.~~

~~U. New technical data. Notify FEMA within 6 months of project completion when an applicant has 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). (Ord. 20-01 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)~~

18.510.050 General Provisions for Wetlands

A. Code compliance requirements. Wetland regulations apply to those areas classified as significant on the City of Tigard "Wetland and Streams Corridors Map," and to a vegetated corridor ranging from 25 to 200 feet wide, measured horizontally, from the defined boundaries of the wetland, as provided in "Table 3.1, Vegetated Corridor Widths," and "Appendix C, Natural Resource Assessments," of the CWS "Design and Construction Standards." Wetland locations may include but are not limited to those areas identified as wetlands in "Wetland Inventory and Assessment for the City of Tigard, Oregon," Fishman Environmental Services, 1994.

B. Delineation of wetland boundaries. Precise boundaries may vary from those shown on wetland maps; specific delineation of wetland boundaries may be necessary. Wetland delineation will be done by qualified professionals at the applicant's expense. (Ord. 18-21 §2; Ord. 17-22 §2)

18.510.060 Approval Period and Extensions

Expirations and extensions of approvals are provided in Subsection 18.20.040.G. (Ord. 18-28 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.070 Sensitive Lands Applications

A. Approval required. An applicant, who wishes to develop within a sensitive area, as defined in this chapter, must obtain approval in certain situations. Depending on the nature and intensity of the proposed activity within a sensitive area, either a Type II or Type III review is required, as provided in Subsections 18.510.020.F and G. The approval criteria for different types of sensitive areas are provided in Subsections 18.510.070.B–E.

B. Within the ~~special flood hazard areas~~**areas of special flood hazard**. The approval authority will approve or approve with conditions an application for sensitive lands review within the ~~special flood hazard areas~~**areas of special flood hazard** when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title **and TMC Chapter 9.10**;

2. Land form alterations must preserve or enhance the ~~special flood hazard areas~~**areas of special flood hazard** storage function and maintenance of the zero-foot rise floodway must not result in any encroachments, including fill, new construction, substantial improvements and other development unless certified by a registered professional engineer that the encroachment will not result in any increase in flood levels during the base flood discharge;

    a. If in the floodway and no-rise requirement is met, the development will comply with all applicable flood hazard reduction provisions.

3. Land form alterations or developments within the ~~special flood hazard areas~~**areas of special flood hazard** are allowed only in areas designated as commercial**,** ~~or~~ industrial**, or parks and recreation** on the comprehensive plan land use map, except that alterations or developments associated with community service uses, utilities, or public support facilities are allowed on residentially zoned properties subject to applicable zoning standards;

4. Where a land form alteration or development is allowed to occur within the ~~special flood hazard areas~~**areas of special flood hazard** it will not result in any increase in the water surface elevation of the 100-year flood;

5. The land form alteration or development plan includes a pedestrian or bicycle pathway in compliance with the adopted Transportation System Plan or Greenways Trail System Master Plan, unless the construction of said pathway is deemed as untimely;

6. Pedestrian or bicycle pathway projects within the ~~special flood hazard areas~~**areas of special flood hazard** must include a wildlife habitat assessment that shows the proposed

alignment minimizes impacts to significant wildlife habitat while balancing the community's recreation and environmental educational goals;

7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS permits and approvals must be obtained; and

8. Where land form alterations or development are allowed within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard**, the city will require the consideration of dedication of sufficient open land area within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the comprehensive plan. This area must include portions of a suitable elevation for the construction of a pedestrian or bicycle pathway within the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the adopted Transportation System Plan or Greenways Trail System Master Plan.

C. With steep slopes. The approval authority will approve or approve with conditions an application for a sensitive lands review on slopes of 25 percent or greater or unstable ground when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title;

2. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

3. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;

4. The structures are appropriately sited and designed to ensure structural stability and proper drainage of foundation and crawl space areas for development with any of the following soil conditions: wet or high water table; high shrink-swell capability; compressible or organic; and shallow depth-to-bedrock; and

5. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in compliance with CWS "Design and Construction Standards".

D. Within drainageways. The approval authority will approve or approve with conditions an application for a sensitive lands review within drainageways when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title;

2. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

3. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;

4. The water flow capacity of the drainageway is not decreased;

5. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in compliance with CWS "Design and Construction Standards";

6. The drainageway will be replaced by a public facility of adequate size to accommodate maximum flow in compliance with Clean Water Services requirements and the city's adopted stormwater master plan;

7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals must be obtained;

8. Where land form alterations or development are allowed within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard**, the city will require the consideration of dedication of sufficient open land area within and adjacent to the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the comprehensive plan. This area will include portions of a suitable elevation for the construction of a pedestrian or bicycle pathway within the ~~special flood hazard areas~~**areas of special flood hazard** in compliance with the adopted pedestrian bicycle pathway plan.

E. Within wetlands. The approval authority will approve or approve with conditions an application for a sensitive lands review within wetlands when all of the following criteria are met:

1. Compliance with all of the applicable requirements of this title;

2. The proposed land form alteration or development is neither on wetland in an area designated as significant wetland on the comprehensive plan ~~special flood hazard areas~~**areas of special flood hazard** and wetland map nor is within the vegetative corridor as provided in "Table 3.1 Vegetative Corridor Widths" and "Appendix C: Natural Resources Assessments" of the CWS "Design and Construction Standards," for such a wetland;

3. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than the minimum required for the use;

4. Any encroachment or change in on-site or off-site drainage that would adversely impact wetland characteristics have been mitigated;

5. Where natural vegetation has been removed due to land form alteration or development, erosion control provisions of the Surface Water Management program of Washington County must be met and areas not covered by structures or impervious surfaces will be

replanted in like or similar species in compliance with CWS "Design and Construction Standards";

6. All other sensitive lands requirements of this chapter have been met;

7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals must be obtained;

8. Physical limitations and natural hazards, ~~special flood hazard areas~~**areas of special flood hazard** and wetlands, natural areas, and parks, recreation and open space policies of the comprehensive plan have been met. (Ord. 18-28 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.080 Special Provisions within Locally Significant Wetlands and Along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek

A. In order to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule (OAR 666-023-0030) pertaining to wetlands, all wetlands classified as significant on the City of Tigard "Wetlands and Streams Corridors Map" are protected. No land form alterations or developments are allowed within or partially within a significant wetland, except as allowed or approved in compliance with Section 18.510.100.

B. In order to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule (OAR 660-023-0030) pertaining to riparian corridors, a standard setback distance or vegetated corridor area, measured horizontally from and parallel to the top of the bank, is established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek.

1. The standard width for "good condition" vegetated corridors along the Tualatin River is 75 feet, unless wider in compliance with CWS "Design and Construction Standards," or modified in compliance with Section 18.510.100. If all or part of a locally significant wetland (a wetland identified as significant on the City of Tigard "Wetlands and Streams Corridors Map") is located within the 75-foot setback area, the vegetated corridor is measured from the upland edge of the associated wetland.

2. The standard width for "good condition" vegetated corridors along Fanno Creek, Ball Creek, and the South Fork of Ash Creek is 50 feet, unless wider in compliance with CWS "Design and Construction Standards," or modified in compliance with Section 18.510.100. If all or part of a locally significant wetland (a wetland identified as significant on the City of Tigard "Wetlands and Streams Corridors Map") is located within the 50-foot setback area, the vegetated corridor is measured from the upland edge of the associated wetland.

3. The minimum width for "marginal or degraded condition" vegetated corridors along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek is 50 percent

of the standard width, unless wider in compliance with CWS "Design and Construction Standards," or modified in compliance with Section 18.510.100.

4. The determination of corridor condition is based on the natural resource assessment guidelines as provided in the CWS "Design and Construction Standards."

5. The standard setback distance or vegetated corridor area applies to all development proposed on property located within or partially within the vegetated corridors, except as allowed below:

   a. Roads, pedestrian or bike paths crossing the vegetated corridor from one side to the other in order to provide access to the sensitive area or across the sensitive area, as approved by the city in compliance with Section 18.510.070 and by CWS "Design and Construction Standards";

   b. Utility or service provider infrastructure construction (i.e. storm, sanitary sewer, water, phone, gas, cable, etc.), if approved by the city and CWS;

   c. A pedestrian or bike path, not exceeding 10 feet in width and in compliance with the CWS "Design and Construction Standards";

   d. Grading for the purpose of enhancing the vegetated corridor, as approved by the city and CWS;

   e. Measures to remove or abate hazards, nuisances, or fire and life safety violations, as approved by the regulating jurisdiction;

   f. Enhancement of the vegetated corridor for water quality or quantity benefits, fish, or wildlife habitat, as approved by the city and CWS;

   g. Measures to repair, maintain, alter, remove, add to, or replace existing structures, roadways, driveways, utilities, accessory uses, or other developments provided they are in compliance with city and CWS regulations, and do not encroach further into the vegetated corridor or sensitive area than allowed by the CWS "Design and Construction Standards."

6. Land form alterations or developments located within or partially within the Goal 5 safeharbor setback or vegetated corridor areas established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek that meet the jurisdictional requirements and permit criteria of the CWS, U.S. Army Corps of Engineers, Department of State Lands, or other federal, state, or regional agencies, are not subject to this subsection B, except where the:

   a. Land form alterations or developments are located within or partially within a good condition vegetated corridor, as provided in Paragraphs 18.510.080.B.1 and 2;

b. Land form alterations or developments are located within or partially within the minimum width area established for marginal or a degraded condition vegetated corridor, as provided in Paragraph 18.510.080.B.3.

These exceptions reflect instances of the greater protection of riparian corridors provided by the safe harbor provisions of the Goal 5 administrative rule. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.090 Density Transfer and Reductions

A. Density transfer. Required residential density for apartments, rowhouses, and single detached houses may be transferred from sensitive lands using the following methods:

1. The units per acre calculated by subtracting land areas listed in Subparagraphs 18.40.020.A.1.a–c from the gross acres may be transferred to the remaining buildable land areas subject to the following limitations:

   a. The number of units that can be transferred is limited to the number of units that would have been allowed on 25 percent of the unbuildable area if not for these regulations; and

   b. The total number of units per site does not exceed 125 percent of the maximum number of units per gross acre allowed.

2. Units per acre calculated by subtracting land areas listed in Subparagraph 18.40.020.A.1.d from the gross acres may be transferred to the remaining buildable land areas on land zoned R-12, R-25, and R-40 subject to the following limitations:

   a. The number of units that can be transferred is limited to the number of units that would have been allowed on the wetland area, if not for these regulations;

   b. The total number of units per site does not exceed the maximum number of units per gross acre allowed.

B. Density reduction. The minimum number of residential units required in a development may be reduced if necessary to ensure that impacts on habitat areas are minimized. The amount of reduction in the minimum density is calculated by subtracting the square footage of inventoried significant habitat that is permanently protected from the total square footage used to calculate the minimum density requirement. The approval authority may impose any reasonable condition necessary to mitigate identified impacts resulting from development on otherwise unbuildable land.

The approval authority will approve, approve with conditions, or deny the density reduction provided that the proposal will directly result in the protection of significant habitat areas through placement in a non-buildable tract or protected with a restrictive easement. (Ord. 18-28 §1; Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.100 Plan Amendment Option

A. Comprehensive plan amendment. Any owner of property affected by the Goal 5 safeharbor (1) protection of significant wetlands or (2) vegetated areas established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek may apply for a comprehensive plan amendment as provided in Chapter 18.790, Text and Map Amendments. This amendment must be based on a specific development proposal. The effect of the amendment would be to remove Goal 5 protection from the property, but not to remove the requirements related to the CWS Stormwater Connection Permit, which must be addressed separately through an alternatives analysis, as described in Section 3.02.5 of the CWS "Design and Construction Standards." The applicant must demonstrate that such an amendment is justified by either of the following:

B. ESEE analysis. The applicant may prepare an environmental, social, economic and energy (ESEE) consequences analysis prepared in compliance with OAR 660-23-040.

1. The analysis must consider the ESEE consequences of allowing the proposed conflicting use, considering both the impacts on the specific resource site and the comparison with other comparable sites within the Tigard Planning Area;

2. The ESEE analysis must demonstrate to the satisfaction of the city council that the adverse economic consequences of not allowing the conflicting use are sufficient to justify the loss, or partial loss, of the resource;

3. In particular, ESEE analysis must demonstrate why the use cannot be located on buildable land, consistent with the provisions of this chapter, and that there are no other sites within the Tigard Planning Area that can meet the specific needs of the proposed use;

4. The ESEE analysis must be prepared by a team consisting of a wildlife biologist or wetlands ecologist and a land use planner or land use attorney, all of whom are qualified in their respective fields and experienced in the preparation of Goal 5 ESEE analysis;

5. If the application is approved, then the ESEE analysis must be incorporated by reference into the Tigard Comprehensive Plan, and the "Tigard Wetland and Stream Corridor Map" be amended to remove the site from the inventory.

C. Demonstration of change. In this case, the applicant must demonstrate that the sensitive area site no longer meets the applicable significance threshold defined by the Goal 5 administrative rule, relative to other comparable resources within the Tigard Planning Area.

1. Significance thresholds are described and applied in the addendum to the City of Tigard Local Wetlands Inventory adopted by reference as part of this chapter.

2. To approve this claim, the city council must find that the decline in identified resource values did not result from a violation of this title. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2)

18.510.110 Significant Habitat Areas Map Verification Procedures

A. Applicants who concur that the significant habitat areas map is accurate must submit the following information to serve as the basis for verifying the boundaries of inventoried habitat areas:
   1. Submission requirements.

      a. A detailed property description;

      b. A scale map of the property showing the locations of significant habitat areas, any existing built area, wetlands or water bodies, Clean Water Services' vegetated corridor, the ~~special flood hazard areas~~**areas of special flood hazard**, the 1996 flood inundation line, and contour lines (2-foot intervals for slope less than 15 percent and 10-foot intervals for slopes 15 percent or greater); and

      c. A current aerial photograph of the property.

   2. The approval authority's decision will be based on consideration of submitted information, site visit information, and other factual information. Should the applicant disagree with the determination on the location of significant habitat areas on the property, the precise boundaries must be verified by the applicant in compliance with the detailed delineation methodology outlined in Subsection 18.510.110.B.

B. Applicants who believe that the map is inaccurate must submit a detailed delineation conducted by a qualified professional in compliance with the following methodology to verify the precise boundaries of the inventoried habitat areas by means of a Type II procedure.

   1. Verifying boundaries of inventoried riparian habitat. Locating habitat and determining its riparian habitat class is a 4-step process:

      a. Locate the water feature that is the basis for identifying riparian habitat.

         i. Locate the top of bank of all streams, rivers, and open water within 200 feet of the property.

         ii. Locate the ~~special flood hazard areas~~**areas of special flood hazard** or 1996 flood inundation line, whichever is greater, within 100 feet of the property.

         iii. Locate all wetlands within 150 feet of the property. Identified wetlands on the property must be further delineated consistent with methods currently accepted by the Oregon Division of State Lands and the U.S. Army Corps of Engineers.

      b. Identify the vegetative cover status of all areas on the property that are within 200 feet of the top of bank of streams, rivers, and open water, are wetlands or are within 150 feet of wetlands, and are flood areas and within 100 feet of flood areas.

i. Vegetative cover status must be as identified on the metro vegetative cover map.

ii. The vegetative cover status of a property may be adjusted only if (a) the property was developed prior to the time the regional program was approved; or (b) an error was made at the time the vegetative cover status was determined. To assert the latter type of error, applicants must submit an analysis of the vegetative cover on their property using summer 2002 aerial photographs and the following definition of vegetative cover types in Table 18.510.1.

Table 18.510.1
Definitions of Vegetative Cover Types

Type	Definition
Low structure vegetation or open soils	Areas that are part of a contiguous area 1 acre or larger of grass, meadow, croplands, or areas of open soils located within 300 feet of a surface stream (low structure vegetation areas may include areas of shrub vegetation less than 1 acre in size if they are contiguous with areas of grass, meadow, croplands, orchards, Christmas tree farms, holly farms, or areas of open soils located within 300 feet of a surface stream and together form an area of 1 acre in size or larger).
Woody vegetation	Areas that are part of a contiguous area 1 acre or larger of shrub or open or scattered forest canopy (less than 60 percent crown closure) located within 300 feet of a surface stream.
Forest canopy	Areas that are part of a contiguous grove of trees 1 acre or larger in area with approximately 60 percent or greater crown closure, irrespective of whether the entire grove is within 200 feet of the relevant water feature.

c. Determine whether the degree that the land slope upward from all streams, rivers, and open water within 200 feet of the property is greater than or less than 25 percent (using the vegetated corridor measurement methodology as provided in Clean Water Services Design and Construction Standards; and

d. Identify the riparian habitat classes applicable to all areas on the property using Table 18.510.2 and Table 18.510.3.

Table 18.510.2
Method for Locating Boundaries of Class I and II Riparian Areas

Distance in feet from water feature	**Development/Vegetation Status[1]**			
	Developed areas not providing vegetative cover	***Low structure vegetation or open soils***	***Woody vegetation (shrub and scattered forest canopy)***	***Forest canopy (closed to open forest canopy)***

Surface streams				
0-50	Class II	Class I	Class I	Class I
50-100		Class II [2]	Class I	Class I
100-150		Class II [2] if slope > 25 percent	Class II [2] if slope > 25 percent	Class II [2]
150-200		Class II [2] if slope > 25 percent	Class II [2] if slope > 25 percent	Class II [2] if slope > 25 percent
Wetlands (Wetland feature itself is a Class I Riparian Area)				
0-100		Class II [2]	Class I	Class I
100-150				Class II [2]
Flood Areas (Undeveloped portion of flood area is a Class I Riparian Area)				
0-100			Class II [2]	Class II [2]

[1] The vegetative cover type assigned to any particular area was based on 2 factors: the type of vegetation observed in aerial photographs and the size of the overall contiguous area of vegetative cover to which a particular piece of vegetation belonged. As an example of how the categories were assigned, in order to qualify as a "forest canopy" the forested area had to be part of a larger patch of forest land at least 1 acre in size.

[2] Areas that have been identified as habitats of concern, as designated on the Metro Habitats of Concern Map, will be treated as Class I riparian habitat areas in all cases, subject to the provision of additional information that establishes that they do not meet the criteria used to identity habitats of concern as described in Metro's Technical Report for Fish and Wildlife. Examples of habitats of concern include: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

Table 18.510.3
Tualatin Basin "Limit" Decision [1]

	Conflicting Use Category			
Resource Category	***High Intensity Urban***	***Other Urban***	***Future Urban (2002 and 2004 additions)***	***Non-Urban (outside UGB)***
Class I & II Riparian inside vegetated corridor	Moderately Limit	Strictly Limit	Strictly Limit	N/A
Class I & II Riparian outside vegetated corridor	Moderately Limit	Moderately Limit	Moderately Limit	Moderately Limit
All other Resource Areas	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit
Inner Impact Area	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit
Outer Impact Area	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit

[1] Vegetated corridor standards are applied consistently throughout the District; in HIU areas they supersede the "limit" decision.

2. Verifying boundaries of inventoried upland habitat was identified based on the existence of contiguous patches of forest canopy, with limited canopy openings. The "forest canopy" designation is made based on analysis of aerial photographs as part of determining the vegetative cover status of land within the region. Upland habitat is as identified on the Significant Habitat Areas Map unless corrected as provided in this subsection.

    a. The only allowed corrections to the vegetative cover status of a property area as follows:

        i. To correct errors made when the vegetative status of an area was determined based on analysis of the aerial photographs used to inventory the habitat. The perimeter of an area delineated as "forest canopy" on the Metro Vegetative Cover Map may be adjusted to more precisely indicate the dripline of the trees within the canopied area provided that no areas providing greater than 60 percent canopy crown closure are de-classified from the "forest canopy" designation. To assert such errors, applicants must submit an analysis of the vegetative habitat cover on their property using the aerial photographs that were used to inventory the habitat and the definitions of the different vegetative cover types provided in Table 18.510.1; and

        ii. To remove tree orchards and Christmas tree farms from inventoried habitat; provided, however, that Christmas tree farms where the trees were planted prior to 1975 and have not been harvested for sale as Christmas trees may not be removed from the habitat inventory.

    b. If the vegetative cover status of any area identified as upland habitat is corrected in compliance with Subparagraph 18.510.110.B.2.a to change the status of an area originally identified as "forest canopy," then such area will not be considered upland habitat unless it remains part of a forest canopy opening less than 1 acre in area completely surrounded by an area of contiguous forest canopy. (Ord. 18-23 §2; Ord. 18-21 §2; Ord. 17-22 §2) ■

CITY OF TIGARD

Respect and Care | Do the Right Thing | Get it Done

FEMA NFIP REGULATORY UPDATE

Public Hearing

City Council | December 12, 2023

PROPOSED AMENDMENTS:

- A new Municipal Code Chapter 9.10 that contains definitions, applicability, general provisions, NFIP standards, and violation procedures;
- Updates to Tigard Community Development Code (TCDC) Chapter 18.30, Definitions; and
- Updates to TCDC Chapter 18.510, Sensitive Lands, that move procedural requirements and general standards to the new Title 9.

BACKGROUND

- National Flood Insurance Program (NFIP) was established in 1968 through National Flood Insurance Act.
- Program allows owners of properties within the Area of Special Flood Hazard (ASFH) to obtain federally-backed insurance.
- NFIP identifies and maps the Nation's floodplain, known as the Flood Insurance Rate Map (FIRM).
- FIRM is used to determine local jurisdiction regulations, whether flood insurance is required and the rate.

BACKGROUND

- Floodplain boundaries are not constant; to account for this FEMA periodically amends the maps as well any regulations as part of the NFIP updates.
- Adoption of the maps and updated regulations is required for local jurisdiction to participate in the NFIP.
- The last adoption was in 2018, when Tigard adopted a new FIRM, and revised regulations.

BACKGROUND

- In 2021, the Oregon Department of Land Conservation and Development (DLCD) through FEMA's Community Assistance Contact (CAC) process notified Tigard that we were due for a FEMA audit.
- The DLCD audit determined that further amendments to the ASFH regulations would be required for Tigard to meet the minimum standards for participation in NFIP.
- The Planning Commission held a hearing on November 13, 2023, and unanimously voted to recommend approval of the ASFH amendments to City Council.

Purpose of Amendment

For Tigard to continue its participation in the NFIP, the City must adopt updated regulations related to:

- Definitions, applicability, general provisions, NFIP standards, and violation procedures.

- New Chapter 9.10, Areas of Special Flood Hazard
- Updates to TCDC Chapter 18.30, Definitions
- Updates to TCDC Chapter 18.510, Sensitive Lands

Conclusion

Planning Commission recommends to the City Council approval of the proposed development code and municipal code text amendments below.

- New Chapter 9.10, Areas of Special Flood Hazard
- Updates to TCDC Chapter 18.30, Definitions
- Updates to TCDC Chapter 18.510, Sensitive Lands

Questions and Discussion

AIS-5370 **8.**

Business Meeting

Meeting Date: 12/12/2023

Length (in minutes): 40 Minutes

Agenda Title: Downtown Parking Management Update

Authored By: Sean Farrelly

Presented By:

Item Type: Update, Discussion, Direct Staff

Public Hearing Legal Ad Required?:

Publication Date:

Information

EXPLANATION OF ISSUE

As Tigard continues to grow as a place to live, work, and recreate, more visitors and customers will travel to our Downtown. While many visitors will walk, bike, or use transit, a large portion will arrive by automobile. The goal of the Downtown Parking Management Strategy is to implement a multi-phased parking strategy and a multi-year parking management plan.

ACTION REQUESTED

This is a briefing on the Downtown Parking Management Plan progress to date. Staff and consultants are available to answer questions.

BACKGROUND INFORMATION

Dates of Previous and Potential Future Considerations

TBD: Final Downtown Parking Strategy and Proposed Municipal Code Amendments
03/21/2023: Downtown Parking Management Update
05/27/2022: Downtown Parking Management Update
02/13/2018: Public Hearing - Consider Amendment to TMC Chapter 7.60 Abandoned Vehicles
01/02/2017 Legislative Public Hearing: Consider Amendment to TMC Chapters 10.28 - Parking and 7.60 Abandoned Vehicles
12/05/2017 Downtown Parking Ordinance Introduction
07/18/2017 Downtown Parking Plan

Background

Council was last briefed on the Downtown Parking Management Strategy on March 21, 2023. The briefing included a review of the 2021 parking utilization study. Also discussed were the results of an online survey of downtown customers, workforce, and residents on their experience and opinions of Downtown parking. At the meeting Council directed staff to arrange for updated parking data collection as the 2021 study could have reflected lower parking demand caused by the COVID pandemic.

A downtown parking committee was reconstituted, and now includes representatives from the Town Center Advisory Commission, Tigard Transportation Advisory Committee, Committee for Community Engagement and downtown business owners. At the committee's first meeting on July 19, they confirmed that a summer Thursday (9:00 AM to 7:00PM) and Saturday (10:00AM to 8:00PM) would be good

representative times to study.

The parking utilization data collection was performed on August 24 and 26 by Rick Williams Consulting. These dates also reflect the opening of Universal Plaza. The study area was identical to the 2021 study and included data collection on 263 on-street spaces and 1,746 off-street spaces (there's a total of 2,132 off-street stalls, but data could not be collected from a few of the lots.) The off-street spaces include 33 spaces in the Burnham and Tigard Street public parking lots and 134 semi-public spaces at City Hall and the Public Works building (semi-public means that the primary use is for civic center visitors, customers, and employees, however the general public could use after hours and on weekends.)

Some key findings of the new parking study were:

- Weekday demand (on and off-street) has increased by 5% in 2023 (versus 2021). The off-street lots increase is likely due to more employees returning to on-site work.
- Saturday on-street demand is down significantly, an average of 21% (versus 2021). Off-street occupancies are consistent with 2021.
- City's two public lots operate at moderate to constrained levels, particularly the Burnham Street lot.
- The number of vehicles parked for 5+ hours in 2-Hour timed stalls is high (weekday and Saturday). This denies customers access to street-level businesses, lowers turnover, and can have adverse impact on sales.
- Rates of violation exceed industry standards for efficiency/compliance; rates above 16% on-street and over 30% off-street (public lots). There's been no significant improvement since 2021. Likely parkers are aware of no/low enforcement.

The report made the following conclusions:

- Perceptions of parking difficulty/inconvenience likely occur in a small core area where on and off-street constraints cluster (especially south Main Street between Burnham and Pacific Highway.) Very few constraints limit access to parking outside this cluster (on or off-street).
- There is an adequate supply of parking in Downtown Tigard, particularly in the off-street system (with ≈ 1,100 empty stalls). Opportunities to seek partnerships (between businesses and private owners) should be pursued.
- Moving forward, the issue of enforcement and improved communications regarding parking should be prioritized.
- Overall, data suggests it is premature to assess the impact of the Universal Plaza on parking demand.

The committee reviewed the results of the parking data collection at their third meeting on October 4. At the fourth and fifth meetings, the committee reviewed proposed Guiding Principles and Recommended Parking Management Strategies. The committee endorsed the following guiding principles, which will serve as a basis, in tandem with good data, for informed decision making about parking and managing access in downtown:

A. Coordination

- Centralize management of the public parking supply within the City of Tigard.
- Provide a representative forum for ongoing community involvement in parking decisions.
- Implement measurements and reporting that ensure Guiding Principles are supported and achieved.
- Manage the public parking supply using the "85% Rule" to inform and guide decision-making.

B. Priority Customer

- Customers and visitors should have priority access to the public on-street system downtown.

C. Efficiency and Balance

- Provide sufficient options for employee parking, including a permit program, and in off-street locations.
- Increase programs and strategies that provide all users with balanced and reasonable travel mode options (transit, bike, walk, rideshare).
- Expand off-street shared-use partnerships whenever possible and treat all parking as a community resource.
- Provide strategic enforcement to support compliance and turnover that benefits business.

D. Intuitive & High Quality

- Create a uniform appearance for on- and off-street parking, including signage, striping, and landscaping.
- Brand signage by creating a name, symbol, or design that clearly identifies all public parking.
- Provide safe, secure, and well-lit parking to allow a sense of security at all times on-street and off-street.
- The City's public information system should provide a clear and consistent message about auto parking, preferably under a common brand.

E. Planning for the Future

- Treat downtown parking management as a partnership between the City and the business community.
- Ensure that the public parking system is financially sound and self-sustaining.
- Ensure that the City is ready to respond to growth and recognize that funding will require a varied package of resources and partnerships.

The committee's final recommendations are still in the works, but will address the following areas:

1. On-street Formatting Changes

- Many on-street spaces in Downtown (including thirty-one prime spaces on Burnham Street) have no time limits. To better manage this public resource, some parking spaces will be changed to 2-hour and 4-hour spaces, with the provision of a limited parking permit program.

2. On-Street Management

- To address overstaying posted parking limits, a baseline level of enforcement of the city's on-street parking and public parking lot regulations is needed.
- Community Development has funds in its current budget to engage a private contractor that can provide a baseline level of enforcement and possibly manage a permit program.

3. Shared Use

- Shared parking agreements between business/property owners with surplus parking and businesses who have a deficit are a promising avenue to address the needs of businesses that are not able to supply parking spaces for their employees. The study found an abundant amount of unused private parking capacity, even at the peak hour.
- The city has a role to play as a facilitator and a data-clearinghouse but controls only a small portion of the downtown parking supply and cannot require businesses to participate.
- It is beneficial for everyone if downtown businesses and property owners agree to collaborate and share their pavement. The Tigard Downtown Alliance could have a role to play in this collaborative effort.

4. Branding / Communications

- A "parking brand" for new signage and communications related to downtown parking will be developed.
- Changes to parking management will be communicated to stakeholders and the larger public though mailings, social media, the website and other methods.

5. ADA Parking

- Existing on-street ADA stalls will be evaluated to ensure they are placed at locations with high ADA access need.

6. Measurement/Monitoring/Reporting

- Parking use and occupancy will be measured on a recurrent basis.
- There will be an ongoing role of downtown stakeholders in strategy implementation and review.

Ultimately, the goal is to have a parking management plan that balances the needs of Downtown employees and residents with the needs of visitors and customers. Over the next few months, staff will work on the following:

- Briefing the Tigard Downtown Alliance board
- Briefing Town Center Advisory Commission
- Work with the committee on final recommendations
- Work with stakeholders on implementing permit program and shared parking program
- Communication plan to inform the public of parking changes
- Council updates including any proposed Municipal Code amendments

ALTERNATIVES & RECOMMENDATION

This is an update.

ADDITIONAL RESOURCES

N/A

Attachments

Presentation

CITY OF TIGARD

Respect and Care | Do the Right Thing | Get it Done

Downtown Parking Management Update

Presented to Tigard City Council | December 12, 2023

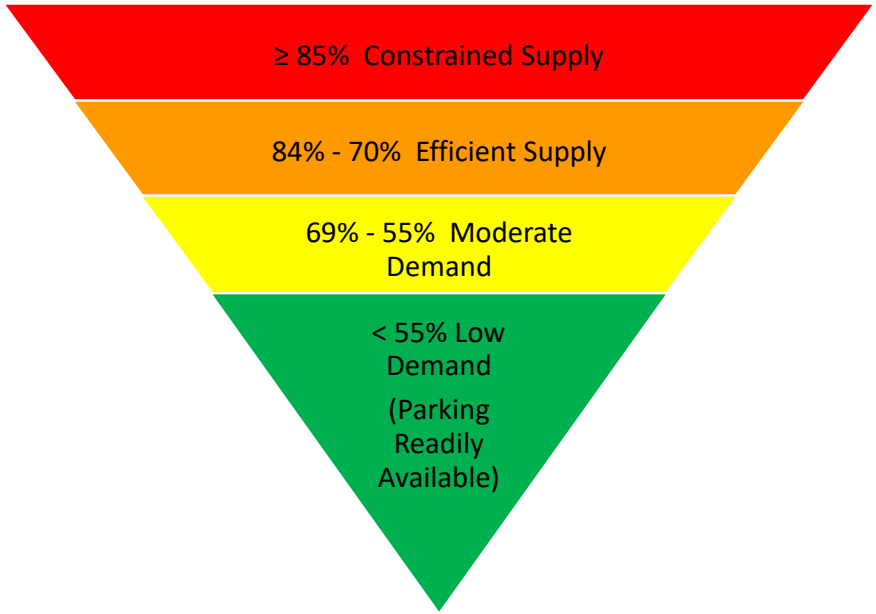
By Sean Farrelly, Redevelopment Manager and
Rick Williams Consulting

Presentation Outline

- Timeline
- Key Findings of 2023 Parking Study
- Review of Parking Committee Activities
- Next Steps

Measuring Performance

- **Constrained Supply** – finding a spot is difficult (especially for infrequent users), can negatively affect perceptions of parking in the area; employ management strategies
- **Efficient Supply** – ideal level of parking occupancy, robust activity, but no constraint for users; can respond to routine fluctuations; supports ground level businesses
- **Moderate Demand** – parking easy to find, moderate levels of parking activity, can comfortably absorb additional demand
- **Low Demand** – parking easy to find, low levels of parking activity, typically not enough activity to support vital businesses







2023 Downtown Tigard Data Collection

Survey Particulars

Study Purpose

Update 2021 Study

Thursday, August 24, 2023

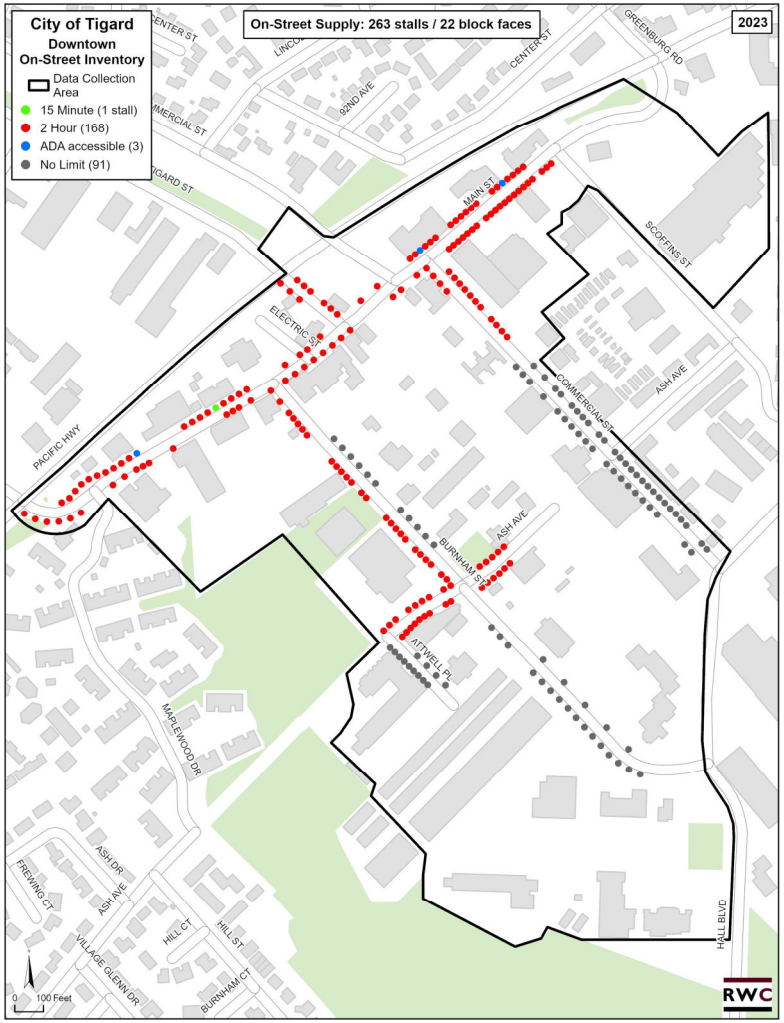
9:00 AM – 7:00 PM

Saturday, August 26, 2023

10:00 AM – 8:00 PM

New Variable

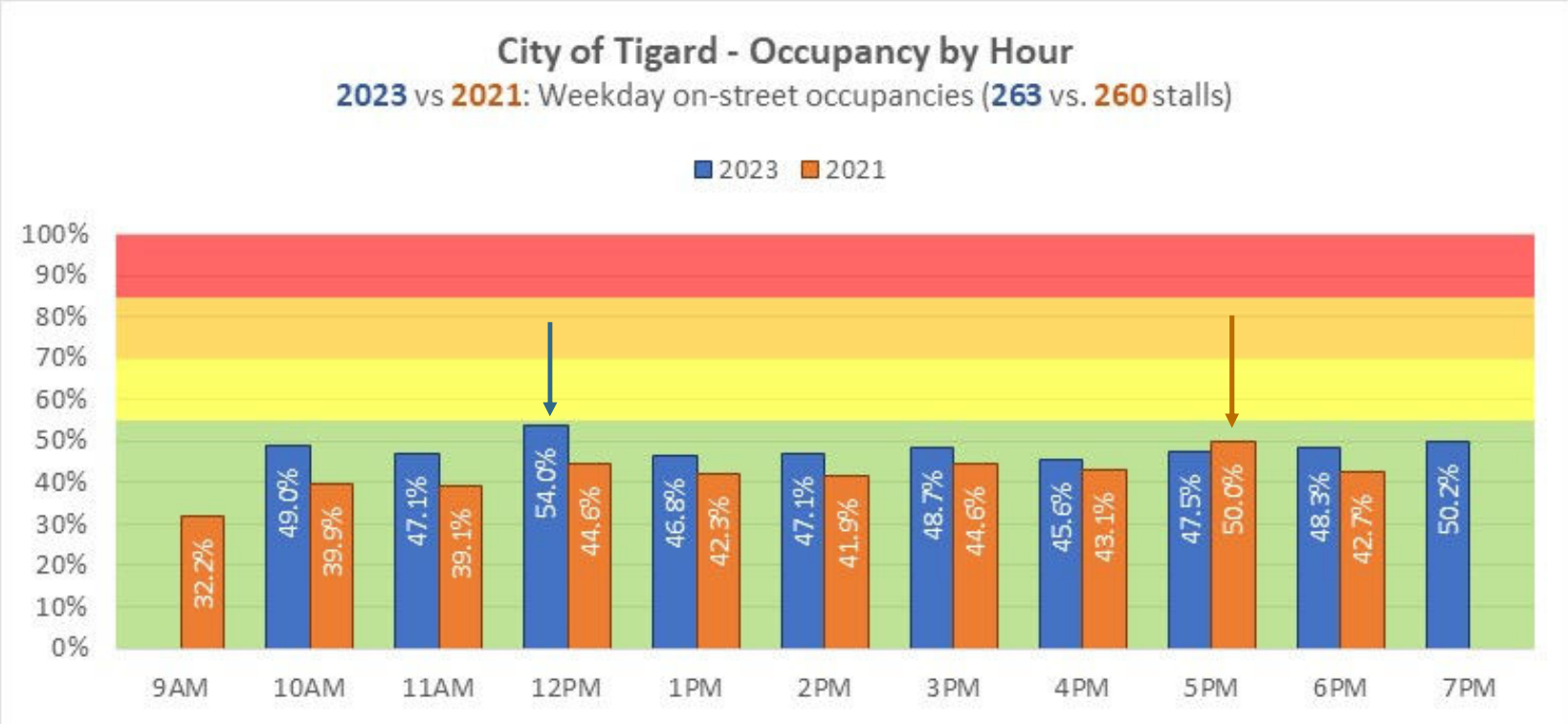
Universal Plaza is now open



Downtown On-street Inventory

Stall Type	Stalls	% Total
On-Street Supply Studied	263	100%
15 Minutes	1	< 1%
2 Hour	168	63.9%
ADA accessible	3	1.1%
No Limit	91	34.6%

Downtown Tigard – Weekday On-street Occupancies



Downtown Tigard Utilization Findings – Weekdays (2023 v. 2021)

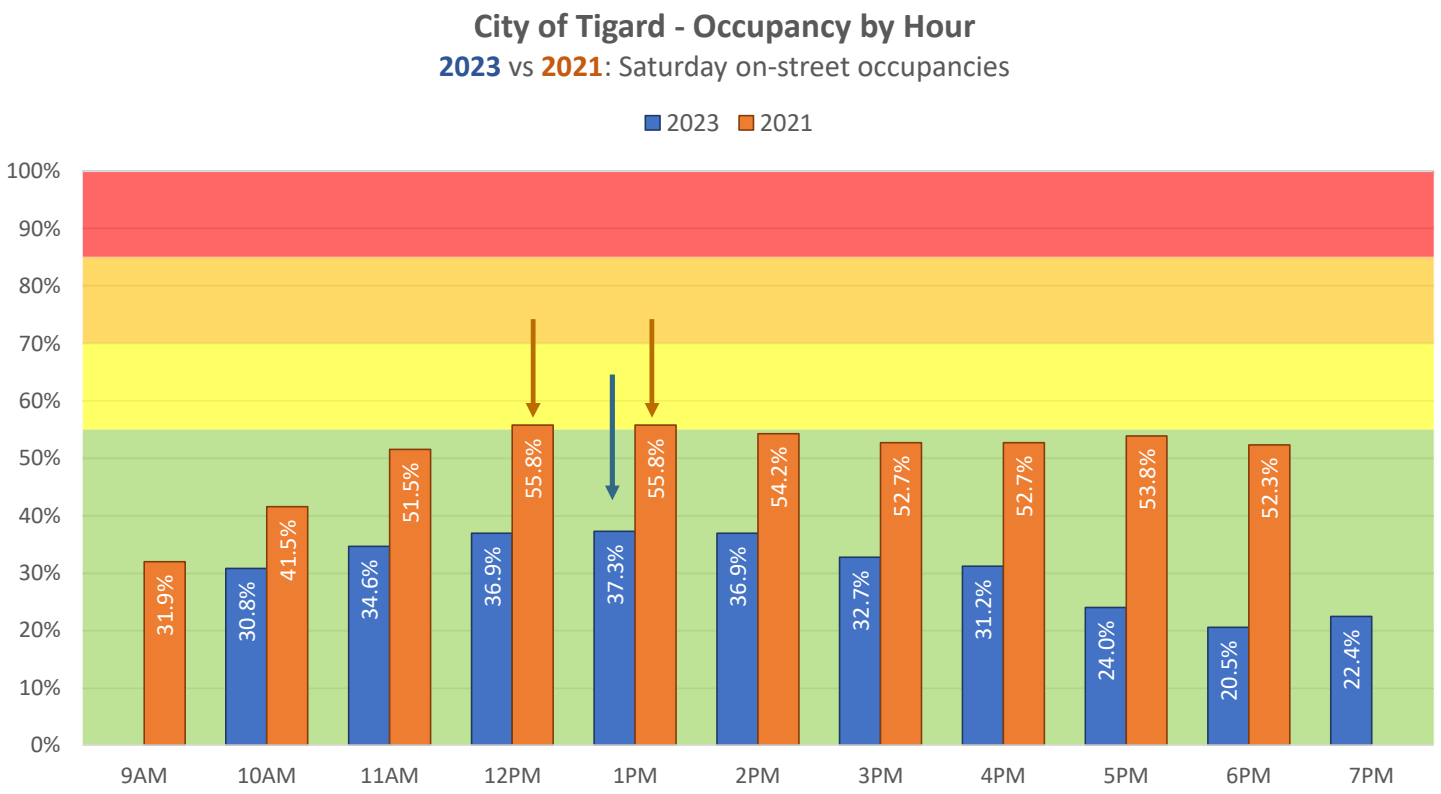
Stall Type	Stalls	Peak Hour	Peak Occupancy	Empty Stalls	Average Duration	Violation Rate
On-Street Supply Studied	263	12:00 PM – 1:00 PM	54.0%	121	2:26 hours	16.3%
	260	5:00 PM – 6:00 PM	50.0%	130	2:26 hours	15.6%
15 Minute	1	multiple	100%	0	-	33.3%
	1	12:00 PM – 1:00 PM	100%	0	-	0.0%
2 Hours	168	12:00 PM – 1:00 PM	54.8%	76	1:48 hours	16.2%
	176	5:00 PM – 6:00 PM	48.9%	90	1:44 hours	15.7%
ADA accessible	3	multiple	33.3%	2	1:00 hour	0.0%
	1	multiple	100%	0	1:30 hours	0.0%
No Limit	91	10:00 AM – 11:00 AM	67.0%	30	4:35 hours	-
	82	9:00 AM – 10:00 AM	59.8%	33	5:49 hours	-

Downtown Tigard Parking Characteristics - Weekday

Use Characteristics (2023 vs. 2021)

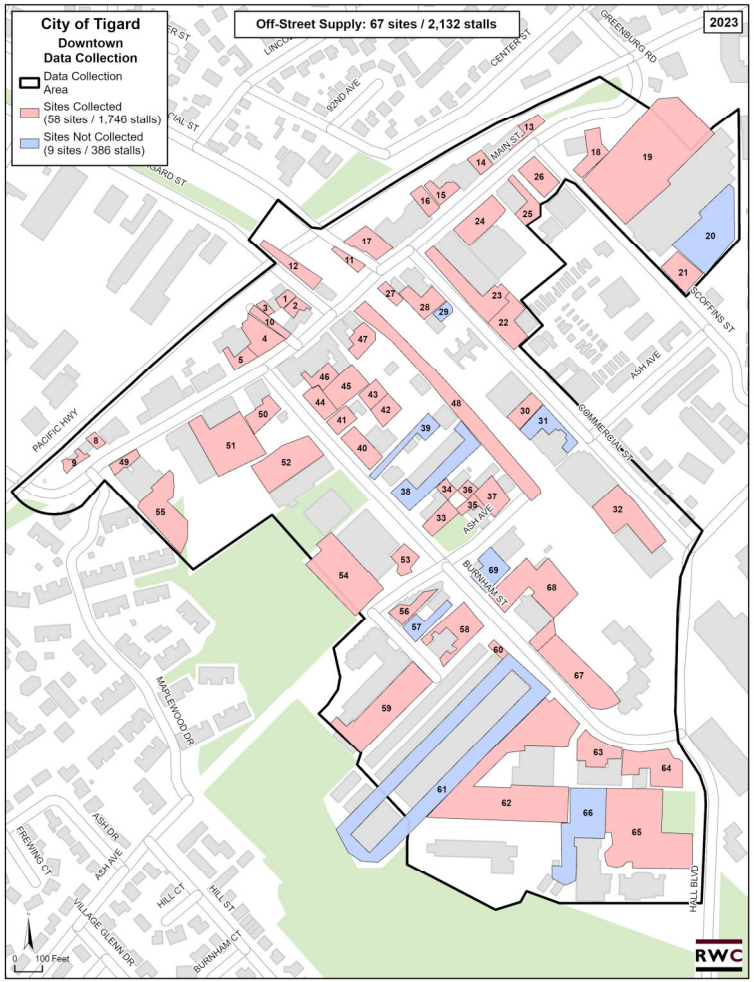
Use Characteristics	2023	2021
Unique Vehicle Trips	518	448
Turnover Rate	4.10	4.11
Vehicles parked 5 or more hours in **time-limited stalls** (% of vehicle trips in time-limited stalls)	29 (8.8%)	20 (5.8%)
Vehicles moving between stalls: re-parking (% of vehicle trips)	3 (< 1%)	17 (1.6%)

Downtown Tigard – Saturday On-street Occupancies



Downtown Tigard Utilization Findings - Saturday

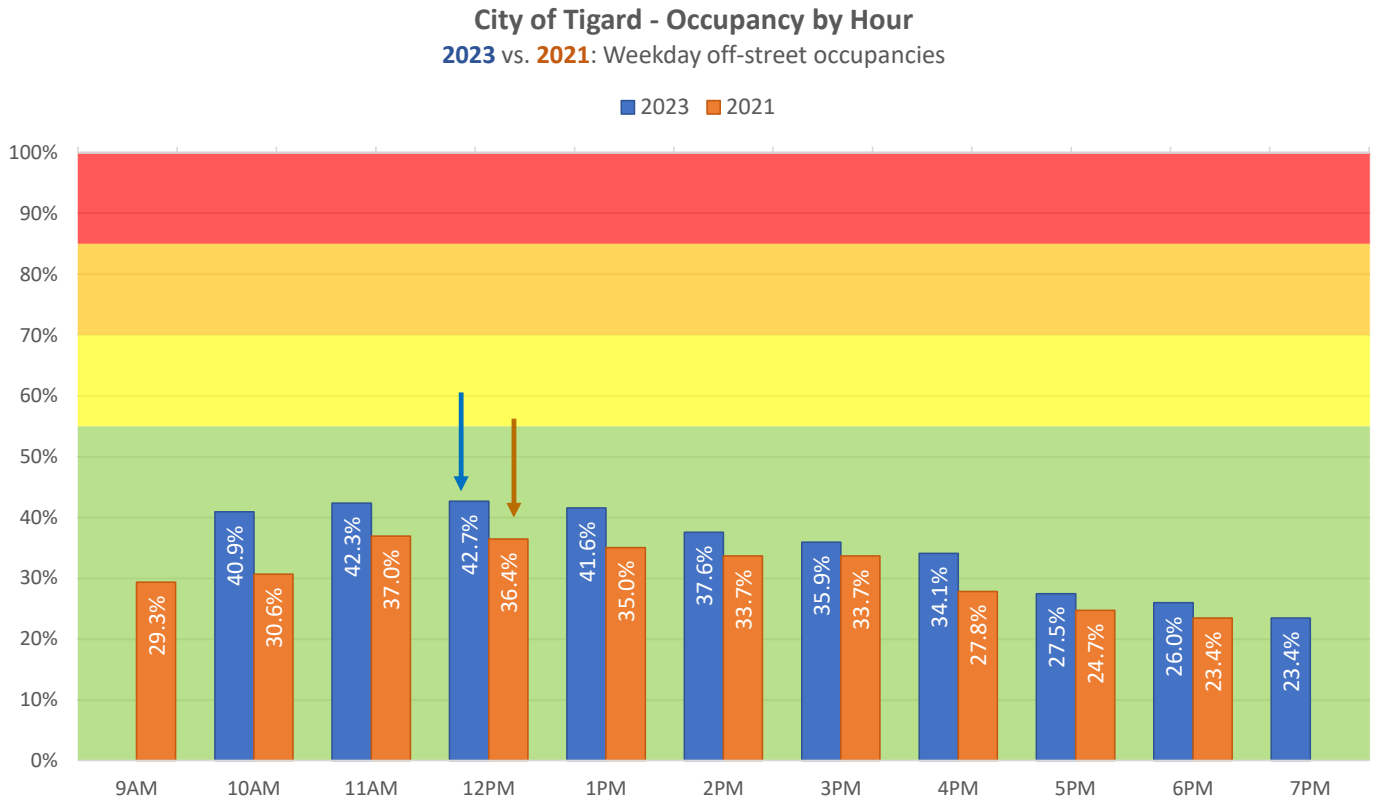
Stall Type	Stalls	Peak Hour	Peak Occupancy	Empty Stalls	Average Duration	Violation Rate
On-Street Supply Studied	263	1:00 PM – 2:00 PM	37.3%	165	2:48 hours	18.8%
	260	12:00 PM – 2:00 PM	55.8%	115	2:35 hours	20.1%
15 Minute	1	multiple	100%	0	-	100%
	1	multiple	100%	0	-	0.0%
2 Hours	168	12:00 PM – 3:00 PM	39.3%	102	2:18 hours	23.9%
	176	1:00 PM – 2:00 PM	59.7%	71	1:00 hour	20.1%
ADA accessible	3	4:00 PM – 5:00 PM	33.3%	2	1:00 hours	0.0%
	1	3:00 PM – 4:00 PM	100%	0	1:00 hours	0.0%
No Limit	91	10:00 – 11:00 AM	39.6%	55	4:12 hours	-
	82	4:00 PM – 5:00 PM	54.9%	37	4:49 hours	-



Downtown Off-street Inventory

- 67 parking lots with 2,132 stalls
- Only 4 of 67 sites controlled by the City – 167 stalls (7.8% of the off-street supply)
- 92% of off-street parking in private ownership

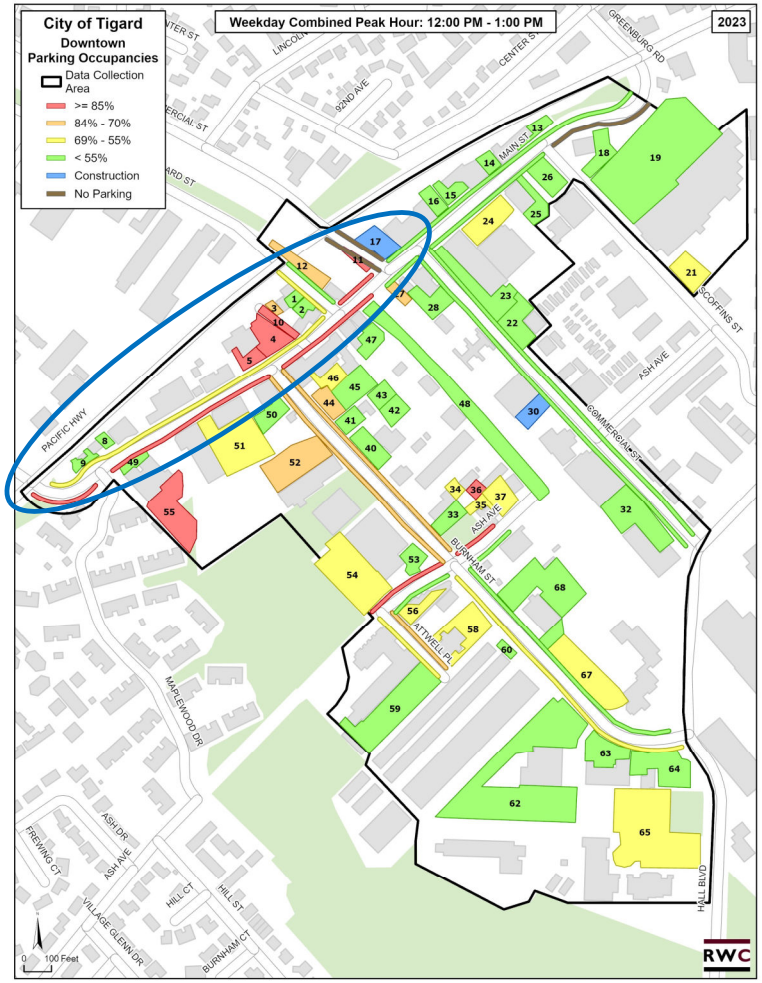
Downtown Tigard – Weekday Off-street Occupancies



Weekday Public Visitor Lots Off-street Occupancy

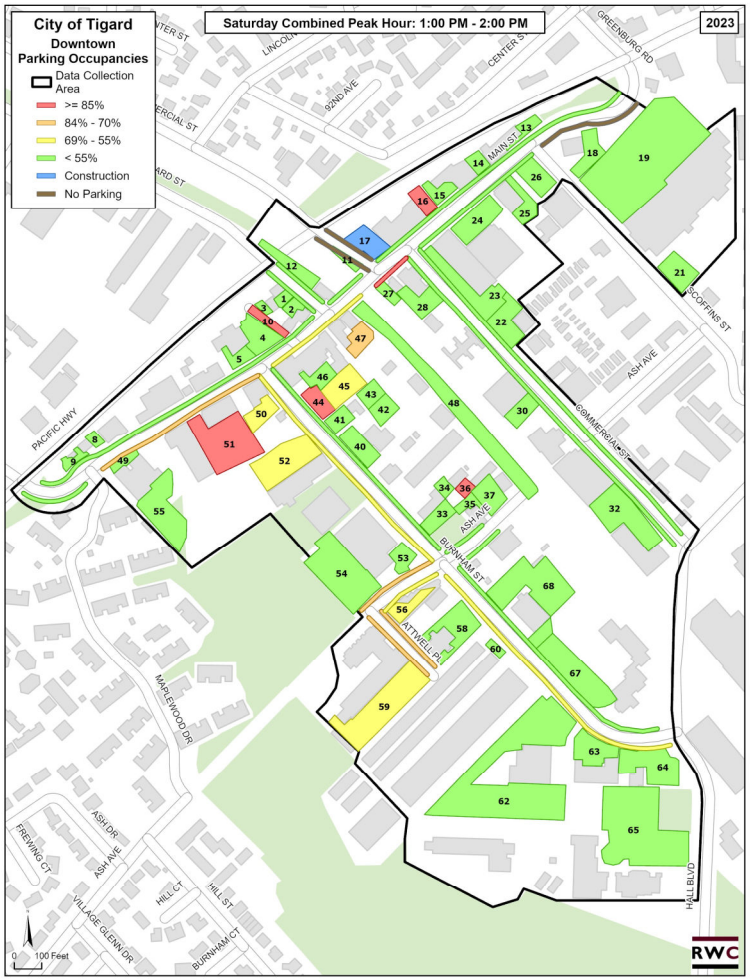
(2023 vs. 2021)

Lot Number	Use Type	Stalls	Peak Hour	Peak Occupancy	Average Duration	Violation Rate
Lot 12 Tigard St.	2 Hour Parking	13	12:00 PM – 2:00 PM	84.6%	1:58 hours	16.0%
		13	12:00 PM – 1:00 PM	76.9%	2:00 hours	23.3%
Lot 44 Burnham St.	2 Hour Parking	20	6:00 PM – 7:00 PM	95.0%	2:41 hours	39.5%
		20	4:00 PM – 6:00 PM	90.0%	2:04 hours	30.8%
On-street	2 Hour	168	12:00 PM – 1:00 PM	54.8%	1:48 hours	16.2%
		176	5:00 PM – 6:00 PM	48.9%	1:44 hours	15.7%



Weekday Surplus/Deficits – Parking Occupancy Heat Maps

- Combined Weekday Peak – 12:00 – 1:00 PM
- **On-street**:
  - 6 of 22 block faces are constrained
- **Off-street**:
  - 6 of 58 sites are constrained



Saturday Surplus/Deficits – Parking Occupancy Heat Maps

- Combined Saturday Peak – 12:00 – 1:00 PM
- **On-street**:
  - 1 of 22 block faces are constrained
- **Off-street**:
  - 5 of 58 sites are constrained

Downtown Parking Guiding Principles

- Serve as a basis, in tandem with good data, for informed decision making about parking and managing access
- Endorsed by Parking Committee



Downtown Parking Guiding Principles

A. Coordination
B. Priority Customer
C. Efficiency and Balance
D. Intuitive & High Quality
E. Planning for the Future

Intended Outcomes

- More vehicle turnover – more visitor/customer trips within limited on-street supply
- Reasonable long-term parking opportunities for employees
- Quality signage and communications
- Better use of existing supplies of parking
- Ensure compliance and remain user friendly
- Decision-making based in Guiding Principles and good data
- Ongoing stakeholder involvement and partnership

Next Steps

- Briefings to TDA board and TCAC
- Work with the committee on final recommendations
- Work with stakeholders on implementing permit program and shared parking program
- Communication plan to inform the public of changes
- Council updates including any proposed Municipal Code amendments

Questions and Discussion



