



CITY OF EDGEWOOD

PLANNING COMMISSION MEETING AGENDA

Monday, November 10, 2025 – 6:00 PM ♦ City Hall –10440 Dom Calata Way E ♦ Edgewood, WA

Virtual Meeting Via Zoom <https://zoom.us/j/97065969184>

Zoom Meeting ID: 970 6596 9184

1. CALL TO ORDER

- 2. CONSENT AGENDA:** *All matters listed under Item 2, Consent Agenda, are considered routine in nature and will be enacted by one motion. Individual discussion of these items is not planned. A member, however, may remove any item to discuss as an item for separate consideration under New Business.*

- a. Review Planning Commission meeting minutes from October 13, 2025

- 3. CITIZEN COMMENT PERIOD** *This portion of the agenda is reserved for the public to comment on items not on the agenda. The Planning Commission may invite additional public comment on agenda items noted for discussion later in the meeting.*

4. PUBLIC HEARINGS

- a. Interim Zoning Ordinance 25-0676
- b. Public Works Standards and Code Updates

5. ACTION ITEMS

- a. 2024 Comprehensive Plan Implementation
- b. 2025 Annual Comprehensive Plan Amendments
- c. Critical Areas Ordinance Update

6. DISCUSSION ITEMS

- a. Interim Zoning Ordinance 25-0676
- b. Public Works Standards and Code Updates
- c. 2026 Annual Comprehensive Plan Amendment Requests

7. STAFF/COMMISSIONER COMMENTS

8. ADJOURN

This meeting is accessible to persons with disabilities. For individuals who may require special accommodations, please contact City Hall at (253) 952.3299, 24 hours in advance.



CITY OF EDGEWOOD

PLANNING COMMISSION MEETING AGENDA SUMMARY

Monday, October 13, 2025 – 6:00 PM ♦ City Hall –10440 Dom Calata Way E ♦ Edgewood, WA

1 CALL TO ORDER

Vice Chair Guillory called the meeting to order at 6:00pm and led attendees in the Pledge of Allegiance

Present: Carly Guillory, Tom Greene, Jan Furey, Leyla Church, Carly Lenoir **Excused:** Joann Overfield

2 CONSENT AGENDA:

- a. Review Planning Commission meeting minutes from September 8, 2025

Motion: As read **Action:** Approved **Moved by:** Commissioner Furey **Seconded by:** Commissioner Church **Motion Passed 6-0**

3 CITIZEN COMMENT PERIOD

There were no public comments.

4 PUBLIC HEARINGS

- a. 2024 Comprehensive Plan Implementation Code Amendments

Vice Chair Guillory opened the public hearing on the 2024 Comprehensive Plan Implementation Code Amendments at 6:05pm. Planning Manager Kubitza spoke on the topic. There were no public comments, and Vice Chair Guillory closed the public hearing at 6:12pm.

- b. 2025 Annual Comprehensive Plan Amendments

Vice Chair Guillory opened the public hearing on the 2025 Annual Comprehensive Plan Amendments at 6:12pm. Planning Manager Kubitza discussed the amendments in detail. Public comments were received by, Monty, Katie, Vin, Jora, John, and Angie. The hearing was closed at 6:40pm.

- c. Critical Areas Ordinance Update

Vice Chair Guillory opened the final public hearing of the night on the Critical Areas Ordinance Update at 6:40pm. Planning Manager Kubitza shared his presentation. There were no public comments and the hearing was closed at 6:52pm.

5 DISCUSSION ITEMS

- a. 2024 Comprehensive Plan Implementation Code Amendments

Planning Manager Kubitza reviewed the amendments with the Commissioners, and answered questions. He then asked that they review the materials provided in order to provide a recommendation to the City Council at the next meeting.

- b. 2025 Annual Comprehensive Plan Amendments

Planning Manager Kubitza explained the City Council needs to make a final recommendation by the end of the year on the total annual amendments in order to meet the state requirement. Director Metzler discussed the comments received from other agencies regarding the rezone proposal, and the staff's recommendation to table that particular item on the docket in order to allow staff the ability to more thoroughly review those comments, and coordinate with those agencies on an appropriate response.

Motion: To suspend Roberts Rules of Order **Action:** Approved **Moved by:** Commissioner Furey
Seconded by: Commissioner Lenoir **Motion Passed 6-0**

Motion: As read **Action:** Remove the West Valley Highway Overlay Study and Rezone from the 2025 Comprehensive Plan Amendment Docket and add it in 2026 as appropriate **Moved by:** Commissioner Fury **Seconded by:** Commissioner Church **Motion Passed 6-0**

- c. Interim Zoning Ordinance 25-0676
Community Development Director Metzler reviewed the redline edits to the Interim Zoning Ordinance based on feedback received.
- d. Critical Areas Ordinance Update
Planning Manager Kubitza discussed the public hearing and the proposed amendments, asking that the Commissioners review and discuss the materials in order for staff to prepare a formal recommendation to the City Council at the next meeting.
- e. Public Works Design & Construction Standards
Staff brought this item forward for discussion, recommending the Commissioners move forward with scheduling a public hearing to allow adequate time for review and consideration of any comments received.
- f. 2026 Annual Comprehensive Plan Amendments Process
Staff asked the Commissioners to review the 2024 Comprehensive Plan and prepare any questions, comments, or suggestions for their November meeting.

6 STAFF/COMMISSIONER COMMENTS

Community Development Director Metzler discussed the date of the November meeting.

7 ADJOURN

Vice Chair Guillory adjourned the meeting at 7:41pm.



CITY OF EDGEWOOD STAFF REPORT PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: Public Hearing – Interim Zoning Ordinance 25-0676

Attachments: Attachment A – Ordinance 25-0676 as adopted by City Council
Attachment B – Employment Target Analysis Memo
Attachment C – DRAFT EMC 18.80.080 Redline Revisions
Attachment D – State Environmental Policy Act (SEPA) Determination

Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

As introduced at the [June 9, 2025 Planning Commission \(PC\) Meeting](#), the City Council adopted Interim Zoning Ordinance 25-0676 on March 25, 2025 (see Attachment A). This ordinance currently:

- Clarifies the purpose of the Town Center (TC), Commercial (C), and Business Park (BP) zoning districts
- Prohibits single-use residential projects in the TC and C zoning districts
- Prohibits all new residential projects in the BP zoning district
- Retains both single- and mixed-use residential in the Mixed Use Residential (MUR) zoning district
- Requires all properties in these zoning districts that abut arterial roadways (Meridian Ave E, Emerald St E, 8th St E, 24th St E) to develop permissible non-residential uses within 200 feet of said roadway, while allowing for mixed use (residential and commercial) if 50% of the building footprint area (ground floor) is a commercial use
- Removes the ability to simply "preserve", or set aside, the required frontage area "for future retail or office type commercial uses"
- Removes the allowance for vertical mixed use projects to develop ground floor residential if converted to commercial within three years of occupancy (not utilized)

The City Council held their public hearing on May 13, 2025 ([link to presentation](#)), where no comments were received. Staff also met with the Economic Development Advisory Board (EDAB) at their June 2, 2025 meeting, and a summary of that discussion was included in the [June 9, 2025 PC meeting materials](#). The [July 14, 2025 PC meeting materials](#) include a summary of the June 9, 2025 PC meeting discussion.

Summarizing the July 14, 2025 PC meeting discussion:

- Interest in gathering information and research was expressed by some of the commissioners
- Commissioners support prohibiting single-use residential in TC and C zones
- Commissioners recommend aligning the remainder EMC 18.80.080 with the recently adopted Comprehensive Plan Goals and Policies

The PC must consider modifications to the attached interim zoning ordinance, conduct public hearings as may be necessary or desirable, and prepare a recommendation to the City Council regarding the adoption of permanent regulations for the Council's consideration and action no later than March 25, 2026, unless extended or modified by the Council.

Tentative Schedule:

June 9, 2025 – Planning Commission Introduction (COMPLETE)

July 14, 2025 – Planning Commission Discussion (COMPLETE)

August 11, 2025 – Planning Commission Discussion (COMPLETE)

September 8, 2025 – Planning Commission Discussion with WVH Draft Land Use Study (COMPLETE)

October 13, 2025 – Planning Commission Discussion and Draft Amendments Review (COMPLETE)

October 26, 2025 – SEPA Issuance and Comment Period (COMPLETE)

November 10, 2025 – Planning Commission Public Hearing

December 8, 2025 – Planning Commission Recommendation

December 16, 2025 – City Council Study Session Introduction

December 23, 2025 – City Council Regular Meeting and Potential Action

Current Discussion:

This is the Planning Commission Public Hearing for draft code amendments in response to Interim Zoning Ordinance 25-0676. Following the preliminary results of the West Valley Highway Overlay Land Use Study and further review of citywide employment targets (see Attachment B), staff now recommends allowing for limited multifamily residential uses in the BP zone. As discussed at last month's Planning Commission meeting, the attached redline revisions to EMC 18.80.080 (Attachment C) propose modifying Interim Zoning Ordinance 25-0676 by:

- updating the zoning district purpose statements for the Town Center (TC), Commercial (C), Mixed Use Residential (MUR) and Business Park (BP) zoning districts with the 2024 Comprehensive Plan
- allowing for townhomes and apartments in the BP zone as an outright permissible use near the Interurban Trail (pending a minor update to the Land Use Table in EMC 18.70.050),
- replacing the 200-foot non-residential use standard with a ground floor building frontage standard,
- clarifying what qualifies as "frontage occupied by a building", and
- other clarifying edits.

Following staff's brief presentation on the draft code amendments, the public may submit written or oral testimony to the Planning Commission.

Public Hearing:

The Planning Commission is scheduled and duly noticed to hold a public hearing this evening to accept public comments regarding proposed draft amendments to EMC Title 18 related to development standards for the TC, C, MUR and BP zoning districts, as directed by the City Council under Interim Zoning Ordinance 25-0676.

ORDINANCE NO. 25-0676

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF EDGEWOOD, WASHINGTON, ADOPTING AN INTERIM ZONING CONTROL ORDINANCE TO AMEND TITLE 18 OF THE EDGEWOOD MUNICIPAL CODE REGARDING NON-RESIDENTIAL DEVELOPMENT WITHIN THE TOWN CENTER, COMMERCIAL, MIXED USE RESIDENTIAL AND BUSINESS PARK ZONING DISTRICTS FOR A PERIOD OF ONE YEAR; ESTABLISHING A DATE FOR A PUBLIC HEARING; DECLARING AN EMERGENCY; PROVIDING FOR SEVERABILITY; AND PROVIDING THAT THE INTERIM REGULATIONS WILL TAKE EFFECT IMMEDIATELY UPON PASSAGE

WHEREAS, the adoption of land use and zoning regulations is a valid exercise of the City's police power and is specifically authorized by Revised Code of Washington (RCW) 35A.63.100; and

WHEREAS, within the express terms of the Growth Management Act, the Washington State Legislature has specifically conferred upon the governing bodies of Washington cities the right to establish and adopt interim development regulations; and

WHEREAS, local project review processes are governed by Chapter 36.70B RCW; and

WHEREAS, the City has experienced a substantial increase in inquiries for single-use residential developments in the Town Center, Commercial, Mixed-Use Residential, and Business Park zoning districts, which are inconsistent with the recently adopted Comprehensive Plan and threaten to permanently alter the intended non-residential character of these zones if not addressed immediately; and

WHEREAS, the City must amend portions of the development code in Title 18 of the Edgewood Municipal Code (EMC) as soon as practical in order to comply with provisions of the recently adopted Comprehensive Plan and preserve frontages in these zones for non-residential development; and

WHEREAS, while the City's Comprehensive Plan was adopted in December 2024, City staff have not yet been able to initiate critical development regulation updates needed to implement the plan due to other state-mandated regulations with imminent deadlines and limited staff availability; and

WHEREAS, the City Council has determined that to adequately preserve said frontages for non-residential development and thoroughly analyze permanent regulations, interim development regulations adopted under the provisions of RCW 36.70A.390 are necessary to allow adequate time for the City to adopt permanent development regulations; and

WHEREAS, failure to adopt interim zoning controls immediately would result in the acceptance and processing of applications under outdated regulations, potentially leading to vested rights that would prevent the City from implementing the Comprehensive Plan's intended land use policies, thereby threatening the long-term economic viability of these zoning districts; and

WHEREAS, the City is authorized under RCW 35A.63.220 and 36.70A.390 to pass an interim zoning and official control ordinance for up to one (1) year if a work plan is developed for related studies providing for such a longer period; and

WHEREAS, City Staff have developed a work plan for related studies and such work plan is specified below; and

WHEREAS, RCW 36.70A.390 authorizes the City Council to adopt an interim zoning control ordinance for one (1) or more six (6) month periods without first holding a public hearing on the proposed interim zoning control ordinance so long as a public hearing is held within at least 60 days after its adoption; and

WHEREAS, the City Council has scheduled a public hearing regarding the adopted interim zoning ordinance on May 13, 2025; and

WHEREAS, the increasing demand for residential development in the City causes an emergency which necessitates that this ordinance become effective immediately in order to preserve the public health, safety, and welfare and also requires action prior to the preparation of a State Environmental Protection Act (SEPA) threshold determination pursuant to WAC 197-11-880; and

WHEREAS, the City Council considered this Ordinance during its regular City Council meeting of March 25, 2025;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF EDGEWOOD, WASHINGTON, HEREBY ORDAINS AS FOLLOWS:

Section 1. Findings Adopted. The "Whereas Clauses" set forth in the recitals of this Ordinance are hereby adopted as the findings and conclusions of the City Council for passing this Ordinance.

Section 2. EMC 18.80.080, Amended. EMC Section 18.80.080, Town Center, Commercial, Mixed Use Residential and Business Park zoning districts, is hereby amended as shown in Exhibit A attached and incorporated by this reference.

Section 3. Duration of Interim Zoning Controls. The interim zoning and official controls approved by this Ordinance shall be effective immediately upon passage of this ordinance and continue in effect for a period of one (1) year, commencing on March 25, 2025, and ending on March 25, 2026, unless extended or modified by City Council or unless a final ordinance is adopted amending the Edgewood Municipal Code before March 25, 2026.

Section 4. Public Hearing. Pursuant to RCW 35A.63.220 and RCW 36.70A.390, the City Council shall hold a public hearing to accept public testimony on this interim ordinance within sixty (60) days of its adoption. The Council shall hold this hearing at Edgewood City Hall on May 13, 2025, at 7:00 pm or as soon as possible thereafter. After the public hearing, the City Council may adopt additional legislative findings in support of this Ordinance and/or otherwise modify the provisions of this Ordinance.

Section 5. Adoption of Work Plan. Within the next six (6) months following the passage of this Ordinance, the Edgewood Planning Commission is hereby directed to review the permanent regulations and to make a recommendation on whether said regulations, or some modification thereof, should be permanently adopted. The Edgewood Planning Commission is directed to complete its review, to conduct such public hearings as may be necessary or desirable, and to forward its recommendation to City Council.

Section 6. Transmittal to Commerce. Pursuant to RCW 36.70A.106, the Community Development Director is hereby directed to transmit this ordinance to the Washington State Department of Commerce for review, as may be required or desired.

Section 7. Corrections. The City Clerk and codifiers of this Ordinance are authorized to make necessary corrections to this ordinance including, but not limited to, the correction of scrivener/clerical errors, references, ordinance numbering, section/subsection numbers for the purposes of codification, and any other references thereto.

Section 8. Severability. If any section, sentence, clause, or phrase of this Ordinance or any municipal code section amended hereby should be held to be unconstitutional or unlawful by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this Ordinance or the amended municipal code section.

Section 9. Effective Date. The City Council hereby finds and declares that without immediate action, single-use residential projects may be vested under existing regulations before necessary zoning amendments can be adopted, permanently altering the intended non-residential character of the Town Center, Commercial, and Business Park zoning districts. The inability to implement these zoning controls before new development applications are processed threatens the City's ability to maintain compliance with its Comprehensive Plan and protect critical commercial corridors, thereby creating an emergency necessitating immediate action. This ordinance shall become effective immediately upon passage by at least a majority plus one of the full City Council. The City Clerk is directed to publish a summary of this ordinance at the earliest possible publication date.

ADOPTED THIS 25TH DAY OF MARCH, 2025.



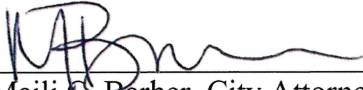
Dave Olson, Mayor

ATTEST/AUTHENTICATED:



Jill Schwerzler-Herrera, CMC
City Clerk

APPROVED AS TO FORM:



Maili C. Barber, City Attorney

Published: March 28, 2025

Effective Date: March 25, 2025

18.80.080 Town Center, Commercial, Mixed Use Residential and Business Park zoning districts.

A. Applicability. This section establishes development standards for the Town Center, Commercial, Mixed Use Residential and Business Park zoning districts. All standards contained in other chapters of the Edgewood Municipal Code shall apply unless specifically modified by the standards contained in this section. Where a conflict exists between code standards, the specific standards contained in this section shall control.

B. Purpose.

1. The Town Center (TC) zoning district is envisioned as the heart of Edgewood, reflecting a unique local character and rural roots. Borrowing from traditional town development patterns and forms, the TC is envisioned as the most walkable area of the city, with a mix of multistory and single-story buildings framing the street and other public spaces. The TC zone accommodates a range of compatible uses emphasizing a variety of vertical and horizontal mixed use development, blending pedestrian-oriented retail, multifamily residential, senior housing and civic uses. The TC zone complements local traffic, bicycle, and pedestrian circulation and provides connectivity to public open spaces.

2. The Commercial (C) zoning district accommodates a wide range of commercial development, including large format retail, auto-oriented uses, and regional scale commercial uses. Development standards seek to balance the needs of the pedestrian with those of the automobile and are flexible to accommodate a wide range of uses and forms. This area provides a visual and functional transition to the Town Center and adjacent zones and assures that there is ample area to accommodate potential economic development opportunities. While commercial development is emphasized, this zone also allows mixed-use development that may combine commercial uses with multifamily housing.

3. The Mixed Use Residential (MUR) zoning district accommodates a range of medium density residential housing types to meet consumer preferences, changing household sizes and market demands. A mix of land uses is allowed including some commercial uses and professional office uses to provide diverse economic development opportunities, while maintaining neighborhood compatibility. This zone provides a visual and functional transition to areas of more intensive development and adjacent residential neighborhoods. Within the Meridian Corridor, achieving a high level of connectivity with streets, pedestrian and bicycle routes both within this district and to the adjoining TC district is a major goal.

4. The Business Park (BP) zoning district accommodates a wide range of employment and commercial uses, including professional office, retail, and light industrial uses, as well as senior housing as a mixed use. Development standards seek to accommodate a wide range of business, while ensuring an urban design that is compatible with adjacent zones. Significant landscaping is emphasized in this zone, both for aesthetic appeal and as a tool to ensure greater compatibility between a wide range of uses. Residential uses are not allowed in the BP zoning district.

C. Permitted Uses. For permitted uses within the Town Center, Commercial, Mixed Use Residential, and Business Park zoning districts see EMC 18.70.050 Table 1, Land Use Table.

D. Development Standards. This subsection establishes the development standards that apply to the zones described. Please note that the provisions below include both minimum and maximum standards, as well as certain standards, such as height and floor area ratio, that may be modified up to the limits stated herein if certain development intensity bonus options elements (as provided for in Table 2) are included in the proposal.

Table 1: Development Standards

Standards	TC	C	MUR	BP
Maximum Height (without Any Bonus)	45 feet	35 feet	35 feet	35 feet
Maximum Height (with FAR Bonus)	57 feet (minimum 3:1 FAR)	45 feet (minimum 1.5:1 FAR)	35 feet	35 feet

Standards	TC	C	MUR	BP
Maximum Residential Net Density (1)(3)(14)	Controlled by maximum height, FAR and building code	48 D.U./acre	48 D.U./acre (1)	N/A
Minimum Residential Net Density (1)(3)	24 D.U./acre	24 D.U./acre	10 D.U./acre	N/A
Minimum Lot Frontage Occupied by a Building	50%	35%	35%	Meridian: 25% Other: None
Minimum Setback to TC, C, MUR or BP Zones (8)	None	None	None (9)	None, except 20 feet for light industrial
Minimum Setbacks to Zones Other Than TC, C, MUR or BP (10)	25 feet	25 feet	20 feet	25 feet
Maximum Floor Area Ratio (FAR) with Bonus Features (11)	4:1	3:1	2:1 (12)	2:1
Maximum Floor Area Ratio (FAR) without Bonus Features (13)	1:1	0.5:1	0.5:1 (12)	0.5:1
Maximum Hard Surface Area (Including Lot Coverage)	90%	85%	75%	80%
Maximum Effective Impervious Surface (14)	75%	70%	60%	65%

Table 1: Development Standards Exceptions and Notes.

(1) New residential uses are not allowed in the Business Park zone. Residential uses are only allowed in the Town Center and Commercial zones if they are part of mixed use project. Maximum Residential Net Density for projects in the Mixed Use Residential zone without a mixed use is 24 D.U./acre.

(2) Reserved

(3) All properties fronting arterial roadways (principal and minor) must develop permissible non-residential uses within 200 feet of said roadway. If part of a mixed use project, a minimum of 50 percent of the building footprint area within 200 feet of said roadway must contain a permissible commercial use, unless otherwise approved by the director to meet the purpose and intent of the underlying zone.

(4) Reserved

(5) Reserved

(6) Reserved

(7) Reserved

(8) Setbacks may be necessary to accommodate utility easements or to accommodate required landscaping.

(9) Setbacks for single-family detached dwellings shall be as follows:

- (a) Front yard/street setback: 15 feet.
- (b) Garage setback: 20 feet.
- (c) Principal arterial and state highway setback: 25 feet.
- (d) Rear yard setback: 10 feet.

(e) Interior setback: five feet or shall meet the minimum fire separation required per the International Fire Code (IFC) as adopted by the city of Edgewood.

(10) Twenty-foot setback required from any public property other than a street. Parks, open space, or stormwater ponds may be reduced or exempt from this requirement as determined by the community development director and public works director. Any reduction or exemption from this requirement must be supported by the City's comprehensive plan and capital improvement plan, as adopted.

(11) See Table 2: Development Intensity Bonus Options necessary to achieve maximum FAR.

(12) FAR does not apply to single-family detached dwelling or cottage housing.

(13) There is no minimum FAR in the TC, C, MUR or BP zones.

(14) Director and city engineer may establish administrative rules for allowing partial credit for pervious paving materials.

The following optional features may be used alone or in combination to increase the allowed height and floor area ratio (FAR) up to the maximum limits identified in Table 1 (subsection (D) of this section). Table 2 below identifies the allowed FAR bonus and any additional requirements pertaining to the described bonus feature.

Table 2: Development Intensity Bonus Options

Bonus Feature	FAR Bonus	Description, Additional Requirements and Limitations
1. Parallel Road Network	1.5	Dedication and construction of those portions of the adopted parallel road network that are within or adjacent to the subject property. Design shall be consistent with the adopted street standards, including, but not limited to, travel lanes, on-street parking, landscaping and sidewalk.
2. Significant Public Plaza or Public Green Space	1.25	Available in the Town Center district only, and at the discretion of the director. Location and design shall be consistent with Town Center and Meridian Avenue Corridor master plan, and, if possible, complementary to any planned public plaza or development. Must be a minimum of five percent of the interior floor area of the development and no less than 1,500 square feet. This bonus must be in addition to any pedestrian-oriented space as required in subsection (F) of this section and EMC 18.95.030 or as required by any underlying land use approval. Plazas and green spaces shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
3. Through Block Connection or Alley Enhancement	1.0	A pedestrian walkway and accompanying landscaping that shall be at least 15 feet wide and extend along a property line or through a site to allow the public to pass from one street to another street or an alley. The surface shall consist of stone, unit pavers, textured concrete, permeable pavement, or other material approved by the community development director or designee, with pedestrian scale lighting at least every 50 feet. Walkways and landscaping shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
4. Mixed Use Development	1.0	Ground floor commercial with minimum of 12 feet in height measured from finished floor to finished ceiling and residential uses on upper floors at or above minimum residential density. Note additional required standards for pedestrian-oriented ground floor commercial in No. 8 below shall also apply.
5. Structure Parking, Below Grade	1.0	At least 80 percent of the parking shall be contained within a structure that is below grade.
6. Affordable Housing	1.0	For all new development within the Town Center, total square footage may be increased by two square feet for every one square foot of affordable housing (for a maximum of 1.0 FAR in bonus) provided an affordable housing plan (AHP) is developed and submitted to the director for review and approval. The developer shall commit to implementing the AHP as a part of a signed comprehensive development

Bonus Feature	FAR Bonus	Description, Additional Requirements and Limitations
		agreement with the city. This agreement shall be reviewed by a housing consultant or nonprofit group at the expense of the applicant with recommendations made to the director prior to any city commitment to that agreement.
7. Other Public Plaza or Public Green Space	0.75	Location and design shall be consistent with Town Center and Meridian Avenue Corridor master plan and any planned public plaza or development. Must be a minimum of two percent of the interior floor area of the development and no less than 500 square feet. This bonus must be in addition to the minimum pedestrian-oriented space requirement in subsection (F) of this section and EMC 18.95.030. Plazas and green spaces shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
8. Ground Floor Pedestrian-Oriented Commercial	0.75	Ground floor commercial with minimum of 12 feet in height measured from finished floor to finished ceiling. Buildings shall include windows with clear vision glass on at least 50 percent of the area between two and 12 feet above grade for all ground floor building facades that are visible from an abutting street. Weather protection with a minimum of six feet in depth shall be provided over sidewalks and pedestrian connections on 80 percent of the length of the building frontage.
9. Structured Parking, At Grade or Above Grade	0.75	At least 80 percent of the parking shall be contained within a structure. The structure may be part of the building or a separate structure. The structure shall be designed to minimize visibility of the parking area from the street. The street level floor shall be mixed use.
10. LEED Gold Certification (or Better)	0.75	As certified by the USGBC. Applicant is responsible for providing LEED precertification submittal documentation and annotated checklist to the city. City will review documentation at the applicant's expense. If accepted, the city will make this a condition of approval of the subsequent building permit.
11. Multi-Modal Pathway	0.5	A pathway for the movement of pedestrians and bicyclists that is consistent with the Town Center and Meridian Avenue Corridor master plan, transportation plan, and city's parks and recreation plan and approved by city staff. Pathways shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
12. Public Meeting Room	0.5	Available in the Town Center district only. A room available to the community for meetings and events. The size shall be a minimum of 500 square feet, with windows on at least one side and shall be directly accessible from the outside or by a controlled lobby that allows public access.
13. LEED Silver Certification	0.5	As certified by the USGBC. Applicant is responsible for providing LEED precertification submittal documentation and annotated checklist to the city. City will review documentation at the applicant's expense. If accepted, the city will make this a condition of approval of the subsequent building permit.
14. Water Feature	0.25	A decorative water feature shall be equivalent to at least one percent of the project's construction cost and shall be directly accessible and visible to the public by being adjacent to a plaza, sidewalk, pathway or through-block connection. Documentation shall be provided of construction value and the cost of the water feature.
15. Exterior Art Element	0.25	Exterior art element shall be equivalent to at least one percent of the total value of the project's construction cost. Such elements include but are not limited to sculptures, bas-reliefs, metalwork and murals. Documentation shall be provided of the construction value and the value of the art as appraised by an art appraiser. Art elements shall be visible to the public at all times and will be reviewed and approved by an arts body designated by the city.

E. Design Standards.

1. Site and Building Design. Site and building design standards shall be required for all development as set forth in Chapter 18.95 EMC. Where the standards in Chapter 18.95 EMC conflict with the standards in this section, the development standards contained in this section shall control.

2. Street Design. Location, design and configuration of all streets shall be in accordance with the adopted street standards contained in EMC Title 12, Streets, Sidewalks and Public Places.

F. Open Space Requirements.

1. **Applicability.** New development within the Town Center (TC), Business Park (BP), Commercial (C), and Mixed Use Residential (MUR) zoning districts shall be required to meet the open space requirements in this subsection.
2. **Numeric Standards.** All new development shall provide accessible public space equivalent to one and one-half percent of the gross floor area of all structures. The design and location of public spaces shall consider the design and location of public spaces on adjacent properties and if feasible shall be oriented and connected to those spaces pursuant to the concepts presented in the Town Center and Meridian Corridor master plan.
3. If it can be demonstrated by the applicant to the satisfaction of the director that a required public space is adjacent to, integrated with and can be accessed from a public space on an adjoining property, this requirement may be reduced to one percent of gross floor area.
4. All required public spaces shall be oriented towards, and have direct connections (both physical and visual) to, a public street.
5. Where public spaces are integrated into new development, or where new development abuts an existing or planned public plaza, the primary building entrance shall be oriented towards or connected to that plaza.

G. Landscaping.

1. **Applicability.** The requirements of EMC 18.90.090 shall apply to the TC, C, MUR and BP zones, except as provided in this subsection. Please also see Chapter 18.95 EMC for applicable design standards. Where landscape regulations in this section conflict with the provisions in EMC 18.90.090 or Chapter 18.95 EMC, the regulations in this subsection shall control. Please note: Where this section is silent on a specific requirement, such as irrigation requirements or minimum standards for plantings, the standards contained in EMC 18.90.090 and 18.95.050 shall apply. The standards contained in EMC 18.90.090(G) (Landscaping Types) are specifically modified by this subsection and the standards contained in EMC 18.90.090(H) (Landscaping Regulations by Zoning Districts) do not apply to TC, C, MUR and BP zones.
2. **Street Frontages.** In addition to landscape standards contained below, five percent of the total area between the building facade and the curb shall be landscaped. Within the BP zoning district 10 percent of the total area between the building facade and curb shall be landscaped. This shall be in addition to street trees and landscaping provided in public spaces and parking lots that are required in other subsections.
 - a. Required landscaping may be planted within planting areas surrounding trees, in raised planters, and on vegetative walls mounted to the ground-level building facade. Landscaping shall incorporate LID systems to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
 - b. Where a building or portion of a building is located more than 10 feet from a public sidewalk or usable public space, all area between the building and the public sidewalk that is not used for vehicle or pedestrian access, circulation, parking or seating shall be landscaped.
 - c. Potted landscape material may be substituted for required landscaping in areas designed for outdoor eating with the approval of the department.
3. **Public Spaces.** A minimum of 15 percent of the total area of a public space, such as a courtyard or plaza, shall be landscaped.
4. **Surface Parking Areas.** Surface parking areas shall be landscaped as set forth in EMC 18.90.090.
5. **Street Frontages.** Street frontage design and landscaping shall be provided as contained in Chapter 18.95 EMC and EMC Title 12, Streets, Sidewalks and Public Places.
6. **Landscape Buffers – Standards and When Required.**
 - a. Development in the TC, C and MUR zoning districts shall provide a minimum 20-foot Type IV landscape buffer where they abut Single-Family zoning districts or 15 feet of Type I landscaping where

they abut Mixed Residential or Public zoning districts. The director may waive or modify this requirement for pedestrian-oriented development adjacent to the Public zoning district where consistent with the purpose of this section.

b. Development in the BP zoning district shall provide a minimum 25-foot Type IV landscape buffer where it abuts Single-Family or Public zoning districts. In addition, 15 feet of Type I landscaping shall be provided between adjacent BP zoned properties.

c. Commercial or light industrial development in the C and MUR zoning districts shall provide a minimum 10-foot-wide Type I landscape buffer adjacent to the TC zoning district. The director may waive this requirement for pedestrian-oriented commercial development that includes a minimum of 50 percent of the lot frontage occupied by a building. Landscaping for surface parking areas shall still apply.

d. A minimum of a 10-foot Type I landscape buffer shall be provided between more intensive zones and the MUR, and along abutting properties in the MUR district. The director may waive or modify this requirement for pedestrian-oriented commercial development that includes a minimum of 50 percent of the lot frontage occupied by a building or for abutting residential development in the MUR zone in common ownership. Required landscaping for surface parking areas is required in accordance with EMC 18.90.090 and Chapter 18.95 EMC.

7. Special Landscaping in the Business Park (BP) Zone. In order to achieve the urban design intent and provide an environment suitable to a wide range of employment uses, a minimum of 20 percent of the total site area in the BP zone shall be landscaped.

8. Tree Preservation and Protection Standards.

a. Significant tree identification and preservation and/or replacement shall be required as set forth in EMC 18.90.180, Tree preservation. Mixed-use development shall be considered commercial development for the purposes of the tree preservation.

b. The director shall have the authority to reduce the required tree replacement ratio where such requirement would conflict with the urban design intent of this section and applicable design provisions of Chapter 18.95 EMC.

c. If the standards contained in Chapter 18.95 EMC are modified, the director shall at a minimum ensure that representative native vegetation is retained or replanted totaling at least five percent of the site area and that such landscaping is provided in excess of the requirements contained in this section.

H. Parking, Access and Circulation.

1. Applicability. Parking facilities and access drives shall be designed in accordance with EMC 18.90.130, except as provided below.

a. Where a conflict exists between the standards contained in EMC 18.90.130 and the standards contained in this section, the standards contained in this section shall control.

b. If this subsection does not specify a parking requirement for a land use, the director shall establish the minimum requirement based on a study of anticipated demand as provided in EMC 18.90.130(C)(8).

2. Purpose. The purpose of this subsection is to provide adequate parking for all allowed uses; to reduce demand for parking by encouraging alternative transportation such as rideshare, public transit, bikes and pedestrian mobility; to promote a “park once and walk” strategy and to ensure the location and design of parking facilities is consistent with urban design and economic development goals.

3. Parking Location.

a. Site design, including parking lot and building location, shall comply with the minimum lot frontage requirements in subsection (D) of this section.

- b. A parking lot shall not be located on a corner where two streets intersect.
- c. Within the TC zone, a parking lot shall not be located between the principal building and the street, adjacent to a park or open space or at a street terminus.
- d. Within the TC zone, parking structures shall contain ground level commercial uses.
- e. Within the C, MUR and BP zones, parking structures that front on a street that are not part of a residential or mixed use building shall contain ground level commercial uses.

4. **Parking Facility Design and Integration.** It is the city's intent to encourage the integration and connection of parking facilities, including shared parking and physical connections between parking facilities in adjoining developments. Applicants shall demonstrate how they meet this objective, including shared parking, or document why it is not feasible to do so. Please see Chapter 18.95 EMC, Design Standards, for additional urban design requirements for parking facilities.

5. **Minimum Parking Requirements.** Except as provided in subsection (H)(9) of this section, off-street parking areas shall contain the minimum number of parking spaces as stipulated in EMC 18.90.130(G). Please note that maximum parking requirements as contained in subsection (H)(10) of this section also apply.

6. **Loading Areas.** Please see EMC 18.90.130(D).

7. **Disabled Parking.** Please see Chapter 19.27 RCW, State Building Code, and Chapter 70.92 RCW, Public Buildings – Provisions for Aged and Disabled.

8. **Bike Parking.** In any development required to provide six or more parking spaces, bicycle parking shall be provided. Bicycle parking shall be bike rack or locker-type facilities unless otherwise specified.

- a. One bicycle parking space shall be provided for every 12 motor vehicle parking spaces, except as follows:
 - i. The director may reduce bike rack parking facilities for patrons when it is demonstrated that bicycle activity will not occur at that location.
 - ii. The director may require additional spaces when it is determined that the use or its location will generate a high volume of bicycle activity. Such a determination shall include but not be limited to the following uses: park, library, museum, school, sports club or retail business located along a developed trail or designated bicycle route.
- b. Bicycle parking shall be located within 100 feet of the principal building and directly adjacent to a sidewalk or pedestrian walkway that connects directly to building entrance(s).
- c. Bicycle frame or wheels to be locked to a structure attached to the pavement.
- d. All bicycle parking and storage shall be located in safe, visible areas that do not impede traffic flow and shall be well lit for nighttime use.
- e. When more than 15 people are employed on site, bicycle storage facilities for employees shall be provided. The director shall allocate the required number of parking spaces between bike rack parking and enclosed locker-type facilities.
- f. One secured bicycle storage space shall be provided for every two dwelling units in attached single-family and multifamily units, unless individual garages are provided for every unit. The director may reduce the number of bike rack parking spaces if indoor storage facilities are available to all residents.

9. **Parking Reductions.** The amount of off-street parking required by subsection (H)(5) of this section may be reduced by an amount determined by the director pursuant to the provisions below.

a. Car Share Parking. Required parking for multifamily residential developments (or the residential portion of mixed use developments) containing more than 30 units may be reduced by three spaces for each one dedicated car share space. A signed agreement between the property owner and car share provider must be submitted for approval of the parking reduction.

b. Shared-Use Parking. Developments may receive a reduction in required parking of up to 20 percent of the minimum parking requirements, provided:

i. The total parking area exceeds 5,000 square feet;

ii. The parking facilities are designed and developed as a single on-site common parking facility, or as a system of on-site and off-site facilities, if all facilities are connected with improved pedestrian facilities and no building or use involved is more than 800 feet from the most remote shared facility;

iii. The total number of parking spaces in the common parking facility is not less than the minimum required spaces for any single use;

iv. The director may increase the reduction where compelling evidence is provided in a parking study submitted by the applicant that the proposed reduction is warranted. See criteria in EMC 18.90.130;

v. A covenant or other contract for shared parking between the cooperating property owners is approved by the director. This covenant or contract must be recorded with the Pierce County auditor's office as a deed restriction on both properties and cannot be modified or revoked without the consent of the director; and

vi. If any requirements for shared parking are violated, the affected property owners must provide a remedy satisfactory to the director or provide the full amount of required off-street parking for each use, in accordance with the requirements of this chapter, unless a satisfactory alternative remedy is approved by the director.

c. Transit Availability. The director may reduce the number of required off-street parking spaces when one or more scheduled transit routes provide service within 750 feet of the site. The amount of the reduction shall be based on the number of scheduled transit runs between 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. each weekday up to a maximum reduction of two percent for each transit run up to a maximum of 20 percent.

10. Maximum Parking Requirements. Please see EMC 18.90.130(G).

11. Transit Facilities. All development shall provide transit facilities as provided in EMC 18.90.130(E)(2).

12. Parking Stall and Aisle Design and Access. Please see EMC 18.90.130(C)(5).

Employment Target Analysis Memo

Jeremy Metzler, Community Development Director, October 16, 2025

As stated on page 195 of 222 in the 2024 Comprehensive Plan: “**In 2022, Edgewood was home to 1,867 jobs**, growing by 56% from 1,195 jobs in 2010. The City has seen fluctuations in employment growth, experiencing several years of declining employment, particularly in the wake of the 2008 recession and the onset of the COVID-19 pandemic in 2020.” Staff is unable to find more recent employment figure(s) due to federal government shutdown, but we estimate the total number of jobs to be **approximately 2,000 in 2025** due to business license activity, recent development, and current economic conditions.

For our employment target, see Table ED-1 in the 2024 Comprehensive Plan:

JURISDICTION	2020 EST. EMPLOYMENT	2044 PROJECTION	CHANGE (#)	CHANGE (%)	AAGR
CITY OF EDGEWOOD	2,244	4,206	1,962	87%	2.7%
PIERCE COUNTY	346,255	487,634	141,379	41%	1.4%

Source: Pierce County Employment Growth Targets, Exhibit A to Ordinance No. 2022-46

This means we will need to create approximately 2,200 jobs over the next 18 years in order to achieve our employment target. Reviewing developer projects that are coming in the pipeline and potential their employment numbers:

Project Name	Anticipated Timing	New Jobs
The Woods Coffee	In Progress	20
Edgewood Memory Care	In Progress	50
Edgewood Heights Phase 3	In Progress	15
Sedona Mixed Use	In Progress	10
Prologis Industrial Park	Environmental Review	1,750
24 th St Mixed Use	Pre-Application	20
Dhaliwal Site	Pre-Application	25
Industrial Zoning East of Prologis	Future – By 2044	750
West Valley Hwy Rezone	Future – By 2044	100
TC Zone Development	Future – By 2044	50
C Zone Development	Future – By 2044	100
MUR Zone Development	Future – By 2044	50
Total Anticipated Jobs		2,940

With the numbers above, staff expects the city to exceed our 2044 employment target by over 700 jobs, assuming there are no new jobs created in the BP Zone. **Therefore, staff recommends lifting the restriction on residential land uses in the BP Zone.**

18.80.080 Town Center, Commercial, Mixed Use Residential and Business Park zoning districts.

A. Applicability. This section establishes development standards for the Town Center, Commercial, Mixed Use Residential and Business Park zoning districts. All standards contained in other chapters of the Edgewood Municipal Code shall apply unless specifically modified by the standards contained in this section. Where a conflict exists between code standards, the specific standards contained in this section shall control.

B. Purpose.

1. The Town Center (TC) zoning district is envisioned as the heart of Edgewood, ~~reflecting a unique a well-~~
~~designed, pedestrian-friendly community center that embodies Edgewood's distinctive~~ local character and rural roots. Borrowing from traditional town development patterns and forms, the TC is envisioned as the most walkable area of the city, with a mix of multistory and single-story buildings framing the street and other public spaces. The TC zone accommodates a range of compatible uses emphasizing a variety of vertical and horizontal mixed use development, ~~blending~~ pedestrian-oriented retail, multifamily residential, senior housing and civic uses. The TC zone complements local traffic, bicycle, and pedestrian circulation and provides connectivity to public open spaces.

2. The Commercial (C) zoning district accommodates a wide range of commercial development, including large format retail, auto-oriented uses, and regional scale commercial uses. Development standards seek to balance the needs of the pedestrian with those of the automobile and are flexible to accommodate a wide range of uses and forms. This area provides a visual and functional transition to the Town Center and adjacent zones and assures that there is ample area to accommodate potential economic development opportunities. While commercial development is emphasized, this zone also allows ~~mixed-use development that may combine commercial uses with~~ multifamily housing ~~with a mix of uses~~.

3. The Mixed Use Residential (MUR) zoning district accommodates a range of medium density residential housing types to meet consumer preferences, changing household sizes and market demands. A mix of land uses is allowed, including ~~some commercial, uses and professional, office and other~~ uses ~~that are not incompatible due to noise, truck traffic, odors, or design / scale of structures to provide diverse economic development opportunities, while maintaining neighborhood compatibility~~. This zone provides a visual and functional transition ~~between residential neighborhoods and to~~ areas of more intensive development ~~and adjacent residential neighborhoods~~. Within the Meridian Corridor, achieving a high level of connectivity with streets, pedestrian and bicycle routes both within this district and to the adjoining TC district is a major goal.

4. The Business Park (BP) zoning district accommodates a wide range of employment and commercial uses, including professional office, senior housing and apartments, light industrial and retail uses, ~~contributing both revenues and jobs to the local economy~~. Development standards seek to accommodate a wide range of business, while ensuring an urban design that is compatible with adjacent zones. Significant landscaping is emphasized in this zone, both for aesthetic appeal and as a tool to ensure greater compatibility between a wide range of uses. ~~While Residential uses are generally, except multifamily, is~~ not allowed in the BP zoning district, ~~townhouses and apartments are permissible near the Interurban Trail~~.

C. Permitted Uses. For permitted uses within the Town Center, Commercial, Mixed Use Residential, and Business Park zoning districts see EMC 18.70.050 Table 1, Land Use Table.

D. Development Standards. This subsection establishes the development standards that apply to the zones described. Please note that the provisions below include both minimum and maximum standards, as well as certain standards, such as height and floor area ratio, that may be modified up to the limits stated herein if certain development intensity bonus options elements (as provided for in Table 2) are included in the proposal.

Table 1: Development Standards

Standards	TC	C	MUR	BP
Maximum Height (without Any Bonus) (1)	45 feet	35 feet	35 feet	35 feet
Maximum Height (with FAR Bonus) (1)	57 feet (minimum 3:1 FAR)	45 feet (minimum 1.5:1 FAR)	35 feet	35 feet
Maximum Residential Net Density—Single-Use Project (3)(5)(14)	48 D.U./acre	N/A (1)	24 D.U./acre	N/A (1)
Maximum Residential Net Density <u>(1)(3)—If Part of a Mixed-Use Project (2)(4)(5)(14)</u>	Controlled by maximum height, FAR and building code	48 D.U./acre	48 D.U./acre	<u>48 D.U./acre</u> N/A (1)
Minimum Residential Net Density <u>(1)(3)(5)(6)</u>	24 D.U./acre	<u>24 D.U./acre</u> N/A (1)	10 D.U./acre	N/A
Minimum <u>Arterial Roadway</u> Lot Frontage Occupied by a Building <u>(27)</u>	50%	35%	35%	<u>Meridian: 25%</u> <u>Other: None</u>
<u>Minimum Ground Floor Building Frontage along Arterial Roadways containing a Non-Residential Use (excluding access to upper floors) (3)</u>	<u>100%</u>	<u>100%</u>	<u>75%</u>	<u>75%</u>
Minimum Setback to TC, C, MUR or BP Zones (8)	None	None	None (9)	None, except 20- feet for light- industrial
Minimum Setbacks to Zones Other Than TC, C, MUR or BP (10)	25 feet	25 feet	20 feet	25 feet
Maximum Floor Area Ratio (FAR) with Bonus Features (11)	4:1	3:1	2:1 (12)	2:1
Maximum Floor Area Ratio (FAR) without Bonus Features (13)	1:1	0.5:1	0.5:1 (12)	0.5:1
Maximum Hard Surface Area (Including Lot Coverage)	90%	85%	75%	80%
Maximum Effective Impervious Surface <u>(14)</u>	75%	70%	60%	65%

Table 1: Development Standards Exceptions and Notes.

- (1) ~~Multifamily use in BP zones requires a CUP and is limited to multifamily as allowed.~~ Residential uses are only allowed in the Town Center and Commercial zones if they are part of mixed use project. Maximum Residential Density for projects in the Mixed Use Residential and Business Park zones without a mixed use is 24 D.U./acre.
- (2) ~~To qualify for mixed use bonus, uses must be developed in same project either as vertical or horizontal mixed use.~~ Buildings must be located within five (5) feet of the public right-of-way, or abutting any existing easement that may require a greater distance, to meet the frontage occupied by a building requirement.
- (3) ~~Residential single use project proposals within the TC, and C zones on combined-project areas three acres or larger, shall set back single use residential structures 150 feet from an arterial ROW line. The setback area shall develop, at minimum, 30 percent of the area into retail or office type commercial uses or preserved for future retail or office type commercial uses. The remaining area within the first 150 feet from an arterial ROW may be developed into residential uses. All properties fronting arterial roadways (principal and minor) must develop permissible non-residential uses within 200 feet of said roadway. If part of a mixed use project, the ground floor building frontage along said roadway must contain a permissible commercial use, unless otherwise approved by the director to meet the purpose and intent of the underlying zone.~~

- (4) ~~Reserved~~ Mixed-use development projects demonstrating a mix (30 percent commercial minimum) of residential and commercial within the same design may be located throughout the property and not limited to any portion of any specific property.
- (5) ~~Reserved~~ Vertical mixed use projects with ground floor commercial space may be constructed as fully residential projects with the requirement that the ground floor must be converted to a commercial use within three years of building occupancy. Notice to title shall be recorded prior to permit issuance if this provision is requested.
- (6) ~~Reserved~~ Minimum density only applies for single use residential projects.
- (7) ~~Reserved~~ For building lots fronting directly on Meridian the minimum lot frontage occupied by a building in all zones is 35 percent.
- (8) ~~S~~ Greater setbacks may be necessary to accommodate utility easements and/or to ~~accommodate~~ required landscaping.
- (9) Setbacks for ~~single family residential~~ detached dwellings in the MUR zone shall be as follows:
 - (a) Front yard/street setback: 15 feet.
 - (b) Garage setback: 20 feet.
 - (c) Principal arterial ~~and state highway~~ setback: 25 feet.
 - (d) Rear yard setback: 10 feet.
 - (e) Interior setback: five feet minimum, or greater if needed to ~~shall~~ meet the minimum fire separation required per the International Fire Code (IFC) as adopted by the city of Edgewood.
- (10) Twenty-foot setback required from any public property other than a street. Parks, open space, or stormwater ponds may be reduced or exempt from this requirement as determined by the community development director and public works director. Any reduction or exemption from this requirement must be supported by the City's comprehensive plan and capital improvement plan, as adopted.
- (11) See Table 2: Development Intensity Bonus Options necessary to achieve maximum FAR.
- (12) FAR does not apply to ~~single family residential~~ detached dwellings or cottage housing in the MUR zone.
- (13) There is no minimum FAR in the TC, C, MUR or BP zones.
- (14) Director and city engineer may establish administrative rules for allowing partial credit for pervious paving materials.

The following optional features may be used alone or in combination to increase the allowed height and floor area ratio (FAR) up to the maximum limits identified in Table 1 (subsection (D) of this section). Table 2 below identifies the allowed FAR bonus and any additional requirements pertaining to the described bonus feature.

Table 2: Development Intensity Bonus Options

Bonus Feature	FAR Bonus	Description, Additional Requirements and Limitations
1. Parallel Road Network	1.5	Dedication and construction of those portions of the adopted parallel road network that are within or adjacent to the subject property. Design shall be consistent with the adopted street standards, including, but not limited to, travel lanes, on-street parking, landscaping and sidewalk.
2. Significant Public Plaza or Public Green Space	1.25	Available in the Town Center district only, and at the discretion of the director. Location and design shall be consistent with Town Center and Meridian Avenue Corridor master plan, and, if possible, complementary to any planned public plaza or development. Must be a minimum of five percent of the interior floor area of the development and no less than 1,500 square feet. This bonus must be in addition to any pedestrian-oriented space as required in subsection (F) of this section and EMC 18.95.030 or as required by any underlying land use approval. Plazas and green spaces shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
3. Through Block Connection or Alley Enhancement	1.0	A pedestrian walkway and accompanying landscaping that shall be at least 15 feet wide and extend along a property line or through a site to allow the public to pass from one street to another street or an alley. The surface shall consist of stone, unit pavers, textured concrete, permeable pavement, or other material approved by the community development director or designee, with pedestrian scale lighting at least every 50 feet. Walkways and landscaping shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
4. Mixed Use Development	1.0	Ground floor commercial with minimum of 12 feet in height measured from finished floor to finished ceiling and residential uses on upper floors at or above minimum residential density. Note additional required standards for pedestrian-oriented ground floor commercial in No. 8 below shall also apply.
5. Structure Parking, Below Grade	1.0	At least 80 percent of the parking shall be contained within a structure that is below grade.
6. Affordable Housing	1.0	For all new development within the Town Center, total square footage may be increased by two square feet for every one square foot of affordable housing (for a maximum of 1.0 FAR in bonus) provided an affordable housing plan (AHP) is developed and submitted to the director for review and approval. The developer shall commit to implementing the AHP as a part of a signed comprehensive development agreement with the city. This agreement shall be reviewed by a housing consultant or nonprofit group at the expense of the applicant with recommendations made to the director prior to any city commitment to that agreement.
7. Other Public Plaza or Public Green Space	0.75	Location and design shall be consistent with Town Center and Meridian Avenue Corridor master plan and any planned public plaza or development. Must be a minimum of two percent of the interior floor area of the development and no less than 500 square feet. This bonus must be in addition to the minimum pedestrian-oriented space requirement in subsection (F) of this section and EMC 18.95.030. Plazas and green spaces shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
8. Ground Floor Pedestrian-Oriented Commercial	0.75	Ground floor commercial with minimum of 12 feet in height measured from finished floor to finished ceiling. Buildings shall include windows with clear vision glass on at least 50 percent of the area between two and 12 feet above grade for all ground floor building facades that are visible from an abutting street. Weather protection with a minimum of six feet in depth shall be provided over sidewalks and pedestrian connections on 80 percent of the length of the building frontage. This bonus feature may not be used in conjunction with No. 3 above.
9. Structured Parking, At Grade or Above Grade	0.75	At least 80 percent of the parking shall be contained within a structure. The structure may be part of the building or a separate structure. The structure shall be designed to minimize visibility of the parking area from the street. The street level floor shall be mixed use.
10. LEED Gold Certification (or Better)	0.75	As certified by the USGBC. Applicant is responsible for providing LEED precertification submittal documentation and annotated checklist to the city. City will review documentation at the applicant's expense. If accepted, the city will make this a condition of approval of the subsequent building permit.
11. Multi-Modal Pathway	0.5	A pathway for the movement of pedestrians and bicyclists that is consistent with the Town Center and Meridian Avenue Corridor master plan, transportation plan, and

Bonus Feature	FAR Bonus	Description, Additional Requirements and Limitations
		city's parks and recreation plan and approved by city staff. Pathways shall incorporate LID to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).
12. Public Meeting Room	0.5	Available in the Town Center district only. A room available to the community for meetings and events. The size shall be a minimum of 500 square feet, with windows on at least one side and shall be directly accessible from the outside or by a controlled lobby that allows public access.
13. LEED Silver Certification	0.5	As certified by the USGBC. Applicant is responsible for providing LEED precertification submittal documentation and annotated checklist to the city. City will review documentation at the applicant's expense. If accepted, the city will make this a condition of approval of the subsequent building permit.
14. Water Feature	0.25	A decorative water feature shall be equivalent to at least one percent of the project's construction cost and shall be directly accessible and visible to the public by being adjacent to a plaza, sidewalk, pathway or through-block connection. Documentation shall be provided of construction value and the cost of the water feature.
15. Exterior Art Element	0.25	Exterior art element shall be equivalent to at least one percent of the total value of the project's construction cost. Such elements include but are not limited to sculptures, bas-reliefs, metalwork and murals. Documentation shall be provided of the construction value and the value of the art as appraised by an art appraiser. Art elements shall be visible to the public at all times and will be reviewed and approved by an arts body designated by the city.

E. Design Standards.

1. Site and Building Design. Site and building design standards shall be required for all development as set forth in Chapter 18.95 EMC. Where the standards in Chapter 18.95 EMC conflict with the standards in this section, the development standards contained in this section shall control.
2. Street Design. Location, design and configuration of all streets shall be in accordance with the adopted street standards contained in EMC Title 12, Streets, Sidewalks and Public Places.

F. Open Space Requirements.

1. Applicability. New development within the Town Center (TC), Business Park (BP), Commercial (C), and Mixed Use Residential (MUR) zoning districts shall be required to meet the open space requirements in this subsection.
2. Numeric Standards. All new development shall provide accessible public space equivalent to one and one-half percent of the gross floor area of all structures. The design and location of public spaces shall consider the design and location of public spaces on adjacent properties and if feasible shall be oriented and connected to those spaces pursuant to the concepts presented in the Town Center and Meridian Corridor master plan.
3. If it can be demonstrated by the applicant to the satisfaction of the director that a required public space is adjacent to, integrated with and can be accessed from a public space on an adjoining property, this requirement may be reduced to one percent of gross floor area.
4. All required public spaces shall be oriented towards, and have direct connections (both physical and visual) to, a public street.
5. Where public spaces are integrated into new development, or where new development abuts an existing or planned public plaza, the primary building entrance shall be oriented towards or connected to that plaza.

G. Landscaping.

1. Applicability. The requirements of EMC 18.90.090 shall apply to the TC, C, MUR and BP zones, except as provided in this subsection. Please also see Chapter 18.95 EMC for applicable design standards. Where landscape regulations in this section conflict with the provisions in EMC 18.90.090 or Chapter 18.95 EMC, the regulations in this subsection shall control. Please note: Where this section is silent on a specific requirement,

such as irrigation requirements or minimum standards for plantings, the standards contained in EMC 18.90.090 and 18.95.050 shall apply. The standards contained in EMC 18.90.090(G) (Landscaping Types) are specifically modified by this subsection and the standards contained in EMC 18.90.090(H) (Landscaping Regulations by Zoning Districts) do not apply to TC, C, MUR and BP zones.

2. Street Frontages. In addition to landscape standards contained below, five percent of the total area between the building facade and the curb shall be landscaped. Within the BP zoning district 10 percent of the total area between the building facade and curb shall be landscaped. This shall be in addition to street trees and landscaping provided in public spaces and parking lots that are required in other subsections.

a. Required landscaping may be planted within planting areas surrounding trees, in raised planters, and on vegetative walls mounted to the ground-level building facade. Landscaping shall incorporate LID systems to the maximum extent feasible (per Minimum Requirement No. 5 of the PCM).

b. Where a building or portion of a building is located more than 10 feet from a public sidewalk or usable public space, all area between the building and the public sidewalk that is not used for vehicle or pedestrian access, circulation, parking or seating shall be landscaped.

c. Potted landscape material may be substituted for required landscaping in areas designed for outdoor eating with the approval of the department.

3. Public Spaces. A minimum of 15 percent of the total area of a public space, such as a courtyard or plaza, shall be landscaped.

4. Surface Parking Areas. Surface parking areas shall be landscaped as set forth in EMC 18.90.090.

5. Street Frontages. Street frontage design and landscaping shall be provided as contained in Chapter 18.95 EMC and EMC Title 12, Streets, Sidewalks and Public Places.

6. Landscape Buffers – Standards and When Required.

a. Development in the TC, C and MUR zoning districts shall provide a minimum 20-foot Type IV landscape buffer where they abut Single-Family zoning districts or 15 feet of Type I landscaping where they abut Mixed Residential or Public zoning districts. The director may waive or modify this requirement for pedestrian-oriented development adjacent to the Public zoning district where consistent with the purpose of this section.

b. Development in the BP zoning district shall provide a minimum 25-foot Type IV landscape buffer where it abuts Single-Family or Public zoning districts. In addition, 15 feet of Type I landscaping shall be provided between adjacent BP zoned properties.

c. Commercial or light industrial development in the C and MUR zoning districts shall provide a minimum 10-foot-wide Type I landscape buffer adjacent to the TC zoning district. The director may waive this requirement for pedestrian-oriented commercial development that includes a minimum of 50 percent of the lot frontage occupied by a building. Landscaping for surface parking areas shall still apply.

d. A minimum of a 10-foot Type I landscape buffer shall be provided between more intensive zones and the MUR, and along abutting properties in the MUR district. The director may waive or modify this requirement for pedestrian-oriented commercial development that includes a minimum of 50 percent of the lot frontage occupied by a building or for abutting residential development in the MUR zone in common ownership. Required landscaping for surface parking areas is required in accordance with EMC 18.90.090 and Chapter 18.95 EMC.

7. Special Landscaping in the Business Park (BP) Zone. In order to achieve the urban design intent and provide an environment suitable to a wide range of employment uses, a minimum of 20 percent of the total site area in the BP zone shall be landscaped.

8. Tree Preservation and Protection Standards.

- a. Significant tree identification and preservation and/or replacement shall be required as set forth in EMC 18.90.180, Tree preservation. Mixed-use development shall be considered commercial development for the purposes of the tree preservation.
- b. The director shall have the authority to reduce the required tree replacement ratio where such requirement would conflict with the urban design intent of this section and applicable design provisions of Chapter 18.95 EMC.
- c. If the standards contained in Chapter 18.95 EMC are modified, the director shall at a minimum ensure that representative native vegetation is retained or replanted totaling at least five percent of the site area and that such landscaping is provided in excess of the requirements contained in this section.

H. Parking, Access and Circulation.

1. Applicability. Parking facilities and access drives shall be designed in accordance with EMC 18.90.130, except as provided below.
 - a. Where a conflict exists between the standards contained in EMC 18.90.130 and the standards contained in this section, the standards contained in this section shall control.
 - b. If this subsection does not specify a parking requirement for a land use, the director shall establish the minimum requirement based on a study of anticipated demand as provided in EMC 18.90.130(C)(8).
2. Purpose. The purpose of this subsection is to provide adequate parking for all allowed uses; to reduce demand for parking by encouraging alternative transportation such as rideshare, public transit, bikes and pedestrian mobility; to promote a “park once and walk” strategy and to ensure the location and design of parking facilities is consistent with urban design and economic development goals.
3. Parking Location.
 - a. Site design, including parking lot and building location, shall comply with the minimum lot frontage requirements in subsection (D) of this section.
 - b. A parking lot shall not be located on a corner where two streets intersect.
 - c. Within the TC zone, a parking lot shall not be located between the principal building and the street, adjacent to a park or open space or at a street terminus.
 - d. Within the TC zone, parking structures shall contain ground level commercial uses.
 - e. Within the C, MUR and BP zones, parking structures that front on a street that are not part of a residential or mixed use building shall contain ground level commercial uses.
4. Parking Facility Design and Integration. It is the city’s intent to encourage the integration and connection of parking facilities, including shared parking and physical connections between parking facilities in adjoining developments. Applicants shall demonstrate how they meet this objective, including shared parking, or document why it is not feasible to do so. Please see Chapter 18.95 EMC, Design Standards, for additional urban design requirements for parking facilities.
5. Minimum Parking Requirements. Except as provided in subsection (H)(9) of this section, off-street parking areas shall contain the minimum number of parking spaces as stipulated in EMC 18.90.130(G). Please note that maximum parking requirements as contained in subsection (H)(10) of this section also apply.
6. Loading Areas. Please see EMC 18.90.130(D).
7. Disabled Parking. Please see Chapter 19.27 RCW, State Building Code, and Chapter 70.92 RCW, Public Buildings – Provisions for Aged and Disabled.

8. Bike Parking. In any development required to provide six or more parking spaces, bicycle parking shall be provided. Bicycle parking shall be bike rack or locker-type facilities unless otherwise specified.

- a. One bicycle parking space shall be provided for every 12 motor vehicle parking spaces, except as follows:
 - i. The director may reduce bike rack parking facilities for patrons when it is demonstrated that bicycle activity will not occur at that location.
 - ii. The director may require additional spaces when it is determined that the use or its location will generate a high volume of bicycle activity. Such a determination shall include but not be limited to the following uses: park, library, museum, school, sports club or retail business located along a developed trail or designated bicycle route.
- b. Bicycle parking shall be located within 100 feet of the principal building and directly adjacent to a sidewalk or pedestrian walkway that connects directly to building entrance(s).
- c. Bicycle frame or wheels to be locked to a structure attached to the pavement.
- d. All bicycle parking and storage shall be located in safe, visible areas that do not impede traffic flow and shall be well lit for nighttime use.
- e. When more than 15 people are employed on site, bicycle storage facilities for employees shall be provided. The director shall allocate the required number of parking spaces between bike rack parking and enclosed locker-type facilities.
- f. One secured bicycle storage space shall be provided for every two dwelling units in attached single-family and multifamily units, unless individual garages are provided for every unit. The director may reduce the number of bike rack parking spaces if indoor storage facilities are available to all residents.

9. Parking Reductions. The amount of off-street parking required by subsection (H)(5) of this section may be reduced by an amount determined by the director pursuant to the provisions below.

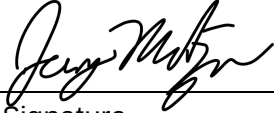
- a. Car Share Parking. Required parking for multifamily residential developments (or the residential portion of mixed use developments) containing more than 30 units may be reduced by three spaces for each one dedicated car share space. A signed agreement between the property owner and car share provider must be submitted for approval of the parking reduction.
- b. Shared-Use Parking. Developments may receive a reduction in required parking of up to 20 percent of the minimum parking requirements, provided:
 - i. The total parking area exceeds 5,000 square feet;
 - ii. The parking facilities are designed and developed as a single on-site common parking facility, or as a system of on-site and off-site facilities, if all facilities are connected with improved pedestrian facilities and no building or use involved is more than 800 feet from the most remote shared facility;
 - iii. The total number of parking spaces in the common parking facility is not less than the minimum required spaces for any single use;
 - iv. The director may increase the reduction where compelling evidence is provided in a parking study submitted by the applicant that the proposed reduction is warranted. See criteria in EMC 18.90.130;
 - v. A covenant or other contract for shared parking between the cooperating property owners is approved by the director. This covenant or contract must be recorded with the Pierce County auditor's office as a deed restriction on both properties and cannot be modified or revoked without the consent of the director; and

- vi. If any requirements for shared parking are violated, the affected property owners must provide a remedy satisfactory to the director or provide the full amount of required off-street parking for each use, in accordance with the requirements of this chapter, unless a satisfactory alternative remedy is approved by the director.
 - c. Transit Availability. The director may reduce the number of required off-street parking spaces when one or more scheduled transit routes provide service within 750 feet of the site. The amount of the reduction shall be based on the number of scheduled transit runs between 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m. each weekday up to a maximum reduction of two percent for each transit run up to a maximum of 20 percent.
10. Maximum Parking Requirements. Please see EMC 18.90.130(G).
11. Transit Facilities. All development shall provide transit facilities as provided in EMC 18.90.130(E)(2).
12. Parking Stall and Aisle Design and Access. Please see EMC 18.90.130(C)(5).



State Environmental Policy Act (SEPA) Determination of Nonsignificance (DNS)

City of Edgewood ■ 10440 Dom Calata Way E ■ Edgewood, Washington 98372-1513 ■ 253-952-3299

Issued:	October 24, 2025
File:	#25-015-CODE: EMC 18.80.080(D) Zoning Regulation Amendments
Lead Agency:	City of Edgewood
Staff Contact:	Josh Kubitza, Planning Manager 253-952-3299 comdev@cityofedgewood.org
Proponent:	City of Edgewood 253-952-3299 cityhall@cityofedgewood.org
Location:	Non-Project Action (Citywide).
Proposal:	Development regulation amendments to Edgewood Municipal Code (EMC) 18.80.080(D).
Existing Documents:	All existing environmental documents and studies associated with this proposal are available on the City of Edgewood Permit Portal via portal.cityofedgewood.org by searching the File No. 25-015-CODE.
SEPA:	The City of Edgewood has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of an Environmental Checklist and other information on file with the City. This DNS is issued under WAC 197-11-340(2). A final decision will not be made on this proposal until after December 23, 2025. SEPA Responsible Official:  10/21/2025 SignatureDate Jeremy Metzler, PE, Community Development Director
Comment Period:	Written comments may be submitted until November 10, 2025 by 5:00 PM via email, mail, or in-person via comdev@cityofedgewood.org or City of Edgewood, 10440 Dom Calata Way E, Edgewood, WA 98372. Verbal comments may be submitted during the Planning Commission public hearing.
Public Hearing:	The City of Edgewood Planning Commission will convene a hybrid public hearing on the matter at 6:00pm on November 10, 2025. Members of the public can attend and participate in person at Edgewood City Hall, Council Chambers, 10440 Dom Calata Way E, Edgewood, WA 98372 or virtually via Zoom by visiting zoom.us/join using Meeting ID: 970 6596 9184. Meeting information is available at cityofedgewood.org/calendar .
Appeals:	Appeals for this threshold determination must be made to the City of Edgewood pursuant to EMC 20.05.250(J). Per EMC 20.05.250(E) appeals will be accepted until 5:00 PM on November 26, 2025. Appeals must be submitted in writing along with the appeal fee via the City's permit portal: portal.cityofedgewood.org .



CITY OF EDGEWOOD STAFF REPORT PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: Public Hearing – Public Works Standards and Code Updates

Attachments:

- Attachment A – DRAFT Public Works Standards
- Attachment B – DRAFT Public Works Detail Drawings
- Attachment C – DRAFT New EMC Chapter 12.02
- Attachment D – DRAFT New EMC Chapter 12.05
- Attachment E – DRAFT Redlined EMC Chapter 12.12
- Attachment F – DRAFT Redlined EMC Chapter 13.05
- Attachment G – State Environmental Policy Act (SEPA) Determination

Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

Staff has been working to develop local Public Works Standards with the Planning Commission (PC) since early 2021, summarized as follows:

- [February 8, 2021](#): Review of Edgewood Municipal Code (EMC) and Pierce County Code (PCC) for consistency with Comprehensive Plan Goals and Policies, determination to adopt local standards
- [March 8, 2021](#): Direction to remove the exemption for two (2) lot short plats, establish a “Fee-in-lieu-of” sidewalk construction program, and explore all opportunities to simplify requirements. Also identifying specific elements to address in Standard Drawings and Details.
- [April 12, 2021](#): Discussion regarding specific roadway / streetscape elements and formal recommendation on street lighting standards.
- [June 13, 2022](#): Confirming continued interest in a “Fee-in-lieu-of” sidewalk construction program and discussion about overhead-to-underground utility conversion.

While staff continued work with the city’s consultant to prepare draft documents following these meetings with the PC, there has been very little work performed on this since 2023 for several reasons, including but not limited to the need to focus on the General Sewer Plan and Comprehensive Plan Updates.

Staff currently must cross-reference EMC with the standards and processes contained in PCC, adopted by reference. The intent of the proposed code amendments is to incorporate design requirements and permit processes into EMC, adopting a new Public Works Standards document with localized Detail Drawings. These draft documents incorporate several of the recommendations of the PC made since 2021, including when frontage improvements are required, specific roadway / streetscape design elements, street lighting standards, and requirements for overhead-to-underground utility conversion. Please note that a “Fee-in-lieu-of” sidewalk construction program has not been incorporated into these

draft documents, but staff will continue to work on a policy to enable such a program as time and resources allow.

Finally, staff has worked with the PC since the adoption of the 2024 Comprehensive Plan Periodic Update to implement new goals and policies by updating the sanitary sewer code, EMC Title 11, with a formal recommendation by the PC to the City Council in August 2025. Since then, staff coordinated technical review of that draft code with each receiving jurisdiction, and there has been consistent support for moving the design requirements into the Draft Public Works Standards document. The attached Draft Public Works Standards also include that information, and any redundancies will be removed from the draft sanitary sewer code prior to further consideration by the City Council.

Tentative Schedule:

October 13, 2025 – Planning Commission Introduction (COMPLETE)

October 26, 2025 – SEPA Issuance and Comment Period (COMPLETE)

November 10, 2025 – Planning Commission Public Hearing

December 8, 2025 – Planning Commission Recommendation

December 16, 2025 – City Council Study Session Introduction

December 23, 2025 – City Council Regular Meeting and Potential Action

Current Discussion:

This is the Planning Commission Public Hearing for the draft Public Works Standards and associated code amendments. Following staff's brief presentation on the draft documents, the public may submit written or oral testimony to the Planning Commission.

Public Hearing:

The Planning Commission is scheduled and duly noticed to hold a public hearing this evening to accept public comments regarding the proposed draft Public Works Standards and associated amendments to EMC Titles 12 and 13.



PUBLIC WORKS STANDARDS

DRAFT OCTOBER 2025



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ACRONYMS

Please see EMC 13.05.020, EMC 18.20 and the Pierce County Stormwater Management and Site Development Manual (PCM) for additional terms not listed below

AASHTO	American Association of State Highway and Transportation Officials
AADT	Annual Average Daily Traffic
ADA	Americans with Disabilities Act
ADT	average daily traffic
APWA	American Public Works Association
BMPs	Best Management Practices
DCDA	double check detector assembly
DCVA	double check valve (backflow prevention) assembly
DI	ductile iron
DNR	Department of Natural Resources
DOE	Washington State Department of Ecology
EMC	Edgewood Municipal Code
ESD	entering sight distance
FOG	Fats, Oils, and Grease
FHWA	Federal Highway Administration
FPS	feet per second
GSP	General Special Provision
HDPE	high density polyethylene
HPA	Hydraulic Project Approval
ID	inside diameter
IE	invert elevation
ITE	Institute of Transportation Engineers
LAG	<i>WSDOT Local Agency Guidelines</i>
LID	Low Impact Development
LOS	Level-of-service
MJ	mechanical joint
MPH	Miles Per Hour
MUTCD	<i>Manual on Uniform Traffic Control Devices</i>
NAD	North American Datum
NGVD	national geodetic vertical datum
NST	National Standard Thread
PC	point of curvature
PHD	Peak Hour Demand
psi	pounds per square inch
PT	point of tangency
PVC	polyvinyl chloride
RCW	Revised Code of Washington
RPBA	reduced pressure principal backflow prevention assembly
RPDA	reduced pressure principal detector backflow prevention assembly
SDR	standard dimension ratio

SSD	Stopping Sight Distance
TDH	total dynamic head
TESC	Temporary Erosion and Sedimentation Control
TMDL	Total Maximum Daily Load
TWLTL	Two-Way Left-turn Lane
WB	wheelbase
WSDOH	Washington State Department of Health
WSDOT	Washington State Department of Transportation

GLOSSARY OF TERMS

Please see EMC 13.05.020, EMC 18.20 and the Pierce County Stormwater Management and Site Development Manual (PCM) for additional terms not listed below

AASHTO Green Book – A Policy on Geometric Design of Highways and Streets.

Access Improvement – Any improvement which is required to provide access to a proposed development.

Access Plan – A site plan that identifies the location of any proposed access improvement(s), prepared in accordance with these standards.

As-Built Drawings – The plan set that is certified to contain a true and accurate representation of the actual field conditions for the project, based upon topographic and/or planimetric survey, upon completion of construction.

Average Daily Traffic (ADT) – The general unit of measure for traffic defined as the total volume during a given time period (in whole days), greater than one day and less than 1 year, divided by the number of days in that time period.

Breakaway Design – A structure or installation that has been crash tested in accordance with National Cooperative Highway Research Program (NCHRP) procedures. (NCHRP 230).

Buffer – The space between the edge of the pavement, or the back of the curb where curbing exists, and the sidewalk.

Capacity – For the Traveled Way, this is the maximum number of vehicles that have a reasonable expectation of passing over a given roadway or section of roadway during a given time period under prevailing roadway and traffic conditions. Otherwise, this is the recommended maximum quantity or rate for a public works infrastructure component, such as a pipe, swale, trail, sidewalk.

Centerline – The line, marked or unmarked, parallel to and equidistant from the sides of a two-way traffic roadway except where otherwise indicated by painted lines or markers.

Channelization – The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands or other suitable means to facilitate the safe and orderly movement of both vehicles and pedestrians.

City Engineer – The City Engineer of the City of Edgewood. All references in these Standards regarding approvals or actions by the City Engineer shall also include any person so designated by the City Engineer to perform the same.

Clear Zone – The clear zone is that area starting at the edge of the traveled lane that is available for safe use by errant vehicles. The available clear zone is the distance, measured normal to the roadway beginning at the edge of the traveled lane to the closest part of any fixed object or non-traversable obstacles.

Connectivity – The density of connections in path or road network and the directness of links and includes a system of streets with multiple routes and connections serving the same origins and destinations. Connectivity can apply both internally (streets within that area) and externally (connections with arterials and other neighborhoods).

Cul-de-sac – Road having one end open to traffic and ending with a vehicle turnaround, either permanent or temporary.

Design Speed – A speed determined for design and correlation of the physical and geometric features of a roadway that influence vehicle operation; the maximum safe speed maintainable over a specified section of road when conditions permit design features to govern. For the purposes of these standards, when design records are not available, the design speed is assumed to be five (5) MPH greater than the posted speed limit.

Driving Surface – That portion of a road, parking lot, driveway, driveway approach, or other driving surface that is used for the movement of vehicles.

Driveway Approach – A vehicle driving surface that provides a transition between a road and a driveway, to be maintained by the owner of the property(ies) being served by said driveway.

Engineer of Record – The engineer responsible for the preparation of plans and specifications, used to obtain a permit from the City, as identified by his/her signed professional seal affixed to the same.

Entering Sight Distance – The sight distance required for a vehicle at a stopped position, when situated on the minor road or driveway approach, to view an oncoming vehicle traveling at the design speed on the major road and appearing after the movement has begun, to enter or cross the major road without causing the oncoming vehicle to brake or otherwise reduce their speed.

Geometrics – The arrangement of visible elements of a road such as alignment, grade, site distance, widths, and slope.

Grade – Rate or percent of slope, either ascending or descending from or along the roadway. It is typically measured along the centerline of the roadway.

Island – A defined area between traffic lanes for control of vehicle movements and/or for pedestrian refuge.

Low Volume Road – A collector or lower classified road with an ADT of less than 400.

Median – That portion of a divided roadway separating the traveled ways for traffic in opposite directions.

New Construction – Construction of a new roadway or structure on substantially new alignment, or the upgrading of an existing roadway or structure by the addition of one or more through traffic lanes.

Passing Sight Distance – The minimum sight distance required for the driver of one vehicle to pass another vehicle in accordance with the AASHTO Green Book.

Posted Speed – The speed limit actually signed along the roadway.

Private Road – A roadway facility in private ownership providing private access and used for travel of vehicles by the owner(s) or those having express or implied permission from the owner(s), but not by other persons.

Proponent – Any person, firm, partnership, association, joint venture or corporation or any other entity who undertakes or proposes to undertake the construction, reconstruction, rehabilitation, or other improvement of a public or private road.

Reconstruction – A reconstruction project that involves major construction activity in excess of resurfacing, restoration, and rehabilitation of existing roadways. Reconstruction includes significant changes in cross-section and/or vertical or horizontal alignment. Reconstruction may require acquisition of additional right-of-way, and may include all items or work usually associated with new construction.

Record Drawings – The plan set that is certified to contain a true and accurate representation of the actual field conditions for the project, containing data derived from topographic and/or planimetric survey, for use during construction.

Rehabilitation – Similar to “Restoration” except the work may include reworking or strengthening the base or subbase, recycling or reworking existing materials to improve their structural integrity, adding underdrains, improving or widening shoulders. Rehabilitation may include acquisition of additional right-of-way.

Restoration – Work performed on pavement or bridge decks to render them suitable for resurfacing. This may include supplementing the existing roadway by increasing surfacing and paving courses to provide structural capability and widening up to a total of 10 feet. Restoration will generally be performed within the existing right-of-way.

Resurfacing – The addition of a layer or layers of paving material to provide additional structural integrity, improved serviceability, and rideability.

Road/Roadway – “Road” or “roadway” means an open private or public way for the passage of motor vehicles, that where appropriate, may include pedestrian, equestrian, and bicycle facilities. Elements of a road/roadway typically include, but are not limited

to; traveled way, sidewalks, curbing, paths, walkways, shoulders, ditches, culverts, conveyance piping, retaining walls, and slopes necessary for structural stability.

Road Plans – A set of construction drawings and related documents that completely describe the work to be accomplished, along with all needed supporting documents, maps, calculations, graphs, etc., prepared by a professional civil engineer licensed in the State of Washington.

Single-Family Residential Lot – a single parcel of land with one housing structure, and appurtenant buildings, used to house one family.

Special Provisions – Specifications, specific to a particular project, that supplement the Standard Specifications.

Standard Specifications – The most current edition of the *“Standard Specifications for Road, Bridge, and Municipal Construction”* published by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association.

Stopping Sight Distance – The length of roadway ahead visible to the driver that would enable the vehicle traveling at the design speed to stop before reaching a stationary object in its path.

Surveyor – A professional land surveyor licensed by the State of Washington.

Traveled Way – That portion of the roadway used for the movement of vehicles exclusive of the portion of the roadway width which is used, or available for parking of vehicles.

CHAPTER 1

GENERAL CONDITIONS AND REQUIREMENTS

1.1 GENERAL

These are general conditions and requirements for all permitted improvements or extensions of infrastructure located within the City of Edgewood, be it public or private.

The City hereby adopts the Edgewood Public Works Standards and all codes, standards, and provisions cited therein by **Ordinance XXXX effective on XX, 2026**. The City of Edgewood Public Works Standards may be amended or modified by the Public Works Director to accommodate non-policy related standards. Amendments or modification to policy related standards will be reviewed and adopted by the City Council on an as-needed basis.

1.2 SCOPE OF WORK

1.2.1 GENERAL

The requirements outlined in the WSDOT Standard Specification Section 1-04 apply in this section, except that for all public infrastructure the term “Engineer” shall be replaced by “City Engineer”, and for all private infrastructure the term “Engineer” shall be replaced by “Engineer of Record”.

1.2.2 RESPONSIBILITY OF OWNER/DEVELOPER/CONTRACTOR

The terms “Owner,” “Developer,” “Contractor,” and “Permittee” are used repeatedly throughout these Public Works Standards and WSDOT Standard Specifications. When used, said terms are meant to reference the individual or organization responsible for completing the work as specified, and therefore said terms should be considered interchangeable depending on context to meet the intent of the language therein.

The Developer is responsible for completing all work and improvements in full compliance with the approved plans and specifications, including the current edition of WSDOT Standard Specifications and these Public Works Standards. The Developer shall furnish all labor, materials, tools, equipment, transportation, necessary supplies, and incidentals required to complete all items as documented by said plans and specifications. Any deviation from these requirements must be approved in writing by the City Engineer.

The Developer shall be responsible for all engineering design, studies, submittals, permits, etc., necessary to obtain City Engineer approval of construction plans and necessary permit(s) prior to the start of construction.

1.2.3 ADDITIONAL INSTRUCTIONS OR CHANGES

If contract documents are not sufficiently clear to permit the Developer to proceed with the work, the Developer shall, either upon his/her own initiative or upon the request from the Public Works Department, furnish additional plans from the Engineer of Record as may be necessary to complete the work. When such request is made, the changes must be reviewed and approved by the City Engineer before construction of the work.

Such additional instructions and plans shall be consistent with the contract documents and, once approved by the City Engineer, shall have the same force and effect as if contained in the original contract documents.

1.3 CONTROL OF WORK

1.3.1 GENERAL

The requirements outlined in WSDOT Standard Specification Section 1-05 apply in this section, except that “Engineer” shall be replaced by “City Engineer” for all work.

1.3.2 AUTHORITY OF THE PUBLIC WORKS DEPARTMENT

It is understood and agreed by and between the parties that the work included in the approved plans shall be completed to the satisfaction of the City Engineer. All decisions made by the City Engineer in relation to the true meaning of the plans, specifications, and estimates, and as to all questions arising as to proper performance of the work, shall be final.

The City Engineer shall decide any and all questions that may arise as to the quality or acceptability of materials furnished and work performed, and as to the rate of progress of the work. Questions concerning acceptable fulfillment and performance of the improvements on the part of the Developer shall be answered by the City Engineer.

1.3.3 COOPERATION BY CONTRACTOR/DEVELOPER

A physical set of approved plans, specifications, permits, and any special provisions and authorized alterations shall be on the job site at all times. The Developer or his/her duly authorized representative shall be at the job site continually during progress of the job. The Developer shall request explanations or design clarification as necessary from the Engineer of Record to allow the satisfactory performance and completion of the work. The Developer shall not cause any unnecessary delay or hindrance to other contractors on adjacent work, but shall be required to cooperate with other contractors to the fullest extent.

1.3.4 CONFORMITY WITH PLANS AND SPECIFICATIONS

The City Engineer shall have final say in all deviations from the plans prior to implementation.

The work shall be done in strict conformity with the approved plans and specifications and according to such necessary instructions as may be given by the City Engineer. The Contractor shall protect and preserve, in the original position, all survey stakes, points, or marks set for the work in order to allow proper inspection.

Any change required to the approved plans shall be prepared by the Engineer of Record and submitted to the City Engineer for review and approval. Work not in conformance with the approved plans shall be removed and installed per Plan as required by and to the satisfaction of the City Engineer.

1.3.5 REMOVAL OF DEFECTIVE OR UNAUTHORIZED WORK

The City Engineer may condemn defective work or materials any time before the final acceptance of the work. Such condemned work shall be immediately removed or disposed of to the satisfaction of the City Engineer. Failure or neglect on the part of the Public Works Department to condemn unsatisfactory material or reject inferior workmanship will in no way release the Developer from needing to complete the work per the approved plans, nor shall it be construed to mean the acceptance of such work. With regard to public infrastructure, final acceptance shall not bar the City from recovering damages in case of fraud or defective work resulting from dishonesty, poor workmanship or materials.

The City will not accept unauthorized or defective work, including but not limited to, work and materials that do not conform to these Public Works Standards. For public infrastructure, the City will not accept work done beyond/outside the approved plans or project scope, or extra work or materials furnished, without written approval from the City Engineer. The Contractor shall be responsible for all monies, materials, labor, and equipment required to remove and/or repair defective or unauthorized work to the satisfaction of the City Engineer.

1.3.6 PROTECTION OF PUBLIC AND PRIVATE UTILITIES

The Contractor shall be responsible for locating all existing underground utilities and protecting the same against damage. The Contractor shall support and protect all pipes, curbs, conduits, poles, wires, or other apparatus, which may be in any way affected by the work. Existing public or private utilities damaged during completion of the work shall be repaired by the Contractor prior to final project acceptance by the City. The Contractor shall be responsible for repairing all damaged utilities to the satisfaction of the Public Works Department.

For public infrastructure, the City is authorized to hire an outside contractor to complete the repairs, or complete the repairs itself, if the Contractor is unqualified or unable to complete the required work in a timely manner. The Contractor shall be responsible for all costs required to complete such repairs.

1.3.7 DAMAGE TO OTHER PROPERTY AND IMPROVEMENTS

The Contractor shall be responsible for the protection of any public and/or private property in the vicinity of the project site. The Contractor's work shall be confined to the clearing limits established on the approved plans and within any necessary off-site easements for which plans and specifications have been approved and permits issued. The Contractor shall not enter upon or place any materials on any premises outside the approved project site without the written consent of the property owner.

For City-initiated public infrastructure (capital) projects, the Developer shall hold the City harmless from all suits and actions of any kind that might result from the use of private property, as detailed in the contract documents. The Developer is responsible for obtaining any/and all necessary permits when using private property.

1.3.8 HOLD HARMLESS CLAUSE

As a condition of permit issuance for any work in the public right-of-way or on public property, the Developer shall indemnify and hold harmless the City and their agents and employees from and against all claims, damages, losses, and expenses, including attorney's fees, arising out of or resulting from the performance of the work, and shall defend and pay the expense of defending any suit and will pay any judgment, provided that any such claim, damage, loss, or expense (1) is attributable to bodily injury, sickness, disease, or death, or to injury or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission or by any other action giving rise to strict liability of the Developer, Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the City, or any of their agents or employees, by any employee of the Developer, Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for those acts any of them may be liable, the indemnification obligation under this article shall not be limited in any way by any limitation on the amount or type of damages, compensation, or under workman's compensation acts, disability benefit acts, or other employee's benefit acts.

1.3.9 DEVELOPER'S CONTRACTOR'S PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE

In addition to any required bonds, all permittees or their contractors shall be required to perform the following before any work in the public right-of-way or on public property:

1. Present the City with a Certificate of Insurance. The Certificate shall be received by the City prior to permit issuance.
2. Submit a copy of the CG 20 12 endorsement naming the City of Edgewood, its officers, and employees as additionally insured. The site

address and the Permit Number shall be included in the description stated on the endorsement.

3. Maintain a Commercial General Liability insurance policy for the duration of the permit written with limits no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate and a \$2,000,000 products-completed operations aggregate limit. Applicant shall not reduce or cancel the policy without thirty (30) days written notice to the City.

1.3.10 GUARANTEES

All required performance guarantees shall be in place prior to the start of construction. Private Developers or Contractors completing work within the City of Edgewood shall be prepared to satisfy the following bond requirements:

- Payment Bond (Capital Improvements)
- Performance Bond (Capital and Developer Improvements)
- Maintenance Bond (Capital and Developer Improvements)

Sample financial guarantee forms can be found in Appendices C and D.

1.3.11 STORMWATER MAINTENANCE AGREEMENT

1.3.11.1 Public Stormwater Control Facilities

Stormwater control facilities constructed by a Developer with the intent of conveying the facility to the City are considered Public Stormwater Control Facilities. Developers of Public Stormwater Control Facilities shall be required to operate and maintain said facility for a period of 2 years after Final Project Acceptance. Developer shall enter into an Agreement to Maintain Stormwater Facilities – Two (2) Year Warranty Period and Satisfactory Maintenance (see Appendix B) prior to final inspection and acceptance of the facility. This agreement shall be retained by the City and terminated following the satisfactory completion of the two (2) year warranty period.

1.3.11.2 Private Stormwater Control Facilities

Stormwater control facilities constructed by a Developer that will be owned, operated, and maintained by the owner of the property serviced by said facility are considered Private Stormwater Control Facilities. Developer shall enter into an Agreement to Maintain Stormwater Facilities and to implement a Pollution Source Control Plan (Appendix B) prior to final inspection and acceptance of the facility. This agreement shall be recorded with Pierce County and shall be attached to and run with the property serviced by the Private Stormwater Control Facility for perpetuity.

1.3.12 FINAL INSPECTION

The City has the right to conduct inspections to determine whether acceptable construction practices are followed. The inspection process does not make the City

responsible for any failures to follow these specifications. The Developer shall be responsible for conformance with the approved plans and all applicable federal, state, county, and City requirements.

The Developer shall notify the Public Works Department upon completion of the work and shall certify that all construction items have been completed per the approved plans and are ready for final inspection. There may be a re-inspection required, including payment of the required fee, if the Inspector finds that all items have not been completed.

The City Engineer may at any time require the Developer to submit properly authenticated documents or other satisfactory proof of his/her compliance with the contract requirements. If the examination of the above-mentioned documents reveals any defects in the work, such defects will be repaired or replaced by the Developer as stipulated by the City Engineer before final acceptance. The cost of all such repairs and replacements shall be borne by the Developer.

1.3.13 FINAL ACCEPTANCE

Project improvements shall be considered ready for acceptance following the correction of any and all defects as noted on the final inspection.

Final acceptance of improvements requires the following:

- Record Drawings: Record Drawings reflecting actual constructed improvements shall be submitted to the City Engineer for review and approval. See Appendix A for specific requirements on Record Drawing procedures and documentation.
- Utility Easements: The Developer shall prepare utility easements as per the contract documents or required by the City Engineer to allow for access to the site for utility inspection, maintenance, and repair. This includes any easements needed by other utility purveyors – the City Engineer will verify their acceptance prior to the City’s final acceptance. Developer shall follow the procedure outlined below to facilitate recording of easements:
 - Developer shall submit easement legal description(s) and exhibit(s) to the City Engineer for review and approval.
 - Following approval, the City Engineer will complete the pertinent easement form(s), attach the legal description(s) and exhibit(s) to said form, and route package back to Developer for signature(s).
 - Developer will sign the easement form and route package back to the City Engineer for City signature(s). City will record the easement(s) with Pierce County.

- Right-of-Way Acquisition (private development): The Developer shall submit Quit Claim Deed(s) and Real Estate Excise Tax Affidavit(s) as required for right-of-way acquisitions not associated with a new subdivision. Developer shall follow the procedure outlined below to facilitate recording:
 - Developer shall submit right-of-way legal description(s) and exhibit(s) with Real Estate Excise Tax Affidavit(s) to the City Engineer for review and approval.
 - Following approval, the City Engineer will prepare the appropriate Deed form(s), complete the Real Estate Excise Tax Affidavit(s), attach the legal description(s) and exhibit(s) to said forms, and route the package back to Developer for signature(s).
 - Developer will sign the Deed(s) and Real Estate Excise Tax Affidavit(s) and route package back to the City Engineer for signature(s). City will record the Deed(s) with Pierce County.
- Bill of Sale: When a Developer constructs public infrastructure as part of a private project, the Developer shall submit a completed Bill of Sale (Appendix E) to the City Engineer itemizing the respective improvements to be accepted by the City. The project Engineer of Record shall verify in writing that the Bill of Sale accurately reflects the as-constructed conditions by stamping, signing, and dating said Bill of Sale prior to submittal.
- Applicable Fees and Charges: The Developer shall pay in full all outstanding fees and charges to the City of Edgewood, including any easement/right-of-way acquisition recording fees incurred by the City as a result of the project.
- Maintenance Bond: The Developer shall submit a cash or surety bond in the amount of 20 percent of the total cost of public improvements, including public stormwater facility construction. The Maintenance Bond shall be held for two (2) years following Final Project Acceptance by the City of Edgewood. All bonds shall be signed by a City-approved surety that is registered with the Washington State Insurance Commissioner and appears on the current Authorized Insurance List in the State of Washington. The Developer shall be responsible for all improvements and shall maintain said improvements for the duration of the bond. Prior to release of the bond, the Developer shall repair or replace all items deemed defective by the City. The City reserves the right to utilize any portion of the improvements as needed prior to bond release.

1.4 CONTROL OF MATERIALS

1.4.1 GENERAL

The requirements outlined in WSDOT Specification Section 1-06 apply in this section, except that for all public infrastructure the term “Engineer” shall be replaced by “City Engineer”, and for all private infrastructure the term “Engineer” shall be replaced by “Engineer of Record”.

1.4.2 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

The Contractor shall notify the Engineer of proposed sources of supply for all materials to be furnished. The Engineer shall have the option to approve the supplier of each material before delivery. Representative preliminary samples or test data of material character and quality may be required to be submitted by the Contractor or manufacturer for examination by the Engineer prior to acceptance.

Only materials conforming to the requirements of the project specifications and those approved by the Public Works Department shall be used in the work. The Engineer may inspect the proposed construction materials at any time during preparation and use. If, after testing, it is found that previously approved sources of supply do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish materials from another source. No materials shall be used that have become unsuitable after initial approval.

1.4.3 MATERIALS INSPECTION AND TESTING

All materials provided by the Contractor shall be subject to inspection and approval by the Engineer at any time during the progress of the work until final completion. For public infrastructure installed by a private development, the field tests of materials shall be made as deemed necessary by the City Engineer at no cost to the City.

The Developer shall bear all cost of material testing and inspections. All material testing shall be in conformance with the WSDOT Standard Specifications and WSDOT Construction Manual except as modified herein.

In the event that materials fail to meet the required specifications after having been tested and inspected, the Contractor shall immediately remove and dispose of off-site all rejected materials from the work site and shall replace all rejected materials at his/her own expense, and no further materials shall be used until approved in writing by the Engineer. The City’s negligence to condemn or reject inferior materials or work will not be construed as an acceptance of non-conforming materials or work.

The Contractor shall furnish, at his/her own expense, such labor and facilities as may be required to enable the Engineer to make a thorough inspection of the materials. A certificate of materials shall be provided as requested by the Engineer.

The Engineer shall be furnished certified copies of the complete test reports direct from the testing lab. All testing shall be in accordance with commonly recognized standards of the appropriate national organizations, WSDOT, or any other common industry standards.

1.4.4 STORAGE OF MATERIALS

The Contractor shall ensure that all materials intended for use on the work site be stored in such fashion that the materials are not damaged from exposure to the elements, foreign material admixture, or from any other sources. Materials and equipment shall not be stored in the public right-of-way unless approved by the City. The Engineer will not accept or sample any materials that are improperly stored.

1.4.5 DEFECTIVE MATERIALS

Materials not conforming to the requirements of these Specifications will be rejected by the Engineer. For public infrastructure installed by a private development, all such materials, whether in place or not, shall be immediately removed and disposed of off-site by the Developer at no cost to the City.

1.5 DESIGN PLANS AND SPECIFICATIONS

1.5.1 CONTENT OF FINAL ENGINEERING PLANS

All construction plans shall be prepared in accordance with Volume I, Chapter 3.3 of the PCM, as adopted under EMC 13.05.160 with local modifications under EMC 13.05.170. The cover sheet and all plan sheets shall include the same general title block including consecutive sheet numbers. The title block shall generally be located in the lower right hand corner of the plan sheet, and any applicable standard notes and details (as contained in **Appendix H**), shall be included in the plan set.

All final plans submitted to the City shall be electronic, provided in Adobe PDF format, and shall be clear and legible. New construction/improvements shall be indicated with heavy bold lines and proper symbolism.

In general, all information required to locate and construct the planned improvements shall be shown on the final plans. In addition to the requirements listed in the PCM, all construction plans submitted to the City for review and approval shall address the following:

- City Permit Number shall be included in the title block.
- Horizontal control shall be North American Datum (NAD) 83-91, South Zone.

- A brief legal description of the site shall be included on the cover sheet, including site address, parcel number(s), 1/4 section, township, and range as needed to accurately locate the project site.
- For roadway designs, curb return elevations must be shown at quarter points at all intersections, minimally (larger radii shall have more points), to verify drainage and smooth transitions.
- For buried utilities, a composite utility sheet must be included showing all proposed improvements and identifying potential horizontal and vertical conflicts.
- Profile plan(s) must contain all sanitary sewer, water main, storm drain, and street design details in order to verify potential horizontal and vertical conflicts.
- Roadway profiles shall include centerline elevations at a minimum of 50-foot intervals; horizontal curves, including radii, point of tangency (PT), point of curvature (PC), and super elevation; centerline grades and vertical curves, including the stations and elevations of the points of vertical curve, points of vertical intersection, points of vertical tangent [PVCs, PVIs, PVTs], the top of crest curve, the bottom of sag curve, the flow line top and bottom of curves, etc. having a minimum grade of 0.50 percent within 50 feet of the level point for a sag vertical curve.
- Detail plans for facilities such as buildings, retaining walls greater than 4 feet in height, pump stations, etc. shall be prepared by or under the direct supervision of a licensed professional engineer with experience completing design of these types of facilities.
- Scaled plan views and cross sections must be provided of the outlet control structure for stormwater detention systems, drawn at a minimum scale equal to 1 inch equals 2 feet (1":2').

1.5.2 APPROVED PLAN SUBMITTAL REQUIREMENTS

Developer shall obtain City approval on construction plans and attend a pre-construction conference prior to commencing construction. Developer shall submit final construction plans electronically (in Adobe PDF format) to the City following notice that plans are approved for construction. City will add appropriate approval stamps and notes, then route the plans back to the Developer for reproduction and use in the field.

1.5.2.1 General Plan Notes

The General Plan Notes contained in **Appendix I** shall be shown on all engineering plans.

CHAPTER 2

STANDARDS FOR TESC

2.1 GENERAL

EMC Chapter 13.05.160 adopts, by reference, the July 2021 Edition of the Pierce County Stormwater Management and Site Development Manual (“Manual”), with minor modifications contained in EMC Chapter 13.05.170. Minimum Requirement 2 requires that all projects in the City address prevention of stormwater pollution during construction. A Construction Stormwater Pollution Prevention Plan (SWPPP) shall be submitted for all projects per the requirements in the Manual, as modified by EMC 13.05.170.

CHAPTER 3

STANDARDS FOR WATER SYSTEM IMPROVEMENTS

3.1 GENERAL

The City of Edgewood is served by a variety of Water Service Providers:

- City of Milton
- Lakehaven Water and Sewer District
- Mountain View - Edgewood Water Company
- City of Sumner
- Other small water systems:
 - Cherrywood Mobile Home Park
 - Cherrywood Village (apartments)
 - DeChaux Mutual Water
 - Individual Residential Wells

An interactive map showing these Water System Provider boundaries and their contact information can be found here: <https://arcg.is/1j8nye>.

3.2 STANDARD SPECIFICATIONS

The design and installation of all water mains and appurtenances shall be in accordance with the standards of the applicable Water System Provider listed above, as well as the additional standards contained herein and applicable provisions of the following:

- EMC Title 12 – Streets, Sidewalks and Public Places
- EMC Chapter 15.05 – Building Construction Codes
- EMC Title 18 – Development Standards
- WSDOT Standard Specifications
- American Water Works Association (AWWA) standards
- Washington State Department of Health Water System Design Manual

In the event of conflict between these Public Works Standards and the applicable Water System Provider's standards, these Public Works Standards shall take precedence. The manufacturer's recommended installation procedures shall be adhered to.

3.3 DESIGN REQUIREMENTS

Each lot in a proposed subdivision shall be served by an existing Group A Water System, unless otherwise approved by the City and the Washington State Department of Health.

Water mains shall be sized based on the Department of Health Water System Design Manual and subject to the minimum diameters specified herein. The minimum water main diameter for commercial, industrial, multifamily, and residential developments shall be 8 inches whether looped or on a dead-end. Mains 6 inches in diameter may be

acceptable for looped systems within single-family residential areas with fire hydrants. Larger water main diameters may be required to meet fire flow requirements as determined by the Fire Official.

Dead-end mains shall be avoided whenever possible. Where dead-end mains are unavoidable, a minimum 2-inch blow-off assembly shall be installed at the termination of the water line. Dead-ends are subject to approval by the City Engineer and Water System Provider.

Water mains shall be installed a minimum of 10 feet horizontally and 18 inches vertically, measuring edge-to-edge, from any existing or proposed sanitary sewer or on-site waste disposal piping. Deviation from separation requirements shall be allowed only at the discretion of the City Engineer. Any deviation from this requirement shall meet Washington State Department of Ecology (Ecology), Washington State Department of Health (WSDOH), Water System Provider, and City of Edgewood requirements.

Water mains shall be located a minimum of 5 horizontal feet and 6 vertical inches away from any other utility, including but not limited to storm drains, power, natural gas, private utilities, and private fire lines.

In order to minimize potential conflicts with other utilities and City of Edgewood Design Standards, every effort shall be made to locate water mains within the roadway prism, preferably within public rights-of-way. The City will not issue any Right of Way or Site Development Permit for water mains located outside of the roadway prism without engineering justification and prior approval by the City Engineer.

CHAPTER 4

STANDARDS FOR SANITARY SEWER SYSTEMS

4.1 GENERAL

The City of Edgewood is currently served by the following Sewer Service Providers:

- Lakehaven Water and Sewer District
- City of Fife
- Pierce County

Some areas of Edgewood may be served by the following Sewer Service Providers, pending formal Interlocal Agreements:

- City of Puyallup
- City of Sumner

Sanitary sewer improvements within the City of Edgewood for private development and public works projects shall conform to the standards and specifications contained herein.

4.2 STANDARD SPECIFICATIONS

The design and installation of all sanitary sewer facilities and appurtenances shall be in accordance with all applicable provisions of the following, except as amended by these Specifications:

- The City of Edgewood General Sewer Plan dated July 2024 (“GSP”), as adopted under Ordinance 24-0670.
- The current edition of Criteria for Sewage Works Design (“Orange Book”), as published by the Washington State Department of Ecology.
- The standards of the receiving Sewer Service Provider (“Receiving Jurisdiction”) listed above.
- Construction Specifications: WSDOT Standard Specifications.

4.3 DESIGN REQUIREMENTS

4.3.1 GENERAL

Except for building sewers serving an individual parcel, all sewers that serve multiple parcels shall be designed by a civil engineer licensed to practice engineering in the state of Washington and located within dedicated rights-of-way or easements.

In general, sanitary sewers shall be located below all other utilities in rights-of-way to provide the greatest opportunity for adjacent properties to connect thereto using gravity building sewers and side sewers, minimizing the opportunity for contaminating other utilities from leaks. Consideration must be taken in design to ensure adequate

cover and separation, sizing for water mains and storm drains, required slopes for side sewers, and adequate clearance for workers. Manhole lids located in the traveled way shall not be placed in vehicle wheel paths wherever practicable.

All-weather access improvements, capable of being negotiated by a fully loaded vector truck (H-20 load), shall be provided to every manhole, air-vac relief station, pigging port or other appurtenance requiring maintenance access.

Public pump stations shall be located only on city-owned property that has been deeded to the city, unless otherwise approved by the director. Any easement(s) for pump stations shall be unrestricted and exclusive.

4.3.2 EASEMENTS

The purpose(s) for the easement (permanent or temporary) and the permitted activities shall be stated in the easement document.

Temporary easements obtained for construction, staging, storage, or temporary access shall also:

- Set the term and provide for extensions thereto;
- Contain specific conditions for restoration and a one-year warranty for such restoration;
- Contain provision for the owner to inspect the condition of the easement property following completion of restoration; and
- Provide for the owner's release following such inspection.

The minimum width of a permanent sewer easement shall be 20 feet plus two feet for every foot of sewer depth over 10 feet, unless otherwise approved by the director.

Access by the grantee to and across the easement shall be unrestricted. Buildings, trees, parked vehicles, and all other structures, except as otherwise provided herein, shall be prohibited within easements. Private driveways may be located within city easements. In the event the director determines that private fencing across an easement is necessary and reasonable, such fencing may be permitted; provided, that double-leaf gates with a nominal width of 20 feet are provided at fence crossings. The owner may install only landscaping improvements that have been approved by the city.

Easements shall be maintained by the city to city standards. Landscaping improvements installed by the owner shall be maintained by the owner. The city may cut back or remove landscaping improvements, as it deems necessary. The city shall have no obligation to repair or replace landscaping improvements that have been damaged or removed.

The city shall have the right to issue permits to third parties to operate and maintain sewers within the easement.

4.3.3 SIDE SEWER CONNECTIONS

A separate side sewer connection to the sewer utility shall be required for each building with plumbing fixtures, unless otherwise approved by the director. Buildings that are accessory to a residential detached dwelling (i.e., accessory dwelling units) may share a common side sewer. If ownership of such buildings is segregated by any action, such as through subdivision or condominium, separate side sewer connections shall be required for each building so segregated.

Otherwise, if there is more than one building on a single parcel and it is impracticable to connect more than one side sewers from the parcel to the sewer utility, a sewer lateral shall be extended onto the private property within an easement. This sewer lateral shall terminate in a manhole, except that a cleanout may be used if the lateral is 50 feet or less in length. This sewer lateral must connect to the sewer main or submain at a manhole.

Any side sewer eight inches or greater in diameter must connect to the sewer utility at a manhole.

4.3.4 PRIVATE SEWAGE PUMPS

Each private pump station shall discharge through its own private, dedicated force main into a private manhole, located on the owner's property, which shall discharge into the city's sewer through a standard gravity side sewer. A force main shall not discharge directly into a gravity sewer pipe.

A private force main shall be permitted to discharge into a city manhole or force main only when the director finds there is no reasonable alternative.

4.3.5 PRETREATMENT STANDARDS

All proposed connections to the sanitary sewer utility must comply with the applicable pretreatment standards and design requirements of the receiving jurisdiction prior to final inspection.

4.4 TESTING REQUIREMENTS

Sanitary sewer structures and conveyance testing shall be conducted in conformance with WSDOT Standard Specifications Section 7.

4.4.1 CLEANING

The Contractor shall remove all sediment and debris accumulated in the new sanitary sewer conveyance and structures as a result of construction activities prior to connection to any existing infrastructure and final project acceptance by City. The Contractor shall ensure that material flushed from the new sanitary sewer system is trapped, removed, and does not enter the downstream collection system.

4.4.2 LEAKAGE TESTING

The Contractor shall furnish all equipment, labor, and personnel necessary for conducting pressure testing on new sanitary sewer conveyance. The Contractor shall provide the City with a certification letter from a City-approved testing laboratory verifying that all testing equipment is accurate. All testing equipment and personnel shall be subject to approval by the City Engineer.

The Contractor shall have all equipment and personnel present and ready for the leakage test, and shall have already successfully completed leakage testing on the entire conveyance system prior to calling the City Engineer out to witness testing. Portions of the sanitary sewer conveyance system that fail to meet the testing requirements shall be repaired.

The Contractor shall determine all sources of leakage and shall repair or replace all portions of defective materials or workmanship, at no cost to the City, prior to final acceptance. Leakage testing shall be conducted after backfill is completed and the trench has been compacted per the approved plans.

Sanitary sewer conveyance constructed of non-air-permeable material, including PVC, ductile iron, and polyethylene, shall be low-pressure air tested in conformance with WSDOT Section 7-04.3(1)F.

4.4.3 TELEVISION INSPECTION

All new public sanitary sewer conveyance networks shall be visually inspected following satisfactory cleaning, trench compaction testing, and leakage testing. Visual inspection shall be conducted using a remote camera designed specifically for such applications, with the ability to rotate the lens 180 degrees and with sufficient lighting to allow a clear picture of the entire periphery of the pipe. A “push-type” camera may be used in lieu of a remote camera if approved in writing by the City Engineer.

The Contractor shall introduce water to the sanitary sewer system to the satisfaction of the City Engineer to better identify ponding. A 1-inch sewer ball shall be attached to the front of the camera to provide a basis for estimating the depth of ponding within the pipe. Ponding in excess of 0.5-inch shall be repaired. The Contractor shall be responsible for all costs in connection with repairing or replacing defective portions of piping, including the costs for additional television inspection and leakage testing required to verify that repairs have been completed to the satisfaction of the City.

The Contractor shall provide the City Engineer with a digital format video recording and inspection report for review within 2 working days of performing the visual inspection.

4.5 MAINTENANCE RESPONSIBILITIES

In general, sanitary sewer mains will be owned and maintained by the City, while individual service lines and some low-pressure collection mains will be privately owned

and maintained. Performance and Maintenance Bonds are required as stated in Section 1.3.10 of these Public Works Standards. Exceptions may be made on a case by case basis as determined by the City Engineer.

The City Engineer will inspect privately maintained facilities to verify satisfactory maintenance practices in conformance with the private maintenance agreement. If the property owner(s) fail to maintain their facilities to acceptable standards, the City Engineer may issue a written notice specifying the required actions. If these actions are not performed in a timely manner, the City may enter the property to perform the actions needed and bill the property owner for the cost of the repairs. In the event a public safety hazard exists, written notice may not be required.

4.5.1 CONSTRUCTION PHASE

The applicant is responsible for ensuring no wastewater is discharged into the city's sanitary sewer utility during construction until responsibility is assumed by the homeowners' association or the City of Edgewood.

4.5.2 RESPONSIBILITY FOR ONGOING MAINTENANCE

Public sanitary sewer facilities will be maintained by the utility upon final project acceptance. Private sanitary sewer facilities shall be maintained by the property owner or responsible party, such as a homeowner's association, pursuant to a private maintenance agreement and easement conditions.

4.6 CONSTRUCTION INSPECTION

Construction activity shall be inspected by the City and/or their representative throughout the life of the permit to ensure compliance with these standards and the approved plans.

No work shall proceed until the City inspects and approves the work previously completed and furnishes the Developer/Owner with the results of the inspection reports as soon as possible after completion of each required inspection.

Any portion of the work which does not comply shall be promptly corrected by the Developer/Owner, after notice from the City. The notice shall set forth the nature of corrections required and the time within which corrections will be made.

The Developer/Owner shall notify the City before commencing any work in conjunction with the approved plans. The Developer/Owner shall notify the City when the project is ready for final inspection.

4.6.1 FINAL INSPECTION

Final inspection shall be conducted by the City per the request of the Developer/Owner upon completion of all work in the approved plans to determine if the completed work

was constructed in accordance with the approved plan and these regulations. Final inspection procedures shall be as outlined in Section 1.3.12 of these Specifications.

CHAPTER 5

STANDARDS FOR STORMWATER SYSTEM IMPROVEMENTS

5.1 GENERAL

EMC Chapter 13.05.160 adopts, by reference, the July 2021 Edition of the Pierce County Stormwater Management and Site Development Manual (“Manual”), with minor modifications contained in EMC Chapter 13.05.170. In addition to this Manual, these Public Works Standards contain design criteria specific to the development of stormwater facilities within the City of Edgewood. The application of these Public Works Standards shall be the minimum stormwater management requirements. Stormwater management practices shall be considered for each project according to the following general order of preference:

- Onsite Stormwater Management (Min. Req. #5)
- Low Impact Development (LID) BMPs
- Stormwater Retention Facilities
- Stormwater Detention Facilities

Please note that many onsite and/or LID BMPs may or may not be practical, or even feasible, for many sites in the City of Edgewood due to unique soil conditions. If said BMPs are not technically feasible, as determined by the Engineer of Record and concurred by the City Engineer, the technical limitations that preclude the use of LID practices must be documented as stated in the Manual. The City Engineer shall have final approval on the technical design factors that preclude the use of onsite and/or LID practices.

5.2 STANDARD SPECIFICATIONS

The design and installation of all stormwater facilities and appurtenances shall be in accordance with all applicable provisions of the following except as amended by these Specifications:

- Pierce County Stormwater Management and Site Development Manual (“Manual”), as adopted in EMC 13.05.160, and amended in EMC 13.05.170.
- Appendix 1 of the 2019-2024 Phase II Western Washington Municipal Stormwater Permit.
- Construction Specifications: WSDOT Standard Specifications.

5.3 STORMWATER SYSTEM DESIGN REQUIREMENTS

5.3.1 GENERAL

Installation and construction of stormwater facilities shall conform to the requirements of the City of Edgewood, the latest edition of the WSDOT Standard Specifications, and the manuals referenced in section 5.2 of these Public Works Standards.

All public and private stormwater facilities designed in accordance with this Chapter shall be for collection, conveyance, treatment, retention and/or detention of stormwater.

5.3.2 STORMWATER SITE PLAN REQUIREMENTS

The Stormwater Site Plan, where required by the Manual, shall document the proposed stormwater management for the proposed project and shall include supporting calculations, drawings, and proposed facility descriptions as needed to enable evaluation of the proposed site stormwater management system.

5.3.3 POLLUTION SOURCE CONTROL PROGRAM

All projects shall implement a pollution source control program based on the type of proposed project in accordance with Minimum Requirement #3. Pollution source controls shall be documented in the Stormwater Site Plan. Pollution source controls are actions taken by a person or business to reduce the amount of pollution reaching surface and ground waters.

5.3.4 EDGEWOOD STORMWATER SYSTEM DESIGN

Permanent stormwater facilities are required for the development of all residential, commercial, industrial, or multifamily sites. Permanent stormwater facilities shall be documented in the Stormwater Site Plan in accordance with Section 5.3.2, and shall be designed in accordance with Sections 5.2 and 5.3 of these Specifications.

Construction of stormwater facilities shall conform to the requirements of the City, the most recent version of the WSDOT Standard Specifications, and the applicable provisions of the manuals used as the basis of design.

5.3.4.1 Stormwater Design Standards

All stormwater conveyance systems shall be designed in accordance with Volume III, Chapter 4 of the Manual. Combined storm sewers (i.e., pipes that convey both sanitary sewage and stormwater runoff) shall not be allowed.

All stormwater conveyance systems for proposed projects must be analyzed, designed, and constructed for existing tributary off-site runoff and developed on-site runoff from the proposed project. The applicant shall demonstrate that the on-site conveyance system of the proposed project either exists or will be constructed following the standards herein. At the discretion of the City Engineer, the Permittee may be required,

as a condition of storm drainage plan approval, to install conveyance lines larger than needed by the proposed project in order to accommodate future development. In such cases, the Permittee may be eligible for recouping the additional cost associated with upsizing the conveyance system through implementation of a latecomer's agreement in conformance with EMC Chapter 11.36.

5.3.4.2 Special Design Considerations

Development activities within designated flood hazard areas within the City of Edgewood are regulated under EMC Chapters 14.80.

It shall be considered the Developer's/Owner's responsibility to be familiar with the specific provisions of these regulations and standards as they relate to future development of a specific site located within the flood plain.

5.4 TESTING REQUIREMENTS

Storm structures and conveyance testing shall be conducted in conformance with WSDOT Standard Specifications Section 7.

5.4.1 CLEANING

The Contractor shall remove all sediment and debris accumulated in both the existing and new stormwater conveyance and structures as a result of construction activities prior to final project acceptance by City. The Contractor shall insure that material flushed from the storm drain is trapped, removed, and does not enter the downstream drainage system.

Sediment and debris shall be excavated from stormwater control ponds as needed to provide the design volume shown on the approved plans.

5.4.2 LEAKAGE TESTING

The Contractor shall furnish all equipment, labor, and personnel necessary for conducting pressure testing on new stormwater conveyance. The Contractor shall provide the City with a certification letter from a City-approved testing laboratory verifying that all testing equipment is accurate. All testing equipment and personnel shall be subject to approval by the City Engineer.

The Contractor shall have all equipment and personnel present and ready for the leakage test, and shall have already successfully completed leakage testing on the entire conveyance system prior to calling the City Engineer out to witness testing.

Portions of the stormwater conveyance system that fail to meet the testing requirements shall be repaired.

The Contractor shall determine all sources of leakage and shall repair or replace all portions of defective materials or workmanship, at no cost to the City, prior to final acceptance.

Leakage testing shall be conducted after backfill is completed and the trench has been compacted per the approved plans.

5.4.2.1 Air Permeable Materials Leakage Testing

Stormwater conveyance piping constructed of concrete shall be subject to a low-pressure air test in conformance with WSDOT Section 7-04.3(1)E.

5.4.2.2 Non-Air-Permeable Materials Leakage Testing

Stormwater piping constructed of non-air-permeable material, including PVC, ductile iron, and polyethylene, shall be low-pressure air tested in conformance with WSDOT Section 7-04.3(1)F.

5.4.3 TELEVISION INSPECTION

All new public stormwater conveyance networks shall be visually inspected following satisfactory cleaning, trench compaction testing, and leakage testing. Visual inspection shall be conducted using a remote camera designed specifically for such applications, with the ability to rotate the lens 180 degrees and with sufficient lighting to allow a clear picture of the entire periphery of the pipe. A “push-type” camera may be used in lieu of a remote camera if approved in writing by the City Engineer.

The Contractor shall introduce water to the stormwater system to the satisfaction of the City Engineer to better identify ponding. A 1-inch sewer ball shall be attached to the front of the camera to provide a basis for estimating the depth of ponding within the storm pipe. Ponding in excess of 0.5-inch shall be repaired. The Contractor shall be responsible for all costs in connection with repairing or replacing defective portions of piping, including the costs for additional television inspection and leakage testing required to verify that repairs have been completed to the satisfaction of the City.

The Contractor shall provide the City Engineer with a digital format video recording and inspection report for review within 2 working days of performing the visual inspection.

5.5 MAINTENANCE RESPONSIBILITIES

In general, stormwater facilities serving single-family residential developments containing public roadways will be owned and maintained by the City, while stormwater facilities for other developments will be privately owned and maintained. Performance and Maintenance Bonds are required as stated in Section 1.3.10 of these Public Works Standards. Stormwater Maintenance Agreements are required as stated in Section 1.3.11 of these Public Works Standards.

Exceptions to the above may be made on a case by case basis as determined by the City Engineer.

The City Engineer will inspect privately maintained facilities to verify satisfactory maintenance practices in conformance with the stormwater maintenance agreement. If the property owner(s) fail to maintain their facilities to acceptable standards, the City Engineer may issue a written notice specifying the required actions. If these actions are not performed in a timely manner, the City may enter the property to perform the actions needed and bill the property owner for the cost of the repairs. In the event a public safety hazard exists, written notice may not be required.

5.5.1 CONSTRUCTION PHASE

The applicant is responsible for maintaining onsite private and potentially impacted off-site stormwater facilities in functioning condition during construction until responsibility is assumed by the homeowners' association or the City of Edgewood.

- During construction, ponds must be maintained in functioning condition as listed in Appendix B. Permanent stormwater facilities shall not be used for temporary erosion control functions unless otherwise approved by the City Engineer.
- At the end of each phase of construction, the applicant must show proof that the maintenance plan was implemented and the drainage system is fully operational before any additional permits for site activity are issued.
- If maintenance is not done as shown in the maintenance plan, upon notice from the City the applicant will forfeit the bond or other financial security. The City will then utilize the bond or other security to perform the necessary work.

5.5.2 RESPONSIBILITY FOR ONGOING MAINTENANCE

5.5.2.1.1 Public Stormwater Facilities

The applicant shall be responsible for maintaining the stormwater facilities for 2 years following final project acceptance by the City in conformance with the Agreement to Maintain Stormwater Facilities – 2 Year Warranty Period and Satisfactory Maintenance.

5.5.2.1.2 Private Stormwater Facilities

Upon transfer of maintenance responsibility from the applicant to a new property owner (i.e., homeowners' association or property owner or other agent), the property owner shall be responsible for ongoing maintenance of privately owned stormwater facilities through execution of a joint agreement with the City.

- The applicant shall execute and record the documentation that creates/names the property owner and identifies the required maintenance responsibilities to be performed in perpetuity by the property owner.
- The applicant shall sign an agreement with the City establishing responsibility and scope of work for routine minor and periodic major maintenance of private stormwater facilities as listed in Appendix B.
- The maintenance agreement shall list all anticipated maintenance items and shall specify for each item whether the maintenance is to be done by the property owner or a private contractor.
- The property owner shall be responsible for routine minor actions needed to ensure operation and maintenance of private system elements as detailed in the agreement. The work must be performed to City standards by a qualified contractor approved by the City.
- Stub outs, roof drains, and sumps on individual lots will always be the responsibility of each homeowner.
- The City shall be responsible for maintenance of catch basins and conveyance structures in the public right-of-way or public easement.
- Major repairs to all private stormwater treatment and conveyance facilities outside the public right-of-way or public easement will be the responsibility of the property owner.

By March 1st of each year, the property owner shall submit an annual report to the City that includes the following:

- Documentation of the previous year's operation and maintenance activities, in the form of a log showing what was done, when, and by whom (see Exhibit 1 of the agreement in Appendix B).
- Schedule of preventive maintenance activities for the coming year, identifying who will accomplish each activity. The schedule will be based on requirements listed in Appendix B.
- The property owner shall implement the items in the annual report by September 15th of each year.

If maintenance is not performed as specified in the agreement, the City may perform the required maintenance and bill the property owner.

5.6 STORMWATER CONSTRUCTION INSPECTION SCHEDULE AND REPORTS

5.6.1 INSPECTION SCHEDULE AND REPORTS

Prior to approval of a Stormwater Site Plan, the Developer/Owner shall submit to the City a proposed inspection and construction schedule. The City Engineer shall conduct inspections and file reports for periodic inspections necessary during construction of stormwater management facilities to ensure compliance with the approved plans.

No work shall proceed until the City inspects and approves the work previously completed and furnishes the Developer/Owner with the results of the inspection reports as soon as possible after completion of each required inspection.

Any portion of the work which does not comply shall be promptly corrected by the Developer/Owner, after notice from the City. The notice shall set forth the nature of corrections required and the time within which corrections will be made.

The Developer/Owner shall notify the City before commencing any work in conjunction with the Stormwater Site Plan. The Developer/Owner shall notify the City when the project is ready for final inspection.

5.6.2 INSPECTION REQUIREMENTS DURING CONSTRUCTION

After commencing initial site operations, regular inspections shall be made at specified stages of construction as follows:

- LID facilities at the following stages. However, due to variations in LID practices, LID facility inspection shall be determined by the City Engineer based on the specific LID facility proposed.
 - Prior to site clearing, the site shall be inspected to confirm that areas to be undisturbed for dispersion are flagged.
 - LID practices relying on infiltration shall be inspected at stages similar to retention facilities.
 - LID practices incorporating piping or structures shall be inspected at stages similar to detention facilities.
 - For LID practices relying on amended or imported soils, soil samples shall be submitted to a laboratory for testing for conformance with specifications. Lab results shall be submitted to the City Engineer for review prior to bringing the soils to the site.

- Retention facilities at the following stages:
 - Initial basin excavation to determine that facility has been excavated to within 1-foot of the final elevation of the basin floor and that inlet and overflow structures have been constructed in accordance with the approved plans.
 - After all disturbed areas in the upgradient project drainage area have been permanently stabilized, the facility shall be inspected again to determine that it has been constructed to final grade.
 - Prior to placing the facility on-line, the facility shall be inspected to determine that specified vegetation has been placed, accumulated sediment within the facility has been removed, and that the upstream pretreatment system has been installed, cleaned and is functioning.
 - Periodic inspection to determine that access to the facility has been restricted to equipment that may impact the function of the facility. Light-tracked equipment, draglines or trackhoes are recommended for infiltration facility construction to avoid compaction of the basin floor. The infiltration area should be flagged or marked to keep heavy equipment away.
- Detention facilities at the following stages:
 - Upon completion of excavation of sub-foundation and where required, installation of structural supports or reinforcement for structures, including but not limited to:
 - Core trenches (“keyways”) for structural embankments;
 - Inlet-outlet structures, anti-seep structures, watertight connectors on pipes; and
 - Trenches for enclosed storm drainage facilities.
 - During placement of structural fill, concrete and installation of piping and catch basins;
 - During backfill of foundations and trenches;
 - During embankment construction; and
 - Upon completion of final grading and establishment of permanent stabilization.

5.6.3 FINAL INSPECTION

Final inspection shall be conducted by the City per the request of the Developer/Owner upon completion of all elements of the Stormwater Site Plan to determine if the completed work was constructed in accordance with the approved plan and these

regulations. Final inspection procedures shall be as outlined in Section 1.3.12 of these Specifications.

5.6.4 INSPECTIONS FOLLOWING PROJECT ACCEPTANCE

The City will conduct routine inspections of all privately owned stormwater facilities. If repair or maintenance is needed, the owner shall be notified.

- If the needed work is not completed within the specified time period, the responsible party may be subject to civil action, or the City may complete the necessary work and bill the responsible party.
- In case of flooding or pollution emergency, the City will do the necessary work without notification and bill the responsible party.

5.7 STORMWATER SITE PLAN NOTES

The Stormwater Site Plan Notes contained in Appendix H shall be shown on all Stormwater Site Plans.

CHAPTER 6

ROADWAYS

6.1 GENERAL

This chapter contains the minimum design criteria, installation requirements, and material specifications for the construction of roadways within the City of Edgewood, as previously defined by these Public Works Standards. In establishing these standards, the City has sought to encourage standardization of road design elements where necessary for consistency and to assure so far as practical that motoring, bicycling, and pedestrian public safety needs are met. Considerations include safety, convenience, aesthetics, proper drainage, and economical maintenance.

The decision to use a particular roadway design element at a particular location should be made based on an engineering analysis of the location. Thus, while this chapter provides minimum requirements, it is not a substitute for professional engineering judgment. It is the intent that the provisions herein be uniform standards for road design, but they may not be appropriate for all locations and existing conditions. These uniform standards are also not intended to unreasonably limit any innovative or creative effort which could result in the more effective and appropriate combination of design, cost savings, or both. If said effort would require a deviation from the technical requirements contained herein, the Engineer must seek written approval in accordance with Section 12.02.080 EMC.

6.2 STANDARD SPECIFICATIONS

Except as supplemented or amended by these Public Works Standards, the traffic engineering, roadway design, and installation of roadways shall be in conformance with all applicable provisions of the following:

- EMC Title 12 – Streets, Sidewalks and Public Places
- EMC Title 18 – Development Standards
- Appendix H – Edgewood Standard Notes and Details
- WSDOT Standard Specifications
- WSDOT Design Manual
- AASHTO: A Policy on Geometric Design of Highways and Streets
- AASHTO: Guide for Development of Bicycle Facilities
- APWA Standards, Specifications and Standards
- MUTCD (USDOT/FHWA), as amended and approved by WSDOT
- U.S. Access Board: Americans with Disabilities Act Accessibility Guidelines

If any provisions of this chapter are in conflict, the more protective provision shall control. If a conflict arises between the WSDOT Design Manual and the AASHTO Green Book, the WSDOT Design Manual will take precedence. In cases of ambiguity or difference of meaning or inconsistencies between the text of this chapter and the

illustrations or graphics contained in the Standard Details, the details as contained in Appendix H shall control. Where a particular situation or aspect of design is not addressed in these Public Works Standards, first reference the most recent editions of the documents listed above, followed by other generally recognized industry standards or guidance as appropriate and as approved by the City, including but not limited to the following:

- AASHTO: Roadside Design Guide
- AASHTO: Standard Specifications for Highway Bridges
- ITE: Trip Generation
- TRB: Highway Capacity Manual
- WSDOT: Bridge Design Manual
- WSDOT: Construction Manual
- WSDOT: Local Agency Guidelines (aka, LAG Manual)
- WSDOT: Standard Plans for Road, Bridge and Municipal Construction

6.3 DESIGN REQUIREMENTS

6.3.1 FUNCTIONAL CLASSIFICATION

The first step in the design process is to identify the functional classification of the subject roadway. For existing and planned routes, refer to the Transportation Systems Plan (TSP) contained in Chapter 6 (Transportation Element) of the City's Comprehensive Plan. For other new facilities, the City Engineer will determine the roadway's functional classification.

6.3.1.1 Functional Classification System

Roadways are most effectively classified by their function, according to the character of service they are intended to provide for the traveling public, including their purpose, type and number of trips. As described in the TSP, a functional classification system allows the City to group roads into a hierarchy, and cities are required to adopt a functional classification system that is consistent with state and federal guidelines, as codified in RCW 35.78.010 and RCW 47.26.090. At a minimum, each City must adopt the following three functional classifications: principal arterial, minor arterial and collector. Edgewood's functional classification system has four categories, as presented in the TSP under Table T-7 (described in the next section). While not included in the TSP, a fifth classification is also included herein for certain private access situations: a Shared Access Facility.

State highways under the jurisdiction of the Washington State Department of Transportation are all legally designated arterials (RCW 46.61.195). There is one state highway in Edgewood, State Route 161 (Meridian Ave E), and it is classified as a Principal Arterial.

6.3.1.2 Functional Classification Definitions

6.3.1.2.1 Principal Arterials

Principal arterials are roadways that connect major community centers and facilities, and are often constructed with limited direct access to abutting land uses. Principal arterials carry the highest traffic volumes and provide the greatest mobility in the roadway network by limiting access, providing traffic control devices and posting higher speed limits. Transit routes are generally located on principal arterials, as are transfer centers and park-and-ride lots. Principal arterials may service any level of traffic volume, up to full utilization of the road capacity.

At this time there are only two Principal Arterials in Edgewood: State Route 161 (Meridian Ave E) and Jovita Blvd E / Emerald St E.

6.3.1.2.2 Minor Arterials

Minor arterials are roadways that connect with and augment principal arterials. Minor arterials provide densely populated areas easy access to principal arterials and provide a greater level of access to abutting properties. Minor arterials connect with other arterial and collector roads extending into the urban area, and serve less concentrated traffic-generating areas, such as neighborhood shopping centers and schools. Minor arterials serve as boundaries to neighborhoods and collect traffic from collector streets. Minor arterials also carry transit traffic.

Edgewood Minor Arterial network currently consists of two east-west corridors (8th St E and 24th St E) and one north-south corridor (122nd Ave E / Edgewood Dr E).

6.3.1.2.3 Collectors

Collectors are roadways that provide easy movement within neighborhoods, and they connect two or more neighborhoods or commercial areas while also providing a high degree of property access within a localized area. These roadways “collect” traffic from local neighborhoods and distribute it to higher classification roadways. Additionally, collectors provide direct services to residential areas, local parks, churches and areas with similar land uses. Collectors provide the link between local access streets and larger arterials.

6.3.1.2.4 Local Streets

Local streets include all roadways not otherwise classified, intended for use within commercial, single-family and multi-family subdivisions to provide direct access to abutting lots and to collect traffic from cul-de-sacs. Restrictions may be placed on entry and exit locations for traffic safety relative to intersections. Traffic volumes are typically very low for compatibility with abutting land uses, to accommodate turning movements and significant amounts of pedestrian activity, while providing minimal disturbance to the tranquility of the residential environment. Local streets are not designed to accommodate transit service. All roadways that have not been designated as an arterial

or collector roadway are considered to be local access streets. Local access streets comprise the largest portion of roadway miles in Edgewood.

6.3.1.2.5 Shared Access Facility

A Shared Access Facility is a privately-owned driving surface which provides vehicular access to at least two lots. For single-family and two-family dwelling unit lots, a shared-access facility carries a maximum of 90 ADT. A shared-access facility may serve any number of commercial use or industrial use lots when the intent of the shared-access facility is to provide access through interlinked or shared parking facilities as are common in commercial centers (e.g., shopping malls).

For formal plats that contain up to 35 lots, up to 20 percent of the lots within the plat may be served by a shared-access facility. For formal plats with more than 35 lots, up to 10 percent of the lots within the plat may be served by a shared-access facility.

6.3.2 ROADWAY LAYOUT

All proposed roadway locations shall conform with the City's TSP, specifically Figure T-13. The City Engineer may allow slight deviations in classified roadway alignment(s), provided that the revisions do not conflict with the overall intent of the TSP.

6.3.2.1 Subdivisions And Access

For proposed subdivisions, roadway and access layout are guided by the following principles: (1) safety for all applicable modes of travel; (2) efficiency of services for all roadway users; (3) livability of the residential environment; and (4) economic use of the land, infrastructure construction, and ongoing maintenance.

Roads serving as primary access between the subdivision and external roadway network should be evaluated for access limitations within 150 feet of the intersection, with abutting residences oriented away from them.

The roadways and Shared Access Facilities that provide access to lots within a proposed subdivision shall be designed in a way to ensure that emergency vehicles can legally and physically access each lot.

The number of access points between the subdivision and external roadway network shall be arranged to maximize connectivity while promoting safety. The subdivision's internal road layout should be designed to maintain relatively uniform low volumes of traffic upon full development. The roadway system should be designed to discourage excessive speeds and should minimize the necessity for traffic control devices, particularly for internal roads with direct lot access.

Figure 6-1 presents a conceptual example of each local road classification working together as a local road system.

6.3.2.2 Connectivity

Developments shall be designed in a manner that maximizes opportunities for connectivity in accordance with the standards identified below. A highly connected transportation system within the City will provide choices for drivers, bicyclists, and pedestrians; promote multi-modal use and access; connect neighborhoods to each other and other local destinations such as schools, parks, and retail centers; reduce vehicle miles of travel and travel times; improve air quality; reduce emergency response times; increase effectiveness of municipal service delivery; and free up arterial capacity to better serve longer distance travel needs.

Each of the following standards shall be met, unless the City Engineer determines that there are barriers that make it infeasible, or that implementation of the standard will produce an undesirable impact:

- A. Roadway connectivity should be accomplished through the design of connected roadways rather than cul-de-sacs or dead-end neighborhoods. In order to minimize impacts of through traffic to those residing in subdivisions, public arterials and collectors shall be provided consistent with the City's TSP, specifically Figure T-13. Otherwise, local streets should be utilized for connectivity of subdivisions (typically low-volume, low-speed situations).
- B. When there is an opportunity to extend a new road to provide a connection to an adjacent parcel or future development, the new road should be public. New private roads may be allowed when it is determined that there is no opportunity for a connection to a neighboring parcel or development, or when there is not a public road available for providing access to a development.
- C. When new development abuts land where road stub-outs, easements, or right-of-way has been used to provide the opportunity for future road connections, the development should be designed to utilize these connections.
- D. When new development abuts vacant or underdeveloped parcels of land, the development should provide for future connection to its interior road and sidewalk network by constructing a road stub to the property line of the abutting property.
- E. When multiple vacant or underdeveloped parcels abut a new development, a connection to each parcel may not be required. Connection points will be determined based upon an overall consideration of existing and desired circulation patterns in the area. Emphasis should be given to connections with larger parcels and parcels

which would permit future connections to other existing roadways.

- F. A road connection between residential developments and abutting commercial or industrial zones may not be required, pending the City's evaluation of the proposed and existing adjacent uses. However, pedestrian connections shall be provided.

The additional standard listed below shall apply for the following use sectors contained in the City's Land Use Table (EMC 18.70.050): Wholesale and Retail Trade; Business and Professional Services; Health Care and Social Assistance; Arts, Entertainment, and Recreation; Accommodation; Food Service and Drinking Places; Services; Civic and Public Uses:

- G. Vehicular and pedestrian connections to adjacent non-residential or non-industrial properties should be provided through the use of cross access easements, common entryways, shared internal roadways, shared parking lots, or similar techniques. In situations where a connection will not be immediately obtained, the parking should be designed to connect in the future.

6.3.2.3 Temporary Cul-de-Sac

A Temporary Cul-de-sac shall only be allowed when the road will likely be extended to connect to another road, thus making it a future through road. Temporary cul-de-sacs shall be provided for all roadways longer than 150 feet that will be extended in the future. Construction plans shall include a Type 3 barricade at the end of the driving surface. A regulatory sign with the following legend "THIS ROAD IS PLANNED TO BE EXTENDED IN THE FUTURE" shall be placed in the middle of the barricade, immediately above the top rail. All barricades shall meet the MUTCD Section 3F.01.

When an asphalt concrete raised edge roadway is proposed, the roadway cross section (including any curbing and sidewalks) shall be constructed through the temporary cul-de-sac area.

When a cement concrete traffic curb and gutter or asphalt concrete barrier curb roadway is proposed, the roadway cross section shall terminate at the beginning of the temporary cul-de-sac.

Appropriate provisions for storm drainage runoff shall be provided for the temporary cul-de-sac.

When the roadway is extended, the temporary cul-de-sac shall be removed and the applicable full roadway section (including any applicable curbing, sidewalks, shoulder, etc.) within the temporary cul-de-sac area shall be completed by the proponent of the roadway extension.

6.3.3 RIGHT-OF-WAY AND EASEMENTS

6.3.3.1 Roads

City-operated and maintained roads must be dedicated to the City as right-of-way. Roads that are to be operated and maintained by a private organization such as a homeowner's association must be located in an easement or tract. The road right-of-way, easement, or tract width shall be determined by the roadway characteristics involved in the design.

The minimum right-of-way, easement, or tract widths for all roads shall be as shown on the Standard Details contained in Appendix H. In no case shall the right-of-way, easement, or tract width for a road be less than 50 feet in total width.

Additional right-of-way, easement, or tract width may be required to accommodate all planned roadway improvements (including shoulders, drainage facilities, buffers, sidewalks, walkways, traffic control devices, utilities, intersections, design sight lines, retaining walls, all necessary outer slopes, and maintenance of the roadway). The overall right-of-way, easement, or tract width shall also provide a minimum distance behind the shoulder/sidewalk/walkway/ditch (on each side of the roadway) to assure accommodation of all traffic control devices, utilities, roadway appurtenances, stopping sight distance and entering sight distance requirements. The minimum distance shall be 4 feet for arterial and collector road classifications, and 1 foot for lesser road classifications and/or when a buffer width of 6 feet or more is provided between the roadway and sidewalk.

Right-of-way, easement, or tract widths are typically provided in 5-foot increments; however, the City may approve other incremental widths as deemed appropriate for the circumstance at hand.

6.3.3.2 Projects with Frontage on City Right-of-Way

In instances where a development generates additional traffic onto a public roadway and said development has frontage on that roadway, the City will require the right-of-way to meet the above minimum widths in accordance with RCW 82.02.020, which shall be processed as either a dedication or deed action and shall occur at the earliest of any of the following development actions:

- Prior to, or concurrent with, the recording of a subdivision of land, alteration of subdivisions, or a Binding Site Plan.
- Prior to issuance of a Site-Development Permit; if none of the above land use actions apply.
- Prior to issuance of either a residential or commercial Building Permit.

6.3.3.3 Conveyance

Any conveyance of right-of-way to the City of Edgewood shall be by instrument to be reviewed and approved by the City Engineer prior to execution, and recording at the Pierce County Auditor's Office.

6.3.4 DESIGN VEHICLE

The physical characteristics of vehicles and the proportions of variously sized vehicles using the road system are positive controls in geometric design. Therefore, it is necessary to examine all vehicle types, select general class groupings, and establish representatively sized vehicles within each class for design use. Design vehicles are selected motor vehicles with the weight, dimensions, and operating characteristics used to establish road design controls for accommodating vehicles of designated classes. For purposes of geometric design, each design vehicle has larger physical dimensions and larger minimum turning radius than those of almost all vehicles in its class.

Three general classes of vehicles have been selected: passenger cars, trucks, and buses/recreational vehicles. The passenger car class includes compacts and subcompacts plus all light vehicles and light delivery trucks (vans and pickups). The truck class includes single-unit trucks, truck tractor-semitrailer combinations, and trucks or truck tractors with semitrailers in combination with full trailers. Buses/recreational vehicles include single unit buses, articulated buses, school buses, motor homes, and passenger cars or motor homes pulling trailers or boats.

The dimensions for numerous design vehicles are given in the AASHTO Green Book. In the design of any road facility, the largest design vehicle likely to use that facility with considerable frequency, or a design vehicle with special characteristics that must be taken into account in dimensioning the facility, is used to determine the design of such critical features as radii at intersections and curves. Using AASHTO Green Book nomenclature, the typical design vehicle for each road class is as follows:

Principal Arterial	Bus/Intermediate Semitrailer Truck (WB-67)
Minor Arterial	Bus/Intermediate Semitrailer Truck (WB-40)
Collector	Single Unit Truck / Bus
Local Street	Passenger Car

6.3.5 DESIGN SPEED

Design speed is a selected speed used to determine the various design features of the roadway. Geometric design features of a road facility should be consistent with the appropriate design speed. It should be noted, however, that the design speed does not necessarily represent the anticipated operating or posted speed.

Design speed for the arterial road system should consider the context of the roadway, local circumstances and characteristics, and the safety of all-users. Design speed should be selected appropriate for the facility character so as to be responsive to established

community goals, provide for the safe movement of vehicles, commerce, transit, and non-motorized users, and provide for traffic flow appropriate for the facility. Since a function of local roads is to provide access to adjacent property, all design elements should be consistent with the character of activity on the adjacent road and should encourage speeds generally not exceeding 25 mph. The Design Speed for each road class, unless otherwise approved by the City by ordinance, is as follows:

Principal Arterial	35 mph
Minor Arterial	35 mph
Collector	25 mph
Local Street	25 mph

6.3.6 TRAFFIC CHARACTERISTICS

6.3.6.1 Trip Generation

Trip Generation, as published by the Institute of Transportation Engineers, shall be used when developing traffic generation volumes.

6.3.6.2 Design Volumes

For new arterial roads and streets, capacities should be designed for a specific traffic volume range using the projected ADT for 20 years from the anticipated construction year. Current and future land use trends should also be considered in making these decisions.

6.3.6.3 Capacity and Level of Service

The latest version of the *Highway Capacity Manual*, as published by the Transportation Research Board, shall be used when analyzing capacity of roadway or intersection operation. Left-turn pockets and left-turn lanes shall utilize the WSDOT *Design Manual* methodology for analysis of needs at unsignalized intersection locations.

6.3.6.4 Truck Facilities

Truck turning radii as detailed in the WSDOT *Design Manual* and AASHTO Green Book should be provided where significant volumes of heavy trucks are expected. Truck climbing lanes, where warranted, shall be provided as detailed in the WSDOT *Design Manual* and AASHTO Green Book.

6.4 ROADWAY GEOMETRICS

6.4.1 SIGHT DISTANCE

The WSDOT *Design Manual* (Chapter 1260) and AASHTO Green Book each contain detailed discussion of the factors and assumptions associated with the calculation of stopping and intersection sight distance. Stopping Sight Distance (SSD) shall be available throughout all horizontal and vertical curves on all roadways without the need for additional easements or right-of-way unless otherwise approved by the City. For

the purpose of assessing SSD, the City requires a minimum object height of 0.5 feet and a driver's eye height of 3.5 feet. Minimum SSD shall be designed for wet pavement; the effects of grade shall also be accounted for grades steeper than 3 percent as follows:

Design Speed	Minimum SSD (feet)	Downhill Grade				
		3%	6%	9%	12%	15%
20 mph	115	116	120	126	132	141
25 mph	155	158	165	173	183	197
30 mph	200	205	215	227	242	262
35 mph	250	257	271	287	308	335

Entering Sight Distance (ESD) must be considered at all roadway intersections, at driveway approaches from which vehicles are permitted to turn left across opposing traffic, and at intersections of residential driveways with roadways not meeting current SSD requirements. ESD for a residential driveway approach to a local road within a subdivision is not required if the road has been designed and constructed to meet SSD requirements. The following table summarizes minimum ESD requirements:

<i>Posted / Legal Speed (mph)</i>	25	30	35
<i>ESD (feet)</i>	295	355	415

Entering Sight Distance values are based on an object height of 3.5 feet and a driver's eye height of 3.5 feet set back from the edge of the travel way at least 10 feet for residential and minor driveway approaches, and 14.5 feet for major driveway and road approaches. Special consideration shall be given when stop bars are used, ESD shall be measured 8 feet back from such stop bars. Further, ESD must be calculated for situations that involve road approach grades in excess of 6 percent to account for the reduction in vehicle acceleration and deceleration.

In situations where the entering sight distance is questionable, the City Engineer may require the Engineer to prepare an entering sight distance diagram, together with appropriate field measurements, and submit them for review prior to the approval of the construction plans. The diagram and measurements shall be stamped and signed by the Engineer.

Locations along a through road from which vehicles are permitted to turn left across opposing traffic, including intersections and non-residential driveway approaches, should have sufficient sight distance to accommodate the left-turn maneuver. Entering and exiting sight distance for minor and major driveway approaches is a vital consideration where parking is permitted. Exiting Sight Distance along the through road shall be as follows, based on a left turn by a stopped vehicle:

Posted / Legal Speed (mph)	25	30	35
Exiting Sight Distance (feet)	205	245	285
For each additional opposing through lane (feet)¹	+19	+22	+26

¹ Adjustment for multi-lane roads: For left-turning vehicles that cross more than one opposing lane, add distance shown for each additional lane to be crossed.

6.4.2 HORIZONTAL

Refer to the WSDOT *Design Manual* and AASHTO Green Book for horizontal alignment and superelevation design requirements, unless otherwise noted.

The roadway's physical centerline must match as much as possible the right-of-way centerline, unless otherwise approved by the City Engineer. When widening existing roads, the Engineer must design the widening symmetrical about the existing right-of-way centerline alignment whenever practicable (see 6.4.4, below). Road curves should be designed with as large a radius curve as practical, with a minimum radius controlled by the appropriate design speed. Road alignment within plat boundaries should closely fit the existing topography to minimize cuts and fills.

The design for horizontal curvature in Edgewood shall be as follows:

Design Speed (mph)	Minimum Centerline Radius (feet)
20	100
25	185
30	300
35	460

The normal roadway cross slope for new construction is 2 percent unless the road is in superelevation or an intersection design requires a varying slope. When widening an existing road, a maximum cross slope of 4 percent may be permitted, with grinding and/or overlaying of the existing roadway being required as applicable to achieve this (see 6.4.4, below). The maximum allowed superelevation rates "e" are as follows:

Road Class	Max "e"
Principal Arterial	0.04
Minor Arterial	0.04
Collector	0.04
Local Street	0.02

Superelevation is not recommended for use on non-arterials. When superelevation is used, the required superelevation runoff length shall be provided in accordance with the AASHTO Green Book, and distributed in accordance with Design "A", Superelevation Transitions for Highway Curves, contained in the WSDOT *Design Manual*.

The use of reverse curves and compound curves is strongly discouraged. When reverse curves are unavoidable, the Engineer shall provide adequate tangent lengths between reverse curves for superelevation runoff for both curves (that is, from full superelevation of the first curve to level to full superelevation of the second curve) when superelevation is used.

Curve widening shall be considered and designed, when warranted, in accordance with the AASHTO Green Book.

6.4.3 VERTICAL

Refer to the WSDOT Design Manual and AASHTO Green Book for vertical alignment (curves and grades) design requirements, unless otherwise noted. In general, proper drainage design will dictate the minimum allowable grades along roadways. Tolerable maximum grades will vary with road use and classification. Intersections on steep grades should be avoided whenever possible. Ease of access for emergency vehicles shall also be considered when establishing grades.

The maximum gradient on any new or reconstructed road shall not exceed the following:

Road Class	Max Profile Grade
Principal Arterial	8%
Minor Arterial	8%
Collector	10%
Local Street	12%
Cul-de-sac / Turnaround Area	6%

The centerline and gutterline gradient of any road shall not be less than 0.7 percent when an asphalt concrete gutterline is used, and not less than 0.4 percent when a cement concrete gutterline is used. The centerline gradient of any road shall not be less than 0.7 percent when drainage is not contained.

All changes in grade greater than 1 percent shall be connected by a vertical curve. All vertical curves shall be symmetrical parabolic curves. Vertical Sag Curve design shall be based on an assumed non-illuminated roadway's visibility which should be long enough so that the automobile light beam distance is nearly the same as the stopping sight distance. Vertical Crest Curve design shall be based on stopping sight distance for wet pavement.

Design speeds for vertical curves located within the area controlled by a STOP sign or on the perpendicular street approaching a "T" intersection can be reduced in accordance with the anticipated speed of the vehicle approaching the STOP control or the Yield condition of the "T" intersection.

6.4.4 ROADWAY WIDENING AND OVERLAY

As stated under 6.4.2 above, the Engineer must design the widening symmetrical about the existing right-of-way centerline alignment whenever practicable. When this widening results in constructed improvements on both sides of an existing roadway, then a full width overlay of the roadway shall be provided. When the widening is provided on one side of the existing roadway, then an overlay of that half of the roadway shall be provided. In this case, the existing pavement shall be ground down near the old centerline where the overlay would match the untouched half of the traveled way to provide a good match without the need to feather the overlay depth.

The Engineer may request approval from the City to deviate from symmetrical widening, if engineering judgment determines asymmetrical widening to be more appropriate. Situations that may be appropriate for asymmetrical widening include but are not limited to: utility conflicts, right-of-way impacts, terrain features, or the addition of a new right-turn lane / pocket only.

For roadway widening, the improvement shall be constructed to full width to the end of the project site frontage or required channelization of taper transitions, whichever is further. Additional storm drainage improvements may be required as a result of required roadway widening in order that the additional storm runoff generated by the widening will be satisfactorily controlled per City storm drainage requirements. Additional roadway elements (curbs, gutters, sidewalks, etc.) must be included in the improvement as appropriate to bring the roadway section up to current standards, unless otherwise approved by the City. Any existing roadway elements disturbed by the improvements must be replaced in kind or better.

6.5 ROADWAY ELEMENTS

6.5.1 DRAINAGE

All drainage elements associated with the roadway design and construction or draining into or out of the roadway and within the project boundaries shall be designed in accordance with the requirements of Chapter 5.

6.5.2 UTILITIES

The primary purpose of right-of-way is to serve vehicular and non-motorized travel. In accordance with state law, utility facilities may be accommodated in road right-of-way. Use of the right-of-way by utilities should be planned to minimize interference with traffic using the road. Industry-recognized principles provide for general location and construction of utilities to minimize conflict between the use of the road right-of-way for vehicular and non-motorized travel and for its secondary purpose of providing space for location of utilities. However, all public and private utility installations within City road right-of-way shall conform to the requirements outlined in the *Manual on Accommodating Utilities in Pierce County Rights-of-Way*, as adopted under EMC 12.02.

It will be the Engineer's responsibility to coordinate with all utilities to see that the utilities are located in accordance with these standards, and that the installation work is coordinated with the road construction work. Above-grade utility facilities shall be located such that they do not interfere with sight distance, traffic signing and signals, drainage culverts, or other roadway features (including shoulders and sidewalks). Further, utility poles are not permitted within any roadway shoulder, buffer, or sidewalk area without approval of the City Engineer.

Improper location or construction of utilities will be sufficient reason for the refusal of the City to accept a road for dedication and maintenance.

Utility trenching or transverse cuts in roads constructed or resurfaced within the last ten years will be discouraged. They will not be permitted unless it can be shown that an alternative such as boring, jacking, or relocating outside the paved roadway area is not feasible. Utility trenching or transverse cuts may be allowed if the utility can be installed just prior to reconstruction or overlay of the road.

6.5.3 PAVEMENT

Paving and subgrade material for impermeable non-arterial roads shall be in accordance with the Standard Details in Appendix H. Paving and subgrade materials for permeable non-arterial roads shall be in accordance with the Stormwater Management and Site Development Manual. Paving and subgrade material for arterial roads will be based on a pavement design analysis made by the Engineer. Supporting design criteria and calculations must be submitted to verify the design; however, in no case shall the design be less than that required for non-arterial roads. Paving for all roads shall be Hot Mix Asphalt CI½ 1/2 inch.

Pavement design for a principal arterial road shall be for a 30-year performance period. Pavement design for minor arterials and collectors shall be for a 20-year performance period. Design criteria and standards established by AASHTO, WSDOT, the Asphalt Institute, or other nationally recognized organizations may be used to determine paving and subgrade depths and types of materials for the roadway section. Non-destructive testing or a falling weight deflectometer or a modulus value established by a geotechnical engineer should be used to determine the material characteristics of the existing soil conditions for the pavement design.

6.5.4 LANE WIDTHS

Lane widths shall be in accordance with the typical sections shown in the Standard Details in Appendix H. All intersection departure lanes (i.e., the egress lanes for traffic leaving the intersection) shall be designed with sufficient width to accommodate the vehicle tracking path of the appropriate design vehicles.

6.5.5 SHOULDERS

Shoulders shall be provided consistent with the roadway cross-sections shown in the Standard Details in Appendix H.

If a roadway designed with shoulders has been identified for use as a part of the non-motorized, bicycle facility network, the shoulders shall be paved. Where curb, gutter, sidewalk is provided and where future bike lanes or restriping for additional traffic lanes are envisioned, paved shoulders shall be provided between the traveled way and the curb and gutter as required by the City.

6.5.6 CURBS

Acceptable curb designs are provided in the Standard Details in Appendix H. Asphalt concrete raised edges and asphalt concrete barrier curbs may be considered for use in certain areas of the City, as determined by the City engineer, and must be constructed integrally with the pavement when used.

6.5.7 PEDESTRIAN AND BICYCLE FACILITIES

Pedestrian and bicycle facilities shall be provided consistent with the roadway cross-sections shown in the Standard Details in Appendix H.

Pedestrian facilities shall be provided as a part of any newly constructed or reconstructed road, in compliance with adopted City plans. Appropriate pedestrian crossing warning devices and lighting will be required for any proposed mid-block crossings. Shared-use paths may be located adjacent to the roadway (in lieu of a standard sidewalk), separated from the roadway by a buffer, or be separated from the roadway improvements entirely.

6.5.7.1 Sidewalks and Walkways

Sidewalk facilities shall be constructed of cement concrete materials. Walkway facilities shall be constructed of asphalt concrete materials. Curb ramps and sidewalk / walkway facilities shall meet the requirements of the "Americans with Disabilities Act" and Standard Drawings in Appendix H.

6.5.7.2 Shared-Use Paths

Shared-Use Paths are not normally expected within the road right-of-way, except in situations where the facility is part of an adopted plan. Minimum width of a shared-use path is 10 feet, and there shall be a 2-foot graded area on each side of the shared-use path where practicable. When preparing a shared-use path design, the Engineer should consult the *Guide for the Development of Bicycle Facilities*, as published by the American Association of State Highway and Transportation Officials and the Standard Details in Appendix H.

When pedestrian or bicycle facilities are provided as an independently constructed improvement along the frontage of property abutting an existing road, such

improvement shall be constructed in accordance with the provisions outlined in these Public Works Standards in a location approved by the City Engineer.

6.5.8 BUFFERS AND MEDIANS

A buffer is that area between the back of curb and near edge of the pedestrian facility. Buffer widths shall conform to the Standard Details in Appendix H. The maximum height of vegetation, except for street trees, placed in a buffer shall be 24 inches above the roadway surface, provided no safety related concern is created. Street trees (as approved by the City) are allowed within the buffer area on local streets within the boundary of a subdivision, provided no safety or visibility related concern is created. Street trees are only allowed within the buffer area on an arterial or collector street in designated zones where placement will not create a safety or visibility issue, upon review and approval by the City Engineer. Utility poles shall not be located within the buffer area.

A median is that raised area within the roadway separating opposite directions of vehicular traffic. Medians may be allowed in accordance with the Standard Details in Appendix H. The maximum height of vegetation, except for street trees, placed in the median shall be 24 inches above the roadway surface. Street trees may be allowed within the median on a local street within the boundary of a subdivision, provided the trees conform to the type and size approved by the City and will not result in a safety or visibility issue. The placement of utility poles in the median area is not allowed under any circumstances.

Storm drain infiltration systems may be allowed within a buffer or median provided adequate soils exist (as determined by the City Engineer) and safe maintenance access can be achieved.

6.5.9 CLEAR ZONE

The Engineer must be aware of the extensive tables of recommended clear area distances both in the "AASHTO Green Book" and WSDOT Design Manual. It must also be recognized, however, that serious accidents on low volume roads, especially on those below 200 ADT, are rare occurrences. At this low end of the scale, the cost of providing the recommended clear area may be cost-prohibitive. Research undertaken to re-evaluate the safety needs on local streets states that the suggested values for side slopes and clear zones should be recognized as idealistic objectives. A more realistic approach to roadside safety on local streets should depend on achieving a balance between the cost and the safety effectiveness of the design treatment.

It is further stated that while the application of such an analysis to local streets indicates individual roadside safety treatments yield very small safety contributions, some low-cost improvements do appear to be cost effective, especially on the outside of curves. The removal of certain trees and relocation of utility poles may be recommended. Also cited as being cost effective are the placement of guardrail above steep slopes, removal

of unnecessary guardrail on flat slopes, and the flattening of steep but low embankments. In this regard, it is most important that the Engineer is aware of pertinent published recommendations and associated research. In the final analysis, the Engineer must apply their own professional judgment in making the final design decisions, and be prepared to defend and justify them if necessary.

6.5.10 ROADSIDE CONTROL

6.5.10.1 Cut/Fill Slopes

Fill slopes shall be constructed no steeper than 2 H: 1 V for curbed sections and 4 H:1 V on shoulder sections. Cut slopes shall be no steeper than 2 H: 1 V without geotechnical engineering justification, or 1 H: 1 V with geotechnical engineering justification. Flatter slopes are preferred and will be required if there are indications that the earth is unstable and subject to sliding, sloughing, or erosion. Fills are to be constructed using appropriate materials, compaction methods, and construction techniques to ensure stability.

Side slopes shall be stabilized by grass sod, hydroseed, other planting or surfacing materials, or by the use of other material types acceptable to the City. Side slopes may also be flattened to accommodate utility placement. Side slopes higher than 15 feet shall be terraced with 5-foot minimum wide bench for every 15 feet of vertical height sloped to drain properly.

6.5.10.2 Mailboxes

Mailboxes shall be installed as far removed from the driving portion of the right-of-way as possible, so as not to obstruct sight distance, yet still be accessible to the U.S. Postal carrier. Mailbox supports shall be of breakaway design. U.S. Postal Service approval of type and design shall be required and any details provided by the U.S. Postal Service shall be included in the set of construction plans. Mailboxes shall maintain minimum clearances in accordance with ADA requirements and shall not obstruct sidewalks and/or walkways.

6.5.10.3 Landscaping

Street trees and other vegetation over 18 inches in height located within City right-of-way shall be placed a minimum of 3 feet back from the gutter line. Street trees shall be placed a minimum of 2 feet from any pedestrian facility and conform to the type and size outlined in Title 18 of Edgewood Municipal Code. Additionally, street trees used within City right-of-way shall not conflict with overhead utilities, traffic control devices, sight distance or visibility requirements, and root development shall not conflict with underground utilities, pavement, curbs, sidewalks, walkways, shared-use paths, or storm drainage facilities. Irrigation systems not specifically permitted or licensed by the City Engineer must be installed on private property.

6.5.10.4 Guardrails

Consult the *WSDOT Design Manual*, *AASHTO Roadside Design Guide*, and *FHWA Barrier Guide for Low Volume and Low Speed Roads* to determine guardrail design and needs.

If it has been established that guardrail is justified on a particular improvement, the Engineer must determine the best location, type of construction, and post-spacing that would be most appropriate for the function and anticipated traffic volume of the facility. The designer should be aware that warrants and designs developed for high-volume, high-speed facilities are not necessarily appropriate for low volume and/or low speed locations.

6.5.11 ON-STREET PARKING

When properly located, on-street parking can supplement off-street parking facilities. However, it should be allowed only where conditions are safe and where the impact on traffic flow is acceptable. On-street parking shall be allowed only with the approval of the City Engineer. Inappropriate on-street parking may impede traffic flow, contribute to accidents, or cause congestion. On-street parking will not be permitted along principal arterials. When used in residential developments, parallel parking areas or bays shall be delineated by the use of curb and gutter; Curb bulb-outs may be used at the intersections and other appropriate locations to separate the parking area from the through vehicular lanes of travel. The Engineer's design for on-street parking and curb bulb-outs shall be consistent with the Standard Details in Appendix H.

6.5.12 DEAD ENDS AND TURNAROUNDS

When designing a local street opened at one end only, the Engineer shall provide for a vehicle turnaround area typically referred to as a cul-de-sac bulb. The bulb area should be circular and have a radius appropriate for emergency vehicles. Acceptable designs for cul-de-sac bulbs are provided in the Standard Details in Appendix H. Cul-de-sac bulbs shall not be designed with superelevation. Temporary cul-de-sac bulbs (see 6.3.2.3) are not allowed without the written approval from the City Engineer.

Hammerhead-style turnarounds may be considered on Shared Access Facilities and other private vehicular access facilities, upon City Engineer approval, in accordance with the Standard Details in Appendix H.

6.5.13 VERTICAL CLEARANCE

All roads, cul-de-sacs, and turnarounds must have a minimum vertical clearance of 16.5 feet.

6.5.14 OBSTRUCTIONS IN PUBLIC ROAD RIGHT-OF-WAY OR PRIVATE ROAD EASEMENTS

Obstructions normally located on private property, including but not limited to fences, landscaping retaining walls, basketball hoops, or yard fixtures are not allowed within the public road right-of-way or private road easement.

Obstructions such as street lighting poles, power poles, utility boxes, telephone boxes, street trees, and/or landscaping material shall not be allowed in a manner or location that will interfere with the traveled surface, pedestrian area, and shoulder area.

Sight obscuring objects must be located so that required sight distances are still provided as required in these Public Works Standards.

6.6 ACCESS AND INTERSECTIONS

6.6.1 ACCESS CONTROL

Driveway approaches and intersection location, spacing, and design are fundamental to the management of access and preservation of capacity provided for in the roadway design. The functional classification of each roadway addresses the appropriate level of access control for that roadway. The Engineer may be required to furnish an access plan that will be used by the City to review what impact the proposed access will have on the road system.

Design criteria used for residential and commercial driveway approaches are outlined below. Roadway intersection design criteria are to be used whenever an approach roadway intersects another road, or if traffic signalization is warranted as defined in the current edition of the *Manual on Uniform Traffic Control Devices*. All roadway intersections, public or private, will use roadway intersection design criteria.

When a three or more lane approach is requested, a traffic engineering study along with a signing, striping, and traffic channelization plan shall be completed by the Engineer.

The adequacy of all criteria given in this section to the particular situation in question should be checked by a proper engineering analysis. These criteria are minimum guidelines only and may be modified according to traffic volumes and mix, topography, design speed, design vehicle requirements, and other conditions.

6.6.1.1 General Criteria

The specific geometric requirements for all driveway approaches are contained in the Standard Details in Appendix H. Roadway and driveway approaches, public or private, should be designed so as not to interfere with drainage.

For intersections and driveway approaches, the following general design criteria shall apply:

- A. Intersections shall not be located on curves with radii that are less than the minimum required for 5 mph above the design speed. Intersections shall be located a sufficient distance along or away from all curves to

provide and maintain proper sight distance for vehicles on the intersecting road or driveway approach and on the through road.

- B. Intersections within a local street system should be of the “T” type or four-leg wherever possible; for lower volume and speed facilities, “L” type intersections may be acceptable upon City Engineer approval.
- C. Multi-leg intersections (i.e., those with more than four legs) are not permitted.
- D. Whenever a potential feasible access exists to any property from two or more roads, the City may refuse access from the higher-classified road.
- E. Whenever a potential feasible access exists to any property from both a public road and private easement, the City may refuse access from the public road.
- F. Access to corner lots should be from the lesser-classified road at the greatest distance possible from the intersection.
- G. The number of intersections should be minimized as much as possible, particularly as classification of the affected roads increases. Intersection spacing should be maximized wherever possible.
- H. New access locations internal to the platting of property shall be unified whenever possible to create the fewest number of access points onto a road if they access roads of a classification higher than a local street. Lots of record in existing formal plat subdivisions, short plats, and large lots not served by driveway approach shall be permitted a minimum of one residential driveway approach.
- I. Entering sight distance for a proposed intersection (public or private) or driveway approach shall be provided in accordance with Section 6.4.1.
- J. Access to the abutting property shall be controlled along the access centerline from the right-of-way or easement into the property for a distance of 80 feet on a major driveway approach and 20 feet on a minor driveway approach unless otherwise approved by the City.
- K. The minimum distance between the paved edge of a driveway approach and the face of an obstruction, including above-grade utility appurtenances, shall be no less than 4 feet without curbing and no less than 3 feet with curbing on the approach.

Notwithstanding the requirements of this section, the number and location of driveway approaches and intersections may be more restrictive than described herein if deemed necessary by the City Engineer. The City shall base the determination on existing and projected traffic volumes and channelization/signalization on the existing road, turning movements generated by the existing and/or proposed project(s), the amount of lot frontage along the road, and other applicable traffic design criteria, as well as other driveway approaches in the vicinity of the proposed access.

In order to minimize the number of conflicts between vehicles entering and exiting the roadway and vehicles traveling along the roadway, the Engineer is encouraged to exceed the minimum distances between a proposed driveway approach or proposed road intersection and existing intersections and driveway approaches along either side of the roadway.

6.6.2 DRIVEWAY APPROACHES

No person, party, firm, corporation, or entity shall construct, repair, alter, maintain or use any approach from any abutting property to any public or private road located in City of Edgewood, be it permanent or temporary, without first obtaining a Driveway Approach Permit from the City. A copy of each Driveway Approach Permit shall be available for inspection at the site during the life of the permit. Any change of use or any improvement that increases the traffic volumes using an existing driveway approach will require the obtaining of a new Driveway Approach Permit and must otherwise comply with all standards.

Driveway approaches are deceptively simple in appearance and often do not receive the design consideration that they merit. Commonly overlooked design issues include inadequate radii at the intersection with the roadway, excessive approach grades and grade changes within the driveway approach area, inadequate width, and inadequate entering sight distance.

Driveway approach design needs to address the type of vehicle composition anticipated, traffic volume, and land use activities being accessed. Driveway approach placement needs to be carefully determined to minimize interference with normal roadway operation. Closely spaced driveway approaches are discouraged.

The design of the driveway approach is broken into three general classifications, which are:

- Residential Driveway Approach serves up to two single-family residences or one duplex unit, and infrequently used accesses such as for storm drainage facility maintenance.
- Minor Driveway Approach serves multi-family and commercial uses with approach traffic volumes of up to 1,500 vehicle trips per day or up to 150 vehicles trips per peak hour, or for Shared Access Facilities.
- Major Driveway Approach serves multi-family and commercial uses with

an approach traffic volume of 1,500 or more vehicle trips per day or 150 or more vehicle trips per peak hour.

When multi-access points are allowed to serve one site, each driveway approach must conform to the applicable driveway approach classification.

6.6.2.1 Residential Driveway Approach

Residential Driveway approaches shall be constructed in accordance with the Standard Details in Appendix H. Grading and restoration of an access beyond the end of the driveway approach shall be done to provide a smooth, passable, and safe transition.

There shall be no more than one residential driveway approach onto any road for any one residence unless otherwise approved by the City Engineer. The second approach may only be approved when the applicant clearly demonstrates the need and that the safety on the road system will be improved, to the satisfaction of the City Engineer.

Residential Driveway approaches shall be constructed the maximum practical distance from an intersection. At least 35 feet separation shall be provided between a Residential Driveway Approach and an intersection, as measured from the nearest road right-of-way or easement/tract line of the intersection to the nearest edge of the approach. In the case where adequate lot frontage is not sufficient to provide the required separation from an intersection, the driveway approach should be located the maximum practical distance away from the intersection.

When lots are created or altered through a land use process, Residential Driveway Approaches will not be permitted onto roadways with either an arterial or collector classification. Further, particularly when lots with minimal frontage are used, the layout and design of the lots should use creative techniques to maximize access spacing from intersections. Techniques for maximizing this spacing may include a shared facility with an adjacent lot away from the intersection; locating property lines such that any lot extends no further than halfway into an intersection; and, providing open space (or other use) tracts between lots at intersections.

For existing lots with no alternative access to a lower classified roadway, Residential Driveway Approaches on a collector or an arterial roadway shall be located a minimum of 10 feet from the side property line, as measured from the property line to the nearest edge of the access.

6.6.2.2 Minor and Major Driveway Approaches

Minor and Major Driveway Approaches shall be constructed in accordance with the Standard Details in Appendix H. Grading and restoration of the access beyond the end of the driveway approach shall be done to provide a smooth, passable, and safe transition to the existing facility.

Minor and Major Driveway Approaches shall be located a minimum of 125 feet from an intersection, as measured from the nearest road right-of-way or easement/tract line of the adjacent intersection to the nearest edge of the approach. Along an arterial roadway they may also be located directly across from a collector or local street intersection. Physical site conditions and spacing of existing driveway approaches may cause the City to require another location. Access to a corner lot with a frontage less than 155 feet in width will be established on a case-by-case basis by the City, with the driveway approach located to maximize safety, which may require a “right in/right out” only access configuration.

Minor Driveway Approaches shall be located a minimum of 20 feet from the side property line, as measured from the property line to the nearest edge of the access. Similarly, Major Driveway Approaches shall be located a minimum of 30 feet from the side property line. Alternatively, they may be located on the property line as a shared access.

The number, location, and size of Minor and Major Driveway Approaches shall be determined by the volume and type of traffic generated by the development, other driveway approaches in the vicinity of the proposed approach, the amount of lot frontage along the road, and channelization/traffic control on the road along the lot frontage. When multiple approaches to one parcel or development are permitted, they shall not be less than 125 feet apart, measured from centerline to centerline. A minimum of two driveway approaches will be required for developments that will generate 3,000 ADT or more unless other mitigating measures are approved by the City.

6.6.2.3 Construction Criteria

All driveway approaches shall be constructed in accordance with the Standard Details in Appendix H. Driveway approaches along roadways being widened or reconstructed shall, where practical, be improved to current standards, but in no case shall be less than pre-existing substandard conditions.

6.6.2.4 Temporary Driveway Approach

Temporary access needs for any parcel of land require a Temporary Driveway Approach, reviewed and approved under the Right-of-Way Permit process and subject to City Engineer approval. Temporary Driveway Approaches shall be located such that the required entering sight distance for the road being accessed is met. In the event entering sight distance is not achievable, traffic control shall be provided in accordance with the MUTCD whenever the access is in use. The City may also set requirements for traffic control as needed dependent on the type of vehicles entering the road system (i.e., large trucks may require flaggers even though entering sight distance is available).

Temporary Driveway Approaches in general shall be gravel, but the City may require paved approaches to avoid damage to the existing roadway edge, or to minimize the tracking of gravel onto the road surface.

All Temporary Driveway Approaches must be removed and the right-of-way restored within 180 days from the date of written approval, or within 30 days of any associated Temporary Use Permit's expiration, whichever occurs first.

Restoration of the City right-of-way means to restore the road, shoulder, and storm drainage system to the condition they were in prior to construction of the Temporary Driveway Approach.

Removal of the Temporary Driveway Approach means to permanently close the approach by blocking, berms, fencing, or other method suitable to the City.

No site work may commence until written approval for the Temporary Driveway Approach has been issued by the City and the temporary approach has been constructed and inspected.

Prior to approval of a Temporary Driveway Approach, a financial guarantee may be required in accordance with EMC 12.05.

6.6.3 ROADWAY INTERSECTIONS

The following guidelines encourage the preservation of capacity and safe operation of roadways through intersection location and design. Please refer to the WSDOT *Design Manual* and AASHTO Green Book for additional information.

6.6.3.1 Spacing

The minimum distances between any roadway approach onto any other roadway, measured from centerline to centerline of the roadway, should apply for either same side or opposite sides of the primary street:

Local Streets Intersecting Local Streets	125 Feet
Local Streets Intersecting Arterials or Collectors	250 Feet
Collectors Intersecting Collectors	600 Feet
Arterials Intersecting Arterials	1/4 Mile

A new collector that creates a four-leg intersection shall be permitted along an arterial or collector when located directly opposite either a local street, collector, or arterial.

A new local street that creates a four-leg intersection shall be permitted only along an arterial or collector when located directly opposite a local street or collector.

A new arterial roadway that creates a four-leg intersection opposite a local street requires City Engineer approval.

The required separation of a roundabout from an adjacent intersection shall meet the following criteria:

- A minimum distance of 300 feet, measured from the end of the raised splitter island to the centerline of the adjacent local road intersection, provided a traffic/queuing study determines that this distance is sufficient to accommodate any left-turn storage needs for traffic exiting the roundabout and turning left into the adjacent intersection.
- Where the adjacent intersection is a “Tee” such that traffic exiting the roundabout will only be either going thru or turning right into the adjacent intersection, the distance may be reduced to 200 feet with the approval of the City Engineer.
- For adjacent arterial roadway intersections, greater distances may be required, as determined by the City Engineer.

6.6.3.2 Angles

Proposed roads should intersect one another as close as practicable to 90-degree angles. If a 90-degree angle is not possible, the variation shall not be more than 15 degrees without City Engineer approval. In order to achieve the desired vehicle orientation to the roadway being entered, a minimum tangent length shall be provided between the roadway intersection and the beginning of any horizontal curve for the entering road. This minimum tangent length shall be 50 feet from the point of intersection of the roadways to the point of curvature of the horizontal curve.

6.6.3.3 Corner Radii

At road intersections, the following flow line radii are permitted:

Local Street – Local Street Intersection	25 Feet
Local Street – Collector Intersection	30 Feet
Local Street – Arterial Intersection	35 Feet
Collector – Collector Intersection	30 Feet
Collector – Arterial Intersection	35 Feet
Arterial – Arterial Intersection	35 Feet

Corner radii outside of the above ranges should be considered if the anticipated composition of traffic warrants such a need. The Engineer should prepare a turning path analysis to support consideration of larger corner radii.

6.6.3.4 Grades

When either of the road centerline profile grades within 35 feet of an intersection have a gradient of 8 percent or more, an intersection detail drawn to an appropriate scale must be included as a detail on the road construction plans. The detail will show spot elevations every 10 feet on the road centerline, around the curb return, and grate elevations for drainage structures in the intersection. The intersection plan must be clearly detailed to show flow line grades and how surface drainage will be controlled at

the intersection. Curb return data for lesser gradients shall be shown on the road construction plans.

At the intersection of different classifications of roads (e.g., an arterial with a collector), the centerline slope and typical cross section of the higher classified road should be carried through the intersection with the lower classified road matching in a manner which will not interfere with the smooth movement of traffic in the travel lanes of the higher classified road. (i.e., the centerline grade of the lower classified road should match the cross slope of the higher classified road through the higher classified road's travel lanes)

Where two roads of the same classification intersect, the centerline grade shall be matched at the center of the intersection with cross slopes varying through the intersection to allow drainage.

Roadway intersections shall be designed with landings that shall not exceed 1-foot difference in elevation for a distance of 30 feet approaching an arterial or 20 feet approaching a local road, measured from the nearest right-of-way (extended) or private road easement/tract (extended) of the intersecting roadway.

Profile grades for all road intersections (existing or proposed) shall be designed and constructed so that adequate sight distance is available at the intersection.

6.6.3.5 Extending Dead End Public Roads

Private road approaches shall not be directly extended from the end of a public road along the same alignment. Private road approaches to a public road at the public road terminus shall meet the "L" or "T" intersection criteria. In the event that there is not an existing public turnaround available (public cul-de-sac, public "T" intersection, or looped public road system) at the terminus of the existing public road, the "L" or "T" intersection area shall be dedicated to the public.

Minor and major driveway approaches shall not be directly connected to the end of a public road. Minor and major driveway approaches must connect to public roads at approximately a right angle to the roadway centerline in accordance with the applicable driveway approach standard details.

6.6.4 RAILROAD CROSSINGS

The roadway width across a railroad should be the same as the roadway width on each side of the crossing. Appropriate grade crossing controls should be provided (including advance warning signs) commensurate with the design speed of the facility and sight distance required. Maximum practicable sight distance at the crossing itself is desirable, especially on a mainline crossing where train speeds are high. Approval of any design affecting a railroad crossing shall be obtained from the Washington State Utilities and Transportation Commission prior to being approved by the City.

6.6.5 GATES

Standards for vehicular gates are intended to assure that:

- Emergency vehicles and users can safely and quickly gain ingress and egress.
- Vehicle queuing at a gate does not impact traffic on the road being exited.

Gates proposed to be located across the following facilities shall comply with the standards and process contained in **Appendix A**:

- Private roads,
- Shared access facilities,
- Driveways that provide emergency vehicle access, and
- Easements for tracts that provide vehicular access.

Gates proposed to be located across the following facilities must only comply with the gate setback standards contained in **Appendix A**:

- Driveways that do not provide emergency vehicle access.
- Accesses for stormwater facility maintenance.

6.6.6 SHARED ACCESS FACILITIES

The maximum length of a shared-access facility serving single-family, or two-family, dwelling unit lots is 500 feet. The length of a shared-access facility serving commercial or industrial use lots shall not be greater than 500 feet, unless provisions are implemented that assure vehicle speeds of less than 20 miles per hour. Lengths are measured from the centerline/centerline intersection of the shared-access facility with the intersecting roadway.

The minimum driving surface width of shared access facilities shall be as follows:

Use / Purpose	With Fire Sprinklers	Without Fire Sprinklers
<i>Residential, up to 2 dwelling units</i>	15'	15'
<i>Residential, 3 to 4 dwelling units</i>	20'	20'
<i>Residential, 5 or more dwelling units</i>	20'	24'
<i>All other uses</i>	22'	24'

Fire sprinklers must conform to National Fire Protection Association (NFPA) requirements. Multi-family and commercial structures three stories and greater, or over 30' in height, shall have access roads in accordance with International Fire Code Appendix D105 to accommodate ladder trucks.

Shared-access facilities are required to be in private easements or private tracts. The easement or tract widths must exceed the driving surface width by at least six inches on each side.

For shared-access facilities that are intended to provide access for emergency vehicles, the minimum outside turning radii for the driving surface shall be 45 feet for all curves. Otherwise, the driving surface must be designed to allow for reasonable ingress and egress from each lot or garage. To be considered reasonable, the alleys must be designed to minimize turning movements by a passenger vehicle (P vehicle as per the American Association of State Highway and Transportation Officials).

CHAPTER 7

BRIDGES AND WALLS

7.1 BRIDGES

Design of bridges shall be closely coordinated with the City Engineer in order to receive specific design direction and parameters, meeting the following minimum criteria:

Deck Width:	The minimum bridge deck width shall not be less than the design roadway width for the road being served. Roadway width includes lane width plus shoulder width. Bridge roadway width shall be measured between curbs or between face of rails, whichever is less, but in no case shall be less than 28 feet. Pedestrian facilities shall be provided on the bridge if the adjoining roadway has or will have sidewalks or walkways. Additional widening shall also be provided for bicycles if the road is an established bicycle route.
Live Loading:	HL-93
Other Loading:	AASHTO LRFD Bridge Design Specifications (Current Edition)
Vehicular Railing:	AASHTO LRFD Bridge Design Specifications (Current Edition)
Pedestrian Railing:	AASHTO LRFD Bridge Design Specifications (Current Edition)
Approach Railing:	AASHTO Crash Tested Rail, or Approved Crash Tested Rail
Vertical Clearance:	16.5-foot minimum over roadways; 23.5-foot minimum over railroads, unless additional clearance is required by railroad company. Clearances shall also be in accordance with Edgewood Flood Hazard regulations. Additional clearance may be required by the City Engineer.

Requirements for future resurfacing shall be duly considered.

Utility accommodation shall be in accordance with the Manual on Accommodating Utilities in Pierce County Rights-of-Way, as adopted under EMC 12.02.

The aesthetic aspects of the bridge will be reviewed on a case-by-case basis.

7.2 WALLS

Wall installations in the public right-of-way will be discouraged wherever practicable, and every effort should be made by the design engineer to grade the property in such a way as to avoid the installation of walls. If a wall is determined to be necessary, consideration shall be given to the design and placement of the wall to maximize the clear area, including placement of the wall outside of the right-of-way on private property. Any wall constructed within the roadway clear area shall have the appropriate barrier protection provided as determined by the Engineer.

A chain link fence or acceptable alternative shall be required at the top of a new or reconstructed wall if the height of the exposed face of the wall exceeds 30 inches. For walls less than 30 inches, the City Engineer may require a fence or other protection.

All retaining walls and reinforced slopes within City ROW, or walls or slopes that may affect City ROW, shall be designed in accordance with the WSDOT Geotechnical Design Manual and the following documents:

- WSDOT Bridge Design Manual
- WSDOT Design Manual
- AASHTO LRFD Bridge Design Specifications

The most current versions or editions of the above referenced manuals including all interims or design memoranda modifying the manuals shall be used. In the case of conflict or discrepancy between manuals, the hierarchy shall be those manuals listed first shall supersede those listed below them in the above list.

Geotechnical design criteria shall be provided by a geotechnical engineer. Plans and specifications for each retaining wall to be located within the City right-of-way shall be designed, stamped, and signed by an engineer.

Any retaining wall constructed for a roadway fill section shall provide a minimum one-foot setback from any portion of the wall to the right-of-way to allow for wall maintenance and inspection activities.

CHAPTER 8

TRAFFIC CONTROL AND LIGHTING

8.1 SIGNS

All traffic signs must conform to the MUTCD, as adopted by the State of Washington pursuant to WAC 468-95-010. All traffic signs within the City right-of-way shall be installed in accordance with the requirements of the City Engineer.

8.1.1 STOP SIGNS

Stop signs shall be installed by the proponent on all unsignalized local public road approaches to arterials or State highways, all private road approaches to arterial roads, and at other locations determined by the City Engineer as soon as the road approach is opened to vehicular use. The stop sign for a private road approach must be maintained by the property owner(s) that have legal access to the private road. Stop sign construction and location must be in accordance with the Standard Drawings.

8.1.2 STREET NAME SIGNS

Street name signs for private roads or driveway approaches shall be installed by the proponent. Street name signs for private roads and driveway approaches shall be maintained by the property owner(s) that have legal access to the road or approach. Street name signs for public roads will be installed and maintained by the City. Street name sign construction and location must be in accordance with the Standard Drawings. Street names and/or numbers shall be in accordance with Title 10.44 PCC. Street name signs for private roads and driveway approaches shall be installed prior to the final inspection.

8.2 PAVEMENT MARKINGS

Pavement markings are required on all arterials and roadways having channelization, consistent with the requirements of the City. Roadway striping, raised pavement markers (RPMs) or other traffic delineators shall be installed in accordance with the approved plans, the Standard Drawings, and the MUTCD (as adopted by the State of Washington pursuant to WAC 468-95-010).

RPMs can only be used along the right edge line at locations where an engineering study has determined the markers are essential to preserving pedestrian, bicycle, and motor vehicle safety. At the initiation of the engineering study, local bicycling organizations, the regional member of the State Bicycling Advisory Committee, or the WSDOT Bicycle and Pedestrian Program Manager shall be notified of the study for review and comment.

The City reserves the right to do all striping, buttoning, and delineation work. Reimbursement to the City shall be made before acceptance of the overall project for

dedication or maintenance and before the City releases the financial guarantee. The Engineer will indicate on the approved road construction plans that the City Engineer shall be contacted prior to construction to confirm the City's intent to do the work and charge the proponent or, if not feasible, require the proponent to do the work. If the City elects to do the work, the proponent will be required to submit a financial guarantee to the City in an amount established by the City before the work starts. Before any pavement marking work takes place, the Engineer and/or Contractor shall contact the City Engineer. An onsite meeting may be required to preview the work, markings, layout, and method of construction.

8.3 SIGNALS

Any new traffic signal proposed along State Route 161 must be supported by an Intersection Control Evaluation submitted to WSDOT for review and acceptance. Traffic signals proposed along other city streets shall be supported by a signal warrant analysis as identified in the most recent version of the MUTCD. Design of traffic signals, when required, shall comply with requirements in WSDOT *Design Manual* and WSDOT *Standard Plans for Road, Bridge and Municipal Construction*. New traffic signal locations shall be coordinated with the City and the electrical service provider.

8.4 ILLUMINATION

Many factors go into determining the need to provide lighting, the type of lighting configuration to be used in any given condition, and the placement of the street lighting supports and fixtures; thus, street lighting should not be placed indiscriminately along the roadway and the determination to provide street lighting should be coordinated with the City Engineer.

All design plans for street lighting that will be assumed by the City on public streets shall be specifically approved by the City prior to the beginning of construction.

For pedestrian- and/or vehicle-oriented light standards that will be assumed by others (e.g., franchised utilities, private entities), the proposed locations shall be shown on the roadway plans for review of compliance with any development requirements or conditions. The party responsible for operating the illumination system shall be identified on the plans.

Pedestrian- and/or vehicle-oriented illumination systems for public streets that will be operated by parties other than the City or franchised utilities shall be located outside of the public street right-of-way whenever practicable.

Light standards shall be placed such that the nearest face of the pole is a minimum of 6 feet back from the edge of traveled way when a curbed section is used. In no event shall the pole be placed closer than 2 feet from the face of curb, such as when a paved shoulder or a parking lane is provided. When no curb is used, the nearest face of the pole shall be placed a minimum of 10 feet back from the edge of traveled way, but in no

event shall the structure be placed closer than 0.5 feet from the back of shoulder. The light standard shall not be placed within any shoulder, sidewalk, walkway, or shared-use path. Additionally, light standards used within City right-of-way shall not conflict with overhead utilities, traffic control devices, sight distance or visibility requirements, and the base (subsurface) portion of the structure shall be flush with the surrounding ground elevation and shall not conflict with underground utilities, pavement, curbs, sidewalks, walkways, shared-use paths, or storm drainage facilities.

8.4.1 LOCATIONS

Street lighting is provided as a means of further enhancing traffic safety at the following qualifying locations:

- A. Signalized locations.
- B. When raised median channelization is installed within the traveled way to separate opposing directions of traffic and guide or prohibit left turning traffic.
- C. As a part of roadway construction projects, continuous street lighting on all arterials and collectors that are:
 - 1. Located in areas with a highly dense concentration of commercial development, and in areas that have a significant concentration of both commercial and high-density multi-family development, or
 - 2. More than two continuous lanes in width (excluding isolated turn pockets).
- D. Arterial locations having high reported accident histories in which a significantly large proportion of those accidents occurred at night.
- E. Intersections that have been identified for future signalization where lighting can be economically installed on a short-term basis.
- F. Locations that are identified, authorized, and funded by the City for traffic and pedestrian safety in the following areas:
 - 1. Established walking routes to a specific public school.
 - 2. Walking routes to a specific public park.
 - 3. Other locations determined in consultation with a school district or law enforcement agency for student and pedestrian safety purposes.

8.4.2 LIGHTING STANDARDS

Where lighting is installed, the following minimum requirements shall apply:

- A. Lighting design levels shall be consistent with the guidelines set forth in the most current versions of the following:
 - 1. “Roadway Lighting Design Guide”, published by AASHTO.
 - 2. “The Lighting Library – Lighting for Exteriors” IES Standards for lighting, published by the Illuminating Engineering Society.

The minimum required lighting levels shall be as follows:

Location	Minimum Average Maintained Horizontal Light Level (fc)	Minimum Light Level (fc)	Maximum Uniformity (fc)
Arterial Street	1.2	0.2	3:1
Collector Street	0.8	0.2	3:1
Arterial Intersection	2.0	0.2	3:1
Signalized Intersection/Roundabout	2.4	0.2	3:1
Midblock RRFB	2.4	0.2	4:1
Sidewalks along Arterial/Collector	0.4	0.2	4:1
Pedestrian Lighting (8.4.1 §C.1)	1.0	0.5	4:1

- B. For local street intersections and cul-de-sacs, the minimum average maintained lighting level shall be 4 lux (0.4 footcandles) with an average to minimum uniformity ratio of 6:1. The typical lamp used should not exceed 150 watt or equivalent, for energy efficient lighting such as LED or other approved options. Total downward luminaire efficiency should be at least 50 percent.
- C. All light bulbs shall have a 3K color temperature or equivalent.
- D. Lighting fixtures shall prevent light trespass into the sky and adjacent properties through methods such as shielding, downward directional lighting, or specialized fixture optics.
- E. Pedestrian-oriented light standards shall be Cyclone Prairie Fixtures mounted on 8'-tall decorative poles with Montreal Tall Base BCMON1942, as depicted in **Appendix XX**, or equivalent as approved by the City Engineer.
- F. Vehicle-oriented light standards shall be Puget Sound Energy standard fixtures mounted on decorative poles and arms with Montreal Tall Base BCMON2442, as depicted in **Appendix XX**, or equivalent as approved by the City Engineer. The pole height shall be 40' along State Route 161 /

Meridian Ave E, and 30' otherwise.

- G. For temporary installations by the City to address immediate safety concerns as determined by the Mayor, Puget Sound Energy standard fixtures may be mounted on existing utility poles. These installations should be cataloged or mapped to ensure they are replaced with decorative poles as detailed above as part of any future capital improvement project in that location.

8.4.3 STREET LIGHTING IN DEVELOPMENTS

Street lighting is required in all new developments at the following locations:

- A. Signalized intersections
- B. Intersections controlled by a "Stop" or "Yield" sign
- C. Uncontrolled intersections
- D. Mid-block pedestrian crossings
- E. The end of any cul-de-sac

8.4.4 OPTION FOR LIGHTING AT NON-CITY DESIGNATED LOCATIONS

Private individuals or homeowner associations are not granted permission to install lights within the City right-of-way. Privately owned and maintained lighting shall be located on private property.

8.5 TRAFFIC CALMING

8.5.1 BULB-OUTS

Concrete curb bulb-outs shall be in conformance with the Standard Drawings and installed at the following locations:

- On any street with designated on-street parking at crosswalks and intersections
- On any street within designated school zones at crosswalks and intersections
- Along minor arterial streets with open shoulders where it intersects other minor arterial and/or collector streets
- Except for locations with warning signals, along arterial and collector streets at crosswalks

8.5.2 SPEED HUMPS

The installation of speed humps is limited to local streets (reference Section 6.3.1.2.4). Speed hump design and construction shall be in conformance with the Standard

Drawings. Speed humps shall not be placed within public right of way unless there is an objective public safety need that is demonstrated to and accepted by the City Engineer.

APPENDIX A

**RECORD DRAWING PREPARATION AND SUBMITTAL
REQUIREMENTS**

APPENDIX B

STORMWATER AGREEMENTS

APPENDIX C

PRECONSTRUCTION BONDING FORMS

APPENDIX D

POST-CONSTRUCTION BONDING FORMS

APPENDIX E

FINAL COST DATA, INVENTORY FORMS, AND BILL OF SALE

APPENDIX F

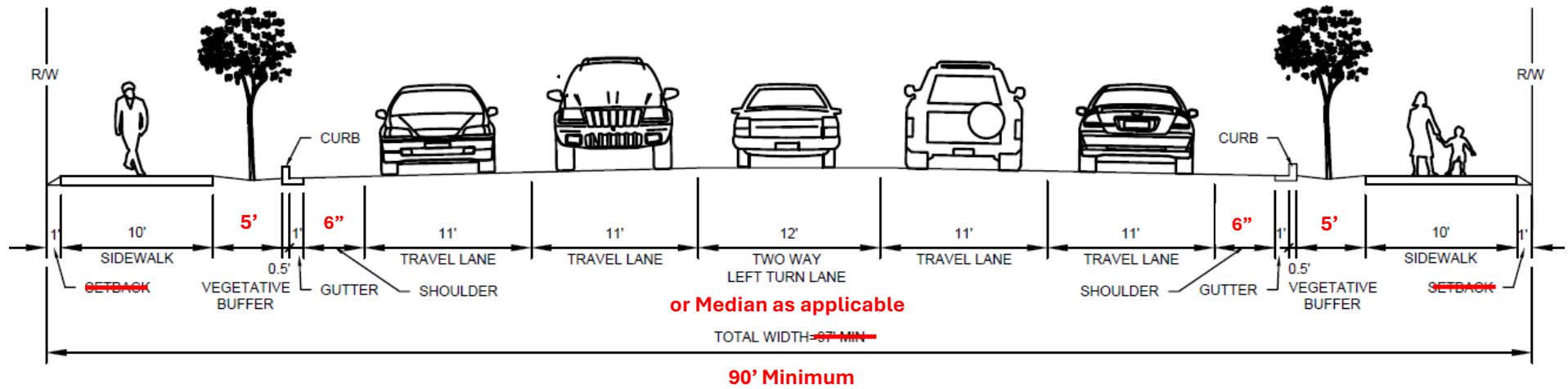
RAINFALL INTENSITY GRAPH

APPENDIX G

**SINGLE-FAMILY RESIDENTIAL INFILTRATION SYSTEM DESIGN
GUIDE**

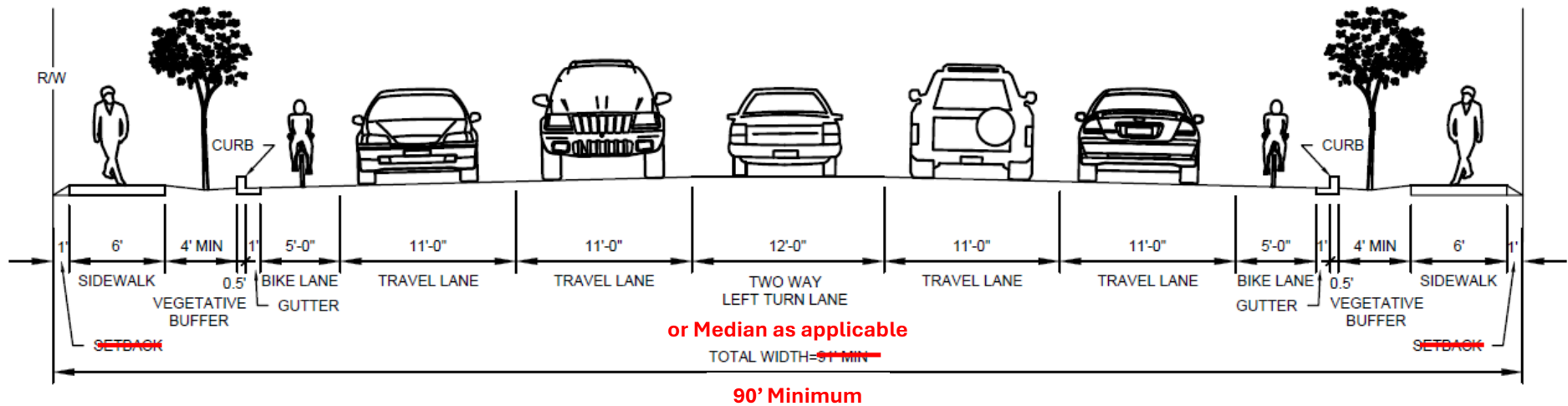
APPENDIX H

EDGEWOOD STANDARD NOTES AND DETAILS



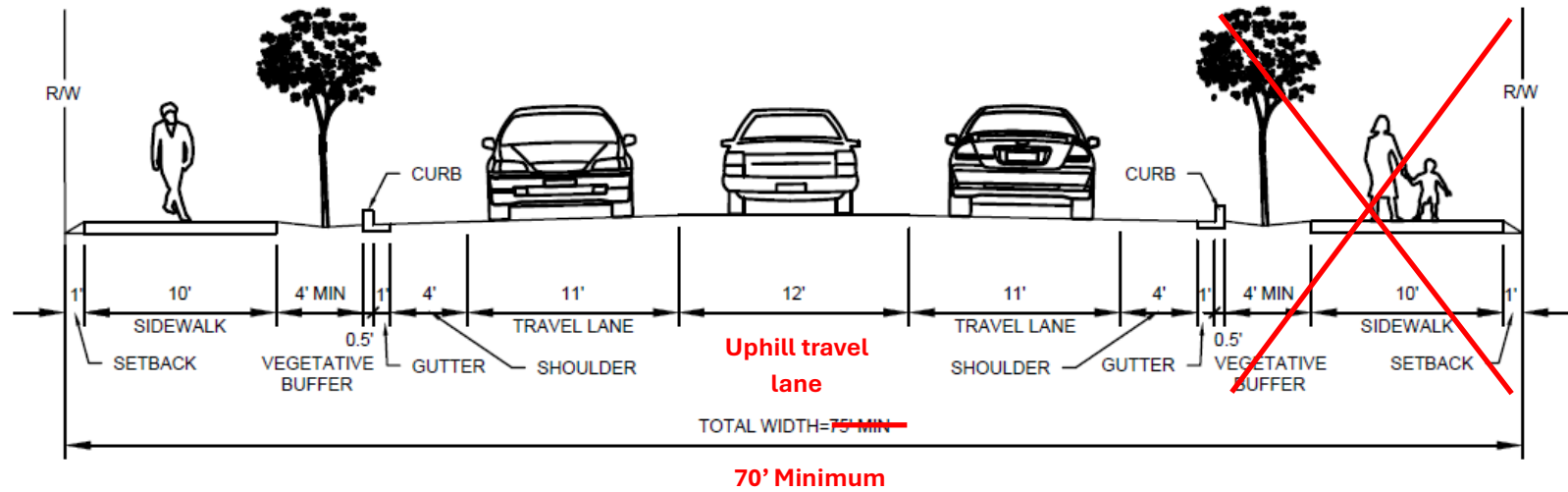
PRINCIPAL ARTERIAL - 5 LANE SECTION, NO BIKE LANES

Meridian Ave E (SR-161): South of Simon's Mill / 29th St E Vicinity to 36th St E



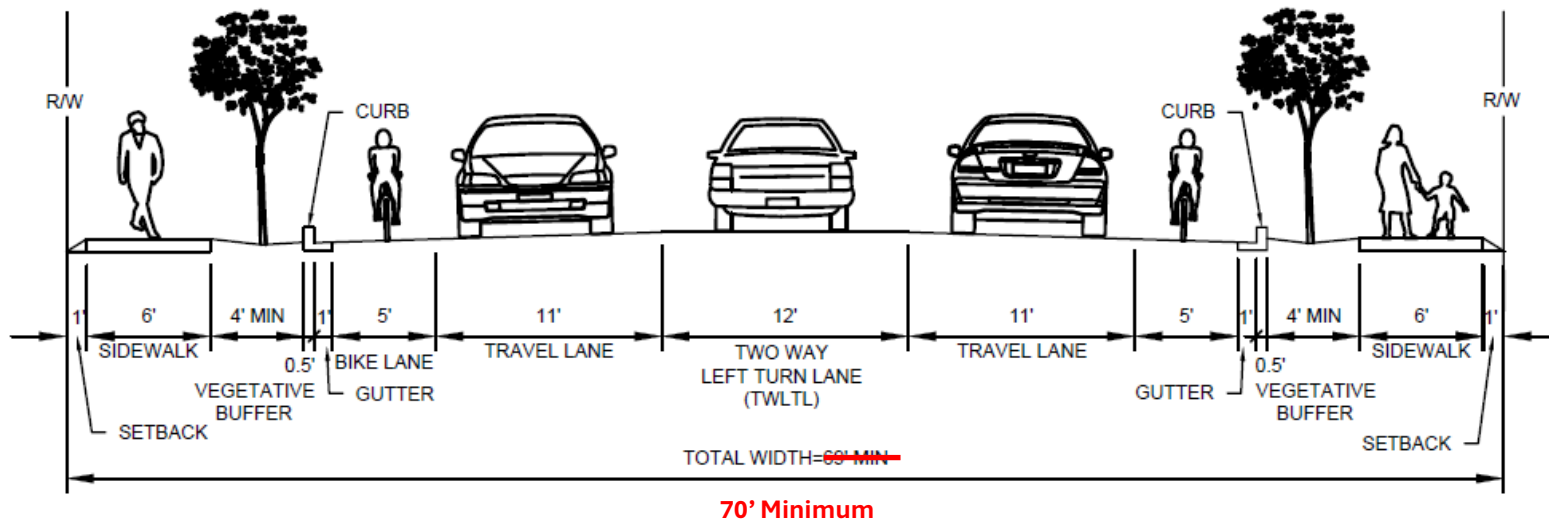
PRINCIPAL ARTERIAL - 5 LANE SECTION WITH BIKE LANES

Meridian Ave E (SR-161): North of Simon's Mill / 29th St E Vicinity to North City Limits



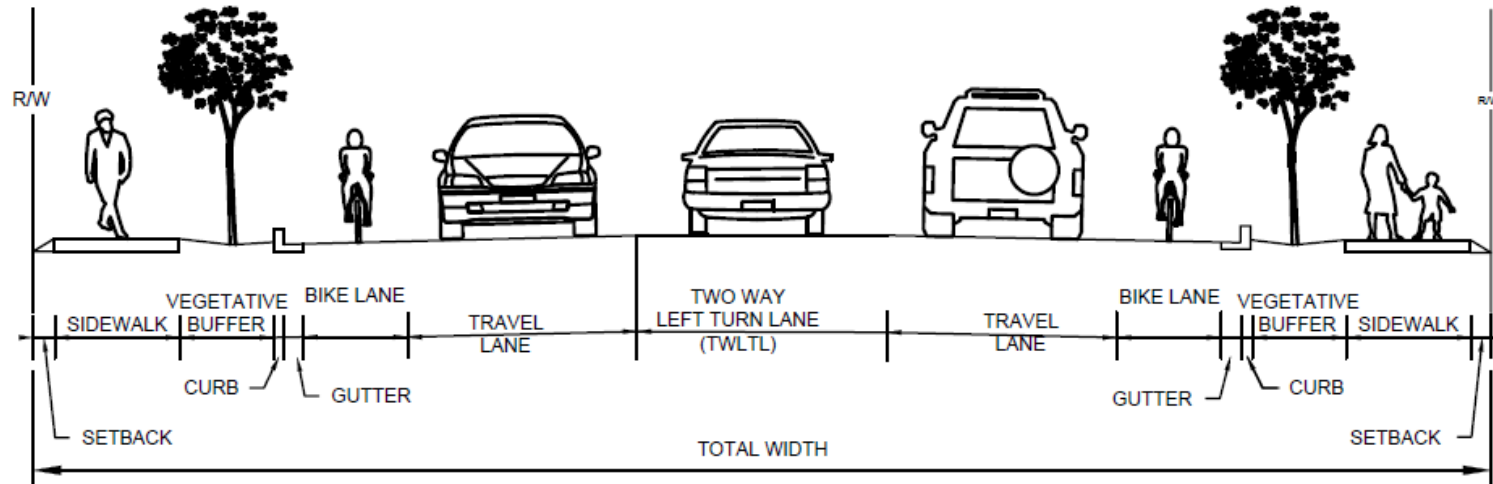
PRINCIPAL ARTERIAL SECT - 3 LANE, NO BIKE LANES

Meridian Ave E (SR-161): South of 36th St E to Dechaux Rd E



PRINCIPAL ARTERIAL - 3 LANE SECTION WITH BIKE LANES

Emerald St E, Jovita Blvd E: west of 114th Ave E

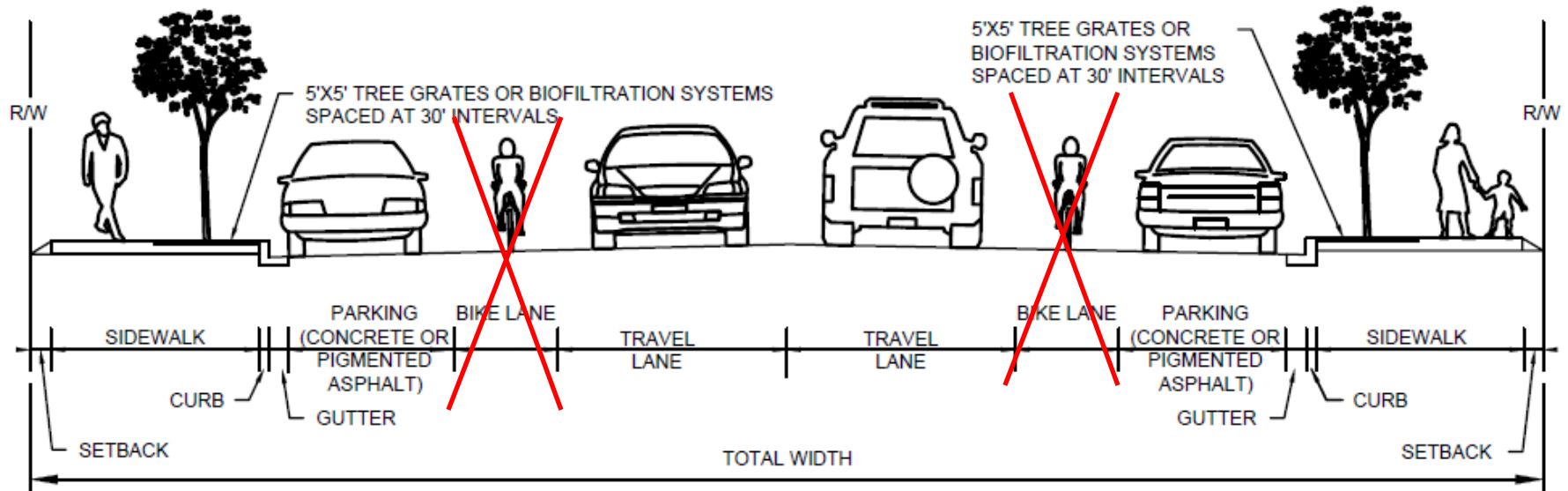


MINOR ARTERIAL

8th St E, 24th St E, 122nd Ave E

Design Section	ROW Width	Buffer	Sidewalk / Planter	Curb/Gutter	Bike Lane	Travel Lane(s)	Center Lane
Minor Arterial – 3-Lane Section	70'	Up to 3.5'	6' w/ 4' min. planter	Standard Vertical (1.5' total width)	5' from face of curb to stripe	10.5'	11' Turn Lane or Median
Minor Arterial – 2-Lane Section (TC/C/MUR Zones)	60'	Up to 1.5'	6' w/ 5' min. planter	Standard Vertical (1.5' total width)	5' from face of curb to stripe	12'	N/A
Minor Arterial – 2-Lane Section (R Zones)	60'	Up to 3'	10' Shared Use Path on one side w/ 5' min. planter*	Standard Vertical or Open Drainage	N/A	12'	N/A

* May accommodate 8'-wide on-street parking on opposite side of the section, where warranted

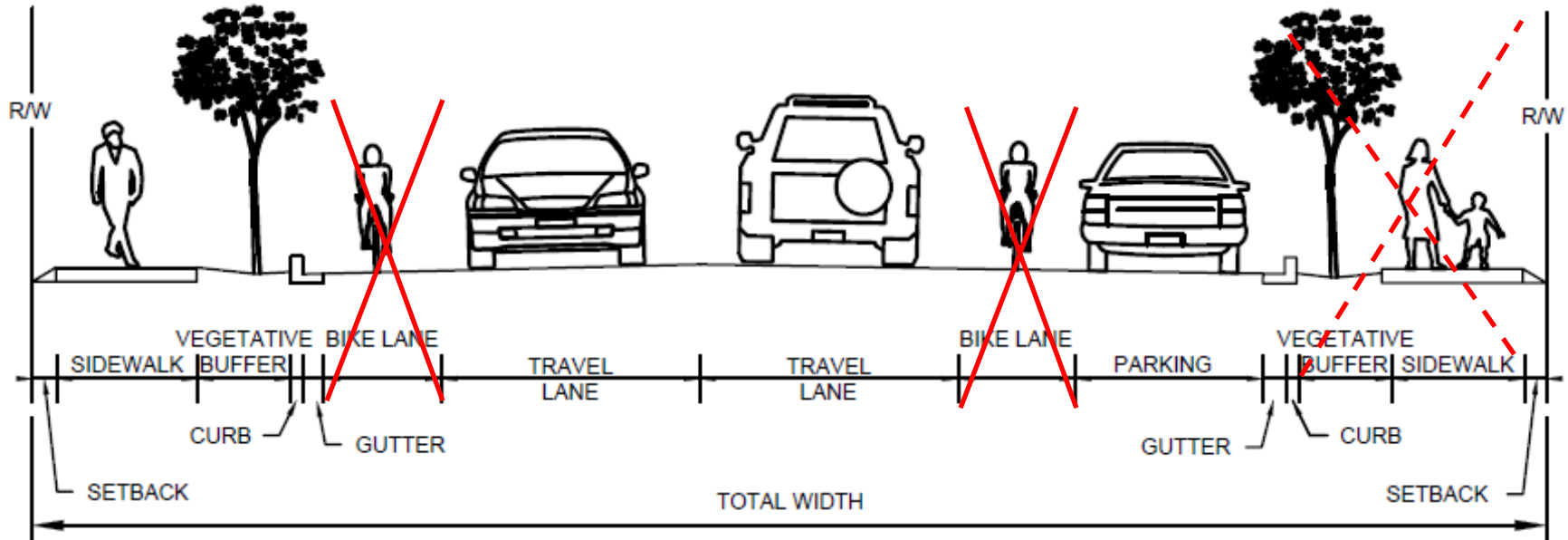


TOWN CENTER COLLECTOR

All collector arterials in the Meridian Corridor area

Design Section	ROW Width	Buffer	Sidewalk / Planter	Curb/Gutter	Bike Lane	Travel Lane(s)	Center Lane
Collector Arterial – High Density Zones	60'	Up to 0.5'	5' w/ 4' min. planter	Standard Vertical (1.5' total width)	N/A**	12'	N/A

** Provide 8'-wide on-street parking in lieu of bike lane, consider "sharrows" on arterials

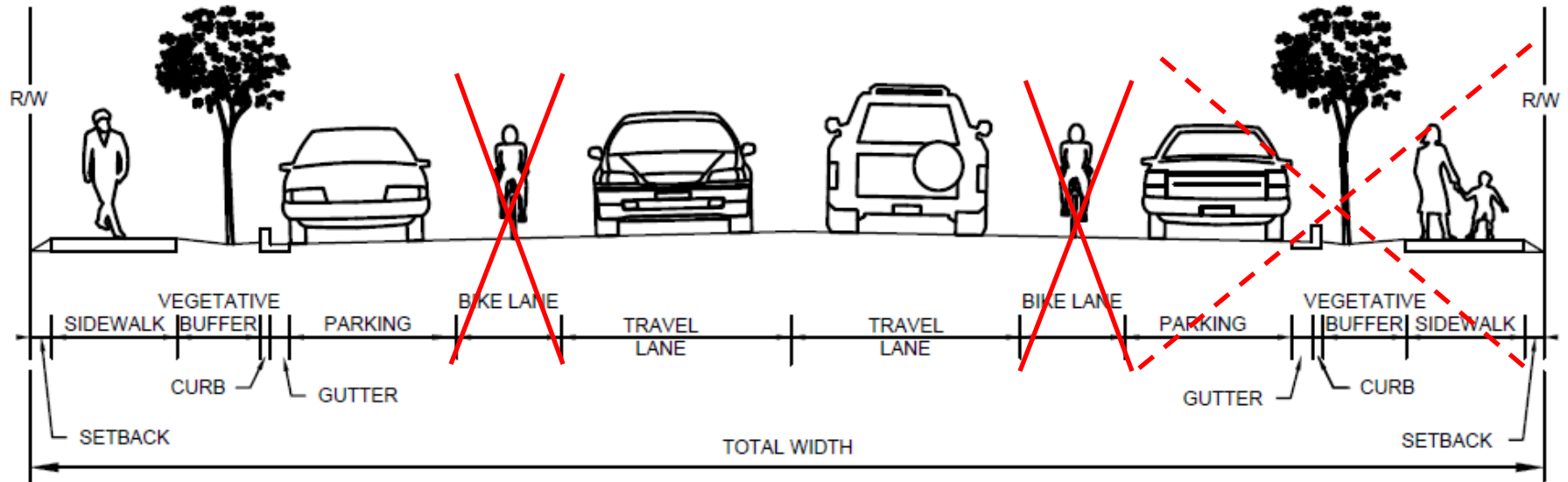


NEIGHBORHOOD COLLECTOR

All collector arterials outside the Meridian Corridor area

Design Section	ROW Width	Buffer	Sidewalk / Planter	Curb/Gutter	Bike Lane	Travel Lane(s)	Center Lane
Collector Arterial – Low Density (Residential) Zones	60'	Up to 0.5'	5' on at least one side w/ 4' min. planter (may be behind sidewalk)	Standard Vertical or Open Drainage	N/A**	12'	N/A

** Provide 8'-wide on-street parking in lieu of bike lane, consider "sharrows" on arterials



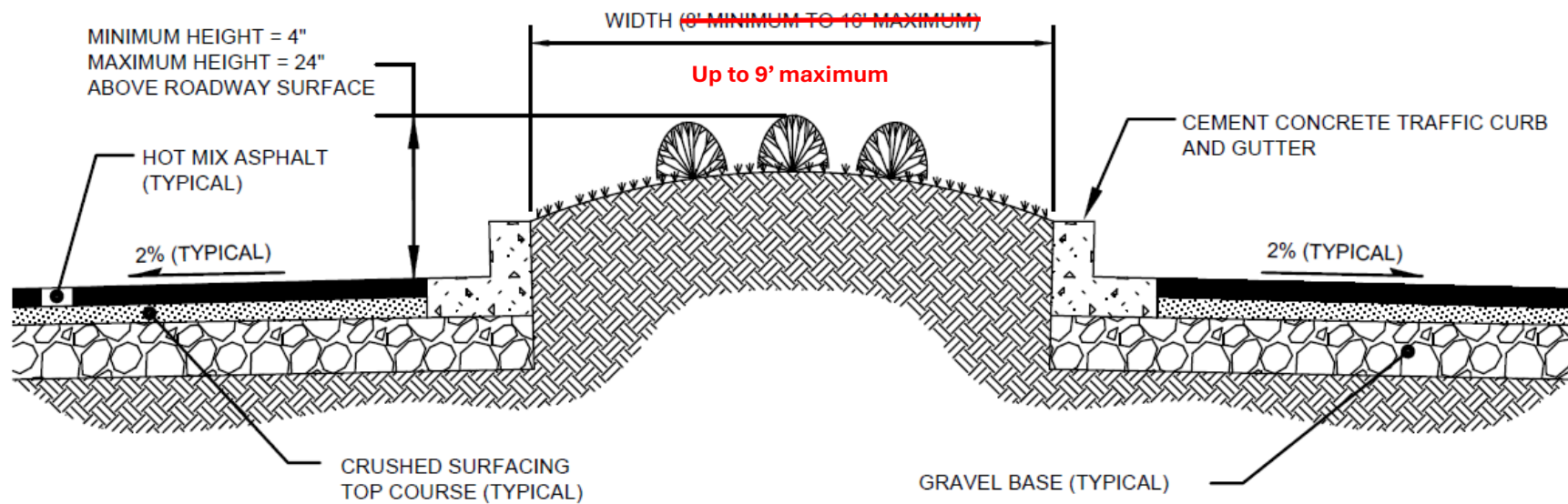
LOCAL STREET - CURBED

All other streets

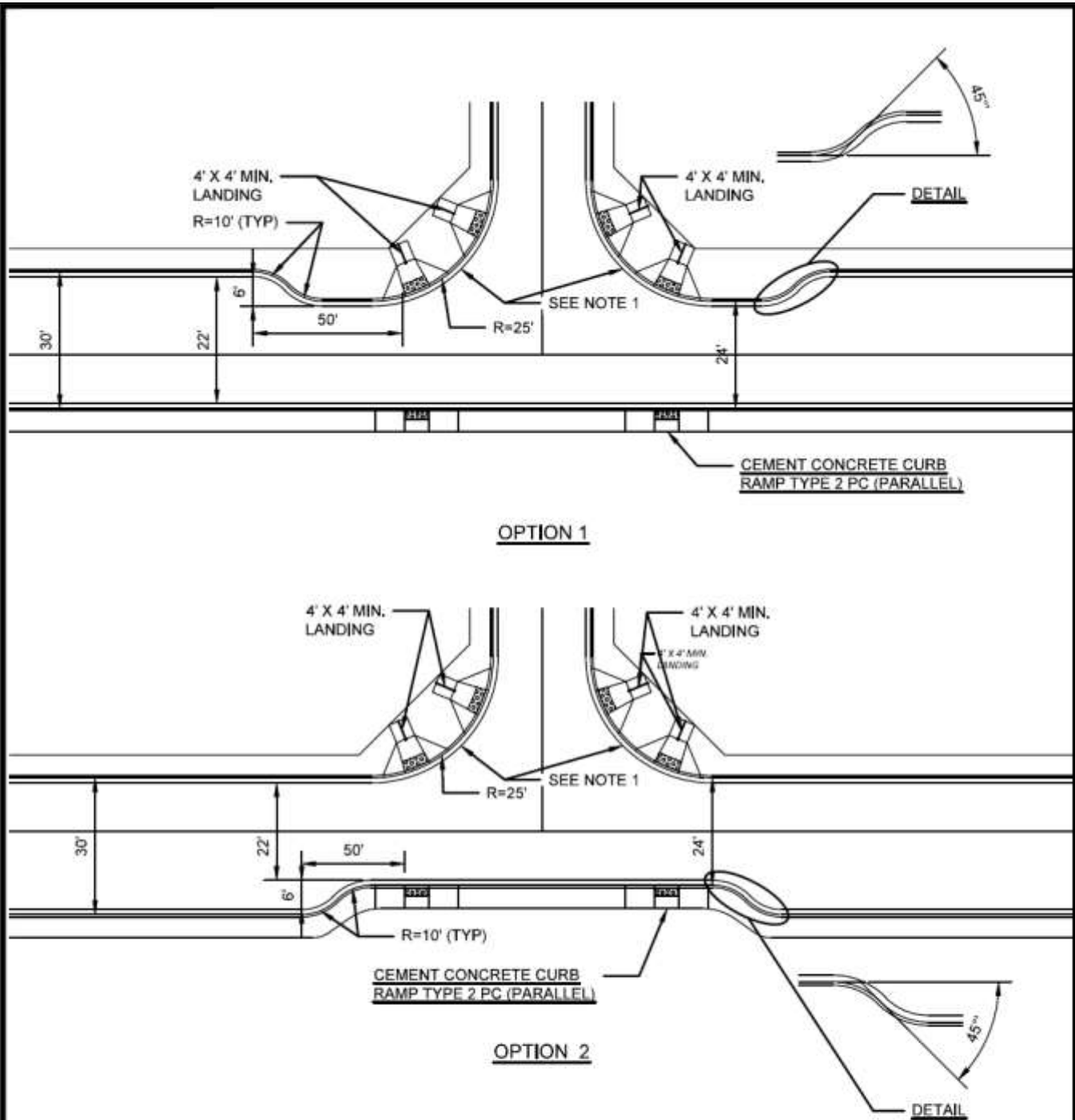
Design Section	ROW Width	Buffer	Sidewalk / Planter	Curb/Gutter	Bike Lane	Travel Lane(s)	Center Lane
Local Road – High Density Zones	60'	Up to 0.5'	5' w/ 4' min. planter (may be behind sidewalk)	Standard Vertical (1.5' total width)	N/A**	12'	N/A
Local Road – Low Density (R) Zones	60'	Up to 0.5'	5' on at least one side w/ 4' min. planter (may be behind sidewalk)*	Standard Vertical (1.5' total width)	N/A**	12'	N/A

* May accommodate 8'-wide on-street parking on opposite side of the section, where warranted

** Provide 8'-wide on-street parking in lieu of bike lane, consider "sharrows" on arterials



MEDIAN DETAIL

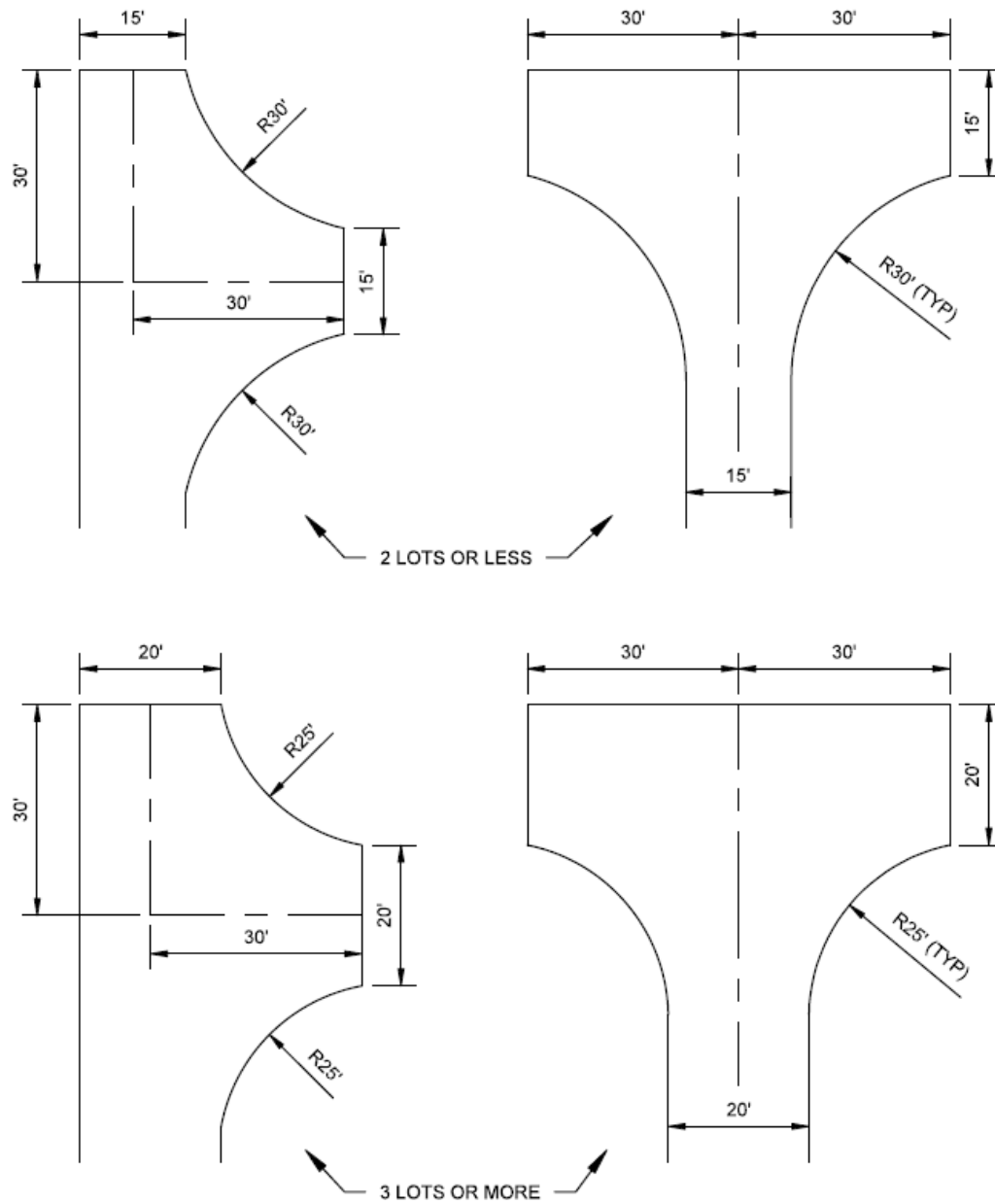
NOTES:

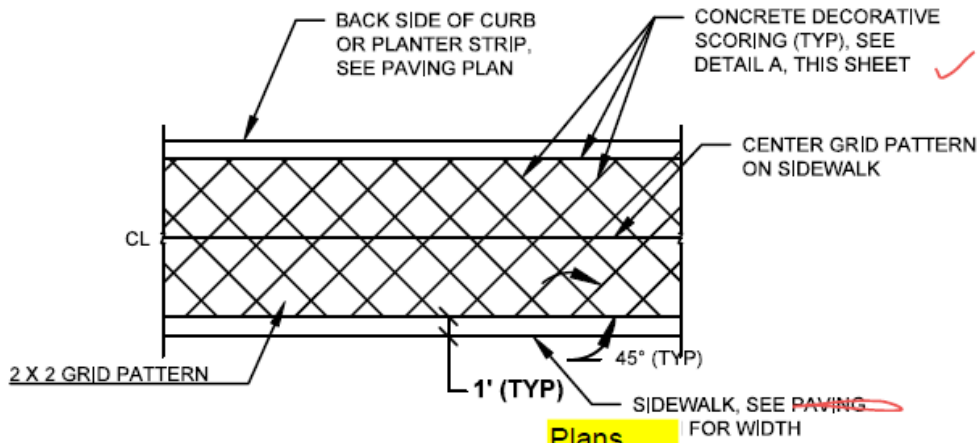
1. FOR SIDEWALK RAMPS, SEE STANDARD DRAWING PC.F8.4 AND PC.F8.5. CEMENT CONCRETE CURB RAMP TYPE 1 PC (PERPENDICULAR), RAMPS ARE TYPICALLY LOCATED AT THE 1/4 RADIUS POINTS.
2. SEE STANDARD DRAWING PC.A3.5 FOR LOCAL ROAD MINOR WITH PARKING DETAILS.



**LOCAL STREET
INTERSECTION CURBED
PLAN**

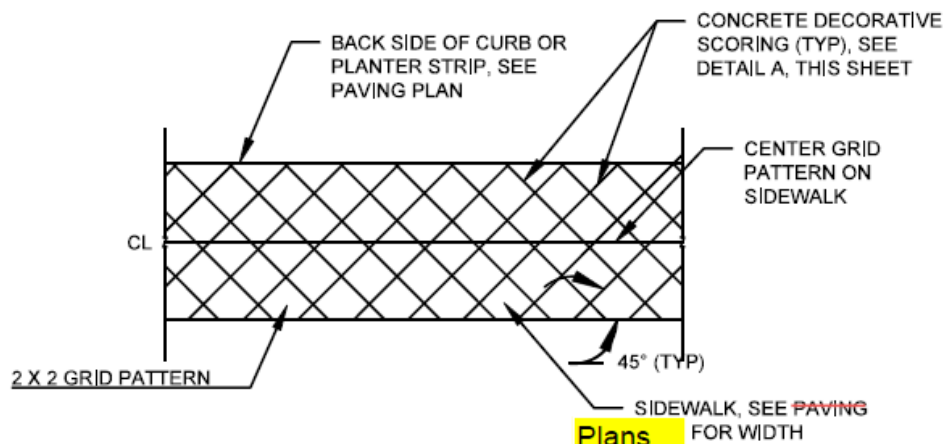
**STD DTL
A8**





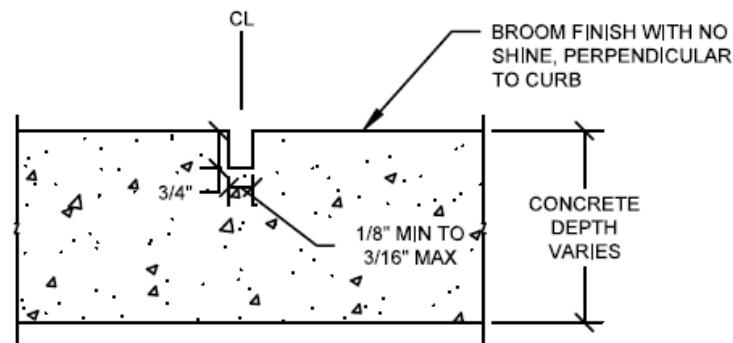
**TYPICAL DECORATIVE SCORING PATTERN
8' AND GREATER WIDTH SIDEWALK**

PLAN VIEW



**TYPICAL DECORATIVE SCORING PATTERN
6' WIDTH SIDEWALK**

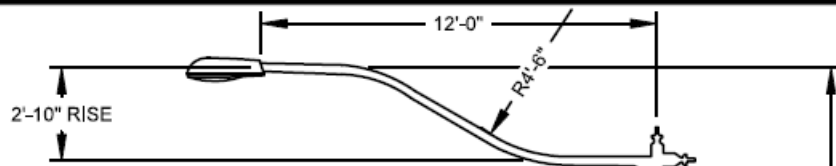
PLAN VIEW



NOTE: CLEAN SCORE BY HAND TOOL OR SAW CUTTING

Typical Detail A - CONCRETE DECORATIVE SCORING DETAIL

SECTION VIEW



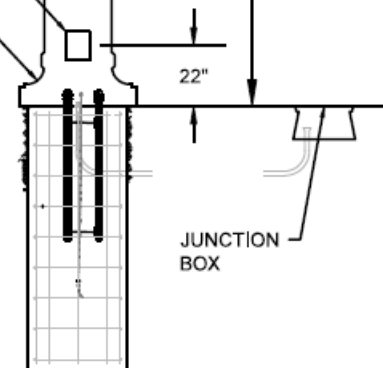
ROADWAY LIGHTING STANDARD	
POLE, MAST ARM MANUFACTURER	NOV AMERON
POLE, MAST ARM, BASE COLOR	POWDER COAT BLACK (FS 27038)
POLE TYPE	HOT DIP GALVANIZED STEEL, ROUND, TOP O.D. 3 1/2", BASE O.D. 8 1/5"
BASE	DECORATIVE
LUMINAIRE HEAD	GE LIGHTING SYSTEMS, EVOLVE SCALABLE COBRAHEAD, ERS1, ERS2, ERS3, ERS4
	LEOTEK, GREENKINGCOBRA, GC2-90F, GC2-1 OOF, GC2-120F
	CREE, XSP2-BXSPA23, XSP2L-BXSPA23
BULB	LIGHT-EMITTING DIODE (LED)
LUMINAIRE HEAD COLOR	BLACK
REQUIRED OPTIONS	BASE MUST HAVE HANDHOLE
FUSE CONNECTOR KIT	PER WSDOT QUALIFIED PRODUCTS LIST
FUSES	PER WSDOT QUALIFIED PRODUCTS LIST
UTILITY BOX	JUNCTION BOX PER WSDOT STANDARD PLAN J-40,10
POWER	TO BE PROVIDED BY DEVELOPER. 120V FOR DUPLEX RECEPTACLE, 240V FOR THE STREET LIGHT.
CONDUIT	MINIMUM O.D. 2"
WIRING	THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING WIRE THAT MEETS NEC STANDARDS, COPPER WIRE ONLY, PER WSDOT STANDARD PLAN J-28.70.
FOUNDATION	SLIP BASE PER WSDOT STANDARD PLAN J-28,30

PRINCIPLE ARTERIAL - 40'-0"
 MINOR ARTERIAL - 40'-0"
 COLLECTOR - 35'-0"
 LOCAL ROAD - 35'-0"

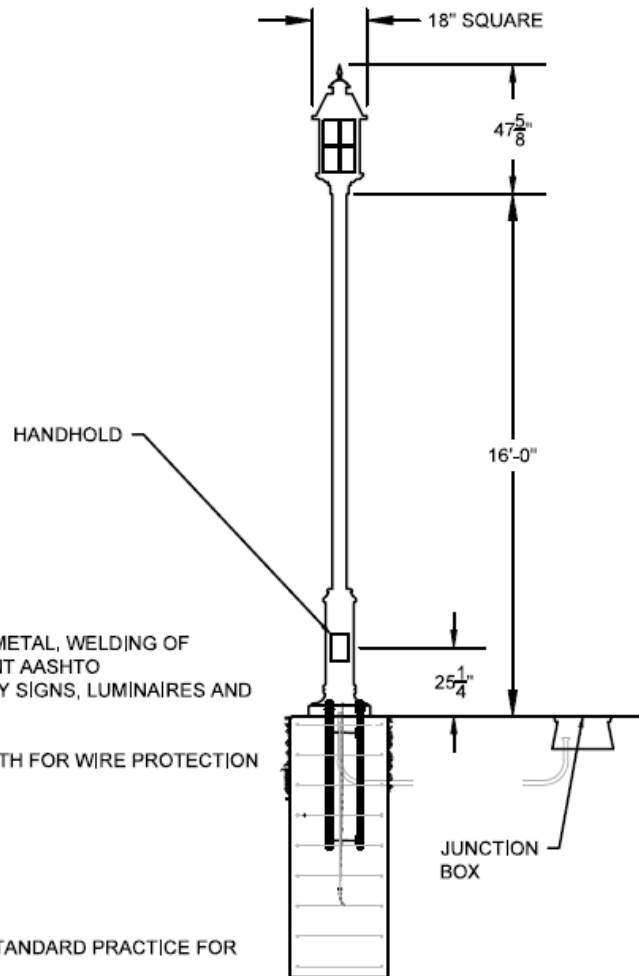
HANDHOLD
 DECORATIVE BASE

NOTES:

1. WELD: ALL BUTT WELDS TO BE GROUND FLUSH WITH BASE METAL, WELDING OF STRUCTURES SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO "SPECIFICATIONS FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".
2. ALL WIREWAYS SHALL BE DEBURRED, ROUNDED AND SMOOTH FOR WIRE PROTECTION PURPOSES.
3. AASHTO 2009 DESIGN PARAMETERS:
 - LOCATION: WASHINGTON STATE
 - BASIC WIND SPEED: 90 MPH
 - DESIGN LIFE: 50 YEARS RECURRENCE INTERVAL
4. DESIGN LIGHT LEVELS PER IESNA'S "AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING" (RP-8-00).



ROADWAY LIGHTING STANDARD	
POLE, BASE MANUFACTURER	NOV AMERON
POLE, BASE MODEL NUMBER	POWDER COAT BLACK (FS 27038)
POLE BASE COLOR	HOT DIP GALVANIZED STEEL, ROUND, TOP O.D. 3 1/2", BASE O.D. 8 1/5"
POLE BASE TYPE	DECORATIVE
LUMINAIRE HEAD MODEL NUMBER	ALMCHN - LE060/EVX/X4-YSDP- FBR- XX - CB
BULB	LIGHT-EMITTING DIODE (LED)
LUMINAIRE HEAD COLOR	CLASSIC BLACK
REQUIRED OPTIONS	BASE MUST HAVE HANDHOLE
FUSE CONNECTOR KIT	PER WSDOT QUALIFIED PRODUCTS LIST
FUSES	PER WSDOT QUALIFIED PRODUCTS LIST
UTILITY BOX	JUNCTION BOX PER WSDOT STANDARD PLAN J-40,10
POWER	TO BE PROVIDED BY DEVELOPER, 120V FOR DUPLEX RECEPTACLE, 240V FOR THE STREET LIGHT,
CONDUIT	MINIMUM O.D. 2"
WIRING	THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING WIRE THAT MEETS NEC STANDARDS, COPPER WIRE ONLY, PER WSDOT STANDARD PLAN J-28,70,
FOUNDATION	SLIP BASE PER WSDOT STANDARD PLAN J-28.30



NOTES:

1. WELD: ALL BUTT WELDS TO BE GROUND FLUSH WITH BASE METAL, WELDING OF STRUCTURES SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO "SPECIFICATIONS FOR STRUCTURAL SUPPORTS OF HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS".
2. ALL WIREWAYS SHALL BE DEBURRED, ROUNDED AND SMOOTH FOR WIRE PROTECTION PURPOSES .
3. AASHTO 2009 DESIGN PARAMETERS:
 - LOCATION: WASHINGTON STATE
 - BASIC WIND SPEED: 90 MPH
 - DESIGN LIFE: 50 YEARS RECURRENCE INTERVAL
4. DESIGN LIGHT LEVELS PER IESNA'S "AMERICAN NATIONAL STANDARD PRACTICE FOR ROADWAY LIGHTING" (RP-8-00),

Chapter 12.02

STREET DESIGN AND CONSTRUCTION STANDARDS

12.02.010 Purpose and Applicability.

A. This Chapter provides the minimum technical requirements for the design and construction of streets, bridges, shared accesses, alleys, driveway approaches, vehicular access gates, and their associated appurtenances, applying to all public and private proposals, whether they are wholly or partially within the City of Edgewood, for:

1. Any development activity that may impact public streets, traffic and access;
2. Construction and reconstruction of driveway approaches, vehicular access gates, streets, shared access facilities, alleys, and driving surfaces within ingress/egress easements; and
3. Any other construction and reconstruction within ingress and egress easements, access easements, street easements, open city right-of-way, and unopened city right-of-way.

B. Where the requirements of this Chapter conflict with any other law, ordinance, resolution, rule, or regulation, the more restrictive provision shall govern.

12.02.020 Exemptions.

The following activities are exempt from the requirements of this Chapter:

- A. Placement or replacement of mobile/manufactured homes within approved mobile home parks.
- B. Maintenance and repair activities on privately owned and maintained streets, shared access facilities, alleys, drivable surfaces within ingress/egress easements (or tracts), sidewalks, and pathways, as long as the repair and maintenance conforms to the original design and/or construction.
- C. Maintenance and repair activities performed by the City of Edgewood.
- D. Temporary construction activities that do not impact, change, or otherwise alter public streets, access thereto, or traffic thereon.

12.02.030 Standards Adopted.

A. Street Design and Construction Standards. The latest adopted edition of the "Public Works Standards," as published by the City Engineer, is adopted for all streets, shared access facilities, vehicular access gates, bridges, and other new construction, widening or expansion of public and private roads in the City of Edgewood, and, to the extent practicable and feasible, for reconstruction, resurfacing, restoration, and rehabilitation of existing public or private roads in the City. Projects that propose any construction of hard surfaces must also comply with the stormwater manual adopted under EMC 13.05.

B. Utility Design and Construction Standards. The latest adopted edition of the "Manual on Accommodating Utilities in Pierce County Right-of-Way," as published by the Pierce County Engineer, is the policy for accommodation of utilities for street and bridge construction of public and private roads in the City of Edgewood.

C. Manuals Available. Pursuant to RCW 35A.12.140 and 35A.13.180, the latest edition of the adopted manuals shall be available for inspection at Edgewood City Hall during normal business hours.

D. Changes to Standards. Local modifications to standards referenced above are contained herein under EMC 12.02.100. The Director may substitute more stringent standards and specifications where special conditions warrant, as approval conditions for applicable permit(s). Any further changes to the adopted standards shall be submitted and recommended by the City Engineer to the City Council for their review and adoption by ordinance.

12.02.040 Definitions.

A. Unless otherwise defined in subsection B, this chapter relies on definitions contained in the following references, in order:

1. The standards and manuals adopted by reference under EMC 12.02.030;
2. EMC Chapter 18.20, Definitions;
3. WAC 197-11-700 through 197-11-799, as now or hereafter amended; and
4. the latest edition of Webster's Dictionary.

B. For the purposes of regulating this chapter, the following definitions shall apply:

1. "Alley" or "Alleyway" means a vehicular driving surface not designated for general travel that is primarily used as a means of access to the rear of a lot or parcel.
2. "Applicant" means the person, party, firm, corporation, other legal entity, or their duly authorized agent, who submits an application for any of the activities covered by this chapter.
3. "Arterial" means a city street classified as a principal, minor, or collector arterial.
4. "Arterial Intersection" means the intersection of two or more arterials.
5. "Commercial" means any land use other than Residential, detached dwelling or middle housing.
6. "City Engineer" means the Edgewood City Engineer or authorized representative.
7. "Department" means the City of Edgewood Public Works Department.
8. "Director" means the City of Edgewood Public Works Director or authorized representative.
9. "Gravel Surface" means a minimum two-inch crushed surfacing top course per current Washington State Department of Transportation specifications.
10. "Local Street" means a city street classified as a local street and not otherwise classified as an arterial.
11. "Mitigation" means a traffic improvement that is intended to change a traffic impact to a level of non-significance.
12. "Offsite Existing Private Road" means a private road that provides access from a proposed development to a public road, which exists as of the effective date of this ordinance and is located outside of the proposed development's boundaries.
13. "Open right-of-way" means a constructed street, open to the public and maintained by the City, that is owned, dedicated or conveyed to the public.
14. "Peak-Hour Trip" shall be as defined under EMC 4.30.030(H).
15. "Public Facilities" include public schools, fire stations, police stations, public libraries, public parks, and public recreational facilities. For the purposes of administering this Chapter, the following are not considered Public Facilities:
 - a. Facilities owned and operated by a public school district that are not public schools. Examples include administration buildings, maintenance facilities, and other support facilities.
 - b. Existing public facilities, including additions, remodels, and reconstruction of such facilities.

c. Educational skill centers located within commercial shopping centers or similar commercial complexes.

16. "Shared Access Facility" means a privately-owned drivable surface which provides vehicular access to at least two lots and meets the design standards specified in this Chapter.

17. "TIA" means traffic impact analysis.

18. "Traffic Impact" means the effects or consequences of proposed developments that changes or alters the demand for services on any public street.

19. "Traffic Improvement" means an action that improves the operations or conditions of a street or intersection.

20. "Trip Assignment" means the number of peak-hour trips from a proposed development expected to use specific city streets.

21. "Trip Distribution" means the directional orientation of peak-hour trips from a proposed development.

22. "Trip Generation" means the peak-hour trips generated by a proposed development.

23. "Unopened right-of-way" means a public City right-of-way that exists by dedication or deed, but within which no street has been constructed for the purpose of public use, or within which any constructed road or street is not maintained by the City.

C. The Director has the final authority to determine the interpretation or usage of terms used in this chapter.

12.02.050 Proposed Development Improvements.

A. Site Plan Review. To ensure the preservation and implementation of needed transportation infrastructure as identified in the City's transportation plans and programs, all proposed developments shall be reviewed by the City Engineer. Access roads, internal site roads, and overall site plan layout for proposed development shall be designed to be consistent with planned and/or programmed transportation facilities within the City. Transportation facilities shall include arterial roads, local road connectivity, road right-of-way, sidewalks, and/or easements for slopes and utilities. All proposed buildings and constructed site features shall be set back and/or designed to not be in conflict with the City's plans for road alignments and widths as identified in the most recently adopted official controls, including but not limited to:

1. the Edgewood Six-Year Transportation Improvement Program;
2. the Edgewood Comprehensive Plan; and/or
3. any approved City road project and/or right-of-way plans.

B. Public Frontage Road. Except for new residential detached dwellings and middle housing structures on existing lots, or expansions of existing structures of less than 60 percent of the total building value as calculated in the IBC, all proposed developments must improve the nearest half of all abutting public frontage road rights-of-way to currently adopted Public Works Standards. This requirement may be waived by the Department when a project providing this infrastructure is included within the City's adopted Six-Year Transportation Improvement Program and is fully funded.

C. On-Site Improvements. All land divisions must provide on-site roadway improvements in conformance with EMC Title 16 and the Public Works Standards. When the length of full height traffic curbing is reduced to short segments due to driveway spacing, rolled curbing may be used with prior approval by the City Engineer.

12.02.060 Offsite Improvements Required.

A. Lot Access Requirements. The requirements of this section must be met prior to issuance of a building permit for any habitable structure:

1. The subject permit's lot shall adjoin or have legal access to an open right-of-way.
2. If the lot was created by subdivision, all road and access improvements required through the subdivision process must be completed.
3. If the lot was not created by subdivision, or for lots created by a subdivision where no road or access improvements were required, all private roads, shared access facilities, easements or tracts that provide a legal vehicular access between the lot and the open right-of-way shall have a minimum all-weather vehicle driving surface that is not less than 15 feet in width. All portions of the driving surface that equal or exceed a longitudinal grade of 12 percent shall be paved with a minimum of 2 inches compacted depth hot mix asphalt class ½". The maximum longitudinal gradient is 15 percent. If the proposed access length is a dead-end 300 feet or longer without an approved turnaround, an approved turnaround is required on the subject property or approved alternative location. See the Public Works Standards for details.
4. For situations where it is not physically or economically feasible to construct the access between the lot and an open right-of-way, the following shall be required:

- a. Habitable structures shall have an approved fire sprinkler system meeting the requirements of NFPA;
- b. Title notification shall be recorded to provide notice to future purchasers that the access to the lot does not meet minimum standards, and additional fire protection features have been required; and
- c. Other improvements to the lot access and/or other fire protection related features may be required on a case by case basis as determined by the Fire Code Official.

B. Access to Public Facilities. To ensure public facilities remain open and accessible to all members of the public, they shall be accessed by a public roadway or private road designed and constructed per the adopted Public Works Standards. If said access is provided by a private road, the easement establishing the private road shall not be gated and the easement shall not prohibit or otherwise limit access to the public facility.

C. Minimum Existing Offsite Private Road Requirements. Except for new detached residential structures on existing lots, all proposed developments must improve offsite existing private roads to the following minimum standards:

1. Width. Private roads serving up to 100 ADT (or 10 dwelling units) shall be paved with a 20-foot traveled surface width. Roads serving more than 100 ADT (or greater than 10 dwelling units) shall be paved with a 24-foot traveled surface width.

2. Paved Surface. The paved surface shall be in accordance with the Public Works Standards, consisting of:

- a. permeable pavement where feasible and designed by an engineer, or
- b. two inches of hot mix asphalt Class 1/2 inch over suitable gravel base, or
- c. six inches of Portland cement concrete over suitable gravel base, or
- d. match the existing pavement section if thicker.

3. Vertical Clearance. The road must have an unobstructed vertical clearance of not less than 13 feet 6 inches. The City, after conferring with East Pierce Fire and Rescue, may allow a reduction in the vertical clearance, provided such reduction does not impair access by emergency vehicles, and approved signs are installed and maintained indicating the established vertical clearance.

4. Bridges and Structures. All bridges and structures, including drainage structures, must be capable of carrying a minimum design load of HS-25 per "Standard Specifications for Highway Bridges," as published by the American Association of State Highway and Transportation Officials. The City may require that the capacity of bridges and structures be certified by a licensed structural engineer.

5. Easements or Tracts. Private road easements or tracts must be of sufficient width so as to completely contain the minimum required traveled way and any associated drainage features. The City may require survey information to verify that the traveled way and associated drainage features are located within the documented easement or tract.

6. Obstructions. Any obstructions, including but not limited to street lighting, poles, power poles, utility boxes, telephone boxes, street trees, retaining walls, fire hydrants and/or landscaping material, shall not be located within two feet of the required minimum traveled way. Sight obscuring objects must be removed or relocated to provide adequate sight distances as required in the Public Works Standards.

7. Turnarounds. Roads exceeding 1,500 feet in length, measured along the road centerline from intersection to intersection, must have an approved turnaround per the Public Works Standards.

8. Road Signs and Names. All private roads must have private road name signs that meet the requirements outlined in the Public Works Standards. All private roads names shall be assigned by the City.

9. Stop Signs. All private road approaches to City arterial and collector roads shall have a stop sign installed and maintained by the property owners, in accordance with the requirements of the Public Works Standards.

10. Speed Limit Signs. On roads exceeding 300 feet in length, speed limit signs are required and must be maintained by the property owners. Speed limit signs must meet and must be installed according to the engineer's recommendation. The posted speed limit must be consistent with the available entering sight distance and stopping sight distance, but in no case shall exceed 25 miles per hour.

D. Minimum Existing Offsite Public Road Requirements. All proposed developments that propose an increase of 25 ADT or more must improve offsite existing public roads to the following minimum standards:

1. Width. Public roads serving up to 800 ADT (or 80 dwelling units) shall be paved with a 20-foot traveled surface width. Roads serving more than 800 ADT (or greater than 80 dwelling units) shall be paved with a 24-foot traveled surface width.

2. Paved Surface. The paved surface shall be in accordance with the Public Works Standards, consisting of:

a. two inches of hot mix asphalt Class 1/2 inch over suitable gravel base, or

b. match the existing pavement section if thicker.

3. Bridges and Structures. All bridges and structures, including drainage structures, must be certified by a licensed structural engineer as being capable of carrying a minimum design load of HS-25 per "Standard Specifications for Highway Bridges," as published by the American Association of State Highway and Transportation Officials.

4. Other Standards. All other design criteria stated in the Public Works Standards for public roads must be met.

E. Unopened Right-of-Way. No development, except for new residential detached dwellings on existing lots, shall be allowed to use dedicated, but unopened, City right-of-way, subject to the following:

1. If right-of-way exists and/or right-of-way can be deeded to provide right-of-way widths in accordance with the Public Works Standards, the development will be required to construct new public road(s) within the unopened right-of-way adjacent to the development boundaries and for distances necessary to provide required access to the development. Proposed new public roads must be connected directly to existing public roads.

2. Access for new detached residential structures on existing lots using unopened right-of-way may be allowed, for up to six dwelling units, under the following conditions and standards:

- a. A Street Use Permit Application (EMC 12.16) seeking permission to use the unopened ROW must be submitted to the City Engineer for review and approval.
- b. Required driveway traveled widths shall be as follows: 15 feet for up to two dwelling units, 20 feet for three to four dwelling units, and 24 feet for five to six dwelling units.
- c. If the proposed driveway length is a dead-end 300 feet or longer without an approved turnaround, an approved turnaround shall be required on the subject property or approved alternative location. See the Public Works Standards for details.
- d. Required driveway surfacing shall be permeable pavement where feasible and as designed by an engineer, or two inches of hot mix asphalt Class 1/2 inch over suitable gravel base, suitable to support imposed loads of fire apparatus.
- e. Construction plans prepared by a licensed professional engineer in the State of Washington shall be required. Said plans shall also include a survey to locate at a minimum true centerline of the unopened City right-of-way.
- f. All required permits, including but not limited to Right-of-Way, Driveway Approach, Critical Area Review, Site Development, etc., must be obtained prior to construction.
- g. All maintenance and operation shall be the responsibility of the benefited party(s) as per the Street Use Permit.

12.02.070 Complete Streets Policy.
(RESERVED)

12.02.080 Traffic Impact Analysis Requirements.

To promote and assist in the timely and orderly review of potential traffic impacts, all proposed developments are subject to Transportation Concurrency Management pursuant to Chapter 18.105 EMC. Upon concurrency determination, the applicant may be required to prepare a Traffic Impact Analysis (TIA) as part of the SEPA Review process, following the currently adopted Traffic Impact Analysis Guidelines (EMC 18.105.240).

12.02.090 Deviations.

No deviation from the adopted standards on public and private roads contained in this Title and the Public Works Standards shall be made without first obtaining the approval of the City Engineer in accordance with this Section.

A. Request. The Applicant making a request to gain approval for alternative designs which deviate from the adopted standards shall submit a written request directly to the City Engineer for evaluation. The request shall be prepared and stamped by a Professional Engineer licensed in the State of Washington and possess the level of knowledge and experience to prepare such request.

B. Evaluation Criteria. Deviations shall meet the following criteria for approval, and shall not deviate from State adopted standards (RCW 35.78.040):

1. The deviation will produce compensating or comparable results, adequate for the road users and the general public;
2. The deviation will not violate any development conditions imposed upon the project;
3. The deviation will not be materially detrimental to the public welfare or injurious to the property or improvement in such vicinity in which the subject property is located; and
4. The deviation is based on sound engineering judgment, and requirements for safety, function, appearance, environmental protection, and maintainability are fully met.

1 C. Review and Approval. The City Engineer may only grant a deviation from the minimum technical requirements
2 based upon the information, plans and/or design data provided by the Applicant's Engineer. The City Engineer shall
3 review the deviation request, together with all supportive material and any staff review and recommendations, to
4 determine whether the proposal meets the criteria for approval outlined in subsection (B), above. The City Engineer
5 shall prepare written findings of fact and conclusions, and shall grant, grant with conditions, or deny a deviation
6 request in full or in part based on these findings and conclusions. Deviations must receive the approval of the City
7 Engineer before road construction plans can be approved.

8 D. Appeal Procedure. If a deviation request has been denied, the Applicant may seek a re-examination of the
9 original deviation request by transmitting a letter to the Director outlining exceptions taken to the City Engineer's
10 findings. The Applicant shall provide additional details specifically addressing the exceptions being taken in order to
11 enable the Director to conduct additional evaluation of the request. The Director will be the final authority in
12 resolving disputes concerning questions of fact in connection with the adopted standards contained in EMC Title 12,
13 as set forth in Chapter 35.22.280 RCW and other applicable sections of RCW Chapter 35A. The decision of the
14 Director is final and may not be appealed.

15 **12.02.100 Modifications to Referenced Manuals.**

16 *Add modifications to the utility manual here!*

Chapter 12.05

STREET AND RIGHT-OF-WAY REGULATIONS

12.05.010 Permits Required.

The following is a list of permits required under this Chapter. To obtain a permit, the Applicant shall submit an application and pay the fee as provided in the City's Fee Schedule. Application submittal shall include a copy of any applicable approved construction plans. Permits shall be valid for a period of 90 days from and after the date of issuance, with extensions at the discretion of the City Engineer. A copy of each permit shall be available for inspection at the activity site during the life of the permit. All work conducted under an issued permit must be completed prior to the expiration date of such permit.

A. Right-of-Way Permit. Except as provided in Chapter 12.06 EMC, no person, party, firm, corporation, or entity, shall conduct any construction activity within City right-of-way without a valid Right-of-Way Permit. The City Engineer may require liability insurance for the applicant and their contractors working within the City right-of-way in the form and amount determined necessary prior commencing work, and proof of coverage shall be provided upon request. The City Engineer may require a construction performance bond prior to permit issuance, to assure that the right-of-way will be properly restored upon completion of the project (EMC 12.05.020).

B. Gate Permit. Developments proposing gates across private roads, shared access facilities, easements or tracts that provide vehicular access (excluding access for stormwater facilities and electrical substations), and other driveways that provide emergency vehicle access to habitable structures require a valid Gate Permit. All proposed vehicular access gates shall be subject to the design requirements set forth by the Public Works Standards and Chapter 18.95 EMC.

12.05.020 Financial Guarantee Required.

Prior to the issuance of any Right-of-Way Permit, the applicant may, at the discretion of the Department, be required to provide a financial guarantee to assure completion of the permitted activity within the permit time limit. Failure to complete the permitted activity within the permit time limit will cause the City to assess liquidated damages as provided for in the latest version of WSDOT Specifications. In the Liquidated Damages formula, the original contract amount shall be defined as the value of the private or public contract. The financial guarantee may be either a bond or assignment of funds, on a form provided by the City, and shall be in the amount determined by the Department, but not less than \$5,000.00.

12.05.030 Public Road and Related Facilities Dedication.

A. The City of Edgewood has no obligation or duty to accept any road or related facilities. It shall be the responsibility of the owner(s) of said facilities to submit a preliminary site plan showing the facilities proposed to be dedicated to the City.

B. If reconstruction of said facilities is necessary to bring them into conformance with City standards, then construction plans and permit applications, prepared in accordance with Titles 12 and 13 EMC and all other applicable codes, shall be submitted for review and must be approved by the City before construction activity commences.

C. Unless otherwise approved by the Director, the City will not accept a dedication of right-of-way, a tract, or an easement until such time that the associated roadway facilities have been constructed and received final construction approval.

D. The owner(s) of the subject facilities must submit all necessary deeds, easements, etc., to the City for review and approval. Right-of-way widths must conform with the Public Works Standards. Once approved by the City, the owner(s) will be required to record the appropriate documents with the Pierce County Auditor.

E. Once the road has been dedicated to and accepted by the City, the road shall remain open for public use and may not be closed, except by the City, as provided by RCW 47.48.010, 47.48.020 and 47.48.031.

12.05.040 Inspections and Maintenance.

A. Right of Entry, Access, and Enforcement. Upon submittal of a permit application, the City Engineer is authorized to make such inspections and take such actions as may be required to enforce the provisions of this Title, with right of entry and access to private property being subject to reasonable notice. Whenever the City Engineer has reasonable cause to believe that violations of this Title are present or operating on a subject property or portion thereof, the City Engineer may follow the procedures outlined under Title 7 EMC.

B. Owners' Organization Required to Perform Maintenance and Operation. All private roads, shared access facilities, alleys, and ingress/egress easements (whether existing or proposed) shall be maintained and operated by the owners of the properties served by them. In order to ensure their continued maintenance and operation, a declaration of covenant requiring maintenance and operation shall be recorded with the Pierce County Auditor's Office.

1. For any proposed subdivision that proposes private roads, shared access facilities, or alleys, the declaration of covenants must be recorded with the Pierce County Auditor's Office prior to or concurrent with the recording of the final subdivision document.

2. For all other project types (single-family building permits, commercial building permits, proposed public facilities pursuant to EMC 12.02, etc.) the declaration of covenants must be recorded prior to building permit approval on any of the lots.

3. The declaration of covenants shall include the following terms and requirements:

a. The agreement for maintenance and operation shall be enforceable by any property owner served by the private road, shared access facility, alley, or ingress/egress easement.

b. A means shall be established for assessing maintenance and operation costs equitably to property owners served by the private road, shared access facility, alley, or ingress/egress easement.

c. The declaration of covenants shall run with the land.

d. "Maintenance" shall include, but not be limited to, the repair and/or replacement of road surfacing, gates, stop signs, speed limit signs, road name signs, storm drainage facilities, and ongoing vegetation control.

e. "Operation" shall include, but is not limited to, towing of improperly parked vehicles; removal of obstructions within the easement or tract; assuring access for the local fire department; assuring that necessary sight distances are maintained; and snow/ice removal.

f. Homeowners are responsible for assuring that the quantity, location, installation and manufacture of road name signs, stop signs, speed limit signs, and other traffic control signs are kept in place in accordance with the project construction plans on file with the City of Edgewood.

g. Road signs names and numbers shall be in accordance with the City requirements.

h. Homeowners are responsible for assuring that stopping sight distance and entering sight distances are maintained in accordance with the project construction plans on file with the City of Edgewood.

12.05.050 Objects and Refuse within Right-of-Way.

A. Objects in City Right-of-Way. Except for temporary signs subject to EMC 18.97.240(G), objects authorized by a street use permit, other valid permit, license, or other government approval, or mailboxes and attached newspaper boxes subject to City Engineer approval of their location, no person, organization, or agency shall place, erect, or install any object of any nature whatsoever, within a City right-of-way without the express permission in writing of the City Engineer, and any such object now in place within a City right-of-way without said permission is declared illegal. The City may summarily remove any illegally placed, erected or installed object within a City right-of-way

1 at any time. Any person placing any object within a City right-of-way in violation of this Section shall be
2 responsible for the removal of the object within 48 hours of receipt of written notice from the City.

3 B. City Right-of-Way – Nuisance. For purposes of this Chapter, any object situated on or in a City right-of-way in
4 violation of subsection A above and not otherwise permitted shall be deemed a nuisance. Any such deemed nuisance
5 shall be addressed following the procedures outlined under Title 7 EMC.

6 C. Obstructions – Prohibited. The following obstructions normally located on private property are prohibited within
7 all public road rights-of-way, private road easements or tracts, and shared access facility easements or tracts: fences,
8 basketball hoops, or other yard fixtures.

9 D. Obstructions – Restricted. The following obstructions normally found within a public road right-of-way or
10 private road easement shall not be allowed in a manner or location that will interfere with the traveled surface,
11 pedestrian area, or shoulder area: street lighting, poles, power poles, utility boxes, telephone boxes, street trees,
12 small wireless facilities, equipment cabinets, retaining walls, fire hydrants and/or landscaping material.

13 E. Sight Distance Clear Zones. Sight-obscuring objects must be located to provide clear sight distances as required
14 in the Public Works Standards.

15 F. Refuse on or abutting Right-of-Way. It is unlawful for any person to deposit or allow to be deposited any material
16 upon any City right-of-way, or upon private or public property abutting either side of the right-of-way. Any person
17 violating this Section shall be responsible for the removal of the material within 7 days of the receipt of written
18 notice from the City. If the materials are not removed within 7 days, the violator shall be responsible for all costs
19 incurred by the City in removing the materials. Identification of the owner and location of any material of any nature
20 found upon private or public property abutting City right-of-way shall be considered as prima facie evidence of its
21 having been illegally deposited upon the public or private property or City right-of-way by the identified owner of
22 the material.

Chapter 12.12

NONMOTORIZED (ACTIVE) TRANSPORTATION SYSTEMS

12.12.010 Purpose.

The city requires motorized and nonmotorized (active) transportation systems to move goods and people. Motorized transportation systems are those streets and roads that carry motorized vehicles. Nonmotorized (active) systems are those involving trails, sidewalks, pathways and linear parks that handle pedestrians, bicycles and other nonmotorized (active) modes of transportation. Within the city of Edgewood, proper pedestrian facilities are a community goal expressed throughout the Comprehensive Plan.

12.12.020 Scope.

The nonmotorized (active) transportation system encompasses the entire community. These include adequate facilities for trails, pathways, sidewalks and linear parks that connect to all community, educational, recreational and commercial facilities as outlined in the Comprehensive Plan.

12.12.030 General development standards.

New development shall provide adequate nonmotorized (active) transportation systems in accordance with the Transportation Element of the city's Comprehensive Plan, specifically those facilities shown in Figures 14, 15, 16 and 17, as well as other opportunities to following city standards:

~~A. Provide internal pedestrian circulation by means of sidewalks and trails.~~

~~B. Connect internal trails and sidewalks to other residential, community, recreational, educational or commercial areas via area trails.~~

~~C. City standards for the pedestrian circulation are:~~

~~1. Major citywide recreational trails to community facilities are to be no more than one half mile apart.~~

~~2. Provide trails and/or sidewalks that shall connect all residential areas to nearby schools, parks and major commercial areas.~~

~~3. The city of Edgewood pedestrian safety study alternative strategies trail map, and other studies approved by the city council, shall be used as a guide.~~

~~4. The pedestrian safety study alternative strategies trail plan map and the interurban trail shall serve as the basis for developing and connecting the city's public trail system.~~

12.12.040 Specific development standards.

The development of pathways and trails shall be designed pursuant to the Public Works Standards adopted under EMC 12.02.030(A) to meet the following criteria. These standards may be modified when, in the opinion of the city engineer, it would allow for better nonmotorized movement due to environmental constraints:

Type of Nonmotorized Improvement	Typical Width*	Required Surface	Development Criteria
On-street bicycle pathway	5 feet	Concrete, asphalt, or other all-weather surface materials	Striped lane within the street right-of-way
Off-street paved bicycle/ pedestrian pathway	6—12 feet	Concrete, asphalt, or other all-weather surface materials	Reflect local site conditions
Off-street unpaved bicycle/pedestrian pathway	6—12 feet	Gravel, wood chip, natural earth or similar materials	Reflect local site conditions

On-street separated- bicycle/pedestrian pathway	5—8 feet	Asphalt or other all-weather surface materials	Separated from the roadway by a 4-foot-wide buffer
Sidewalks	5 feet	According to street design standards set forth in Chapter 12.05- EMC	

~~*Lower number of the range is the minimum width unless modified by the city engineer.~~

EXHIBIT B

~~{image}~~

Other references in EMC: 16.01.070 (“Trail” definition), 18.50.035(E)(2)

DRAFT

Chapter 13.05

~~STORMWATER MANUAL—SITE~~ DEVELOPMENT AND STORMWATER REGULATIONS

13.05.001 Purpose~~Site development regulations.~~

~~These regulations establish criteria for review and analysis of all development including, but not limited to, grading, formal subdivision, short subdivision, commercial building, binding site plans, planned unit developments, planned development districts, single family home construction, duplex construction, or other projects when so required by the city of Edgewood hearing examiner or city council. All proposals for development, whether public or private, which are submitted to the city for review, must conform to these regulations, which are to be used as the basis for review, design, and construction.~~

These regulations are based on the premise that development should not impact adjacent and/or downstream property owners or the environment in a detrimental manner compared to the pre-development condition.

These regulations ~~cannot address all situations. They~~ are intended to assist, but not to substitute, competent work by professional engineers. It is expected that ~~the~~ professional engineers will bring to each project the best of the ~~ir-engineer's~~ skills and abilities to see that the project is thoroughly analyzed and designed correctly, accurately, and in compliance with generally accepted engineering practices. These regulations are not intended to address all situations or unreasonably limit any innovative or creative effort in design and construction which could result in better quality, reduced environmental impacts, cost savings, or improved performance of a project's storm drainage system.

~~These regulations are based on the premise that development should not impact adjacent or downstream property owners or the environment in a detrimental manner compared to the predevelopment condition.~~ The engineer shall show by calculations, plans, and engineering data that the proposed project meets the requirements of these regulations.

It is not the intent of these regulations to make city of Edgewood a guarantor or protector of public or private property with respect to development.

13.05.005 Applicability.

These regulations establish criteria for review and analysis of all development including, but not limited to, grading, formal subdivision, short subdivision, commercial building, binding site plans, planned unit developments, planned development districts, residential construction, or other projects when required by the city of Edgewood hearing examiner or city council. All proposals for development, whether public or private, which are submitted to the city for review, must conform to these regulations, which are to be used as the basis for review, design, and construction. The requirements of this Chapter apply to all areas within the City of Edgewood. Where requirements in these Regulations are also covered in any other law, ordinance, resolution, rule, or regulation of any kind, the more restrictive shall govern.

13.05.010 Exemptions.

The following work is exempt from the requirements of these regulations:

- A. Complete site development applications submitted prior to the effective date of this chapter, or any amendments thereto, for city review and approval. In such event, the provisions of this chapter that were in effect as of the time a complete site development application was submitted shall control.
- B. Emergency projects which if not performed immediately would substantially endanger life or property. Upon resolution of the emergency, the property owner must either restore the site to its original condition or comply with the requirements of this title within 60 days. The city may extend the 60-day time limit when the property owner can show reasonable cause for the delay.
- C. ~~Public works and private sector road and utility projects completely within the road right of way or within easements adjacent to the right of way which do not add impervious surface (not to include trenching activities) or impact the watershed or downstream resources. This may include pavement maintenance practices limited to~~

pothole and square cut patching, overlaying existing asphalt or concrete pavement with asphalt or concrete without expanding the area of coverage, shoulder grading, reshaping/regrading drainage systems, crack sealing, resurfacing with in-kind material without expanding the road prism, pavement preservation activities that do not expand the road prism, and vegetation maintenance.

~~D. Grading of land for a~~ Agricultural activities for commercial use purposes; provided, that the requirements of EMC Title 14, Critical Areas, are met.

~~E. Maintenance of public roads or flood control projects when done by a public agency and the project has been reviewed and approved for compliance with applicable state, federal, county, and city regulations, and the work is in an existing public right-of-way or easement dedicated to or on property owned by the city.~~

~~F. Public works maintenance activities and utility activities which have submitted and had approved an annual scope of work for routine repetitive activities detailing erosion and sediment control measures that comply with the provisions of the PCM or Regional Road Maintenance Endangered Species Act Program Guidelines developed by Tri-County Road Maintenance Technical Working Group, August 2000, and which will be implemented during the specified activities.~~

~~G. Routine agricultural practices such as discing, harrowing, plowing, etc., except in sensitive or critical areas. However, said routine agricultural practices in sensitive or critical areas that commenced prior to June 1998 are exempt.~~

~~H. Emergency sandbagging, diking, ditching, filling or similar work during or after periods of extreme weather conditions when done to protect life or property.~~

~~HI.~~ Washington State Department of Transportation (WSDOT) projects in which stormwater management standards, specifications, and practices are conducted in accordance with “WSDOT’s Highway Runoff Manual” as approved by the Department of Ecology.

~~J. All utility trenching and installation where said utility has filed a yearly scope of work plan that addresses sediment and erosion control work methods that comply with the PCM.~~

~~FK.~~ Projects that are covered under the state of Washington Model Toxics Control Act (MTCA) or the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA).

~~GL.~~ The removal, deposit, stockpiling, broadcasting or displacement of not more than a total of 50 cubic yards of material throughout the life of a development from its existing, permitted condition. Said materials shall include, but not be limited to, topsoil, gravel, earth, peat, sawdust, mulch, bark, chips or solid nutrients.

~~HM.~~ The creation, addition, or replacement of not more than 200 square feet of impervious surface area throughout the life of a development from its existing permitted condition.

I. Additional activities listed under EMC 13.05.030(C) below, subject to the additional criteria listed therein.

13.05.020 Definitions.

A. Unless otherwise defined in subsection B, this chapter relies on definitions contained in the following references, in order:

1. The manual and standards adopted by reference under EMC 13.05.160 and modified by EMC 13.05.170;
2. EMC Chapter 18.20, Definitions;
3. WAC 197-11-700 through 197-11-799, as now or hereafter amended; and
4. the latest edition of Webster’s Dictionary.

B. For the purposes of regulating this chapter, ~~T~~the following definitions shall apply ~~in the interpretation and enforcement of this chapter:~~

~~A. “Applicant” means the person, party, firm, corporation, or other legal entity that proposes to develop property in the city of Edgewood by submitting an application for any of the activities covered by these regulations on a form furnished by the city and paying the required fees.~~

~~B. “City” means the mayor or his/her designee; also the city, its duly authorized representatives, and the jurisdictional boundaries of the city.~~

~~C. “Development” means any manmade change to improved or unimproved real property including, but not limited to, construction of buildings or other structures, placement of manufactured home, mining, dredging, logging, clearing, filling, grading, paving, excavation, drilling operations, or the subdivision and short plat of property.~~

~~1D. “Director” shall mean the director of public works or designee as necessary to ensure compliance with these regulations unless explicitly referenced otherwise.~~

~~E. “Engineer” means a professional civil engineer, currently licensed by the state of Washington, retained by and acting on behalf of the applicant. The term “engineer” also means design engineer and project engineer.~~

~~F. “Geologist” means geologist, engineering geologist, or hydrogeologist registered in the state of Washington.~~

~~2. “Logging” means the harvesting or removal of timber. Logging does not include the removal of stumps or under story vegetation.~~

~~3G. “Manual” means the Pierce County Stormwater Management and Site Development Manual (PCM), adopted by reference under EMC 13.05.160 and modified by EMC 13.05.170 including all amendments, corrections, and changes made through subsequent city ordinance.~~

~~H. “Manufactured home” means 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 connected to the required utilities. For floodplain management purposes, the term “manufactured home” also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes, the term “manufactured home” does not include park trailers, travel trailers, recreational vehicles or other similar vehicles.~~

~~I. “Parcel” means any portion, piece, or division of land, fractional part or subdivision of block, according to plat or survey; portion of platted territory measured and set apart for individual and private use and occupancy.~~

~~J. “Pierce County Stormwater Management and Site Development Manual (PCM)” means the manual adopted by this chapter, which is incorporated into these regulations by reference and all amendments, corrections, additions made to it by subsequent city ordinances. Copies of the manual are available for inspection at City Hall and download on the city’s website. Hard copies may be available for purchase at Pierce County.~~

~~K. “Pothole” means a relatively sunken or low-lying area of the earth’s surface, especially one having no natural outlet for surface drainage.~~

~~4. “Principal” means an individual, person, or entity primarily liable for an obligation. In the case of a limited liability corporation (LLC), it means the individual or person that has the authority to make financial commitments and/or obligations for the LLC.~~

~~L. “Redevelopment” means, on an existing developed site, change of pervious type, the creation or addition of impervious surfaces, external structural development including construction, installation or expansion of a building or other structure, and/or replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities associated with structural or impervious redevelopment.~~

~~5M. “Regulations” means this chapter plus requirements contained in the PCM and all other applicable provisions of the Edgewood Municipal Code EMC. Copies of the PCM are available for inspection at City Hall.~~

~~N. “Short plat” is the map or representation of a short subdivision.~~

~~O. “Short subdivision” is any voluntary or involuntary division or redivision of land into four or fewer lots, tracts, parcels, sites or subdivisions for the purpose of sale, lease or transfer of ownership.~~

~~P. “Site” means any parcel or combination of contiguous parcels where grading, filling, clearing, or creation of an impervious surface is proposed, and which may be controlled by more than one property owner.~~

~~Q. “Washington State Department of Ecology Stormwater Management Manual for Western Washington (SMMWW)” means the 2012 Edition, as amended in 2014, of this document and as may be further amended.~~

~~R. “Site development plan” shall include the following, as specifically required by the city in each instance: site plan, erosion and sedimentation control plan, grading plan, storm drainage plan, stormwater drainage control report, soils report, flood study, entering sight distance variances and verifications, and other documents required in the review of proposed development of the property.~~

~~6S. “Site development permit” means a permit issued by the city authorizing giving the applicant permission to: access the property; perform land disturbing activity; remove vegetation; construct roads, shared accesses, driveways, parking areas, impervious surfaces or other hard surfaces; perform grading and/or clearing; construct stormwater facilities; fill, grade and create a different type of pervious or impervious surface or and any combination thereof.~~

~~T. “Subdivision or final plat” is any voluntary or involuntary division or redivision of land into five or more lots, tracts, parcels, sites or divisions for the purpose of sale, lease, or transfer of ownership.~~

~~7U. “Technical equivalency” or “technical deviation” means an alternative design option requested by an applicant or the applicant’s engineer which deviates from the stipulated technical design standards or criteria found in the ManualPCM.~~

~~V. “Variance” means an adjustment to the development standards, that does not apply to use, that is reviewed and approved by the hearing examiner after at least one public hearing.~~

13.05.030 Site development permits.

A. GeneralPermits.

1. Issuance of a site development permit by the city does not, in any way, imply or signify that the proposal complies with the requirements of or is allowed by other city ordinances, regulations, or requirements, or state or federal laws.

2. The applicant is in no way relieved of responsibility and liability for compliance with all state, federal, and local rules, requirements, laws, ordinances, and regulations. Design errors which are undetected by the city do not relieve the Engineer from ultimate responsibility. Where these errors are discovered, the plans are subject to revisions by the Engineer and review and approval by the city.

3. Should errors, omissions, or inaccurate data related to the site development permit come to the County's attention, the applicant or Engineer, as applicable, shall correct all deficiencies and be responsible for all damages resulting from the defective work.

B. Site Development Permit Required.

1. Unless fully exempt from these regulations, no person, party, firm, corporation, or entity shall perform any: grading, filling, clearing, excavating, or ditching, storm drainage system construction or alteration, drainage course alteration, hard surface creation, or create an impervious surface, or any development or redevelopment activity unless the work is in accordance with a valid site development permit from the city issued pursuant to the provisions of these regulations.

2. Applications for site development permits shall be prepared pursuant to this chapter and the Manual, then submitted and processed pursuant to the procedures contained under EMC Title 18.

3. Each site must have a separate site development permit. The permit issuance, payment of fees, and plan review must be completed prior to final subdivision plat approval or issuance of building permits.

~~C. Application for a Permit. An application for a site development permit shall be made by the owner or owner's agent with the city. The application must be accompanied by the appropriate number of site development plans as detailed in the manual, including grading plans, erosion and sedimentation control plans, storm drainage plans, and report(s). If the director or designee determines that the proposed improvements have a reasonable likelihood to negatively impact public health or safety of downstream properties, based on best available science and/or otherwise known conditions, he/she may require that additional investigations and/or reports (e.g., geotechnical investigations, downstream analysis, zero rise analysis, etc.), as appropriate, be provided. The applicant may also provide additional information, as appropriate, to identify the scope of work.~~

C. Site Development Permit Not Required. The following exemptions are allowed without obtaining a site development permit if other criteria as listed are met:

1. Minor Development or Redevelopment Activity. Certain minor development or redevelopment activity as listed below may be performed by a property owner or project proponent without first obtaining a site development permit when all the criteria listed below are met. The burden of proving that the project falls within this permit exemption will be on the property owner and/or project proponent. The following criteria must be met:

a. In accordance with the Manual, Minimum Requirement #2, the property owner and/or project proponent must consider the 13 elements of pollution prevention for the construction site, and controls must be developed and implemented for all the elements that pertain to the site. Minimum Requirement #4 protecting natural drainage systems is met.

b. The work cannot include the removal, deposit, or displacement of material: within a special flood hazard area as defined by EMC 14.80; within 25 feet of a drainage course, or drainage channel; and on existing slopes that are steeper than 33 percent and 10 feet or more in height.

c. The work cannot create slopes that are steeper than 33 percent and 10 feet or more in height.

d. The work cannot include the removal, deposit, or displacement of material within the following critical areas and their associated buffers as defined by EMC Title 14 – Wetlands, Critical Fish and Wildlife Habitat Areas, Flood Hazard Areas, Landslide Hazard Areas, and Erosion Hazard Areas.

e. The work does not include the installation of a new storm drainage system.

f. The work must not be located within city right-of-way.

g. Public and private utility line work located outside city right-of-way that creates less than 200 square feet of new or replaced impervious/hard surface.

h. Allowed Minor Development or Redevelopment Activities. The following are the allowed cumulative totals on a parcel of land. The cumulative total resets to zero when the parcel has obtained a site development permit for the activity and achieved final construction approval thereof.

i. Land disturbing activity that does not exceed 7,000 square feet.

ii. The creation of less than 200 square feet of new and/or replaced impervious/hard surface.

iii. The conversion of less than 0.75 acres of native vegetation to lawn.

iv. The conversion of less than 2.5 acres of native vegetation to pasture.

v. Projects that cause less than a 0.10 cubic feet per second (cfs) increase in the 100-year discharge flow.

vi. Grading of less than 50 cubic yards.

2. Development or Redevelopment Activity Performed by the City. When the applicant or proponent of a development or redevelopment is the city, a site development permit is not required when the city, as determined by the Director:

a. Complies with the requirements of this chapter and the Manual; and

b. Uses qualified staff and has established procedures and programs to:

i. Review each project's stormwater plans and specifications to ensure compliance with this chapter and the Manual; and

ii. Produce plans and documents in accordance with the Manual; and

iii. Inspect all projects prior to clearing and construction that have a high potential for sediment transport; and

iv. Inspect projects during construction to verify proper installation and maintenance of required erosion and sediment controls; and

v. Inspect projects during and upon the completion of construction and prior to final approval or occupancy to ensure proper installation of permanent stormwater facilities; and

vi. Verify that a maintenance plan is completed and responsibility for maintenance for stormwater treatment and flow control best management practices/facilities is assigned; and

vii. Keep records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records.

3. Public and Private Utility Line Work. Public and private utility line work (new construction, maintenance and repair) does not require a site development permit when:

a. The utility line work is located within city right-of-way; and

b. The ground surface is replaced with in-kind materials with similar runoff characteristics; and

c. A Construction Stormwater Pollution Prevention Plan is implemented that meets Minimum Requirement #2 of the Manual; and

d. The work is performed in accordance with EMC 12.02.

4. Maintenance and Repair Activities for Public Roads and Public Storm Drainage Systems. Maintenance and repair activities performed by the Public Works Department do not require a site development permit.

5. Maintenance or Repair Activities for Private Roads, Shared Accesses, Alleyways and Private Storm Drainage Systems. The maintenance activities listed below may be performed by a property owner or project proponent without first obtaining a site development permit when all of the criteria below are met. The burden of proving that the project falls within this permit exemption will be on the property owner and/or project proponent. The following criteria must be met:

a. In accordance with the Manual, Minimum Requirement #2, the property owner and/or project proponent must consider the 13 elements of pollution prevention for the maintenance or repair activity, and controls must be developed and implemented for all the elements that pertain to the activity. Minimum Requirement #4 protecting natural drainage systems is met.

b. The repair of a storm drainage system cannot exceed 250 cubic yards of grading.

c. Private road or or alleyway maintenance or repair activities cannot expand the roadway prism or cause an expansion of impervious or hard surface.

d. Maintenance or repair activities cannot change the original approved design of a private road, shared access, or storm drainage system.

e. Allowed Minor Maintenance or Repair Activities:

i. Pavement maintenance and repair activities such as asphalt overlay, pothole repair, square cut patching, chip seal or other asphalt maintenance coating.

ii. Sidewalk or pedestrian pathway repair or replacement.

iii. Curb repair or replacement.

iv. Driveway approach repair and maintenance.

v. Gravel road maintenance and repair.

vi. Gravel shoulder maintenance and repair.

vii. Storm drainage system repair.

viii. Storm drainage system maintenance.

ix. Vegetation maintenance within private road, shared access, or other vehicular access easement.

~~D. Permit Issuance. The city shall review the submitted information to determine if it complies with the provisions of these regulations. If the proposed work, as identified by the application and plans, complies with the provisions herein or as imposed by the city pursuant to these regulations or if they are corrected or amended to comply within the specified time limit and all applicable fees have been paid, the city shall issue a site development permit to the applicant. The permit must be kept on site for the duration of the construction activity. The developer will be responsible for ensuring the permit is maintained on site and is easily accessible.~~

D. Site Development Permit Review.

1. Process. The city shall conduct a review of the permit application in accordance with the provisions outlined in EMC Title 18.

2. Criteria. The city shall review the submitted information to determine if it complies with the provisions of these Regulations.

3. Burden of Proof. The applicant or Engineer shall show by calculations, plans, and data that the proposed project meets the requirements of this chapter.

4. Director's Authority. The Director shall have the authority to increase requirements to protect the health, safety, and welfare of the public on the basis of information regarding threatened water quality, erosion problems, habitat destruction, historic flooding, protection of uninterruptable services, endangerment to property, or increases in requirements imposed by State or Federal agencies or other pertinent factors.

E. Site Development Permit Denial. The Director shall deny a site development permit if the proposal does not meet or cannot be modified to meet the requirements set forth in this chapter.

F. Site Development Permit Approval and Issuance. The site development permit will be approved and issued when the following items have been addressed:

1. Plan Is Approved. City staff find that the site development drawings, reports, maintenance covenant, and other project documentation comply with this chapter and the Manual.

2. Hearing Examiner Approval and Environmental Determination Completed. Issuance/approval of a site development permit will not occur until necessary land use permit or environmental approvals are obtained in accordance with Title 18 EMC.

3. Payment of Fees. All fees for the site development permit must be paid.

4. Financial Guarantees. Any necessary financial guarantees must be received and approved by the city.

5. Easements and Deeds Completed. Any easements or deeds that have been identified through the review process as being necessary to start construction must be reviewed, approved and executed.

~~E. Permit Approval. Upon receiving hearing examiner approval (if required) and after the expiration of the appeal period, site development permits may be issued for clearing, site grading, road construction, and installation of storm drainage facilities individually or under one site development permit. If separate applications are submitted, they must be accompanied by the pertinent plans and reports as further detailed in the PCM.~~

~~F. Compliance. The issuance of a site development permit shall not relieve the applicant from complying with other applicable city regulations, state or federal regulations or laws.~~

~~G. Permit Time Limit. A site development permit shall be valid for three years from the date of approval or final plat approval by the city, whichever comes last. A single one year extension may be granted if deemed appropriate by the city.~~

~~H. Permit Expiration. Unless governed by the provisions of RCW 58.17.140, a new application must be filed and a permit must be obtained for work not completed before the expiration of the previous site development permit within this time period. Said permit will be issued in compliance with the regulations in effect at the time of submittal of said new application.~~

~~I. Changed Conditions, Stop Work Order, and Permit Revocation. Should the city become aware of conditions that invalidate the original design data used to obtain the permit or determine that the applicant is not complying with the conditions of the permit or approved plans, the city may revoke the original permit and/or order work stopped on the project. The city may require the applicant to resubmit information or plans for review and approval and apply for a new permit. The city may order all or part of the permitted work stopped for any period of time for any of the following reasons:~~

- ~~1. The applicant fails to comply with the conditions of the permit.~~
- ~~2. The permit was granted on the basis of erroneous or incomplete information submitted to the city by the engineer or applicant.~~
- ~~3. The weather-related emergency conditions cause off-site or downstream drainage or water quantity or quality problems.~~
- ~~4. The work has created a condition which is a hazard to life, endangers property, or adversely affects the use or stability of a public way or drainage course.~~

13.05.040 Construction Engineer's/geologist's responsibility.

~~Unless otherwise allowed by exceptions contained within the PCM, all site development plans and reports submitted to the city for review and approval shall be prepared by an engineer and/or geologist. The city will review the work for compliance with these regulations. Should errors, omissions, or inaccurate data related to the submitted work come to the city's attention, the applicant or engineer/geologist, as applicable, shall correct all deficiencies and be responsible for any and all damages resulting from the defective work.~~

This Section addresses the construction phase of the site development permit process including, but not limited to, construction material requirements, start of construction, inspections, change orders, and permit extensions.

A. Construction Materials. All materials used in construction of private and city drainage facilities shall meet the current WSDOT standard specifications, AASHTO, and ASTM standards as amended or supplemented by the State and/or Pierce County. The applicant is responsible for contacting the city to obtain any modifications or supplements.

B. Prior to Starting Construction. Construction shall not start until:

1. The site development permit has been issued.
2. Construction Stormwater Pollution Prevention Plan Measures. All initial construction stormwater pollution prevention plan measures must be installed (such as but not limited to construction entrance, silt fence, construction limit fencing).
3. Pre-Construction Meeting. When required by the city, a pre-construction meeting must be held with the city inspector, the contractor(s) and the Engineer.
4. Right-of-Way Permit Must Be Obtained. Any project that intends to perform construction or improvements within existing city right-of-way shall obtain a right-of-way permit prior to beginning any construction.

C. Inspections, Right of Entry, Access.

1. The Director is authorized to make such inspections and take such actions as may be required to enforce the provisions of this chapter.
2. Whenever necessary to make an inspection to enforce any of the provisions of this chapter, or whenever the Director has reasonable cause to believe that violations of this chapter are present or operating on a subject property or portion thereof, the Director or designee may enter such premises at all reasonable times to inspect the same or perform any duty imposed upon the Director by this chapter; provided, that if such premises or portion thereof is occupied, the Director shall first make a reasonable effort to locate the owner or other person having charge or control of the premises or portion thereof and demand entry.
3. Proper ingress and egress shall be provided to the Director to inspect or perform any duty imposed upon the Director by this chapter. The Director shall notify the responsible party in writing of a failure to provide access. If the responsible party fails to respond within seven days from the receipt of notification, the Director may order the work required completed or otherwise address the cause of improper access. The obligation for the payment of all cost that may be incurred or expended by the city in causing such work to be done shall be imposed on the person holding title to the subject property.
4. The applicant will be responsible for retaining an engineer to conduct inspections and testing during construction. The number, type, and frequency of inspections and testing will need to be of such an extent and nature that the engineer will be able to accurately and thoroughly complete the Engineer's Inspection Report.
5. Engineer's Inspection Report. The City shall create an inspection form that will specify what the project's engineer must inspect, measure, and test. The inspection form must include the following:
 - a. Project name;
 - b. Project description and scope;
 - c. Site development permit no.(s);
 - d. Project location;
 - e. Engineer's name, address, phone and email address;
 - f. Standard inspections for frequently used water quantity, or water quality BMPs;
 - g. Inspection or testing that require special expertise, special certification, or special equipment;

- h. Inspection items for roads, shared accesses, and alleyways;
- i. Inspections for work in or near critical areas;
- j. Review of record drawings for compliance with the approved design;
- k. City's expectations of engineer for each inspection, review, or test; and
- l. Certification language for the engineer.

D. Permit (Construction) Time Limit. In order to meet the intents and purposes of this Chapter and to minimize construction impacts, site development work must be completed as soon as reasonably possible. A site development permit is therefore valid for one year from the date of issuance.

1. Extensions.

a. Second Year. For site development work that is incomplete but actively under construction, the site development permit will be extended for an additional year upon payment of additional inspection fees.

b. Additional Time Extensions. For site development work that is incomplete but actively under construction, the Director or designee may grant additional one-year time extensions when:

- i. An applicant can demonstrate that impacts to neighboring properties, downstream receiving waters, and critical areas are not occurring or have been corrected, or will be corrected; and
- ii. Construction already completed has been performed in a manner that substantially conforms with the approved plans and the applicable inspection fees have been paid.

c. Expired Site Development Permits. When a site development permit has expired, the Director or designee may revive an expired permit and grant additional one-year time extensions when a project has not commenced site development work, or when a project's site development work is incomplete, when the following conditions are shown:

- i. An applicant can demonstrate that impacts to neighboring properties, downstream receiving waters, and critical areas are not occurring or have been corrected, or will be corrected; and
- ii. A project has not lost its vesting rights, or a project has lost its vesting rights, but the Director or designee determines that the current version of this chapter will not cause significant changes to the previously approved plans; and
- iii. Construction already completed has been performed in a manner that substantially conforms with the approved plans and the applicable inspection fees have been paid.

d. Expiration of Vesting Rights. When a site development permit has expired and a project has lost its vesting rights and upgrading of the project to the current version of this chapter will require significant changes to the approved plans, the site development permit will not be revived until:

- i. The plans have been revised to meet the current regulations; and
- ii. The appropriate review and inspection fees have been paid; and
- iii. An applicant can demonstrate that impacts to neighboring properties, downstream receiving waters, and critical areas are not occurring, have been corrected, or will be corrected.

2. Permits issued for resolution of a site development violation shall be valid for six months unless specified otherwise by the Director. If deemed appropriate by the Director, a single 90-day permit extension may be granted.

3. All permits issued pursuant to the stormwater regulations with an effective date between December 4, 2015, and July 1, 2021, shall expire on July 1, 2026, unless approved construction has begun on site before this date. For purposes of this section:

a. "Construction has begun" means the site work associated with and directly related to the approved project has begun. For example, mass grading, or the installation of utilities, have commenced and are actively progressing. Simply clearing the project site does not constitute the start of construction.

b. "Actively progressing" means that construction crews are on site on a daily or weekly basis and significant and visible progress is being made toward the completion of the project. As some elements of a project must be constructed during the drier part of the year or when groundwater levels are low, it is understood that minimal progress may be made during the wet season from October 1st through April 30th. However, to be considered "actively progressing," permitted projects must immediately resume construction activity at the levels described above upon completion of the wet season.

E. Changes to Approved Plans.

1. Change Order. When the city's inspector or review engineer determines that a contractor- or applicant-initiated plan changes or field revisions are minor, the changes can be approved using a change order process. The city will provide a change order form which will identify the necessary information, process and approval. The form must be completed by the project engineer and submitted to the city for approval.

2. Revision to Approved Plans. When the city's Inspector or review engineer determines that a contractor- or applicant-initiated plan changes or field revisions are major, the changes must follow a formal plan revision process. Major changes will require that the project engineer revise the approved site development drawings and obtain a new approval of each affected sheet(s). A review fee is charged for revision to approved plans.

3. Record Drawing. Any change orders or revisions to the approved plans must be included in the project record drawings.

F. Construction Completion. Prior to final construction approval of site development work the following items must be completed:

1. City Inspector's Final Punchlist. All items identified on the City Inspector's final punchlist must be completed.

2. Engineer's Inspection Report Form. This form must be completed by the engineer and submitted to the city.

3. Record Drawings. Record drawings must be prepared by the engineer and submitted to the city for review and approval.

4. Maintenance Guarantee. A Maintenance Guarantee for all public improvements must be submitted to and accepted by the city – see EMC 13.05.150(D).

5. Performance Monitoring Permit. An application for this permit must be submitted to the city.

6. Permanent stabilization of the site soils must be achieved.

7. For private Stormwater Drainage systems, a Maintenance Covenant must be approved by the city, executed and recorded with the Pierce County Auditor.

8. All necessary easements and deeds must be approved by the city, executed, and recorded.

G. Record Drawing Requirements. Record drawings must be prepared by the engineer based on as-built survey data and shall mark them as "Record Drawings." The approved site development drawings shall be used as the base drawing for the record drawings. The record drawings shall be prepared using common drafting standards. It is preferred that the original design dimensions, elevations, etc., are struck through and the actual number is written immediately adjacent to the strike out. The record drawings must include the following:

1. Storm drainage detention, retention and water quality facility finished contours, elevations and dimensions such that key aspects of the approved design can be verified such as required detention volume, required retention volume, required volumes based on key elevations, overflow elevations, spillway elevations, invert elevations, orifice elevations, orifice sizes, etc.

2. Invert and rim elevations of catchbasins and pipe outfalls, pipe sizes, pipe slopes such that verifications can be made that conveyance systems have been built in accordance with this chapter.

3. Finished contours and key spot elevations for areas that require specialized or detailed grading such as areas that will be providing compensatory flood storage, or areas that provide for a stormwater overflow route.

4. Verification of required vehicle sight distances when requested by the city.

5. Total effective impervious area quantities for the project site summarized in a table on the cover sheet.

H. Acceptance of Public Drainage Facilities. Unless otherwise approved by the Director, the city will not accept a dedication of a tract or an easement until such time that the storm drainage facilities have been constructed and received final construction approval.

I. Maintenance of Private Drainage Facilities. If a project's drainage facilities are not dedicated to and accepted by the city, a maintenance covenant must be prepared by the applicant, reviewed and approved by the city, and recorded against all real property served by said facilities with the Pierce County Auditor.

1. If the project is a subdivision established pursuant to Title 16 EMC, the applicant shall form a Property Owners' Association. The document creating the Property Owners' Association shall at a minimum make provision for all of the following:

a. Members of the Property Owners' Association shall be responsible for maintenance of storm drainage facilities;

b. Inclusion by reference of the operation and maintenance manual prepared by the project engineer in accordance with the Manual;

c. Power to assess fees to maintain storm drainage facilities; and

d. Responsibility for payment of financial sanctions/repayments should the city have to conduct repairs/activities due to hazardous conditions.

2. If the project is other than a subdivision, the applicant will describe the organization or persons that will own and maintain the facility and show how maintenance activities will be financed (refer to the Manual).

J. Performance Monitoring Permit. During this phase of the development process, the city performs periodic monitoring of completed projects. The intent of this monitoring is to look for defects in the constructed infrastructure (such as improper infiltration or settling pavement) that may not have been obvious during construction or that may not have appeared until after final construction approval. The duration of the performance monitoring period is from final construction approval until the last remaining financial guarantee associated with the project has been released by the city.

K. Completion of the Site Development Process. The site development permit process is complete when the city has released any associated financial guarantees and the monitoring phase has been completed.

13.05.050 ~~Coordination with other permits~~Engineering review fee.

~~Engineering review fees as set forth in the city of Edgewood fee schedule must be paid upon application for the site development permit. Additional review fees may be assessed by other city divisions and departments prior to permit issuance.~~

A. Issuance of Related Permits. When a project requires a site development permit, the city will not issue building permits or other permits that authorize construction or earth disturbing activities until the site development permit has been issued.

B. Issuance of Residential Building Permits in Subdivisions. The city will not issue residential building permits in any subdivisions until all necessary drainage improvements, roads, or shared accesses are completed, with the exception that minor items that may be damaged during homebuilding (such as sidewalks, street trees, or street illumination) may be financially guaranteed.

C. Final Building Inspections for Structures. Final occupancy and/or final inspection approval of residential, commercial, and industrial structures will not be granted until such time that final site development construction approval is achieved in accordance with EMC 13.05.040(F).

13.05.060 Technical equivalency.

A. The ~~d~~Director ~~or designee of public works~~ may ~~grant~~ make determinations of technical ~~equivalency deviations from~~ regarding the requirements contained in this chapter; provided, that all of the following are met:

1. The granting determination of technical equivalency will not otherwise result in noncompliance with minimum requirements set forth in the ManualPCM;
2. The granting determination of technical equivalency will not violate the development conditions imposed upon the project;
3. The granting determination of technical equivalency will produce a compensating or comparable result which is in the public interest;
4. The granting determination of technical equivalency will meet the objectives of safety, function, appearance, environmental protection and maintainability based on sound engineering judgment.

B. The ~~d~~Director ~~of public works~~, or designee, shall make written findings supporting the determination of technical equivalency.

13.05.070 Hazards.

A. Whenever the dDirector determines that any existing construction site, erosion/sedimentation problem and/or drainage facility poses a hazard to life and limb, endangers any property, and/or adversely affects the condition or capacity of other drainage facilities, the safety and operation of city right-of-way, utilities, and/or other property owned or maintained by the city, the applicant/person to whom a permit was issued, the owner of the property, the applicant/person responsible for maintenance, and/or other person or agent in control of said property, upon receipt of notice in writing from the dDirector, shall within the period specified therein repair or otherwise address the cause of the hazardous situation in conformance with the requirements of this chapter.

B. Should the dDirector have reasonable cause to believe that the situation is so adverse as to preclude written notice, they/he/she may take the measures necessary to eliminate the hazardous situation; provided, that they/he/she shall first make a reasonable effort to locate the owner before acting. In such instances the applicant of whom a drainage plan was required, owner of the property and/or person responsible for the maintenance of the facility, shall be obligated for payment of all costs incurred. If costs are incurred and a financial guarantee pursuant to this chapter or other city requirement has been posted, the dDirector shall have the authority to collect against the financial guarantee to cover costs incurred.

13.05.080 Variances.

~~A variance may be requested to these regulations pursuant to the procedures and criteria set forth in EMC Title 18.~~

A. Purpose. The purpose of this Section is to provide a means of altering the requirements of this chapter in specific instances where the strict application of those requirements would deprive a property of privileges enjoyed by other properties because of special features or constraints unique to the property involved.

B. Granting of Variances. The Director shall have the authority to grant a Variance from the provisions of this chapter, when, in the opinion of the Director, the conditions as set forth in subsection C of this Section have been

met. In such cases, a Variance may be granted which is in harmony with the general purpose and intent of this chapter so that the spirit of this chapter shall be observed, public safety and welfare secured, and substantial justice done.

C. Required Showings (Findings) for a Variance. Before any Variance may be granted, it shall be shown:

1. Said requirements impose a severe and unexpected economic hardship on the project applicant, and further, the following has been considered and documented with written findings:

a. The current (pre-project) use of the site; and

b. How the application of the minimum requirement(s) restricts the proposed use of the site compared to the restrictions that existed prior to the adoption of the minimum requirements; and

c. The possible remaining uses of the site if the exception were not granted; and

d. The uses of the site that would have been allowed prior to the adoption of the minimum requirements; and

e. A comparison of the estimated amount and percentage of value loss as a result of the minimum requirements versus the estimated amount and percentage of value loss as a result of requirements that existed prior to adoption of the minimum requirements; and

f. The feasibility for the owner to alter the project to apply the minimum requirements.

2. The exception will not increase risk to the public health and welfare, nor injurious to other properties in the vicinity and/or downstream, and to quality of waters of the State; and

3. The exception is the least possible exception that could be granted to comply with the intent of the Minimum Requirements.

D. Conditions on Variances. When granting a Variance, the Director shall determine that the circumstances do exist as required by subsection C of this Section, and attach specific conditions to the Variance which will serve to accomplish the standards, criteria, and policies established by this chapter.

13.05.090 Appeals.

Any person or agency aggrieved by a final act or decision of the city under these regulations may appeal to the city hearing examiner pursuant to the provisions of EMC Chapters 2.40 and 18.40~~EMC~~, as now enacted or hereafter amended. Administration, including staff report preparation and public hearing notification, shall be prepared by the city.

13.05.100 Penalties and enforcement.

The regulations for compliance with the provisions of this chapter are set forth in EMC Title 7, Code Enforcement.

A. General. Failure to comply with this chapter and the manual will be cause for withholding or withdrawing approval of the overall project plans, revocation of the site development permit, suspension of building inspections, forfeiture of the financial guarantee submitted to the city, and/or nonacceptance of the work by the city.

B. Impact of Forest Practices Permit. A site development application or permit will not be issued on any parcel that has a valid noneconversion forest practices permit for a period of six years from the date of the forest practice application approval.

C. Illegal Earthwork. The city may require the property owner to remove or replace illegal earthwork and/or restore and reclaim an illegally graded parcel. Earth material brought onto a parcel must be removed to a properly permitted disposal site.

D. Enforcement Actions. The director shall have the authority to enforce this chapter. The director is authorized to issue violation notices, levy fines, recover costs, issue notices of civil infraction, and/or institute both civil and

~~criminal actions in the court. Recourse to any single remedy shall not preclude recourse to any other remedies available to the city. The director is also authorized to issue stop work, cease activity, and/or emergency orders in accordance with Chapter 7.40 EMC. Except as otherwise specified, violations of this title shall constitute civil violations subject to enforcement and penalties as set forth in this title and EMC Title 7, Code Enforcement.~~

~~E. Improper Construction. Prior to acceptance or approval of the development, the city may remove, correct, or replace any improperly constructed facility, structure, or portion thereof which was allowed through an issued site development permit, and all expenses incurred by the city shall be paid by the property owner or applicant. If the city is required to bring an action to recover such costs, the city will recover reasonable attorney's fees and interest at 12 percent per annum to run from the date the work was completed by the city. Applicants must agree to this provision as a condition of issuance of any permit authorized by these regulations.~~

~~F. Civil Infraction. Any person who fails to comply with a written request of the director, or designee, shall be liable to the city for a civil infraction pursuant to Chapter 1.10 EMC, as well as all and any civil remedies available at law. Each violation, and in the case of a continuing violation, each day of continued violation, shall be a separate and distinct violation. Civil penalties shall be assessed at a rate of \$250.00 per day per violation, and statutory assessments will be in addition to this amount pursuant to EMC 1.10.010(A).~~

~~G. Civil Penalty. The provisions of this section are in addition to and not in lieu of any other penalty, sanction or right of action provided by law. The purpose of this penalty is to encourage compliance with this chapter and to obtain redress for ecological, recreational, and economic values lost or damaged due to the unlawful action. Any person who fails to obtain a necessary permit prior to conducting activities governed by the provisions of this chapter shall be assessed a civil penalty as follows:~~

- ~~1. The director may assess the violator a civil penalty at a rate of \$250.00 per day per violation. Each violation or each day of continued unlawful activity shall constitute a separate violation.~~
- ~~2. Any person who, through an act of commission or omission, aids in a violation shall be considered to have committed the violation for purposes of the civil penalty.~~
- ~~3. All civil penalties recovered during the enforcement of this section shall be deposited into a fund of the division taking the enforcement action.~~

~~H. Recovery of Costs Incurred by the City. Any person violating any of the provisions of this chapter, who discharges or causes a discharge which violates the city NPDES permit, and/or produces a deposit or obstruction, or causes damage to or impairs the city stormwater disposal system, or causes damage to physical, chemical, or biological systems of waters of the state or waters of the United States, shall be liable to the city for any expense, loss, or damage caused by such violation or discharge, including the costs for bringing the city back into compliance with its NPDES permit associated with the violation of these regulations, and any fines levied for violations of the city's NPDES permit.~~

- ~~1. A bill issued by the director or designee for collection of costs incurred is appealable within 14 days from the date of the letter. Appeals may be filed by submitting an appeal fee as set forth in the city of Edgewood fee schedule, along with a written statement identifying the basis for disputing city claim to the department initiating the action.~~

~~I. Violators Punishable by Fine and Imprisonment. Any person who, without authorization, discharges pollutants into a municipal drainage system, uses an unapproved connection to discharge into a municipal drainage system, submits false information in permitting and reporting requirements, violates the terms and conditions of a permit, violates a cease and desist order issued by the director or designee, fails to pay a civil penalty or cost recovery assessment, or obstructs or damages a municipal drainage system shall be deemed guilty of a misdemeanor. Any person convicted of a misdemeanor under this code shall be punished by a fine not to exceed \$5,000 or by imprisonment not to exceed one year, or by both such fine and imprisonment, in accordance with Chapter 1.10 EMC. Each person found guilty of a violation shall be deemed guilty of a separate offense for every day during any portion of which the violation is committed, continued, or permitted by such person and shall be punishable as provided for in this chapter. Any person who, through an act of commission or omission, procures, aids, or abets in violation shall be considered to have committed a violation for the purpose of this section.~~

~~J. Injunction and Other Civil Remedies. In addition to any other penalty or method of enforcement, the city attorney may bring civil actions and suits for damages, injunctive relief and/or for other civil remedies as necessary. Any violation of this chapter shall constitute a public nuisance, and may be enjoined as provided by the statutes of the state of Washington, Chapter 1.10 EMC, and EMC Title 7, Code Enforcement.~~

~~K. Public Nuisance. Any work carried out contrary to the provisions hereof shall constitute a public nuisance and may be enjoined as provided by the statutes of the state of Washington, Chapter 1.10 EMC, and EMC Title 7, Code Enforcement.~~

~~L. Collection of Unpaid Penalties and Costs. In addition to any other legal remedies available to the city, the city may refer any unpaid civil penalties or cost recovery assessment to a collection agency in accordance with Chapter 3.55 EMC and RCW 19.16.500.~~

13.05.110 Grading Inspections, right of entry, access.

~~The director is authorized to make such inspections and take such actions as may be required to enforce the provisions of this chapter.~~

~~Whenever necessary to make an inspection to enforce any of the provisions of this chapter, or whenever the director has reasonable cause to believe that violations of this chapter are present or operating on a subject property or portion thereof, the director may enter such premises at all reasonable times to inspect the same or perform any duty imposed upon the director by this chapter; provided, that if such premises or portion thereof is occupied, the director shall first make a reasonable effort to locate the owner or other person having charge or control of the premises or portion thereof and demand entry.~~

~~Proper ingress and egress shall be provided to the director to inspect or perform any duty imposed upon the director by this chapter. The director shall notify the responsible party in writing of a failure to provide access. If the responsible party fails to respond within seven days from the receipt of notification, the director may order the work required completed or otherwise address the cause of improper access. The obligation for the payment of all costs that may be incurred or expended by the city in causing such work to be done shall be imposed on the person holding title to the subject property.~~

A. General Requirements.

1. Slopes shall be constructed in a manner such that a factor of safety of at least 1.5 is achieved for static conditions and at least 1.2 for seismic dynamic conditions. Analysis of dynamic (seismic) conditions shall be based on a minimum horizontal acceleration as established by the most current version of the Building Code as adopted by EMC Title 15.

2. The proposed slopes shall not create the need for landslide hazard buffers or setbacks on neighboring properties unless approved through a notarized written agreement with the property owner.

3. Interior slopes for surface mining projects which are part of an active mining operation are exempt from the maximum cut and fill slope angle requirements listed below, as long as access to the mine is controlled via fencing or other security measures to discourage entrance by unauthorized persons. Interior slopes are those slopes that do not impact the theoretical slope face that is created by applying the applicable maximum angle and the required setbacks to the property line.

B. Excavation Standards.

1. Cut Slopes shall be no steeper than is safe for the intended use and shall not be steeper than 2 horizontal to 1 vertical, or as recommended by a soils Engineer.

2. The catch point of the top of the slope shall be set back from the site boundary line in accordance with the following table, unless a retaining wall is designed by the Engineer and constructed for the project:

Cut Depth	Setback Distance
Less than 5 Feet	2 Feet

<u>5 to 20 Feet</u>	<u>Half of the Depth</u>
<u>More than 20 Feet</u>	<u>10 Feet</u>

3. Cut slopes along the mine's property boundaries are allowed to be steeper than 2:1 if the applicant can show through the submittal of a stability study that there will not be a negative impact to neighboring properties in the form of stability impacts, increased setback requirements or increased buffer distances.

4. Refer to the Manual for additional excavation techniques.

C. Fill Standards.

1. Fills which are intended for building sites shall be constructed in conformance with the requirements of the latest edition of the IBC, as adopted by the city, and an assignment of allowable soil-bearing pressures will be under the jurisdiction of the Building Official in accordance with the IBC.

2. Slopes shall be no steeper than is safe for the intended use and shall not be steeper than one and one half horizontal to one vertical, or as recommended by a soils Engineer. Fill sites must be approved by the Engineer as suitable locations for the proposed fill.

3. The ground surface for fills over five feet in height shall be prepared by removing vegetation, noncomplying fill, topsoil, and other unsuitable materials; scarifying to provide a bond with the new fill; and, where existing slopes are steeper than five horizontal to one vertical, by benching into competent material as determined by the Engineer. The bench under the toe of a fill on a slope steeper than 5 horizontal to 1 vertical shall be at least 10 feet wide or as recommended by a soils Engineer.

4. Except as permitted by the city, no material other than earth material shall be buried or placed in fills. Placement of other than earth material is regulated by State statutes or Federal laws, and additional permits may be required.

5. Fills shall be constructed using earth materials, compaction methods, and construction techniques so that stable fills are created.

6. The toe or catch point of fill slopes shall be set back from the site boundary line in accordance with the following table unless a retaining wall is designed by the Engineer and constructed for the project:

<u>Fill Depth</u>	<u>Setback Distance</u>
<u>Less than 5 Feet</u>	<u>2 Feet</u>
<u>5 to 40 Feet</u>	<u>Half of the Depth</u>
<u>More than 40 Feet</u>	<u>20 Feet</u>

D. Soil Engineering – Stability.

1. When an applicant proposes to clear, grade, cut, or fill on existing slopes steeper than 33 percent and ten feet or more in height, or when an applicant proposes to construct slopes steeper than 50 percent and ten or more feet in height, or is otherwise directed by the Manual, the city may require any of the following:

a. The applicant retain a geotechnical professional to submit design and construction recommendations.

b. The applicant retain a geotechnical professional and/or testing company to perform special inspections of the proposed clearing, grading, and filling.

c. The applicant retain a geotechnical professional to prepare a stability report.

d. The geotechnical professional's recommendations be incorporated into the construction plans, construction specifications, and if applicable, the subdivision documents.

e. The applicant retain a geotechnical professional to review construction plans and specifications or subdivision documents for conformance with the geotechnical professional's recommendations and requirements.

f. The applicant retain a professional engineer to prepare an abbreviated plan in accordance with the Manual.

2. At a minimum, a stability report shall include the following:

a. The first page of the document shall clearly identify the submittal as a "Stability Report."

b. The date when the stability report was prepared.

c. The parcel number(s) of the site.

d. Site address if one has been assigned by the city.

e. A detailed description of the project and a description of the project area.

f. A description of the surface and subsurface geology, hydrology, soils, and vegetation of the site.

g. An accurate site plan drawn at a scale of 1" = 20', 1" = 30', 1" = 50' (or other scale deemed appropriate by the Department) is required. The Department may require that the site plan information listed below be based on a field survey by a licensed surveyor. The site plan shall include:

i. The location of any existing and proposed structures, utilities, on-site septic systems, wells, and stormwater management facilities.

ii. The full geographical limits of the proposed project area.

iii. Extent of cross-section(s) used in the evaluation of slope stability.

iv. Existing topography on the site presented in two-foot contours.

v. Property lines for the site.

vi. North arrow and plan scale.

vii. Location and unique identifier of geotechnical borings, CPT soundings, or other surveys or explorations used to characterize subsurface conditions.

viii. Extent of cross-section(s) used to evaluate the three-dimensional subsurface geologic and groundwater conditions at the site.

h. Subsurface characterization data must be provided. The data shall be based on both existing and new information that may include soil borings (SPT or other appropriate driven sample collection methods), test pits, geophysical surveys, or other appropriate subsurface exploration methods, development of site-specific soil and/or rock stratigraphy, and measurement of groundwater levels including variability resulting from seasonal changes, alterations to the site, etc.

i. Conventional geotechnical boring data shall be reported as a graphic log utilizing the following standards:

1. The vertical scale of the graphic log shall be such that 5 ft. of drilled depth is scaled to range of 1" to 2" (1:60- or 1:30-scale), and shall include vertical columns that record depth in 1 ft. increments, SPT value or equivalent value, and incremental blow counts, a graphic pattern representation of the soil type encountered during drilling, and sample descriptions and other comments regarding drilling.

2. The graphic log shall have a header on the first page that includes a unique identifier for the boring, the times and dates of the start and completion of drilling, the manufacturer and model of the drilling rig, the company name of the drilling contractor, the name(s) of the site geologist(s) or engineer(s) overseeing the drilling activities, the details of the method used to advance the borehole (e.g., 4" i.d. hollow-stem auger), the type of drilling fluid used to stabilize the borehole, indication that the SPT was completed in accordance with applicable ASTM standards or other appropriate driven sample collection methods are specified including a description of the sampler, hammer weight, drop height, the type of hammer used to drive the sampler, number of turns of rope if a cathead is used to raise the hammer, condition of rope (i.e., new, used, frayed, oily, etc.), and the depth of static groundwater measured immediately prior to abandonment of the boring and the time and date of this measurement.

3. All subsequent pages of the graphic log shall have the unique identifier for the boring, the times and dates of the start and completion of drilling, and the number of the page and the total number of pages comprising the log.

4. Each SPT value or equivalent value will be reported in the appropriate column showing the blow counts recorded at each 6" interval, and the sum of the blow counts between penetration distances of 6" to 18," unless refusal conditions (50 or more blows with less than 6" of sampler penetration) are met anywhere in this interval. At refusal, the blow count shall be recorded as the number of blows with the corresponding sampler penetration, in inches.

5. SPT tests shall be performed every 5 feet during drilling, at a minimum.

6. The soil sample descriptions will include the total length of the recovered sample, the soil color, odor, the density or consistency (loose to very dense, very soft to very stiff), degree of water saturation (dry, moist, wet, saturated), and dilatancy. For granular (sand and gravel) soils, the description shall include a physical description of the soil sample, including size distribution (poorly or well graded), angularity, composition, amount and plasticity of the fines fraction. For fine soils (silt and clay), the description shall include a qualitative estimate of the proportion of the silt and clay size particles (e.g., silty clay, clay with some silt, etc.), plasticity, and amount and type of organic material. The sample description shall include a description of any bedding, laminations, slickensides, or other textural or deposition features, including contact between dissimilar soil types. The sample description shall also include a field classification of the soil sample using the Unified Soil Classification System where the classification is expressed in lower case letters (e.g., sp, ml, etc.). The sample classification shall be expressed in upper case letters (e.g., SP, ML, etc.) where subsequent laboratory testing has been performed. This column of the graphic log will also include any other information relevant to the subsurface investigation, such as loss of drilling fluid, heaving, churning of the drill in gravelly soils, etc.

ii. CPT sounding data shall be reported as a graphic log utilizing the following standards:

1. The vertical scale of the graphic log shall be such that 5 ft. of penetrated depth is scaled to range of 1" to 2" (1:60- or 1:30-scale), and shall include vertical columns that record depth in 1 ft. increments.

2. The graphic log shall have a header on the first page that includes a unique identifier for the boring, the times and dates of the start and completion of the CPT sounding, the manufacturer and model of the CPT system, the company name of the CPT service contractor, the name(s) of the site geologist(s) or engineer(s) overseeing the CPT sounding, and any comments regarding the conduct of the testing, reaction of the CPT system during sounding, etc.

3. All subsequent pages of the graphic log shall have the unique identifier for the boring, the times and dates of the start and completion of drilling, and the number of the page and the total number of pages comprising the log.

4. The graphic log shall display, at a minimum, a continuous depth plot of the uncorrected tip resistance, the friction (sleeve) resistance, the friction ratio, and the measured pore pressure with an overlay of the calculated hydrostatic pore pressure. These curves shall be plotted so as to show the full variation of the measured quantities within the depth range of the sounding, and each curve shall have a visible scale with the minimum and maximum ranges labeled.
5. All of the CPT data recorded for each sounding shall also be provided in either electronic or hardcopy format. Electronic data will be presented in an ASCII text file format.
- iii. Geotechnical borings or CPT soundings will be advanced to a depth sufficient to characterize geologic conditions within and below the existing or potential landslide mass.
- iv. Other methods used for subsurface characterization shall be assigned a unique identifier, and the basic data presented in appropriate graphical and/or tabular format.
- v. The three-dimensional subsurface conditions at the site shall be presented using one or more cross-sections showing location and depth penetration of geotechnical borings, CPT soundings, or other subsurface characterization methods, interpretation of the geometry of major soil units, and projected location of the static groundwater surface determined from the subsurface exploration. The cross-sections shall be presented at a scale of 1" = 20', 1" = 30', 1" = 50' (or other scale deemed appropriate by the Department). Each cross-section shall have a legend with a description of the various major soil units.
- i. Soil strength and index properties (i.e., unit weight, cohesion, etc.) shall be provided for each soil unit interpreted from the subsurface characterization of the site, and shall be presented in tabular format. Justification for the presented values of these soil parameters shall be based on one or more of the following approaches:
- i. Back analysis based on pre-landslide stability conditions.
- ii. Laboratory measurement of strength or other index properties made on soil samples.
- iii. Correlation of soil strength index properties to other geotechnical indices (e.g., SPT blow counts, etc.), where the correlation relations are documented (e.g., published literatures, in-house empirical data set, etc.).
- iv. Soil strength and indices based on generic values must provide a clear justification for their use.
- j. Assessments and conclusions regarding slope stability for the developed conditions shall be presented and documented. These assessments and conclusions shall include:
- i. Determination of the potential types of landslide failure mechanisms (e.g., debris flow, rotational slump, translational slip, etc.) that may affect the site.
- ii. Quantitative stability evaluation of slope conditions of the various failure mechanisms using state-of-the-practice modeling techniques. Limiting equilibrium methods of analysis shall state the stability conditions as a factor of safety. The most unstable failure geometry(ies) shall be presented in the form of a cross-section(s), with the least stable failure geometry for each failure mechanism clearly indicated. The stability evaluation shall also consider dynamic (earthquake) loading, and shall use a minimum horizontal acceleration as established by the current version of the Building Code as adopted by Title 15 EMC.
- iii. Static and dynamic factors of safety for the developed conditions.
- iv. Potential landslide hazard buffer and setback impacts to neighboring properties.
- k. Mitigation recommendations using engineered measures to protect any proposed structure(s) and any adjacent structures, infrastructure, downstream receiving waters, adjacent wetlands, or critical fish and

wildlife habitat from damage or destruction as a result of proposed construction activities. The recommendations shall contain:

- i. Requirements pertaining to the handling of surface and subsurface runoff in the developed condition.
 - ii. Identification of necessary geotechnical inspections to assure conformance with the report mitigation and recommendations.
 - iii. Proposed angles of cut and fill slopes, site grading requirements, final site topography (shown as 2' contours), and the location of any proposed structures, on-site septic systems, wells, and stormwater management features or facilities associated with the development detailed within the body of the report and shown on a site map at the same scale as that required in number 7. above.
 - iv. Soil compaction criteria and compaction inspection requirements.
 - v. Structural foundation requirements and estimated foundation settlements if structures are proposed.
 - vi. Lateral earth pressures.
 - vii. Suitability of onsite soil for use as fill.
 - viii. Erosion protection measures.
 - ix. Permanent stabilization measures.
3. The stability report must be prepared under the responsible charge of a geotechnical professional.
4. The geotechnical professional(s) who prepared the stability report shall stamp the report with his or her license stamp/seal.
5. The Department may request a geotechnical professional to provide additional information in the stability report based upon existing conditions, changed conditions, or unique circumstances occurring on a case by case basis.
6. Stability reports shall be in conformance with a format that is pre-approved by the Department.

E. Creation of Building Pads within Subdivisions. A grading plan with existing and proposed contours must be provided for all subdivisions, that clearly identifies the earthwork required for the construction of the subdivision. The storm drainage runoff patterns that will result from the proposed grading plan must be consistent with the stormwater design contained within the project's drainage report. Grading per the approved plans must be completed and accepted for the entire subdivision prior to issuance of building permits on individual lots except where the subdivision was approved to be constructed in phases. The grading plan must include grading of individual lots when it is necessary to ensure consistency with the storm drainage runoff patterns contained within the project's drainage report. Approved grading plans may or may not include grading of building pads at the discretion of the developer.

13.05.120 Stormwater Drainage~~Applicability to applications.~~

A. Off-Site Mitigation. The city recognizes that application of the design standards set forth in the Manual does not always fully prevent any impacts downstream and in these extreme cases, the applicant may be required to provide off-site mitigation as determined by the city.

B. Regional Drainage Facilities. Due to the nature of regional drainage facilities to control surface water runoff from larger areas, it is recognized that it may not be feasible, both fiscally and physically, to control runoff as stipulated in the Manual for new or retrofit facilities. The city shall make every effort reasonable to control runoff to the discharge, storage, and quality criteria established in the Manual. Where determined impractical by the Director, the city will be allowed to modify the criteria for regional facilities and design for maximization of the available land space for control of stormwater. In this case, the city shall design the facility for the primary function of stormwater control and any other multi-use functions shall be considered only after maximizing the stormwater aspects of the

facility. Facilities that do not meet the Manual's Volume I minimum requirements will not accept excess discharge flows from new developments. Drainage facilities constructed by private development to mitigate for the impacts of new development or re-development will not be viewed as regional drainage facilities and shall meet all provisions of this chapter.

C. Discharge to Privately Owned Property. If the project site discharges to a privately owned closed depression, the applicant must obtain written permission/easements from the owner(s) of record for both the closed depression and potential overflow routes receiving the runoff. The applicant shall record the information with the Pierce County Auditor. This information shall be recorded with all affected property titles including those for the depression, overflow route, and the applicant's property. If easements cannot be obtained, discharge to the pothole may be allowed on a case by case basis to match the predeveloped rates, increase the pond size and meet additional protective criteria described in the Manual.

D. Discharge to Publicly Owned Regional Retention and/or Detention (R/D) Facilities. As determined by the city on a site-by-site basis, the developer shall have the option of paying to the city the anticipated costs for designing and constructing an on-site stormwater retention/detention facility including land costs as required above in-lieu-of constructing such a facility. The Manual describes the standards and conditions of this option.

E. Privately Constructed Regional Retention and/or Detention (R/D) Facilities. In lieu of individual systems, applicants may design and build regional facilities in accordance with the design requirements set forth in the Manual, as applicable and with excess capacity which, when completed, may be dedicated to the city. Such a facility may be on-site or off-site. Upon city approval of the facility, the city may:

1. Accept the dedicated facility; and
2. If funds are available as determined by the Director and the facility is constructed in a location within a basin studied by the City and is currently budgeted for in the approved six-year capital facilities plan, reimburse the developer for the excess capacity provided by the facility at a rate mutually agreed upon; or
3. Enter into a latecomers agreement with the developer for reimbursement as other properties are developed which opt to discharge to the regional facility.

The following will be used in determining the applicability of this chapter to applications:

A. For the purposes of this chapter, a valid and fully complete development permit or approval application must include:

1. An application form with all sections filled in;
2. Copies of all existing easements, deed restrictions, or other encumbrances restricting the use of the subject property;
3. A completed environmental checklist (if potential critical areas are indicated on the city's critical areas map);
4. Record of payment for any application fees specified in the city's fee schedule;
5. Documentation of compliance with the application requirements in the PCM;
6. Completed applications for other required permits or approvals if they are to be processed with the development applications, or copies of issued permits or applications if they have been previously approved; and
7. Any other documents or information required in the EMC or the hearing examiner's conditions for the specific permit or approval which is the subject of the development application.

B. Determination that an application is valid and fully complete will be made by the director or designee.

~~C. For the purposes of this chapter, the date that an application is valid and fully complete shall be determined according to the following specifications:~~

- ~~1. If the application is determined by the director to be valid and fully complete, the date that the application was submitted and date stamped at the permit counter shall be the date the application is deemed valid and fully complete.~~
- ~~2. If the application is determined to be invalid and/or incomplete by the director, and the information requested by the department to resolve the application's invalid or incomplete status is determined by the department to be valid and fully complete, then the date the application is deemed valid and fully complete shall be the date the last piece of requested information is submitted and date stamped at the permit counter.~~
- ~~3. If the applicant does not submit responses to a request from the department for additional information within 90 days, the application shall be deemed withdrawn by the applicant and no valid and fully complete application rights shall exist.~~

~~D. Although the director shall determine the validity and completeness of an application for purposes of establishing a valid and fully complete application date, during the review of the completed application, the director may require submittal of additional information or reports (e.g., geotechnical investigations, etc.).~~

13.05.130 Preexisting stormwater facilities.

The applicant/person required to construct a stormwater facility pursuant to ~~the older or~~ replaced site development or stormwater regulations/~~site development or older regulation~~, which is covered by a maintenance or defect financial guarantee or which has been released from all required financial guarantees prior to the effective date of this ordinance ~~November 15, 2016~~, and all persons holding title to the property for which a facility was required shall be responsible for the continual operation and maintenance of the facility in accordance with standards and requirements ~~that were the basis of approval established at the time of completion~~ of the site development permit and for any liability as a result of breach of these duties.

13.05.140 Acceptance of preexisting stormwater facilities.

A. Upon petition by the more than 50 percent of the person(s) holding title to the properties served by the subject stormwater facilities, the Director may assume maintenance/consider acceptance of preexisting facilities for maintenance and operation responsibility by the city only after the following conditions have been met determining the ongoing maintenance of the facility using city resources will contribute to protecting or improving the health, safety, and welfare of the community based upon review of the following factors:

~~A. All necessary easements or dedications entitling the city to properly maintain the stormwater facility have been conveyed to the city;~~

~~B. The director of public works has determined maintenance of the facility will contribute to protecting or improving the health, safety, and welfare of the community based upon review of the following factors:~~

1. Existence of or potential for flooding;
2. Existence of or potential for downstream erosion;
3. Existence of or potential for property damage due to improper function of the facility;
4. Existence of or potential for safety hazard associated with the facility;
5. Existence of or potential for degradation of surface or ground water quality or in-stream resources;
6. Existence of or potential for degradation to the general welfare of the community;
7. Improvements in residential plats/~~PDDs~~ have been completed on at least 80 percent of the lots;
8. An inspection by the ~~d~~Director has determined that the stormwater facilities ~~meet current codes and are~~ functioning as designed;

9. The stormwater facilities have had at least two years of satisfactory operation and maintenance, unless otherwise waived by the ~~d~~Director; and

~~10. The person or persons holding title to the properties served by the stormwater facilities submit a petition containing the signatures of the title holders of more than 50 percent of the lots served by the stormwater facilities requesting that the city maintain the stormwater facilities;~~

~~11. All easements and/or dedicated tracts required under this chapter, entitling the county to properly operate and maintain the subject stormwater facilities, have been conveyed to city and have been recorded with the Pierce County auditor;~~

12. The person or persons holding title to the properties served by the stormwater facilities show proof of the correction of any defects in the drainage facilities, as required by the ~~d~~Director; ~~and~~

~~13.~~

~~B. The dDirector has shall declared their determination pursuant to subsection (A) in writing regarding acceptance of maintenance responsibility by the city. Copies of this document will be kept on file with the City Clerk in the city public works office. Prior to assuming any responsibility, all necessary easements and/or dedications entitling the city to properly operate and maintain the stormwater facilities, prepared using city-approved forms, must be conveyed to the city and recorded with the Pierce County Auditor.~~

~~C. If the Director does not assume responsibility for Aa stormwater facility which does not meet the pursuant to subsection (A), it criteria of this section shall remain the responsibility of the applicant/person required to construct the facility and persons holding title to the property for which the facility was required. The decision of the dDirector is final and not appealable.~~

13.05.150 Guarantees, Deeds and Easements Applicability.

~~Any project for which a building or grading permit is required shall provide stormwater management design meeting the requirements of the Pierce County Stormwater Management and Site Development Manual (PCM), except as amended herein.~~

~~A. Financial Guarantees. All financial guarantees shall be on an approved city form, either by bond or assignment of funds, with those under \$5,000 only by assignment of funds. All financial guarantees shall run continuously until released by the city and shall not be subject to expirations or cancellations. In the event that a property is sold, the principal is responsible for transferring the financial guarantee liability by having the new owner(s) replace any existing financial guarantees that the city is holding.~~

B. Reclamation Guarantees.

~~1. The purpose of this guarantee is to ensure that adequate erosion control measures are employed during the course of construction and that permanent stabilization is achieved at the conclusion of significant activity. The guarantee may be utilized to reduce drainage impacts and permanently stabilize the site in the event that the city determines a site has been abandoned after construction begins. The city will consider a site to be abandoned based on a lack of response by the principal to correct noted deficiencies or non-completion of improvements prior to permit expiration. Permanent stabilization includes reclamation of the site if a project is abandoned after construction begins.~~

~~2. The guarantee amount shall be based on the total land area to be disturbed, as established in the City's Fee Schedule.~~

~~3. The reclamation guarantee must be accepted by the city prior to approval of a site development permit and will be released after the conclusion of significant activity on the project site and upon the recommendation of the city's inspector. The city inspector will recommend release of the reclamation guarantee when they determine that little potential for erosion, sedimentation, or stormwater impacts remains.~~

~~4. Upon identification by the city of deficiencies relating to erosion control, site stabilization, or project abandonment, the city will provide written notification to the principal identifying the deficiencies. The~~

principal will have 10 calendar days to respond. The city will begin collection proceedings after the 10-calendar-day period if the deficiencies are not satisfactorily addressed or satisfactory response detailing how the deficiencies will be addressed in a timely fashion has not been received.

C. Construction Guarantees.

1. The purpose of this guarantee is to ensure the completion of proposed improvements as required by this manual, other ordinances, Hearing Examiner conditions, SEPA mitigation, etc. The construction guarantee will also ensure completion of an improvement in city right-of-way or on city property in the event that a project is abandoned after construction has begun.
2. The construction guarantee amount can be determined by submitting a scope of work to be accomplished and an engineer's estimate for the cost thereof. The estimate shall be based on current construction cost data. The city will review the estimate and, if acceptable, establish the financial guarantee at 130 percent of the estimate (EMC 16.04.100) to allow for inflation and administrative expenses should the city have to complete the work. Alternatively, the amount can be determined by using the same percentage of an executed construction contract for all of the work to be guaranteed.
3. When work is proposed in the city right-of-way, a construction guarantee must be accepted by the city prior to approval of the site development and right-of-way permits for the project. The financial guarantee may be in lieu of construction of required improvements within public rights-of-way except in situations where the work involves a safety or public welfare issue. A construction guarantee for work on private property is required when the project principal desires to obtain final approval of the development project (subdivision, commercial site, etc.) prior to construction of some or all of the necessary improvements.
4. The following conditions must be met prior to release of the construction guarantee:
 - a. Completion of the necessary improvements;
 - b. Submittal to and acceptance by the city of the Engineer's Inspection Report Form;
 - c. Acceptance by the city of the completed construction; and
 - d. Submittal to and acceptance by the city of the Maintenance Guarantee.
5. All improvements covered under a construction financial guarantee must be completed prior to the expiration of the site development permit. The city may begin collection proceedings after the expiration of the site development permit.

D. Maintenance Guarantees.

1. For all road, access, and storm drainage facilities, the purpose of this guarantee is to ensure that until such time that the Maintenance Guarantee is released:
 - a. The principal will correct any defects in design, construction, or storm drainage facility performance.
 - b. Problems caused by or related to inadequate storm drainage facility performance will be corrected by the principal.
 - c. The principal will correct any violations of city regulations and standards.
 - d. The principal demonstrates that the storm drainage facilities function properly in the final built-out condition of the project.
 - e. The principal will thoroughly clean the storm drainage facilities at the conclusion of the maintenance guarantee time period.

f. The public is not responsible for correcting problems caused by or related to defects in design, construction, or storm drainage facility performance.

2. In addition, for road, access, and storm drainage facilities that will be privately owned, maintained, and operated, the purpose of this guarantee is to also ensure that until such time that the Maintenance Guarantee is released:

a. Problems caused by or related to improper maintenance, improper operation, vandalism, damage from vehicle accidents, or damage from felled trees will be corrected by the principal.

b. The principal performs all necessary maintenance, operation and associated O&M recordkeeping as specified in the project's approved maintenance manual.

3. The guarantee amount shall be for 20 percent of the total cost of the road, access, and storm drainage system construction (EMC 18.30.120(B)). The total cost can be based on an estimate by the project engineer, or an executed construction contract. The minimum amount of the guarantee is \$5,000.

4. The maintenance guarantee must be submitted to and accepted by the city prior to final construction approval.

5. For all road, access, and storm drainage facilities, the defect and maintenance guarantee time period will be 24 months (two years) unless modified by the city. The maintenance guarantee time period will begin when final construction approval is granted. Final construction approval will be granted by the city when: the guarantee has been submitted and accepted, all punch list items have been completed (including sidewalks and final asphalt lift), approval has been granted by the city inspector, the record drawings have been approved, the engineer's inspection report form has been approved, and the maintenance manual/maintenance schedule has been accepted.

6. The city may extend the 24-month time period in the following situations:

a. Defects in design, faulty construction, insufficient storm drainage facility performance, or violations of city regulations and standards are discovered.

b. The principal is unable to demonstrate that the storm drainage facilities function properly in the final built-out condition of the project.

c. The principal has not performed the required maintenance or is unable to provide adequate documentation of their maintenance and operation activities.

7. The time period will only be extended if it is necessary to ensure adequate performance and/or compliance with city requirements. The length of any time extension will be determined by the city.

8. The principal may request in writing a reduction in the 24-month time period for projects that have met all the criteria listed below. The intent is to give the principal a method to reduce the standard 24-month time period on projects that can be built and stabilized quickly. This option does not change the terms for releasing the financial guarantee. In no event shall the time period be less than 18 months.

a. All site construction has been completed (including but not limited to houses on lots, paving, sidewalks, buildings, impervious surfaces, pervious surfaces, grading, clearing, vegetation removal, and landscaping). The city must accept that permanent erosion control measures have been fully established prior to the beginning of the wet season.

b. All storm drainage facilities must have gone through one full wet season (October 1 to April 30) after permanent erosion control establishment has been accepted.

c. The project is not being phased.

9. The city will perform regular monitoring inspections during the maintenance guarantee time period.

10. At the end of the maintenance guarantee time period, it is the principal's responsibility to request a financial guarantee release inspection by the city. This request shall be submitted to the city in writing.

11. For road, access, and storm drainage facilities that will be privately owned, maintained, and operated, the request to release the financial guarantee must include copies of all maintenance logs and documentation that show compliance with the approved maintenance manual.

12. Projects will be inspected on a first-come, first-served basis. If no deficiencies are noted, the city will release the financial guarantee. If deficiencies are noted, the principal will be notified of the specific deficiencies to be corrected. The principal will have 30 days to respond. The city may begin collection proceedings after the 30-day period if the deficiencies are not satisfactorily addressed. The guarantee will not be released until the city finds that the deficiencies have been corrected.

E. Temporary Driveway Approach Guarantee.

1. The purpose of this guarantee is to ensure the removal of the temporary driveway approach and restoration of the city right-of-way. Removal of the temporary driveway approach means to permanently close the approach by blocking, berming, fencing, or other method suitable to the city. Restoration of the city right-of-way means to restore the city road, shoulder, and storm drainage system to its condition prior to construction of the temporary driveway approach.

2. The amount for each temporary driveway approach to a city road shall be as established in the City's Fee Schedule. The temporary driveway approach guarantee must be accepted by the city prior to approval of the site development permit for the temporary driveway approach.

3. Upon removal of the temporary driveway approach and restoration of the city right-of-way, the principal will contact the city inspector and request inspection. The inspection will be completed on a first-come, first-serve basis. If the removal and restoration work is found to be acceptable, the financial guarantee will be released. If the work is not found to be acceptable, the principal will be notified of the deficiencies to be corrected, the guarantee will not be released until the work is found to be acceptable.

4. The city will provide written notice to the principal of deficiencies in the removed or constructed temporary driveway approach or the need to remove the temporary driveway approach. The principal will have 30 days to respond. The city will begin collection proceedings after the 30-day period if the deficiencies are not satisfactorily addressed and/or the temporary driveway approach is not properly removed.

F. Deeds and Easements. The following deeds and easements should be used to convey property or rights to the city:

1. Statutory Warranty Deed (individual, partnership, or corporate). This document is used to convey real property to the city.

2. Storm Sewer Easement. This document conveys to the city the right to have and maintain a storm sewer system across a specific parcel of property.

3. Slope and Utility Easement. This document conveys the right to have fill material or a cut slope and utilities on private property.

4. Quit Claim Deed. This document is used to release ownership interest when ownership is uncertain and a statutory warranty deed cannot be provided.

13.05.160 July 2021 Edition, Pierce County Stormwater Management and Site Development Manual adopted.

The city adopts by reference the July 2021 Edition, Pierce County Stormwater Management and Site Development Manual ("Manual") as modified under EMC 13.05.170 ~~herein~~.

13.05.170 Modifications to the Manual ~~PCM~~.

The city hereby amends the Manual ~~PCM~~ as follows:

Replace any reference to “County” or “Pierce County” in the ~~PCM Manual~~ with “City” or “City of Edgewood”. unless it pertains to document recording or other services only provided by Pierce County. Replace any reference to “Planning and Public Works (PPW)” in the ~~PCM Manual~~ with “Community Development and Public Works Departments”. Replace any reference to “PCC Title 18E”, “PCC Title 18E.70”, “PCC Title 18E.80”, or “Critical Areas Ordinance” with “EMC Title 14”. Replace any reference to “PCC Title 18A” or “PCC Title 18J” with “EMC Title 18”. Any other references to “Pierce County Code” shall remain unchanged, unless otherwise noted herein.

Volume 1 Section 1.3 How to Use this Volume – Replace Item 3 with the following:

Chapter 3 to determine what submittal requirements apply. Submittal forms can be obtained from the City of Edgewood’s website: www.cityofedgewood.org.

Volume 1 Section 1.4.2 Protection and Establishment of Natural Buffer Areas – Replace the first paragraph with the following:

Natural buffer areas may be required to protect drainage courses from erosion and pollutants. Natural buffer areas are required adjacent to all wetlands, per the city’s requirements, as documented in the Edgewood critical areas maps and required by the Critical Areas Ordinance, EMC Title 14. Where development is proposed near buffer zones that have been established by the city or near an environmentally sensitive area, obtain the city’s regulations regarding buffer zones.

Volume 1 Section 1.7 Relationship of this Manual to Federal, State, and Local Regulatory Requirements – Replace the second and third paragraphs with the following:

The City of Edgewood website has information on the city’s permitting process, including online permit information: www.cityofedgewood.org.

Permit information can also be obtained by calling the general information line at (253) 952-3299, or visiting City Hall at 10440 Dom Calata Way E, 2224 104th Ave. E. in Edgewood, WA 98372.

Volume 1 Section 1.7.1 The Manual’s Role as Technical Guidance and Requirements – Replace “PCC Title 17A” under “Penalties and Enforcement” with “EMC 13.05.100”. Replace “PCC Title 17A” under “Appeals” with EMC 13.05.090.

Volume 1 Section 1.7.2 More Stringent Measures – Delete the second paragraph.

Volume 1 Section 1.7.3 Presumptive Versus Demonstrative Approaches to Protecting Water Quality – Replace the phone number at the end of the section with (253) 952-3299.

Volume 1 Section 1.7.4 – Replace this section with the following:

Phase II – NPDES and State Waste Discharge Stormwater Permits for Municipalities

Certain municipalities and other entities are subject to permitting under the U.S. Environmental Protection Agency (U.S. EPA) Phase II Stormwater Regulations (40 CFR Parts 122, 123). In western Washington, Ecology has issued joint NPDES and state waste discharge permits to regulate the discharges of stormwater from the municipal separate storm sewer systems operated by small cities, including Edgewood.

The Phase II NPDES Municipal Stormwater Permit was reissued on July 1, 2019 and is available on the Ecology website: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Stormwater-generalpermits/Municipal-stormwater-general-permits/Western-Washington-Phase-II-MunicipalStormwater>.

Volume 1 Section 2.2 Exemptions – Replace “PCC Title 17A” with “EMC 13.05.010”.

Volume 1 Section 2.3.1 New Development – Replace the first, bold sentence with the following:

All new development shall be required to comply with Minimum Requirements #2, #4 and #5, regardless of size and even if exempt from permit application submittal.

Volume 1 Section 2.4.2

Minimum Requirement #2: Construction Stormwater Pollution Prevention

On page 2-8, add the following paragraph under the third paragraph of Section 2.4.2:

Per EMC Title 14.90.040(B)(5), the removal and disturbance of vegetation, clearing or grading in Landslide Hazard Management Areas shall be limited to the area of the approved development and shall not be allowed during the wet season (November 1st through May 1st), unless adequate provisions for wet season erosion have been addressed in the geotechnical report and approved by the department.

Volume 1 Section 2.4.5

Minimum Requirement #5 On-site Stormwater Management

On page 2-104, add the following paragraph under the first paragraph of Section 2.4.5:

To verify whether or not downstream drainage courses and facilities are adequate (Minimum Requirement #4), all project sites proposing 2,000 square feet or more of new and/or replaced impervious surface area with any discharge (including overflow) must perform a downstream analysis consistent with Section 3.3.4 (page 3-22, “Drainage Report Section 9”, beginning at the second paragraph), from the project site to the applicable receiving water body (pothole, lake, or stream) as depicted in the city’s Surface Water Management Plan.

The engineer must field inspect all existing stormwater drainage systems and determine if the capacity is adequate to handle existing flows, flows generated by the proposed project, and any overflows. Project sites tributary to a pothole will also require a zero-rise analysis of said pothole, meeting the requirements of EMC 14.80.050(E). Adequacy will be evaluated based on conveyance capacity during the 100-year peak flow, known flooding problems, erosion damage or potential, amount of freeboard in channels and pipes, and storage potential within the system. If the conveyance is deemed inadequate, the engineer must either improve the system or restrict flows leaving the project to compensate.

In lieu of this downstream analysis, the engineer may either:

1. Demonstrate the undetained / unmitigated 100-year peak flow rate under developed conditions (i.e. overflow) will not be greater than the modeled 100-year peak flow rate under existing conditions, or
2. Retain 100% of stormwater runoff within the project site (following the methods prescribed in the PCM), applying a 20% safety factor to the modeled stormwater retention volume(s), and no surface water will be allowed to leave the site (including overflow).

On page 2-104, replace the second paragraph of Section 2.4.5 with the following:

In addition, projects subject to the city’s Development and Design Standards (per EMC 18.90 and 18.95) should review Volume VI in conjunction with Minimum Requirements #5, #6, and #7. Some of the requirements of EMC 18.90 and 18.95 may partially or fully achieve the requirements of Minimum Requirements #5, #6, and #7. Projects using infiltration for

stormwater management may be subject to groundwater flow testing and flow pattern identification as part of the mitigation requirements where infiltration may cause new or exacerbate existing down-gradient flooding, erosion or landslide problems.

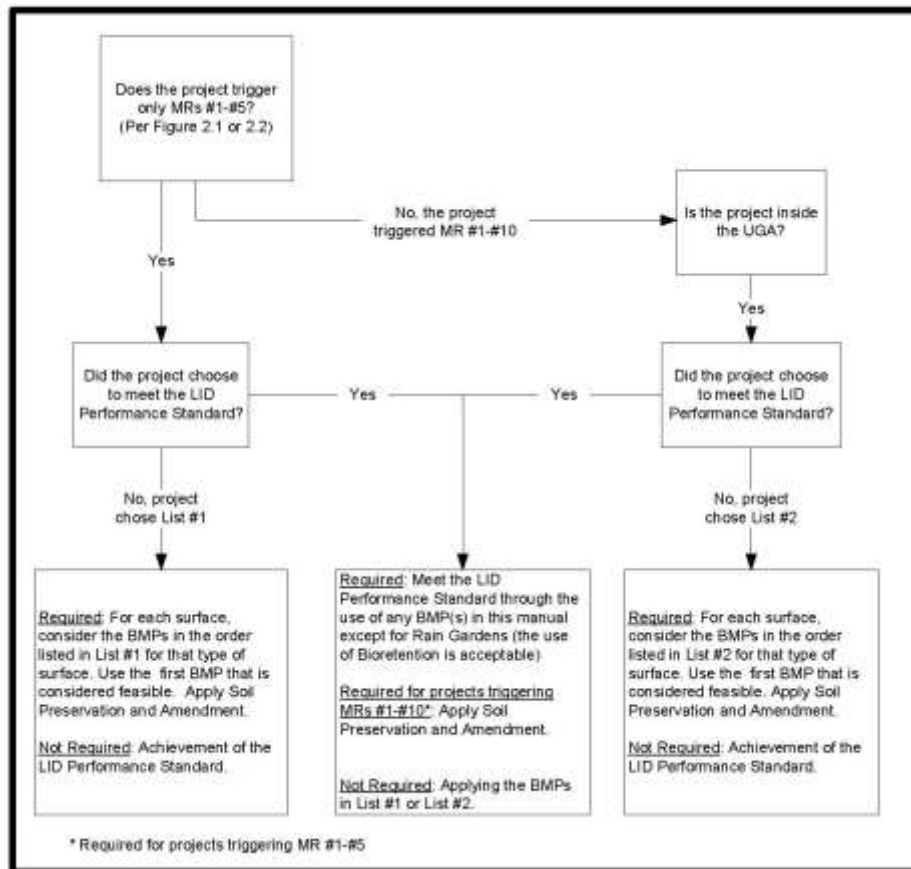
On page 2-12, replace the text from the top of the page to the heading “Low Impact Development Performance Standard”, including and Table 2.1, with the following:

Projects triggering Minimum Requirements #1 through #10 shall either:

- a. Use onsite stormwater management BMPs from List #2 for all surfaces within each type of surface in List #2; or
- b. Demonstrate compliance with the LID Performance Standard and implement the soil preservation and amendment BMP described in Volume III, Section 3.1. Projects selecting this option cannot use rain gardens. They may choose to use bioretention areas as described in Volume III, Section 3.4 to achieve the LID Performance Standard.

On page 2-1~~13~~, replace Figure 2.3 with the following:

Figure 2.3 Flow Chart for Determining Minimum Requirement #5 Requirements.



On page 2-1~~56~~, replace the second bullet under “Competing Needs” with:

Where an LID requirement has been found to be in conflict with special design criteria found in EMC Title 18, the existing codes may supersede or reduce the LID requirement.

Volume 1 Section 2.4.6

Minimum Requirement #6 Runoff Treatment

On page 2-179, add the following before the first paragraph under “Supplemental Guidelines”:

For new agricultural activities allowed under EMC 14.60.040(D) in aquifer recharge and wellhead protection areas, Integrated Pest Management (IPM) practices and fertilizer use Best Management Practices (BMPs) shall be used as described by the Washington State University Extension Service. See Appendix IV-B for an example IPM program.

Volume 1 Section 2.4.7

Minimum Requirement #7 Flow Control

There are no flow control-exempt receiving waters in the City of Edgewood. Delete the following:

- On page 2-189 to page 2-20, first paragraph under the section heading, last sentence, delete everything after “into a fresh waterbody”. Also

~~On page 2-20, delete the bullet points after the first paragraph, the second paragraph, and the bullet points following the second paragraph (which continue onto page 2-21).~~

On page 2-1924, replace the second paragraph under “Thresholds” with the following:

If any of the following conditions are met / exceeded, the standard flow control requirement for western Washington must be achieved:

On page 2-1924, amend the first bulleted paragraph under Thresholds to read:

- Projects in which the total of effective impervious surfaces is 5,000 square feet or more in a threshold discharge area.

On page 2-1924, replace the first paragraph under “Discharge Requirements” with the following:

It is the City’s policy that stormwater be infiltrated whenever possible. Infiltration facilities shall be designed in accordance with summary standards provided for the applicant’s convenience by the City, or in accordance with the PCM and associated reference documents. Projects using infiltration for stormwater management may be subject to groundwater flow testing and flow pattern identification as part of the mitigation requirements where infiltration may cause new or exacerbate existing down-gradient flooding, erosion or landslide problems.

The allowable release rates from a project are dependent upon the ultimate destination for the stormwater. All projects not directly attributable to one of the four categories defined below shall use Category A for determining the allowable discharge rates.

On page 2-1924, replace first sentence under “Category A” with: “Any naturally occurring waterbody not defined as a closed depression, publicly owned regional retention and/or detention facility, or privately constructed regional retention and/or detention facility.” Under “Requirements”, delete the last word in the first paragraph, “unless”, and the following two bullet points (which continue onto page 2-20).

In summary, all project sites shall consider forested conditions for the predeveloped scenario.

On page 2-203, under “Category B”, “Requirements”, first bullet point, replace both instances of the phrase “(existing)” after “predeveloped” with “(forested)”. Also, after the phrase “must also be added to the final design storage volume”, add the following:

without increasing the depth of the proposed facility. A zero-rise analysis shall also be performed on the closed depression, meeting the requirements of EMC 14.80.050(E). WWHM, MGSFlood, or other DOE-approved continuous runoff model shall be used in lieu of HEC-RAS for the zero-rise analysis.

On page 2-2~~25~~, under “Category D”, “Requirements”, second bullet point, replace “Director of Pierce County Planning and Public Works” with “City of Edgewood Public Works Department”, and replace “Pierce County Surface Water Management” with “the City of Edgewood Surface Water Program ~~Manager~~”.

Volume 1 Section 3.2.6 Abbreviated Plan – Site Development Drawings

On page 3-~~78~~, under “Advanced Plan Requirements”, replace “PCC Title 17A, Soil Engineering – Stability” in the last paragraph with “EMC 13.05.110~~Title 14~~”.

Volume 1 Section 3.2.9 Abbreviated Plan – Establishment of Maintenance Covenant

On page 3-~~89~~, replace the first sentence of the second paragraph of Section 3.2.9 with the following:

The recorded maintenance covenant must be created on a city-approved form, obtainable from the City of Edgewood Surface Water Program ~~Manager~~.

Volume 1 Section 3.3.4 Drainage Control Plan – Drainage Report

On page 3-~~1824~~, replace “Drainage Report Section 7 – Floodplain Analysis” with the following:

If the project is within a potential flood hazard area as defined in EMC Title 14 and indicated on the City of Edgewood’s Critical Areas Map, show the 100-year flood hazard area on the plans. If the flood hazard area has not been established (or the city determines that it is in error), the city may require the applicant to establish and map the 100-year flood hazard area for the proposed project per EMC 14.80, to be submitted with the Drainage Report. For closed depressions, the analysis will be for the 100-year flood considering existing land cover conditions. For streams and other water bodies with surface outlets, the analysis will be for the 100-year flood for build out at maximum density allowed by current zoning. If the project is determined to be in the flood hazard area, additional studies per EMC 14.80 may be required. WWHM, MGSFlood, or another DOE-approved continuous runoff model shall be used in lieu of HEC-RAS for the zero-rise analysis.

On page 3-~~1922~~, replace the last sentence of the first bullet under “Drainage Report Section 9 – Facility Sizing and Offsite Analysis” with the following:

The study area shall extend downstream of the proposed project discharge location to the applicable receiving water body (pothole, lake, or stream) as depicted in the city’s Surface Water Management Plan.

On page 3-~~1922~~, under “Drainage Report Section 9 – Facility Sizing and Offsite Analysis”, between the first and second bullet, insert a new bullet reading as follows:

Project sites tributary to a closed depression / pothole will also require a zero-rise analysis meeting the requirements of EMC 14.80.050(E). WWHM, MGSFlood, or another DOE-approved continuous runoff model shall be used in lieu of HEC-RAS for the zero-rise analysis.

On page 3-2~~14~~, under ~~“Drainage Report Section 9 – Facility Sizing and Offsite Analysis”~~, add the following to the end of the second-to-last paragraph of “Drainage Report Section 9 – Facility Sizing and Offsite Analysis”:

The engineer must determine if there is adequate capacity in the offsite conveyance system to handle existing flows, flows generated by the proposed project, and any overflows. Adequacy will be evaluated based on conveyance capacity during the 100-year peak flow, known flooding problems, erosion damage or potential, amount of freeboard in channels and pipes, and storage potential within the system.

On page 3-2~~25~~, Table 3.2, replace “Pierce County Planning & Public Works (PPW)” with “City of Edgewood”, remove the “Shoreline Permit” row, and re~~place~~~~move~~ “Wetlands Permit or Fish and Wildlife Permit” with “Critical Areas Permit”~~from the last cell~~.

Volume 1 Section 3.3.7 Drainage Control Plan – Establishment of Maintenance Covenant

On page 3-2~~59~~, replace the first paragraph of the section with the following:

A maintenance covenant is required for each site/lot that contains stormwater management BMPs that will be maintained by a private entity such as an individual, corporation, or homeowner’s association. The maintenance covenant must be created on a city-approved form (obtainable from the Edgewood Community Development Department), and any attachments shall meet the recording requirements of the Pierce County Auditor. The covenant shall be recorded at the Pierce County Auditor’s office at the expense of the applicant, and shall be tied to the parcel numbers that the project is built on. All covenants must be recorded prior to final construction approval for the proposed project.

Volume 1 Appendix I-B

See EMC Chapter 14.40 ~~EMC~~ for wetland protection, buffer and mitigation requirements. The requirements of EMC 14.40 shall take precedence over Appendix I-B.

Volume 1 Glossary

Areas of Special Flood Hazard: Replace “PCC 18E” with “See EMC 14.80.”

County, the: Replace title with “City, the” and definition as follows:

The jurisdictional boundaries of the City of Edgewood, and the Mayor or authorized representative.

Deep and/or Fast-Flowing Water: Replace with “See EMC 14.80.”

Large Lot: Deleted / Not Applicable

Large Lot Divisions: Deleted / Not Applicable

Short Plat or Short Subdivision: Replace with “As defined in EMC Title 16.”

Standard Plans and Standard Specifications: Replace with “See EMC 12.02.030.”

Subdivision: Replace with “As defined in EMC Title 16.”

Variance: Replace “PCC Title 17A” with “EMC 13.05.080”.

Volume 2 Section 2.2.1 Narrative

On page 2-~~45~~, delete the second paragraph under “Certified Erosion Control Lead”.

On page 2-~~57~~, under “Financial/Ownership Responsibilities”, replace “PCC Title 17A.20” with “EMC 13.05.150~~46.06.050~~”.

Volume 2 Section 2.3.1 Step 1 – Data Collection

On page 2-~~810~~, under the “Evaluate Zoning” bullet, replace with the following:

Determine if the site zoning per EMC Title 18 requires a full / comprehensive LID development or if the applicant chooses to apply a full / comprehensive LID development. If pursuing comprehensive LID, see Volume VI for additional requirements and guidelines.

Volume 2 Section 2.3.3 Step 3 – Construction SWPPP Development and Implementation

On page 2-~~1722 to page 2-23~~, under the Fifth bullet under Element #9, replace “County Industrial Pretreatment Program at (253) 798-3013” with “applicable purveyor – seecontact the City of Edgewood for more information.”

On page 2-~~1924 to page 2-25~~, under the fourth sub-bullet to the fourth bullet under Element #10 last bullet, replace “County Industrial Pretreatment Program at (253) 798-3013” with “applicable purveyor – seecontact the City of Edgewood for more information.”

On page 2-19, under the last bullet under Element #10 before “Suggested BMPs”, replace “County Industrial Pretreatment Program at (253) 798-3013” with “applicable purveyor – contact the City of Edgewood for more information.”

Volume 2 Section 3.1 Source Control BMPs

On page 3-~~942~~, under “BMP C106: Wheel Wash”, “Conditions of Use”, third bullet, replace “County Industrial Pretreatment Program at (253) 798-3013” with “applicable purveyor – seecontact the City of Edgewood for more information.”

Volume 3 ~~Section~~ Chapter 2 Hydrologic Analysis and Design Standards

On page 2-1, fourth paragraph, replace the last sentence with: Additional information on general LID site design and requirements of the city’s Development and Design Standards (per EMC 18.90 and 18.95) are provided in Volume VI.

Volume 3 Section 2.5.2 Infiltration Facilities for Flow Control – Procedures

On page 2-1~~37~~, under “Construct the Facility and Conduct Performance Testing:”, replace with the following:

To demonstrate that the facility performs as designed, the constructed facility must be tested and monitored per the Verification of Performance requirements in Section 2.5.3, and documented as part of the facility’s as-built records.

Volume 3 Section 2.5.3 General Criteria for Infiltration Basins and Trenches

On page 2-1~~58~~, under “100-year Overflow Conveyance”, add the following:

To verify the capacity of the overflow conveyance, a downstream analysis shall be prepared per Volume I, Chapter 2.4.5 of this manual (as modified herein). In lieu of this downstream analysis, the engineer may demonstrate 100% retention of stormwater runoff within the project site (following the methods prescribed in the PCM), apply a 20% safety factor to the modeled stormwater retention volume(s), and no surface water will be allowed to leave the site (including bypass and overflow).

Volume 3 Section 3.2.1 General Dispersion Facility Design Criteria

On page 3-~~78~~, replace the second bullet point under “General Design Criteria” with the following:

Runoff from dispersion facilities shall not be allowed for stormwater discharges up-slope from Landslide or Erosion Hazard Areas. If the natural discharge location of the site is toward a Landslide or Erosion Hazard Area, stormwater shall be conveyed down the slope in a pipe as required by Chapters 14.90 and 14.110 EMC. If the natural discharge location of the site is away from the Landslide or Erosion Hazard Area, a piped storm system shall be used to convey stormwater away from the hazard area. Stormwater management facilities for the site shall be implemented in accordance with the requirements of EMC Chapter 13.05 ~~EMC~~ and PCM as supplemented herein.

On page 3-~~78~~, add the following to the end of Section 3.2.1:

To preserve the vegetative flowpath area on the project site from alteration, the dispersion system and flowpath length shall be documented on a site plan, to be recorded on the property title. The site plan shall include the following requirements:

1. Maintenance of vegetation in the flowpath area shall be in accordance with BMP T5.13 (or otherwise approved design).
2. Splashblocks or gravel-filled trenches shall not be covered or removed but shall be maintained in accordance with the approved design.
3. If the flowpath area, splashblocks, or gravel-filled trenches are disturbed, additional stormwater management facilities shall be designed and constructed in accordance with the PCM or City's most current adopted stormwater manual.

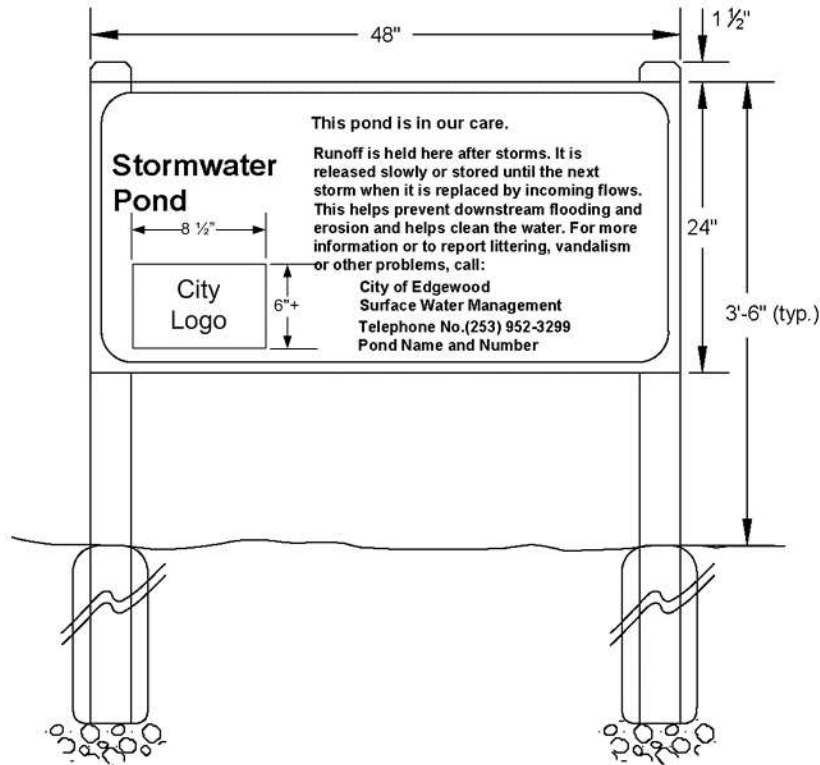
Volume 3 Section 3.10.2 Vegetated Roofs – Applications and Limitations

On page 3-~~8094~~, replace “PCC Title 17C – Construction and Infrastructure Regulations – Building and Fire Codes” with “EMC Title 15” in the fourth bullet point of this section.

Volume 3 Section 3.12.1 Detention Ponds

On page 3-~~92409~~, under “Signage” replace paragraph with the following:

Detention ponds, infiltration basins, wet ponds, and combined ponds shall have a sign placed for maximum visibility from adjacent streets, sidewalks, and paths. An example of sign specifications for a permanent surface water control pond is illustrated below.



Sample Specifications:

Size:	48 inches by 24 inches
Material:	0.125-gauge aluminum
Face:	Non-reflective vinyl or 3 coats outdoor enamel (sprayed).
Lettering:	Silk screen enamel where possible, or vinyl letters.
Colors:	White background, Black letters.
Type face:	Arial. Title: 3 inch; Sub-Title: 1 1/2 inch; Text: 1 inch; Outer Border: 1/8 inch; Border Distance from Edge: 1/4 inch; all text 1 3/4 inch from border.
Posts:	Pressure treated, beveled tops, 1 1/2 inch higher than sign.
Installation:	Secure to chain link fence if available. Otherwise install on two 4" x 4" posts, pressure treated, mounted atop gravel bed, installed in 30-inch concrete filled post holes (8-inch minimum diameter). Top of sign no higher than 42 inches from ground surface.
Placement:	Face sign in direction of primary visual or physical access. Do not block any access road. Do not place within 6 feet of structural facilities (e.g. manholes, spillways, pipe inlets).

Volume 4 Section 1.3 What Type of Pollutants...

On page 1-2, first paragraph, replace “Pierce County Code (PCC) Title 11” with “EMC 13.25”.

Volume 4 Section 1.4.1 Source Control Best Management Practices

On page 1-45, under item 2, third bullet, replace “County Industrial Pretreatment Program at (253) 798-3013” with “applicable purveyor – seecontact the City of Edgewood for more information.”

Volume 4 Section 1.7 How Do I Get Started?

On page 1-67, replace the third paragraph with the following:

If you have questions, please contact the City of Edgewood Surface Water Program ~~Manager~~ at (253) 952-3299. They can provide assistance over the phone and also at your business site.

Volume 4 Section 1.8 Some Important Requirements to Note

On page 1-~~67~~, replace “PCC Title 11 Illicit Stormwater Discharges” with “Chapter 13.25 EMC”, replace “Pierce County Surface Water Management at (253) 798-2725” with “the City of Edgewood Surface Water Program ~~Manager~~ at (253) 952-3299”, and replace “Pierce County Planning and Public Works (PPW) at (253) 798-7200” with “City of Edgewood at (253) 952-3299” In the second and third paragraphs.

Volume 4 Chapter 2 Worksheet for Commercial and Industrial Activities

On page 2-1, replace “County Industrial Pretreatment Program at (253) 798-3013” with “applicable purveyor – seecontact the City of Edgewood for more information”, and replace “Pierce County Surface Water Management at (253) 798-2725” with “the City of Edgewood Surface Water Program ~~Manager~~ at (253) 952-3299” in the second and third paragraphs.

13.05.180 Copy to be available.

One copy of the ManualPCM, as adopted, shall be available at Edgewood City Hall for use and examination by the public.

13.05.190 Conflict of provisions.

In the event that this chapter conflicts with any provision of any other existing ordinance, the terms of this chapter shall prevail.

13.05.200 Severability.

If any section, sentence, clause or phrase of this chapter should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this chapter.

13.05.210 Effective date.

A summary of the ordinance codified in this chapter consisting of its title shall be published in the official newspaper of the city and take effect and be in full force five days after the date of publication.



State Environmental Policy Act (SEPA) Determination of Nonsignificance (DNS)

City of Edgewood ■ 10440 Dom Calata Way E ■ Edgewood, Washington 98372-1513 ■ 253-952-3299

Issued: October 24, 2025
File: #25-014-CODE: Public Works Standards and Code Amendments
Lead Agency: City of Edgewood
Staff Contact: Josh Kubitza, Planning Manager
253-952-3299 | comdev@cityofedgewood.org
Proponent: City of Edgewood | 253-952-3299 | cityhall@cityofedgewood.org
Location: Non-Project Action (Citywide).
Proposal: The city has developed new Public Works Standards that will replace the Pierce County Public Works standards adopted by reference, amendments to EMC Title 12 to replace Pierce County processes and procedures adopted by reference and implement the new Public Works Standards, and amendments to EMC Title 13 to locally implement Pierce County processes and procedures adopted by reference.

Existing Documents: All existing environmental documents and studies associated with this proposal are available on the City of Edgewood Permit Portal via portal.cityofedgewood.org by searching the File No. 25-014-CODE.

SEPA: The City of Edgewood has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of an Environmental Checklist and other information on file with the City. This DNS is issued under WAC 197-11-340(2). A final decision will not be made on this proposal until after December 23, 2025.

SEPA Responsible Official:

Signature

10/21/2025

Date

Jeremy Metzler, PE, Community Development Director

Comment Period: Written comments may be submitted until November 10, 2025 by 5:00 PM via email, mail, or in-person via comdev@cityofedgewood.org or City of Edgewood, 10440 Dom Calata Way E, Edgewood, WA 98372. Verbal comments may be submitted during the Planning Commission public hearing.

Public Hearing: The City of Edgewood Planning Commission will convene a hybrid public hearing on the matter at 6:00pm on November 10, 2025. Members of the public can attend and participate in person at Edgewood City Hall, Council Chambers, 10440 Dom Calata Way E, Edgewood, WA 98372 or virtually via Zoom by visiting zoom.us/join using Meeting ID: 970 6596 9184. Meeting information is available at cityofedgewood.org/calendar.

Appeals: Appeals for this threshold determination must be made to the City of Edgewood pursuant to EMC 20.05.250(J). Per EMC 20.05.250(E) appeals will be accepted until 5:00 PM on November 26, 2025. Appeals must be submitted in writing along with the appeal fee via the City’s permit portal: portal.cityofedgewood.org.

Please call (253) 952-3299 if you have any questions.

Any interested person/party has the right to comment on the proposal, review file materials, request a copy of the decision, and appeal the decision subject to requirements outlined in Edgewood Municipal Code Chapter 18 and the applicable regulations as adopted by the City.



CITY OF EDGEWOOD STAFF REPORT PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: 2024 Comprehensive Plan Implementation Amendments - Recommendation

Attachments: Draft Planning Commission Recommendation
Attachment A – DRAFT EMC Title 18 Amendments

Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

Cities fully planning under the Growth Management Act (GMA) are required to conduct a “periodic review and update” of their Comprehensive Plan and development regulations in accordance with RCW 36.70A.130(5). The city's 2024 Comprehensive Plan periodic update took effect on January 1, 2025. However, the city needs to amend its development regulations to ensure compliance with legislative changes enacted since the last periodic update in 2015. Since January 1, 2025, the city has adopted or revised regulations to address requirements related to SB 5290, accessory dwelling units (ADUs), impact fees, middle housing, and short plat unit lot subdivisions.

To fully implement the 2024 Comprehensive Plan and ensure compliance with the remaining legislative changes, staff prepared draft amendments to Edgewood Municipal Code (EMC) Title 18 (see Attachment A) and recommended repealing EMC 14.120, Natural Resource Lands, as presented at the [October 13, 2025 Planning Commission \(PC\) Meeting](#). The draft Title 18 amendments include updates relating to manufactured housing, co-living, religious organizations, natural resource lands, and the use of existing buildings for residential purposes.

Staff also issued a SEPA Determination of Nonsignificance (DNS) on September 26, 2025, with the SEPA public comment period ending with last month's public hearing. No public comments were received.

Current Discussion:

Following last month's public hearing and discussion, staff has finalized the attached draft amendments for final review and consideration by the Planning Commission.

Staff Recommendation:

Following any further discussion on the matter, the Planning Commission is invited to make a formal recommendation to the City Council on adoption of the proposed draft amendments to EMC Title 18 related to implementing the 2024 Comprehensive Plan and associated development regulations, including repealing EMC 14.120, Natural Resource Lands. A draft recommendation has been prepared by staff, attached herein for consideration.



CITY OF EDGEWOOD
PLANNING COMMISSION
RECOMMENDATION

The Planning Commission voted X-X to recommend that the City Council adopt the proposed draft amendments to EMC Title 18 related to implementing the 2024 Comprehensive Plan and associated development regulations, presented herein, including repealing EMC 14.120, Natural Resource Lands.

RECOMMENDED BY THE CITY OF EDGEWOOD PLANNING COMMISSION
ON THE 10TH DAY OF NOVEMBER 2025.

JoAnn Overfield
Planning Commission Chair

Attest by:

Jeremy Metzler, PE
Community Development Director

Chapter 18.20 Definitions

18.20.050 B definitions.

~~“Blank Walls”~~ means ~~any walls subject to “blank wall” requirements~~ meeting the following criteria:

1. Any wall or portion of a wall that has a surface area of 400 square feet of vertical surface without a window, door, or building modulation as defined below or other architectural feature.
2. Any ground level wall surface or section of a wall over four feet in height at ground level that is longer than 15 feet as measured horizontally without having a ground level window or door lying wholly or in part within that 15-foot section.

~~“Business and Professional Services, General” means an office used as a place of business by licensed professionals, or persons in other generally recognized professions, which use training or knowledge of a technical, scientific or other academic discipline as opposed to manual skills, and which does not involve outside storage or fabrication, or on-site sale or transfer of commodities. Further described in NAICS 51 (except 517), 52, 531 (except 53113), 533, 54 (except 541940), 55, 561, and 813.~~

18.20.060 C definitions.

~~“Change of Use” means. A change of use shall be determined to have occurred when~~ it is found that the general character of the use in question has been modified. This determination shall include review of, but not be limited to:

1. Hours of operation;
2. Materials processed or sold;
3. Required parking;
4. Traffic generation;
5. Impact on public utilities;
6. Clientele;
7. General appearance and location; and
8. Change in use type.

~~“Co-living” means a residential development with sleeping units that are independently rented or owned and lockable and provide living and sleeping space with residents sharing kitchen facilities with other sleeping units in the building.~~

18.20.070 D definitions.

~~“Design Details” means. Architectural or building “design details” refer to~~ the minor building elements that contribute to the character or architectural style of the structure. Design details may include moldings, mullions, rooftop features, the style of the windows and doors, and other decorative features.

~~“Design review” means an administrative process for the purpose of reviewing multifamily development applications for compliance with specific site design, landscape design and building design criteria.~~

.....
18.20.120 I definitions.

.....
“Impervious surface” means a hard surface area which either prevents or retards the entry of water into the soil mantle as it entered under natural conditions preexistent to development, or that hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow under natural conditions preexistent to development. Common impervious surfaces include, but are not limited to, rooftops, concrete or asphalt paving, paved walkways, patios, driveways, parking lots or storage areas, ~~grasscrete~~, and oiled, macadam or other surfaces which similarly impede the natural infiltration of surface water. Open, uncovered retention/detention facilities shall not be considered impervious surfaces. When applied as a development standard, it is expressed as a percentage of the lot area.

.....
18.20.140 K definitions.

.....
“Kitchenette” means a room or part of a room which is used, intended, or designed to be used for basic food preparation, with a sink and at least one 120v electrical outlet.

~~“Kitchen” means any room or rooms, or portion of a room or rooms, used or intended or designed to be used for cooking or the preparation of food.~~

“Kitchen” means a room or part of a room which is used, intended, or designed to be used for preparing food. The kitchen includes facilities, or utility hookups for facilities, sufficient to prepare, cook, and store food, and wash dishes, including, at a minimum, countertops, a kitchen-style sink, space and utilities sufficient for a gas or 220/240v electric stove and oven, and a refrigerator.

~~“Shared kitchen, shared” means a kitchen that is used, intended, or designed to be used by residents of multiple dwelling or sleeping units for preparing food simultaneously.~~

.....
18.20.150 L definitions.

.....
“Lot line, front” means, normally, the property line separating the lot from the street, other than an alley, from which access is provided to the lot. For the purpose of establishing setback requirements, orientation of the dwelling unit shall be independent of access to the parcel. ~~In the case of a corner lot, the front lot line shall be the property line with the narrow dimension adjacent to the street.~~

.....
18.20.180 O definitions.

.....
~~“Office, general” means an office used as a place of business by licensed professionals, or persons in other generally recognized professions, which use training or knowledge of a technical, scientific or other academic discipline as opposed to manual skills, and which does not involve outside storage or fabrication, or on-site sale or transfer of commodities. Further described in NAICS 51 (except 517) 52, 531, 533, 54 (except 541940), 55, 561, and 813.~~

.....
18.20.160 M definitions.

“Multifamily design review” means ~~“design review”, an administrative process for the purpose of reviewing multifamily development applications for compliance with specific site design, landscape design and building design criteria.~~

.....

18.20.190 P definitions.

.....

“Pedestrian-Oriented Facades” are the ground floor facades facing pedestrian-oriented streets and public parks which shall feature “pedestrian friendly” street front facades which consist of one or more of the following “pedestrian-friendly” characteristics:

1. Transparent window area or window displays along the majority of the ground floor facade.
2. Sculptural, mosaic or bas-relief artwork over the majority of the ground floor facade.
3. Pedestrian-Oriented Space. As defined below, at least 500 square feet must be located along the sidewalk for every 100 linear feet of facade as measured along the property line adjacent to the street right-of-way. The pedestrian-oriented space shall also include at least 200 square feet of landscaping for every 100 linear feet of building facade as measured along the property line adjacent to the street right-of-way. The landscaping must conform to the planting standards contained in Edgewood city ordinances.

.....

“Personal care services” means businesses primarily engaged in providing services to meet individuals’ periodic personal needs. Examples include, but are not limited to, coin-operated laundries, dry cleaning drop-off/pick-up establishments, dry cleaners, beauty shops, barber shops, clothing alterations, tanning salons, travel agencies, payday loan establishments, photographic studios, carpet and upholstery cleaners, and personal improvement services. Further described in NAICS 8121, 812310, and 812320.

.....

“Project permit” means any land use or environmental permit or license required from the city of Edgewood for a project action, including but not limited to site development permits, fill and grade permits, subdivisions, binding site plans, planned unit developments, conditional uses, ~~site plan(s)~~, shoreline substantial development permits, ~~development plan~~design review, site-specific rezones which do not require a comprehensive plan amendment; but excluding adoption or amendment of a comprehensive plan, subarea plan or development regulations except as otherwise specifically included in this subsection.

.....

18.20.210 R definitions.

.....

“Religious organization” means the same as defined by RCW 36.01.290.

.....

18.20.220 S definitions.

.....

“Site Plan Design Review” means “design review”.

.....

“Sleeping unit” means an independently rented and lockable unit that provides living and sleeping space.

.....

Square Foot. See “Gross square feet (gsf).”

.....

1 ~~“Substantial Change”~~ ~~–A modification substantially changes the physical dimensions of~~ for an “eligible support
2 structure” ~~as defined in this chapter means any modification of physical dimensions that if it~~ meets any of the
3 following criteria:

4 1. For towers other than towers in the public rights-of-way, it increases the height of the tower by more than 10
5 percent or by the height of one additional antenna array with separation from the nearest existing antenna not to
6 exceed 20 feet, whichever is greater; for other eligible support structures, it increases the height of the structure
7 by more than 10 percent or more than 10 feet, whichever is greater;

8 a. Changes in height should be measured from the original support structure in cases where deployments
9 are or will be separated horizontally, such as on buildings' rooftops; in other circumstances, changes in
10 height should be measured from the dimensions of the tower or base station, inclusive of originally
11 approved appurtenances and any modifications that were approved prior to the passage of the Spectrum
12 Act;

13 2. For towers other than towers in the public rights-of-way, it involves adding an appurtenance to the body of
14 the tower that would protrude from the edge of the tower more than 20 feet, or more than the width of the tower
15 structure at the level of the appurtenance, whichever is greater; for other eligible support structures, it involves
16 adding an appurtenance to the body of the structure that would protrude from the edge of the structure by more
17 than six feet;

18 3. For any eligible support structure, it involves installation of more than the standard number of new equipment
19 cabinets for the technology involved, but not to exceed four cabinets; or, for towers in the public rights-of-way
20 and base stations, it involves installation of any new equipment cabinets on the ground if there are no
21 preexisting ground cabinets associated with the structure, or else involves installation of ground cabinets that
22 are more than 10 percent larger in height or overall volume than any other ground cabinets associated with the
23 structure;

24 4. It entails any excavation or deployment outside of the current site, except that, for towers other than towers in
25 the public rights-of-way, it entails any excavation or deployment of transmission equipment outside of the
26 current site by more than 30 feet in any direction. The site boundary from which the 30 feet is measured
27 excludes any access or utility easements currently related to the site;

28 5. It would defeat the concealment elements of the eligible support structure; or

29 6. It does not comply with conditions associated with the siting approval of the construction or modification of
30 the eligible support structure or base station equipment; provided however, that this limitation does not apply to
31 any modification that is noncompliant only in a manner that would not exceed the thresholds identified in 47
32 CFR Sections 1.40001(b)(7)(i) through (iv), or as hereafter amended.

33

34 **18.20.230 T definitions.**

35

36 “Transitional housing” means the same as defined by RCW 84.36.043 ~~(2)(e)~~.

37

Chapter 18.50 Discretionary Permits and Administrative Decisions – Review Criteria

18.50.070 Temporary use permits.

B. The following types of temporary uses, activities and associated structures may be authorized, subject to specific limitations in this section and such additional conditions as may be established by the community development director or designee:

13. Temporary Housing Units – ~~Mother-in-Law~~Relatives. Temporary housing units are permitted in all zones as follows:

a. A temporary housing permit for a temporary housing unit may be issued by the building division if the applicant can satisfy the criteria set forth in subsection (B)(13)(b) of this section and attests by affidavit that:

i. The information furnished with the application is true and correct.

ii. The standards and conditions set forth in the permit will remain satisfied as long as the temporary housing unit remains on the site.

b. The following are the minimum standards applicable to temporary housing units:

i. The temporary housing unit shall be occupied by ~~the parent or parents a relative of the occupants of the dwelling, or~~ not more than ~~one~~two individuals who ~~is~~are a close relatives of the occupants of the principal dwelling.

ii. An occupant of the temporary housing unit because of age, disability, prolonged infirmity, or other similar incapacitation is unable to independently maintain a separate type of residence without human assistance.

iii. The temporary housing unit must bear the Housing and Urban Development (HUD) 3280 seal.

iv. In the event the health department requires the installation of separate water supply and/or sewerage disposal systems, said requirements shall not at a later time constitute grounds for the continuance or permanent location of a temporary housing unit beyond the length of time authorized in the permit or renewal of said permit.

v. Prior to the issuance of a temporary housing permit, the city shall review the application and may require the installation of such fire protection/detection equipment as may be deemed necessary as a condition to the issuance of the temporary housing permit.

vi. The temporary housing unit shall be removed from the lot or tract of land not more than 60 days from the date the temporary permit expires or occupancy ceases.

c. Renewals. Temporary housing permits shall be valid for the period of time the parent or close relative resides in the temporary housing unit; provided, that after obtaining initial approval, annual renewals of the temporary housing permit must be obtained from the building code official or designee. When obtaining a renewal, the building code official or designee shall confirm by affidavit from the applicant that the requirements specified herein are satisfied. Application for renewals must be made 60 days before the expiration of the current permit. Renewals of said permits shall be automatically granted if the applicant is in compliance with the provisions herein and no notice of such renewal is required.

14. Hosting the homeless by a religious organization is permitted for a total of six (6) months during a year, with a three (3) month separation required between continuous hosting terms of a maximum of four (4) months at any one (1) time in compliance with RCW 35.21.915 and RCW 36.01.290.

C. Application and Authorization.

1. A temporary use permit is a Process I application type and subject to all the procedural requirements applicable to this application type provided in EMC 18.40.080.

~~2. Temporary use applications shall be on a form prescribed by the community development department and shall include all of the information and materials required by the application form and the application fee, as set forth in the city of Edgewood fee schedule. An applicant shall provide sufficient facts and evidence to enable the community development director or designee to make a decision.~~

~~32.~~ A Complete applications for temporary use permits shall be filed with the community development department. Application shall be made at least 15 days prior to the requested date for commencement of the temporary use.

~~4. The community development director or designee shall provide the applicant with a written decision approving, denying, or approving the application with modifications and/or conditions of approval, within 10 days after the date of submission of a complete application.~~

~~53.~~ A temporary use authorized pursuant to this section shall be subject to all of the applicable standards of subsection (D) of this section, and shall not be exempted or relieved from compliance with any other ordinance, law, permit or license applicable to such use, except where specifically noted.

....

~~F. The community development director or designee shall provide the applicant with a written decision approving, denying, or approving the application with modifications and/or conditions of approval, within 10 days after the date of submission of a complete application.~~

.....

EMC 18.90 Development Standards – Citywide Applicability

18.90.080 Housing incentives program.

B. A preapplication conference is recommended, although not required.

C. Review Procedures: Density bonus requests shall be requested in writing and reviewed and approved concurrently with the related land use application or building permit application, whichever is first, and shall follow the established procedures for review and appeal, if necessary, of the permit type. This section applies, at the developer's option, to land use applications for housing in identified zones below, except the construction of a single family dwelling on one lot that can accommodate only one dwelling based upon the underlying zoning designation. This section shall not apply to adult family homes, nursing and residential care facilities, assisted living facilities and all group homes.

D. All housing developed under these standards shall meet all applicable federal, local, and state guidelines and requirements for limiting occupancy to identified qualified groups.

E. Inclusionary Density Bonuses.

1. This subsection applies, at the developer's option, to land use applications for housing in identified zones below, except the construction of a detached dwelling on one lot that can accommodate only one dwelling based upon the underlying zoning designation. This section shall not apply to adult family homes, nursing and residential care facilities, assisted living facilities and all group homes.

2. In return for the inclusion of a number of on-site units dedicated to serving low-income and/or below market rate persons, one-half additional, on-site market-rate unit is permitted as a bonus for each qualified unit, to the extent that no more than a maximum total of 150 units are provided throughout the city. This must not exceed the prescribed density above the maximum density permitted in the underlying zoning district as shown below; provided, that only one-half bonus unit may be awarded per qualified unit, no matter how many qualifying categories it serves as shown in the table below.

Table 4 Density Bonus

Zone	Permitted Density	Density Bonus	Maximum Density
Mixed Residential 1	4 dua	2 dua	6 dua
Mixed Residential 2	8 dua	4 dua	12 dua
Mixed Use Residential	6 dua	3 dua	9 dua
Commercial	8 dua	4 dua	12 dua
Town Center	10 dua	5 dua	15 dua
<u>All Other Zones</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>

For the purpose of this section only, fractions of 0.5 or greater shall be rounded up to the nearest whole number when calculating the number of dwelling units or residential building lots that are permitted to be constructed.

2. Prior to the final approval of any land use application for which density bonuses are being sought, the owner of the affected parcel shall deliver to the city a duly executed covenant running with the land, in a form approved by the city attorney. The owner/applicant shall be responsible for the cost of preparing and recording the covenant and the owner/applicant or subsequent owner or operator shall be responsible for administering

1 the covenant. The commencement date shall be the date that the first lease agreement with a renter within an
2 applicable qualification group becomes effective.

3 3. The qualified units constructed under these provisions shall be integrated and dispersed within the
4 development for which the density bonus is granted. The physical segregation of qualified housing units from
5 unqualified market-rate housing units, or the congregation of qualified housing units into a single physical
6 portion of the development, is prohibited.

7 4. The size of the qualified units constructed under the provisions of this chapter shall be proportionate to the
8 size of the units contained in the entire project (i.e., if 50 percent of the units in the project are one-bedroom
9 units and 50 percent are two-bedroom units, then the qualified units shall be divided equally between one- and
10 two-bedroom units).

11 5. If a project is to be phased, the proportion of qualified units to be completed with each phase shall be
12 determined as part of the phasing plan approved by the community development director or designee.

13 6. The community development department shall maintain a list of all qualified units created under this
14 program

15 ~~EE. Religious organizations, as defined by EMC 18.20.210, may qualify for 25% bonus dwelling units per lot as~~
16 ~~outlined in RCW 35A.63.300 and RCW 36.70A.545.~~

17 ~~A preapplication conference is recommended, although not required, and may be requested by the applicant or city-~~
18 ~~staff, for any land use application that includes a proposal for a density bonus under this program. Density bonus-~~
19 ~~proposals shall be reviewed and approved concurrently with the related primary land use application and shall-~~
20 ~~follow the established procedures for review and appeal, if necessary, of the permit type.~~

21 ~~F. The community development department shall maintain a list of all qualified units created under this program. In-~~
22 ~~conjunction with comprehensive plan review and amendment processes, the level and type of unit production and-~~
23 ~~other factors relating to this program shall be evaluated to gauge how effectively these regulations are functioning-~~
24 ~~and to direct necessary adjustments in the program.~~

25

EMC 18.95 Design Standards

.....

18.95.050 Residential design

A. Purpose. The purpose of these standards is to:

1. Promote housing compatibility.
2. De-emphasize garages and driveways as major visual elements along the street.
3. Provide clear and accessible pedestrian routes between buildings and streets.
4. Ensure consistency with state law regarding design regulations for housing.

B. Applicability. In addition to the development standards required elsewhere in this title and the Edgewood Municipal Code (EMC), this chapter shall apply to:

1. All new detached dwellings, duplexes, stacked flats, cottage housing, courtyard apartments, ~~and~~ ADUs, and associated detached garages.
2. The expansion, remodel, or alteration of any structure listed in EMC 18.95.050(B)(1) by more than fifty (50) percent of its existing net floor area.
3. The conversion of an existing permitted structure to a middle housing type that does not include net floor area expansion is exempt from this section

.....

EMC 18.100 Development Standards – Use Specific

18.100.070 Home business.

The purpose of this section is to provide standards which allow residents of single- or multifamily dwellings to operate businesses or conduct commercial activity from their principal residence or from a permitted accessory structure while achieving the goals of retaining the residential character of the dwelling and the neighborhood.

B. The following uses are exempt from the regulations of this section:

1. Child daycare services, home-based (624410, part), ~~are exempt from the regulation of this section but still require except a home business permit is still required to ensure compliance with EMC 18.100.040.~~

~~which are subject to EMC 18.100.040.~~

2. Accommodation (Sector 721) – bed-and-breakfast inns (721191).

3. Garage sales, yard sales, bake sales, temporary home bazaars for hand-crafted items or parties for the display of clothing, gifts and household products, and other similar uses shall not be subject to regulation pursuant to this section; provided, that:

a. Any such use shall not be in existence for more than four times in any one calendar year, and is not in violation of any other section of the title or other city ordinances; and

b. Any such garage sales and yard sales involve only the sale of household goods, none of which were purchased for the purpose of resale.

4. For the profit sale of produce or other food products is limited to the temporary seasonal sale of produce grown on the premises.

5. Hobbies which do not result in payment to those engaged in such activity.

18.100.080 Limited home businesses.

A. The purpose of this section is to provide standards which allow residents of single- or multifamily dwellings to operate businesses or conduct commercial activity from their principal residence or from a permitted accessory structure while achieving the goals of retaining the residential character of the dwelling and the neighborhood.

B. Limited home businesses are permitted as an accessory use in conjunction with single-family detached dwelling, single-family attached dwelling, and multifamily attached dwelling use types.

C. The ~~following same~~ uses ~~are exempt from the regulations of this section~~ exempted under EMC 18.100.070(B); are exempt from the regulations of this section.

~~1. Child daycare services, home-based (624410, part), which are subject to EMC 18.100.040.~~

~~2. Accommodation (Sector 721) – bed-and-breakfast inns (721191).~~

~~3. Garage sales, yard sales, bake sales, temporary home bazaars for hand-crafted items or parties for the display of clothing, gifts and household products, and other similar uses shall not be subject to regulation pursuant to this section; provided, that:~~

~~a. Any such use shall not be in existence for more than four times in any one calendar year and is not in violation of any other section of the title or other city ordinances; and~~

~~b. Any such garage sales and yard sales involve only the sale of household goods, none of which were purchased for the purpose of resale.~~

~~4. For the profit sale of produce or other food products is limited to the temporary seasonal sale of produce grown on the premises.~~

~~5. Hobbies, which do not result in payment to those engaged in such activity.~~

.....

18.100.090 Manufactured homes on individual lots.

A manufactured home that is placed on an individual lot shall be considered a single-family detached dwelling. The manufactured home shall:

A. Be placed on a permanent ~~conventional~~ foundation as specified by the manufacturer, and that the space from the bottom of the home to the ground be enclosed by concrete or an approved concrete product which can be either load bearing or decorative, and set up in accordance with building code requirements;

B. Meets all requirements for a designated manufactured home as defined in RCW 35.63.160. Be oriented on the lot so that the longest facade is parallel or predominately parallel to the public or private street;

C. Complies with the residential design standards pursuant to EMC 18.95.050.

~~Be comprised of at least two fully enclosed parallel sections each not less than 12 feet wide by 36 feet long;~~

~~D. Have exterior siding similar in appearance to siding material commonly used on conventionally built housing;~~

~~E. Include either an attached or detached carport or garage;~~

~~F. Include a finished porch or deck for each entrance door;~~

~~DG.~~ A title elimination is required prior to building occupancy;

~~H. Be a new manufactured home.~~

.....

18.100.130 Residential use of existing buildings.

A. The purpose of this section is to provide standards for which the use of existing buildings for residential purposes is allowed in commercial, mixed-use, and residential zones in compliance with RCW 35A.21.440 and RCW 35.21.990.

B. For the purpose of this section, "existing building" means a building that received a certificate of occupancy at least three years prior to the permit application to add housing units.

C. Applicability: This section applies to all residential, mixed-use, and commercial zones.

D. The following are the performance standards for residential use of existing buildings:

1. The addition of housing units at a density up to fifty (50) percent more than what is allowed in the underlying zone may be permitted if constructed entirely within an existing building envelope; provided, that generally applicable health and safety standards, including but not limited to building code standards and fire and life safety standards, can be met within the building.

2. Sufficient existing parking must be retained to satisfy the number required for existing residential units and nonresidential uses that remain after the new residential units are added.

3. The addition of housing units in an existing building with ground floor commercial or retail that is along a roadway classified as an arterial is prohibited.

4. Unchanged portions of an existing building that have been used for residential purposes or previously permit-approved conditioned space do not need to meet the current energy code; however, if any portion of an existing building is converted to new dwelling units, each of those new units must meet the requirements of the current energy code, except if as allowed by RCW 35A.21.440.

5. Unless the director and/or the building official makes written findings that a nonconformity regarding design standards, parking, height, setbacks, elevator size for gurney transport, or modulation is causing a significant detriment to the surrounding area, the City shall not deny a building permit application for the addition of housing units within the existing building;

6. A transportation concurrency study under RCW 36.70A.070 or an environmental study under Chapter 43.21C RCW (SEPA) based on the addition of residential units within an existing building shall not be required; and

7. Where an existing building cannot satisfy life safety standards, no housing units constructed entirely within the building's envelope will be allowed.

18.100.140 Co-Living.

A. The purpose of this section is to provide standards for which co-living is allowed on all lots zoned to allow at least six multifamily units in compliance with RCW 36.70A.535.

B. Conflicts. In the event of a conflict between this section and other development regulations applicable to co-living, the standards of this section shall control.

C. Applicability: This section applies to all zones which allow at least six units of multifamily or middle housing, including zones which allow six multifamily units as a component of mixed-use development.

D. Density: For the purpose of this section, sleeping units count as one quarter of a dwelling unit.

F. Multifamily: Three or more sleeping units shall be considered as a multifamily development.

E. Parking: Off-street parking for co-living shall be subject to the following:

1. No more than one off-street parking space per four sleeping units shall be required.

2. No off-street parking shall be required within one-half mile walking distance of a major transit stop as defined in RCW 36.70A.535.

F. The following are the performance standards for co-living uses:

1. Sleeping units shall be subject to the following standards:

a. All sleeping units shall be no more than 300 square feet.

b. Sleeping units may include kitchenettes, but shall not include kitchens.

c. Sleeping units must include a private bathroom, except as approved by the Director as part of a standalone church building conversion.

d. All sleeping units must have access by interior or covered exterior walkway to a shared kitchen.

2. Shared kitchens shall be subject to the following standards:

a. At least one shared kitchen shall be provided for every fifteen sleeping units.

b. At least one shared kitchen shall be provided on each floor that also contains sleeping units.



CITY OF EDGEWOOD STAFF REPORT PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: 2025 Comprehensive Plan Annual Amendments - Recommendation

Attachments: Draft Planning Commission Recommendation
Attachment A. 2024 Comprehensive Plan Review

Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

In accordance with RCW 36.70A.130 of the Growth Management Act (GMA), cities may consider amendments to their comprehensive plans no more than once annually. The City of Edgewood City Council has established a process and criteria for making amendments to the City's Comprehensive Plan under EMC Chapter 18.60.

On February 25, 2025, the City Council approved the final annual docket via Resolution no. 25-0768. The resolution directed the Edgewood Planning Commission to review the Future Land Use Study and Map Amendment for the West Valley Highway (WVH) Overlay Area and make a recommendation on whether the proposal, or some modification thereof, should be adopted or denied. The Planning Commission was also directed to review the 2024 Comprehensive Plan and Zoning Map for scrivener's errors and inconsistencies and make a recommendation for adjustments as appropriate. The Edgewood Planning Commission was directed to complete its review, to conduct such public hearings as may be required, and to forward its recommendation to the Edgewood City Council.

As a result of public and agency comments provided before or at the October 13, 2025 Public Hearing, the Planning Commission recommended that the City Council remove the West Valley Highway Overlay Area future land use map and zoning map amendment from the annual docket to allow staff the time necessary to review and address the environmental concerns. On October 14, 2025, the City Council voted to remove the West Valley Highway Overlay Area amendments from the annual docket.

Tentative Schedule:

February 10, 2025 – Planning Commission Public Hearing on Preliminary Docket

February 25, 2025 – City Council Resolution No. 25-0768 Final Docket

August 11, 2025 – Planning Commission Introduction

September 8, 2025 – Planning Commission Discussion with WVH Overlay Draft Land Use Study

September 25, 2025 – SEPA Issuance and Comment Period

October 13, 2025 – Planning Commission Public Hearing

November 10, 2025 – Planning Commission Recommendation

November 18, 2025 – City Council Study Session Introduction

Proposed Annual Amendments:

2024 Comprehensive Plan Scrivener's Errors and Inconsistencies Recommendation:

City staff have reviewed the 2024 Comprehensive Plan and identified 32 text errors and three future land use and zoning map errors requiring correction. These issues and recommended updates are detailed in the 2024 Comprehensive Plan Review (Attachment A).

Comprehensive Plan Amendments Criteria (EMC 18.60.200):

The Planning Commission shall review the proposed amendments to the comprehensive plan under the following criteria:

1. Whether the proposed amendment(s) conform to the Growth Management Act (Chapter 36.70A RCW);

City Findings: The proposed amendments are minor in nature and are consistent with the requirements of the Growth Management Act.

2. Whether the proposed amendment(s) are consistent with and implement the city's comprehensive plan, including the goals, policies and implementation strategies of the various elements of the plan;

City Findings: The proposed amendments are minor in nature and are consistent with and implement the city's comprehensive plan.

3. Whether circumstances related to the proposed amendment(s) and/or the area in which it is located have substantially changed since the adoption of the city's comprehensive plan;

City Findings: The proposed amendments are scrivener's errors and Inconsistencies corrections that are inline with the circumstances in the city at the time of 2024 Comprehensive Plan adoption.

4. Whether the assumptions upon which the city's comprehensive plan is based are no longer valid, or whether new information is available which was not considered during the adoption process or any annual amendments of the city's comprehensive plan; and

City Findings: As outlined in Criterion 3, the proposed amendments are minor in nature and the 2024 Comprehensive Plan assumptions are valid.

5. Whether the proposed amendment(s) reflects current, widely held values of the residents of the city.

City Response: Yes, the proposed amendments reflect the widely held values of Edgewood residents as documented in the 2024 Comprehensive Plan.

Staff Recommendation:

Following further discussion on the matter, the Planning Commission is invited to make a formal recommendation to the City Council on adoption of the proposed 2025 Comprehensive Plan amendments. A draft recommendation has been prepared by staff, attached herein for consideration.



CITY OF EDGEWOOD
PLANNING COMMISSION
RECOMMENDATION

The Planning Commission voted X-X to recommend that the City Council adopt the proposed annual Comprehensive Plan amendments to the 2024 Comprehensive Plan, as presented herewith, pertaining to 2024 Comprehensive Plan text and future land use and zoning map scrivener errors.

RECOMMENDED BY THE CITY OF EDGEWOOD PLANNING COMMISSION
ON THE 10TH DAY OF NOVEMBER 2025.

JoAnn Overfield
Planning Commission Chair

Attest by:

Jeremy Metzler, PE
Community Development Director

Review of 01-01-2025 Zoning Map for scrivener's errors and inconsistencies:

1. Entirety of Parcel No. 0420161008 should be zoned MUR
2. Entirety of Domus Townhomes PRD should be MR-2, except Parcel No. 6027310010
3. GIS Layer needs to be reviewed and updated to snap to most current parcel lines provided by the Assessor-Treasurer's office, where projection(s) have changed

Review of the 2024 Comprehensive Plan for scrivener's errors and inconsistencies:

2015 Comp Plan	2024 Comp Plan	Staff Recommendation
Not applicable	Cover Page	Add Amendment Date and Adopting Ordinance Reference upon completion
Not applicable	Figure I-1 (page 3 of 222) and Figure TC-1 (page 47 of 222)	Revise Town Center outline to include entire TC zone and any P-zoned parcels within it.
Not applicable	Table LU-3 (page 31 of 222), Figure LU-1 (page 34 of 222), Table TC-1 (page 52 of 222)	Review and update as needed to reflect West Valley Highway Land Use Study recommendation and results
Not applicable	Figure T-9 (page 101 of 222), Figure T-10 (page 103 of 222)	Non-existing routes are shown on these figures, but they should be removed
Not applicable	Figure T-16 (page 118 of 222): Project Trail-09	Project not necessary, delete from map.
Figure 11 (page 133 of 174): Project R5	Omitted	Add Project R-08 to Figure T-16 (page 118 of 222), following route shown on Figures T-13, T-14 and T-15 between Valley Ave and Meridian Ave E
Not applicable	Figure T-17 (page 119 of 222): Project labels	Revise to be consistent with Table T-10 IDs (add hyphens)
Not applicable	Figure T-17 (page 119 of 222): Project E3	Not mapped correctly – needs to be shown between the Emerald / Jovita RAB and 105 th Ave E / 8 th St E
Not applicable	Table T-10 (pages 120 through 124 of 222): ID's	Revise R, I, PED, and TRAIL IDs to be consistent with Figure T-16 labeling
Not applicable	Table T-10 (page 120 of 222): ID R-2	Add asterisk to end of PROJECT NAME

2015 Comp Plan	2024 Comp Plan	Staff Recommendation
Table 31 (page 135 of 174): ID R-5	Omitted	Add ID R-08 to Table T-10 (page 120 of 222), PROJECT NAME "Southwest Freight Connector", PROJECT LIMITS "Valley Ave to Meridian Ave E", PROJECT DESCRIPTION "Construct new roadway through industrial zoning district to eliminate need for several at-grade railroad crossings", PROJECT COST (THOUSANDS) "\$10,000"
Not applicable	Table T-10 (page 120 of 222): ID E-3	Remove asterisk from end of PROJECT NAME
Table 31 (page 135 of 174): ID E-4	Table T-10 (page 121 of 222): ID E-4	Revise PROJECT NAME from "12th St E" to "13th St Ct E"
Table 31 (page 135 of 174): ID E-10	Table T-10 (page 121 of 222): ID E-10	Revise PROJECT NAME from "22nd St E" to "Dom Calata Way E"
Table 31 (page 136 of 174): ID E-14	Table T-10 (page 121 of 222): ID E-14	Revise PROJECT NAME from "103rd Ave E" to "106th Ave E"
Not applicable	Table T-10 (page 121 of 222): ID W-4	Add asterisk to end of PROJECT NAME
Not applicable	Table T-10 (page 121 of 222): ID PED-7	Revise PROJECT NAME from "16th Ave" to "Taylor St"
Table 31 (page 136 of 174): ID A-2	Table T-10 (page 122 of 222): ID A-2	Change PROJECT NAME to "Citywide Road Preservation Program"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-2	Change PROJECT NAME to "Interurban Connector" and change PROJECT LIMITS to "Sewer Lift Station E-1 to Jovita Blvd E"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-3	Change PROJECT NAME to "Litowitz Property" and change PROJECT LIMITS to "16th St E to West Valley Hwy"

2015 Comp Plan	2024 Comp Plan	Staff Recommendation
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-4	Change PROJECT NAME to "Surprise Lake Tributary" and change PROJECT LIMITS to "Mortensen Farm to 18th St Ct E"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-6	Change PROJECT NAME to "106th Ave E Corridor" and change PROJECT LIMITS to "16th St E to The Arbors"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-7	Change PROJECT NAME to "20th St E Corridor" and change PROJECT LIMITS to "104th Ave E to 106th Ave E Corridor"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-8	Change PROJECT NAME to "Nelson Farm Park" and change PROJECT LIMITS to "18th St E to Nelson Nature Park North"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-9	Project not necessary, delete entire row.
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-10	Change PROJECT NAME to "Nelson Nature Park" and change PROJECT LIMITS to "24th St E to SW Corner"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-11	Change PROJECT NAME to "Lake Chalet North" and change PROJECT LIMITS to "103rd Ave Ct E to 106th Ave E"
Not applicable	Table T-10 (page 124 of 222): ID TRAIL-12	Change PROJECT NAME to "Pinedale Pond" and change PROJECT LIMITS to "Pascolo Estates to 24th St E"
Not applicable	Table T-10 (page 125 of 222): ID TRAIL-13	Change PROJECT NAME to "Simons Creek" and change PROJECT LIMITS to "Meridian Ave E to ProLogis Industrial Park"

2015 Comp Plan	2024 Comp Plan	Staff Recommendation
Not applicable	Table T-10 (page 125 of 222): ID TRAIL-14	Change PROJECT NAME to "32nd St E Corridor" and change PROJECT LIMITS to "94th Ave E to 100th Ave E"
Not applicable	Table T-10 (page 125 of 222): ID TRAIL-15	Change PROJECT NAME to "Mt. View Elementary Connector" and change PROJECT LIMITS to "32nd St E to 36th St E"
Not applicable	Table T-10 (page 125 of 222): ID TRAIL-16	Change PROJECT NAME to "Wolf Point Trail" and change PROJECT LIMITS to "36th St E to valley floor"
Not applicable	Table T-10 (page 125 of 222): ID TRAIL-17	Change PROJECT NAME to "Wolf Point Connector" and change PROJECT LIMITS to "Wolf Point Trail to Puyallup C/L"



CITY OF EDGEWOOD STAFF REPORT PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: 2025 Critical Areas Ordinance Update

Attachments: Draft Planning Commission Recommendation
Attachment A. EMC 14.10 General Provision Draft Amendment
Attachment B. EMC 14.20 Definitions Draft Amendment
Attachment C. EMC 14.30 Use and Activity Draft Amendment
Attachment D. EMC 14.40 Wetland Amendment
Attachment E. EMC 14.50 Fish and Wildlife Habitat Amendments
Attachment F. EMC 14.60 CARA Amendment
Attachment G. EMC 14.70 Volcanic Area Amendment
Attachment H. EMC 14.80 Flood Hazard Area Amendment
Attachment I. EMC 14.90 Landslide Hazard Area Amendment
Attachment J. EMC 14.100 Seismic Hazard Area Amendment
Attachment K. EMC 14.110 Erosion Hazard Area Amendment
Attachment L. Type F Stream Buffer Analysis Map
Attachment M. CAO Update Agency Comment Response Matrix
Attachment N. 2025 Best Available Science Annotated Review

Submitted By: Josh Kubitz, AICP – Planning Manager

Introduction

The State Growth Management Act (GMA) requires cities to complete a “10-year periodic update” of their Comprehensive Plans. Edgewood’s City Council adopted the 2024 Comprehensive Plan periodic update in December 2024 which reflects the various new and revised regulations and laws since the last periodic update in 2015. As part of each periodic update, the GMA requires all cities and counties to adopt development regulations that protect critical areas within one year of the Comprehensive Plan’s adoption date. As such, Edgewood is required to review and update the CAO by December 31, 2025, to remain in compliance with the GMA.

Critical areas are lands that are natural hazards or lands that can pose a risk to life and property and areas that support unique, fragile or valuable resources. RCW 36.70A.030(5) defines five types of critical areas:

- Wetlands ([EMC 14.40](#))
- Aquifer recharge areas ([EMC 14.60](#))
- Frequently flooded areas ([EMC14.80](#))
- Geologically hazardous areas ([EMC 14.70/14.90/14.100/14.110](#))
- Fish and wildlife habitat conservation areas. ([EMC 14.50](#))

Critical areas provide functions and values, such as water quality protection and enhancement, fish and wildlife habitat, food chain support, flood storage, protection of drinking water quality and quantity, erosion and landslide control, protection from natural hazards, and recreation.

All critical areas must be designated, and their functions and values protected using the best available scientific information (BAS). As defined by WAC 365-195-900 through 925, BAS is derived from a process that includes peer-reviewed literature, standard methods, logical conclusions and reasonable inferences, quantitative analysis, and documented references to produce reliable information. The last substantial review of Sumner's regulations for BAS was in 2017.

City of Edgewood critical areas are regulated by Edgewood Municipal Code Title 14 Critical Areas.

Summary of Proposed Amendments:

Below is an overview of the proposed amendment to the Edgewood Municipal Code Title 14 Critical Areas based on staff recommendations and Planning Commission review and feedback. As a general practice, staff also focused on resolving internal inconsistencies and clarity for easier application for both the public and city staff.

Chapter 14.10 - General Provisions (Attachment A)

14.10.020 – Purpose:

- Clarified vocabulary of department name.

14.10.040 – Applicability:

- Updated to clarify that development and related activities are prohibited unless they comply with this title, except where specifically exempted elsewhere in the code.

14.10.050 – Administration:

- Added code title reference number EMC 18.40.150
- Updated to include critical areas permit application review type (type II).
- Updated to give applicants an option to request a critical area permit before applying for development if no other development permit is required.
- Updated to include requirements for a complete application under EMC 18.40.150.
- Updated to clarify the need for a third-party review if a project is complex or when application volumes exceed staff capacity.
- Clarify when a variance application is needed.
- Clarify right of entry requirements.
- Simplified process for recording.

14.10.070 – Critical area protective measures.

- Clarified general critical area protective measures.
- Updated the applicability of the critical area building setback.

- Clarified the creation of critical area tracts and requirements.
- Clarified the posting of notices of application.

14.10.080 – Critical areas reports:

- Clarification on requirements for critical area reports to include impacts of proposal, mitigation sequencing standards identified in 14.10.070(B) and mitigation plans.

14.10.090 – Mitigation plans:

- Updated to include analysis and discussion regarding no net loss of critical area function or values in mitigation details.

14.10.100 – Variances to critical areas:

- Updated to allow applicants to request a critical area variance to reduce certain buffer or hazard standards. Variances shall require hearing examiner approval. Special criteria apply, separate from general variance standards.
- Updated to clarify that other federal and state permits may apply.
- Updated to provide an alternative to EMC 14.10.100 by demonstrating wetland buffer variance increases wetland function, will not jeopardize endangered species, avoids impacts and provides mitigation pursuant to EMC 14.10.070(B).
- Updated to provide an alternative to EMC 14.10.100 by demonstrating a fish and wildlife habitat buffer variance will not adversely impact receiving water quality or quantity, functions, or impact endangered species.

14.10.150 – Appendix:

- Updated to remove any redundant title notification requirements.

Chapter 14.20 – Definitions (Attachment B)

- Removed definition numbering.
- Updated definitions section and section titles to be consistent with current Best Available Science (BAS), state regulations, and to better address critical areas requirements from the state agency guidelines and best practices, such as:
 - Anadromous fish
 - Aquifer
 - Aquifer recharge area
 - Best available science (BAS)
 - Critical Area
 - Cumulative Impacts
 - Department
 - Ditch
 - Director
 - Erosion Hazard
 - Fish and Wildlife Conservation Area
 - Group A water system
 - Historic Structure
 - Lahars

- Lakes
- Liquefaction
- Mitigation
- Mitigation Sequence
- Monitoring
- No Net Loss, Critical Areas
- Ordinary high-water mark (OHWM)
- Ponds
- Priority habitat
- Priority species
- Riparian management zone
- Slope
- Stormwater conveyance facilities
- Volcanic hazard areas
- Waters of the State
- Wellhead protection area (WHPA)

Chapter 14.30 – Use and Activity (Attachment C)

14.30.030 – Exemptions

- Updated to include requiring written city confirmation before starting any exempt activities. Exempt work must minimize impacts, and any unintended damage to critical areas must be restored at the applicant's expense.
- Updated language to differentiate detached single family and middle housing.
- Updated to clarify emergency actions necessary to prevent imminent threat to public health or safety, or to public or private property, or serious environmental degradation.
- Updated to clarify prohibiting soil compaction; allows alternative methods like mechanical excavation with Department approval and required permits.
- Updated to exempt wildlife viewing, education, and scientific research that does not involve the construction of trails.

14.30.040 – Nonconforming uses and structures.

- Clarified that nonconforming structures in Flood Hazard Areas must comply with EMC 14.80.

14.30.050 – Reasonable use exceptions:

- Updated to include all items needed for complete application to request a reasonable use exception.
- Updated to clarify the hearing criteria may approve applications for reasonable use exceptions to ensure not net loss of critical are function.

Chapter 14.40 – Wetlands (Attachment D)

14.40.030 – Buffer standards – Wetlands.

- Updated to clarify the implementation of Table 14.40.030.1 for buffer width determination.
- Wetland ratings updated to better align with Department of Ecology's 2014 Wetland Rating System.

- Removed Table 14.40.030.3, instead requiring 33% be added to the buffers listed in Table 14.40.030.1 if the project doesn't incorporate the required mitigation measures in Table 14.40.030.2. This change is to reduce the public confusion regarding the two tables.
- Wetland ratings (Category I–IV) retained, but with clarified tie-ins to buffer standards.
- Added Functionally Disconnected Buffer statement to allow site-specific reductions or exclusions of wetland buffers where the physical or ecological function of the buffer is already compromised. This is already a permitted concept under EMC 14.10.070.

14.40.040 – Wetland review procedures

- This section clarifies the one-family dwelling wetland certification process and renames it to one principal dwelling unit wetland certification. This is updated to provide clear guidance while also ensure wetland and wetland buffer protection.

14.40.050 – Allowed activities

- Added passive recreation facilities and wells as allowed activities.
- Added subdivision or short plat as an allowed activity as long as certain criteria are met. This isn't a new requirement but clarification on existing standard practices.

14.40.060 – Mitigation Requirements

- Added clarification on the requirement for compensatory mitigation.
- Added preservation as a mitigation type as allowed by the best available science.
- Compensatory mitigation location and timing were clarified to match ecology guidance.
- Credit/debit mitigation method and in-lieu fee mitigation were added to match ecology guidance.

Chapter 14.50 Fish and Wildlife Habitat Conservation Areas (Attachment E)

Chapter renamed from "Critical Fish and Wildlife Habitat Areas"

14.50.020 – Fish and wildlife habitat conservation area

- Section renamed to "Designation of fish and wildlife habitat"
- Updated to expand categories of designated habitat areas to align with federal and state standards:
 - Critical habitat for federally or state-listed endangered, threatened, or sensitive species (cross-referencing federal CFR and state WAC codes).
 - Priority Habitats & Species (PHS) from WDFW, plus DNR's Natural Heritage Program species lists (explicitly recognized as "habitat and species of local importance").
 - Small natural ponds (less than 20 acres) and associated aquatic beds.
 - Flood hazard areas: portions within 200 feet of OHWM of lakes, rivers, or streams.
 - Waters of the state: all waterbodies classified under WAC water typing system, plus riparian areas.

- Stocked waterbodies: lakes, ponds, streams, and rivers planted with game fish by government or tribal entities.
- Protected state lands: DNR/WDFW natural area preserves, conservation areas, and wildlife areas.

14.50.030 – Buffer standards – Fish and wildlife habitat conservation areas.

- Updated section name to include Riparian Buffers and clarify buffer standards to better align with the Washington Department of Fish and Wildlife (WDFW) recommendations. The update proposes an approach to meet the minimum width for pollution capture.
 - Retain “buffer” terminology.
 - Riparian Buffers required: must consist of undisturbed native vegetation along all waterbodies (using DNR water typing system, WAC 222-16-030).
 - Standard buffer widths of 100-feet for all streams (Table 14.50.030).
 - Type S removed from the table as there are no shorelines of the state within the city limits.
 - Type F buffer remains at 100 feet
 - Type Np and Ns buffer increase from 60 feet and 35 feet, respectively to 100 feet.
 - Extent of buffer: measured landward from the ordinary high-water mark (OHWM) of the regulated waterbody.
- Update to clarify critical habitat areas and species not listed in Table 14.50.030 shall be determined on a case-by-case basis, based upon the needs of specific species or habitat area of study.
- Updated to include:
 - Riparian and Nonriparian Buffer Averaging: Buffer averaging allows part of a buffer to be reduced if other parts are increased. The Director may approve averaging when the critical areas report (EMC 14.10.080) shows
 - No feasible alternative site design or activity size is possible without averaging.
 - The total buffer area after averaging is equal to or greater than the standard buffer.
 - Averaging does not reduce habitat functions or values.
 - Averaging does not increase the risk of slope failure or drainage impacts.
 - The site has varying sensitivity (e.g., slopes, soils, vegetation).
 - No portion of the buffer is reduced to less than 75 feet.
 - Administrative Buffer Reductions: Removed.
- Updated to define functionally disconnected buffer areas exempt from the above regulations.

14.50.040 – Fish and wildlife habitat conservation area review procedures.

- Updated to require critical area report if project within 215 feet of habitat area.

14.50.050 – Allowed Activities

- Updated to clarify allowed activities upon submission of a critical areas report pursuant to EMC 14.50.040.
- Clearing, grading, and erosion control in fish and wildlife habitat areas or buffers are allowed only if a Critical Areas Report shows all reasonable measures to avoid or mitigate impacts and no net loss of habitat functions occurs.
 - Habitat Management Plan Required:
 - Any permitted activity must include a Habitat Management Plan per EMC 14.50.080.
 - Clearing & Grading Rules:
 - Only allowed during the designated dry season (May 1 – Oct 1, adjustable by the City).
 - Preserve soil duff and topsoil structure, minimize compaction, and redistribute disturbed soil where feasible.
 - Erosion and sediment control must meet or exceed adopted stormwater management standards.
 - Erosion Control & Mitigation:
 - Erosion control measures require adequate mitigation under EMC 14.50.070 to ensure no net loss of riparian habitat or function.

Chapter 14.60 Aquifer Recharge and Wellhead Protection Areas (Attachment F)

14.60.020 – Critical aquifer recharge areas identification

- Clarifies standards for land use in critical aquifer recharge areas (CARAs) and wellhead protection areas (WHPAs).
- Replaces general language with clear, enforceable restrictions and tiered regulation based on risk.
- Introduces explicit procedures, engineering requirements, and reporting obligations for potentially contaminating activities

14.60.030 – Critical aquifer recharge areas review procedures.

- This section was updated to require hydrologic evaluation of how development may affect stream base flows and wetland groundwater support.
- Updated to clarify that the city's fire and building official is responsible to regulate and authorize all permits for Underground Storage Tanks (USTs).

14.60.040 – Critical aquifer recharge areas standards.

- Code updated to clearly outline additional exemption and prohibited uses.
- The update clarifies new agricultural activities that do not involve hazardous substances within an aquifer recharge or wellhead protection area are allowable, provided they meet criteria in EMC 14.60.040(G).
- Code updates address criteria which public works shall conduct a review under and clarify the conditions the city department wave measures set in this chapter and best available science.
- Updated protection standards to be clearly defined. The updates identified requirements for all land use and development to demonstrate that the proposed activity will not cause contaminants to enter the aquifer and that the proposed activity will not adversely affect the recharging of the aquifer and comply with all federal and state laws.
- The updated section also addresses Protection Standards Hazardous Uses for Vehicle repair and servicing.

14.60.050 – Appendix

- Moved Hydrogeologic Assessment requirements under appendix that is consistent with other chapters.

Chapter 14.70 - Volcanic Hazard Areas (Attachment G)

14.70.020 – Volcanic hazard areas:

- Updated to clarify which travel time zones are applicable to the city of Edgewood.

Chapter 14.90 – Landslide Hazard Areas (Attachment I)

14.90.020 – Landslide hazard areas.

- The section provides a structured classification system for landslide hazard areas. Updated to categorize these areas based on past landslide activity and the potential for future instability, ensuring land use decisions and development proposals are matched to actual hazard levels. This section also allows for landslide hazard areas to be stabilized by a qualified professional.

14.90.030 – Landslide hazard area review procedures.

- Updated to clarify standards required for an investigation process to evaluate the on-site geology affecting a subject property.

14.90.040 – Landslide hazardous area standards

- Updated to clarify performance standards apply to all landslide hazard area(s) or associated buffer(s).
- Updated to prohibit grading/removal during wet season (Nov 1–May 1) unless a Geotech report proves adequate erosion control.

14.90.050 – Buffer areas

- Clarified required setbacks or buffer from the landslide hazard area and the determination through a geotechnical assessment.

Chapter 14.60 Seismic hazard areas (Attachment J)

14.100.020 – Seismic hazard areas

- Updated to clarify potential hazards include those areas identified as high and moderate liquefaction and dynamic settlement hazard areas on the Washington Department of Natural Resources map.

14.100.030 – Seismic hazard area review procedures.

- Clarified to ensure that development within or near seismic hazard areas undergoes technical review by qualified geotechnical professionals.

Chapter 14.110 – Erosion Hazard Areas (Attachment K)

14.110.020 – Erosion hazard area

- Updated to clearly identify the different type of erosion hazards with the city of Edgewood. Per BAS, the city doesn't have any state shorelines or riverine systems with regulated channel migration zones.

14.110.030 – Erosion hazard area review procedures.

- Identified required components to be included in a geological assessment.

14.110.040 – Erosion hazard area standards:

- Shoreline standards and riverine standards are not applicable to the City of Edgewood, section updated to remove standards which apply only to shorelines and riverine systems.

14.110.060 – Appendices:

- Clarify minimum requirements for geotechnical verification.

Analysis:

Per EMC 18.60.020, the Planning Commission has the authority to review and make recommendations on proposed amendments to city regulations concerning land use and development. Staff have reviewed the criteria under EMC 18.60.220(A) and offers the following analysis:

1. Whether the proposed amendment(s) conform to the Growth Management Act (Chapter [36.70A](#) RCW). Response: The proposed amendments conform with the Growth Management Act requirements for critical area identification and protection.
2. Whether the proposed amendment(s) are consistent with and implement the city's comprehensive plan, including the goals, policies and implementation strategies of the various

elements of the plan. Response: The proposed amendments are consistent with and implement the city's comprehensive plan goals and policies.

3. Whether circumstances related to the proposed amendment(s) and/or the area in which it is located have substantially changed since the adoption of the city's comprehensive plan. Response: The proposed amendments are directly related to changes in best available science and are required to complete the 2024 comprehensive plan periodic update.
4. Whether the assumptions upon which the city's comprehensive plan is based are no longer valid, or whether new information is available which was not considered during the adoption process or any annual amendments of the city's comprehensive plan. Response: The proposed amendments are directly related to changes in best available science and are required to complete the 2024 comprehensive plan periodic update.
5. Whether the proposed amendment(s) reflects current, widely held values of the residents of the city. Response: The proposed amendments reflect the current and widely held values of the residents of the city.

Tentative Schedule:

June 9, 2025 – Planning Commission Introduction (COMPLETE)

July 14, 2025 – Planning Commission Discussion (COMPLETE)

August 11, 2025 – Planning Commission Draft BAS and Draft Amendments Review (COMPLETE)

September 8, 2025 – Planning Commission Draft BAS and Draft Amendments Review (COMPLETE)

September 22, 2025 – SEPA Issuance and Comment Period (COMPLETE)

October 13, 2025 – Planning Commission Public Hearing (COMPLETE)

October 14, 2025 – City Council Introduction Presentation (COMPLETE)

November 10, 2025 – Planning Commission Recommendation to City Council

November 18, 2025 – City Council BAS and Amendment Review

November 25, 2025 – City Council BAS and Amendment Action

Current Discussion:

The notice for public comments and SEPA Determination of Nonsignificance (DNS) was issued on September 26, 2025, with a public comment period from September 26, 2025 to October 13, 2025. The Planning Commission held a Public Hearing on October 13, 2025. The city received comments from the Washington Department of Fish and Wildlife, Washington Department of Natural Resource, Washington Department of Ecology, and the Puyallup Tribe of Indians. No verbal comments were provided at the Public Hearing. All agency comments are provided in the 2025 CAO Update Comment Response Matrix (Attachment M) and include staff responses.

Since the Public Hearing on October 13, 2025, staff have revised the code amendments to reflect the agency comments and additional staff consistency review. All the newly proposed revisions have been highlighted light blue in the attachments.

Riparian Buffer Discussion:

In response to agency comments and in addition to the 2025 Best Available Science Annotated Review (Attachment N), staff conducted a detailed analysis of mapped fish-bearing water bodies. This analysis focused on their proximity to steep slopes, other critical areas, and their alignment with the WDFW-recommended SPTH200 mapping (see Attachment L: Type F Stream Buffer Analysis Map).

The SPTH site class groups are what WDFW recommends using in determining the foot distance from the stream boundary. To complete this analysis, staff consolidated the more than 30 SPTH 200 site class groups into three categories based on the buffer distance: 94 – 111 feet, 112 – 204 feet, and the 205 – 231 feet. In the WDFW comments to the city's proposed language, WDFW recommended a 150-foot buffer where SPTH 200 cannot be achieved. However, WDFW recommends no smaller than 100-foot buffer to ensure 95% pollution capture.

To better understand the implications of buffer recommendations, staff separated the analysis into the following two distinct stream areas.

- Stream Area 1: Wapato Creek and Simons Creek, located in the southwest portion of the city within the valley floor.
- Stream Area 2: Simons Creek (outside the lower valley), Jovita Creek, and several unverified Type F streams along the southern and eastern city boundaries.

Generally speaking, Stream Area 1 is primarily within flatter terrain, whereas Stream Area 2 is adjacent to steep slopes and other critical areas.

In Stream Area 1, over 95% of Wapato and Simons Creeks, and their existing 100-foot riparian buffers, fall within the 94–111-foot SPTH 200 site class, with minimal overlap into larger site classes. Since WDFW recommends no buffer smaller than 100 feet, the appropriate buffer for this area would range between 100 and 111 feet. This area's stream buffers are also significantly reduced and impaired, in some cases only a few feet wide, due to historical agriculture practices and older development. The proposed language code would require that developments enhance the 100-foot buffer to a more naturally functioning condition, which would significantly increase the critical area health versus requiring a larger buffer that would encourage maintaining agriculture uses that would maintain the existing impaired buffer and riparian health.

In Stream Area 2, streams are located in ravines and near steep slopes or other critical areas. According to existing and proposed code, when riparian buffers overlap with other critical area buffers (e.g., steep slopes, landslide zones, wetlands), the required buffer is either the standard stream buffer width or to the outer edge of the overlapping buffer, whichever is greater. As shown in the Type F Stream Buffer Analysis Map, these streams are likely to require buffers exceeding 100 feet, potentially surpassing WDFW SPTH 200 recommendations. For example, staff identified one Type F stream would have a 230-foot buffer in a 194-foot SPTH 200 site class area. However, in response to WDFW comments, staff is proposing a 150-foot-minimum buffer for Type F streams where they abut wetland and geologic hazard areas and their buffers.

It's important to note that SPTH site classes are based on soil types and do not align neatly with property boundaries or stream pathways. For example, some streams run between properties with site classes ranging from 105 to 194 feet, while others traverse parcels with classifications spanning 94 to 215 feet. These wide variations can be confusing for property owners and difficult for the city to enforce. A standardized buffer approach would likely reduce confusion and code violations and better protect critical areas that are not part of a larger development.

Staff Recommendation – Riparian Buffer:

Based on the findings of the 2025 Best Available Science Annotated Review and the Type F Stream Buffer Analysis, staff recommends that the city maintain a consistent 100-foot buffer for all water types, except when abutting wetland and geologic hazards as described earlier. In addition, staff proposes eliminating the option for administrative riparian and non-riparian buffer reductions and limiting buffer averaging to no more than 20% of the stream length on any individual property. These measures exceed the standards adopted by neighboring communities and are intended to promote greater consistency, reduce regulatory confusion, and enhance protection of riparian areas.

Staff Recommendation:

Following any further discussion on the matter, the Planning Commission is invited to make a formal recommendation to the City Council on adoption of the proposed draft code amendments EMC Title 14 ensuring consistency between the best available science and Comprehensive Plan. A draft recommendation has been prepared by staff, attached herein for consideration.



CITY OF EDGEWOOD
PLANNING COMMISSION
RECOMMENDATION

The Planning Commission voted X-X to recommend that the City Council adopt the proposed amendments to Edgewood Municipal Code (EMC) Title 14, updating the critical areas ordinance to be consistent with the best available science as presented herewith, pending final review with the City Attorney.

RECOMMENDED BY THE CITY OF EDGEWOOD PLANNING COMMISSION
ON THE 10TH DAY OF NOVEMBER 2025.

JoAnn Overfield
Planning Commission Chair

Attest by:

Jeremy Metzler, PE
Community Development Director

~~Red Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

Chapter 14.10
GENERAL PROVISIONS
Draft Amendments

Sections:

- 14.10.010 Authority.
- 14.10.020 Purpose.
- 14.10.030 Interpretation.
- 14.10.040 Applicability.
- 14.10.050 Administration.
- 14.10.060 Relationship to other regulations.
- 14.10.070 Critical area protective measures.
- 14.10.080 Critical areas reports.
- 14.10.090 Mitigation plans.
- 14.10.100 Variances to critical areas.
- 14.10.110 Reconsideration and appeal procedures.
- 14.10.120 Fees.
- 14.10.130 Compliance.
- 14.10.140 Warning and disclaimer of liability.
- 14.10.145 Enforcement.
- 14.10.150 Appendix.

14.10.010 Authority.

A. This title is established and adopted pursuant to the Growth Management Act (RCW 36.70A.060).

B. As provided herein, the director or their designee is given the authority to interpret, apply, and enforce this title.

14.10.020 Purpose.

A. The purpose of this title is to protect the critical areas of Edgewood from the impacts of development by establishing minimum standards for development activity on sites that contain or adjoin any critical area or its buffer(s). Further, the purpose of these regulations is to mitigate the potential hazard(s) to development in and near critical areas.

B. The purpose is further envisioned to promote the public health, safety, and welfare by:

1. Avoiding impacts to critical areas;
2. Mitigating unavoidable impacts of regulated activities;
3. Protecting critical areas from impacts of development;
4. Protecting the public against losses from:
 - a. Costs of public emergency rescue and relief operations where the causes are avoidable; and
 - b. Degradation of the natural environment and the expense associated with repair or replacement;
5. Preventing adverse impacts on water availability, water quality, wetlands, and streams;
6. Protecting unique, fragile, and valuable elements of the environment, including critical fish and wildlife habitat conservation areas;

7. Providing ~~community development~~ department (~~department~~) staff with sufficient information to adequately protect critical areas and proposed development activity when approving, conditioning, or denying public or private regulated activities;

8. Providing the public with sufficient information and notice of potential risks associated with development in critical areas; and

9. Implementing the goals and requirements of the Growth Management Act (RCW 36.70A.060), the State Environmental Policy Act (SEPA), the city's comprehensive plan, and all updates, amendments, functional plans, and other land use policies formally adopted or accepted by the city.

14.10.030 Interpretation.

A. In the interpretation and application of this title, all provisions shall be:

1. Considered the minimum necessary for compliance; and

2. Liberally construed to serve the purposes of this title.

B. Nothing contained herein shall be deemed to limit or repeal any other powers under state statute.

14.10.040 Applicability.

A. This title shall apply to all lands and waters within Edgewood designated, mapped, or identified as a critical area, critical area buffer, closed depression, erosion hazard area, flood hazard area, landslide hazard area, ~~mineral resource land, natural resource land~~, seismic hazard area, sensitive area, volcanic hazard area, or wellhead protection area.

B. This chapter contains general provisions that apply throughout this title. Unless otherwise excepted herein or under the chapters contained in this title, No development, development activity, or regulated activities shall hereafter take place without full compliance with this title.

C. When the requirements of this title are more stringent than those of other city codes and regulations, the requirements of this title shall apply.

D. Compliance with these regulations does not remove an applicant's obligation to comply with applicable provisions of any other federal, state, or local law or regulation.

E. Criteria for determining the presence of a critical area is contained within each chapter of this title.

F. When a site contains two or more critical areas, the site shall meet the minimum standards and requirements for each.

G. Critical areas, as defined in EMC 14.20.010, Definitions, and known potential critical areas shall be shown on the geographic coverage layers maintained as a part of the city's geographic information system (GIS) under the authorization of the director. No unauthorized person may alter or modify the critical areas GIS layers. This geographic coverage layer, as amended from time to time, shall constitute the official critical areas map and shall be incorporated into this title by reference as if fully set forth herein.

H. The boundary of each mapped area identified in subsection (A) of this section is approximate and is only intended to provide an indication of the presence of a critical area on a particular site. Additional critical areas that have not been mapped may also be present on a site. The actual presence of a critical area and the applicability of these regulations shall be determined based upon the classification or categorization criteria and review procedures established for each critical area. City staff or the city's consultant(s) may request the ability to perform an on-site inspection to assess the site in order to advise if additional studies or reports shall be included with any development application.

14.10.050 Administration.

A. Critical Areas Permit or Approval Required. Approval must be obtained from the Department when the Department determines that the site or project area may contain a critical area or its buffer, as set forth in each

~~Chapter. No person may commence any development or regulated activity in a critical area and its applicable buffers or potential critical area and its potential applicable buffers without first obtaining the applicable permits and/or approvals from the city. In order to conduct any development activity or regulated activity on any property located within 300 feet of a critical area, as each critical area is defined in this title or as shown on the city's critical areas map(s), a critical areas permit or an approval must be obtained from the city.~~

B. Critical Areas Approval with underlying permit.

1. If the city requires that another permit application be submitted under a different code chapter in order to allow the proposed development activity or regulated activity, then a separate critical areas permit ~~is may~~ not ~~be~~ required. Instead, the city ~~shall may~~ review the underlying application, together with the application materials required herein, to determine compliance or noncompliance with this title. The determination on such compliance or noncompliance shall be incorporated within the decision on the underlying application.

2. In addition to the materials required to make the underlying application complete as required by ~~the city's code outside of this title~~ EMC 18.40.150, the applicant shall also submit a critical areas report pursuant to EMC 14.10.080 and any other the materials ~~as~~ set forth herein, ~~where the subject property is within 300 feet of a critical area. The city shall not issue a determination that the underlying application is complete until all materials have been submitted.~~

3. ~~A pre-application meeting is not required but is highly recommended. The critical areas materials shall be reviewed following the same process as the underlying application.~~

C. Critical Areas Permit.

1. If the city does not require any other permit in order to allow the proposed development activity or regulated activity, the applicant shall be required to obtain a separate critical areas permit in order for the proposed development activity to proceed. An applicant may also request a critical area permit for project sites prior to seeking an application for a development proposal. Unless there is a change in site conditions, or changes in mapping sources, the critical area permit will be valid for five years after the date of the issuance.

2. ~~A~~ Critical areas permit shall be reviewed as a Type II – Major administrative action as set forth in EMC 18.40.090.-

3. Applications shall be reviewed for completeness in accordance with EMC 18.40.150, ~~and including a critical areas report pursuant to EMC 14.10.080 and any other~~ es all the items identified in this title that are necessary to complete the application for the specific critical area. A complete application for a critical areas permit shall consist of the materials set forth in subsection (D) of this section.

~~43. A pre-application meeting is not required but is highly recommended. The process for review of a critical area permit where there is no underlying application is the Type II process, as set forth within EMC 18.40.090.~~

~~D. Elements of a Complete Permit Application. A complete application for approval of a critical areas permit under this title shall consist of the following materials:~~

~~1. A completed permit application form, which must be signed by the record owner of the property (the person(s) whose name is on the most recently recorded deed or contract purchaser with written permission from the record owner). An application form may be signed by an agent for the record owner, as long as the application is also accompanied by a verified statement signed by the record owner, which specifically authorizes the agent to submit the application on the record owner's behalf;~~

~~2. The subject site's street address, legal description, or both items if necessary for property identification;~~

~~3. A complete description of the proposed development activity;~~

~~4. All items identified in this title that are necessary to complete the application for the specific critical area; and~~

~~5. The required application fee.~~

~~D.E.~~ Critical areas reports shall not be submitted without an accompanying permit application for an underlying action, such as, but not limited to, a critical area permit, building permit, subdivision or boundary line adjustment action, site development, TPCHD permit, or an administrative, conditional, or special use permit, with the exception of applications required by the department as a result of an enforcement action, reports required by TPCHD for septic design approval, or associated with a request under the Pierce County open space public benefit rating system tax program.

~~E.F.~~ Modifications. The department may request an update of any required assessment, report, or delineation due to the potential for change in the existing environment that may have been caused by a natural event, (e.g., seismic event, landslides, or flooding) or human-induced activity, that occurred after the original document was initially submitted either of which taking place after initial submittal but prior to the Department granting approval or issuance of the permit or approval ~~that degraded the existing conditions after the original document was submitted.~~

~~F.G.~~ Public Notice. Public notice provisions for notice of application, public hearing, if applicable, and final decision pursuant to this title are outlined in EMC 18.40.190, ~~Notice of public hearing.~~

~~G.H.~~ Review.

1. Initial Review. The department shall conduct an initial review of any application in accordance with the provisions outline in EMC 18.40. ~~outlined in EMC 18.40.150, Determination of completeness.~~

2. Third Party Review. The department may require or determine independent third-party review by a qualified professional is required due to the scale or complexity or the proposal.

3. Review Responsibilities.

a. The department is responsible for administration, circulation, and review of any applications and approvals required by this title.

b. Any reasonable use exception applications shall follow EMC 14.30.050 and any variance application shall follow EMC14.10.100.

c. Other cities, ~~or~~ Pierce County departments, and state agencies, as determined by the department, may review an application and forward their respective recommendations to the director or hearing examiner, as appropriate.

~~4.3.~~ Review Process.

a. The department shall perform a critical area review for any building or land use application submitted for a regulated activity for any application submitted for a regulated activity. Reviews for multiple critical areas shall occur concurrently.

b. The department shall, to the extent reasonable, consolidate the processing of related aspects of other city regulatory programs which affect ~~activities~~ activities, such as subdivision or site development, in any regulated critical area.

c. As part of the initial review of all related permit applications, the department shall review the information submitted by the applicant to:

i. Confirm the nature and type of the critical area and evaluate whether any assessments, reports, or studies are required;

ii. Determine whether the development proposal is consistent with this title;

iii. Determine whether any proposed alterations to the site containing critical areas are necessary; and

iv. Following mitigation sequencing pursuant to EMC 14.10.070(B), ~~D~~determine if the mitigation and monitoring plans submitted by the applicant are sufficient to protect the public health, safety, and welfare consistent with the goals, purposes, objectives, and requirements of this title.

d. Regulated activities subject to SEPA shall also be reviewed with consideration for impacts on critical areas as identified in this title. Regulated activities that pose a significant adverse impact which are not addressed by the standards and criteria established in this title may be subject to additional mitigation measures as determined through the SEPA process. ~~A threshold determination issued pursuant to EMC Title 20, SEPA, may not be made prior to the department's review of any special studies or technical reports required by this title, except where the applicant requests a declaration of significance so that environmental review is required.~~

e. Critical areas applications review and approval required under this title shall be approved prior to approval of any underlying permit action.

f. The department may waive the requirement to submit a critical area report when the proposed project area for a regulated activity is located in an area that has been the subject of a previously submitted and approved assessment or report, if all of the following conditions have been met:

- i. The provisions of this title have been previously addressed as part of another approval;
- ii. There has been no material change in the potential impact to the critical area or required buffer since the prior review;
- iii. There is no new information available that is applicable to any critical review of the site or particular critical area;
- iv. The permit or approval has not expired, or, if there is no expiration date, no more than five years have elapsed since the issuance of that permit or approval; and
- v. Compliance with any standards or conditions placed upon the prior permit or approval has been achieved or secured.

5. Right of Entry.

a. When an application has been submitted, the city shall have a right of entry to verify the submitted information is correct; to ensure any applicable condition(s) of approval were satisfied; to confirm any required monitoring is being performed; or to attest that all outstanding items subject to a performance bond were completed.

b. The right of entry shall extend until the last condition in the permit has been satisfied.

64. Burden of Proof. The applicant has the burden of proving that a proposed application complies with the standards set forth in this title.

~~75.~~ Final Decision. The City may approve, approve with conditions, or deny any development proposal in order to comply with the requirements and carry out the goals, purposes, objectives and requirements of this title.

a. The department may approve, approve with conditions, or deny any critical areas applications or underlying applications for development within any critical area. The decision shall be based on the Department's or Examiner's, as applicable, evaluation that the proposal is able to comply with the requirements and carry out the goals, purposes, objectives, and requirements of this title. ~~Approval of a development proposal does not discharge the obligation of the applicant to comply with the provisions of this title.~~

b. Applicants shall comply with the recommendations ~~or~~ and/or mitigation measures contained in final approved assessments or reports and any final decision and conditions of approval.

c. Approval of an application required under this title must be given prior to the start of any development activity on a site.

86. Time Period for Final Decision. The provisions for issuing a notice of final decision on any application filed pursuant to this title is set forth in EMC 18.40.040, ~~Coordination of development permit procedures.~~

H. Time Limitations.

~~1. Expiration of Approval.~~

1a. Approvals granted under this title shall be valid for the same time period as the underlying permit. If the underlying permit does not contain a specified expiration date, then approvals granted under this title shall be valid for a period of three years from the date of issue, unless a longer or shorter period is specified in the final decision.

2b. The approval shall be considered null and void upon expiration, unless a time extension is requested and granted as set forth in ~~subsection (1)(2) of this section~~ EMC 18.40.090 or 18.40.100, based on the approval process type.

~~2. Time Extensions.~~

~~a. The applicant or owner(s) may request in writing a one time, one year extension of the original approval. To receive the extension, the applicant must demonstrate that circumstances beyond their control dictated the need for the extension. The extension would set a new expiration date one year later than the initial expiration.~~

~~b. Knowledge of the expiration date and initiation of a request for a time extension is the responsibility of the applicant or owner(s).~~

~~c. A written request for a time extension shall be filed with the department at least 60 days prior to the expiration of the approval.~~

~~d. Upon filing of a written request for a time extension, a copy shall be sent to each party of record together with governmental departments or agencies that were involved in the original approval process. By letter, the department shall request written comments be delivered to the department within 30 days of the date of the letter.~~

~~e. Prior to the granting of a time extension, the department may require a new application(s), updated study(ies), and fee(s) if:~~

~~i. The original intent of the approval is altered or enlarged by the renewal;~~

~~ii. The circumstances relevant to the review and issuance of the original approval have changed substantially; or~~

~~iii. The applicant failed to abide by the terms of the original approval.~~

I. Recording.

1. Approvals.

a. Except for work proposed within a recorded, existing utility easement, ~~A~~ approvals to modify a critical area or which otherwise require mitigation and or monitoring shall be recorded on the title of the project parcel(s) at the Pierce County auditor's office by city of Edgewood staff prior to issuance of any permit authorizing the project to proceed and at the sole expense of applicant.

b. EMC 14.10.070(F), Title and Land Division Notification, contains additional recording requirements.

~~e. Work within a recorded, existing utility easement is not required to meet subsection (J)(1)(a) of this section.~~

~~2. Right of Entry.~~

~~a. When an application has been submitted, the city shall have a right of entry to verify the submitted information is correct; to ensure any applicable condition(s) of approval were satisfied; to confirm any required monitoring is being performed; or to attest that all outstanding items subject to a performance bond were completed.~~

~~b. The right of entry shall extend until the last condition in the permit has been satisfied.~~

14.10.060 — Relationship to other regulations.

~~A. This title shall apply in addition to zoning and other regulations adopted by the city and concurrently with review conducted under SEPA.~~

~~B. Compliance with the provisions of this title does not constitute compliance with other federal, state, and local regulations and permit requirements that may be required. The applicant is responsible for complying with all other requirements, apart from the process established in this title.~~

~~C. Regulated activities that may impact critical areas or their buffers, but do not require any other city permits or approvals, may be reviewed as a critical areas permit.~~

14.10.070 Critical area protective measures.

A. General. All critical area tracts, conservation easements, land trust dedications, and other similarly preserved areas shall remain undeveloped in perpetuity, except as they may be allowed to be altered pursuant to this title.

~~1. Conservation easements and other similarly preserved areas restrict both the current use as well as future uses of the land to some important conservation quality such as habitat preservation, open space, or scenic views.~~

~~2. A land trust or governmental entity that manages properties for long term goals typically holds the conservation easement or other similarly preserved area.~~

B. Mitigation Sequencing. Adverse impacts ~~caused by new activities and developments~~ shall be mitigated using the following action(s) in order of priority, and may only apply with the lower priority measures only being applied when the higher priority measures are determined to be infeasible or inapplicable:

1. Avoiding the impact altogether by not taking a certain action or parts of an action;

2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation; by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;

3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;

5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and

6. Monitoring the mitigation and taking remedial action when necessary. ~~impact and the compensation project and taking appropriate corrective measures.~~

C. Identification of Critical Areas and Required Buffers on Construction Plans. Critical areas and required buffers shall be clearly identified on all construction plans.

D. Building Setbacks.

1. Unless otherwise provided in this title, buildings and other structures shall be set back a minimum of 15 feet from the edge of ~~all~~ critical area buffers, or, from the edge of the critical area itself where no buffers are ~~required, the edge of the critical area~~ required, for the following critical areas: wetlands, fish and wildlife habitats, landslide, seismic and erosion hazards.

2. ~~Only~~ the following uses and activities may be allowed in the building setback area:

a. Landscaping;

b. Uncovered decks;

c. Building overhangs extending 18 inches or less into the setback area;

d. Impervious ground surfaces, such as driveways, parking lots, roads, walkways, and patios; provided, that such improvements conform to the water quality standards set forth in the city's adopted stormwater management manual and that construction equipment does not enter the buffer during the construction process; or

e. Clearing and grading; ~~or~~

~~f. Any combination of items in subsections (D)(2)(a) through (e) of this section.~~

~~3. All other uses and activities not listed in subsections (D)(2)(a) through (e) of this section are prohibited.~~

E. Financial Guarantees.

1. The city may require an applicant to submit one or more financial guarantees, ~~e.g., surety bond, cash escrow, cash set aside, assignment of funds, or letter of credit,~~ to the city to guarantee any performance, mitigation, maintenance, or monitoring required as a condition of permit approval. The approval for the project will not be granted until the financial guarantee is received by the department. Projects where the city or one of its departments is the applicant shall not be required to post a financial guarantee.

2. Financial guarantee instruments required under this title shall be:

a. In addition to any other site development guarantees required for project approval;

b. Submitted on financial guarantee forms approved by the city;

c. In the amount of 125 percent of the ~~city engineer's estimated~~ of the cost of mitigation or monitoring, plus an additional 5% for each year beyond 5 years of monitoring, to allow for inflation and administration should the city have to complete the mitigation or monitoring; and

d. Released by the city only when the applicant's appropriate technical professional has provided written confirmation that the performance, mitigation, or monitoring requirements have been met and the department or its agent inspected the site(s) for compliance.

3. Failure to complete any performance, mitigation, or monitoring may result in the forfeiture or release of the guarantee. Applicants who have previously defaulted will no longer be allowed to post a bond guarantee for improvements necessary for approval of a land use application. Applicants who have previously defaulted will be allowed to post cash guarantees for subsequent critical area mitigation work needed for approval of a land use application or permit, but the guarantee must be by cash guarantee only.

F. Title and Land Division Notification.

1. General.

a. Approval notice, title notice. ~~Title~~ or land division notice(s) shall be required to be recorded with the Pierce County auditor on each site that contains a critical area at the time of approval of any regulated activity on a site.

b. If more than one critical area subject to the provisions of this title exists on the site, then one notice which addresses all of the critical areas may be sufficient.

c. Title or land division notifications and notes shall be approved by the department and shall be consistent with EMC 14.10.150, Appendix.

d. Applicant shall be responsible for the recording costs of the notice.

~~e. Notice on title is not required for utility line easements on lands not owned by the jurisdiction conducting the regulated activity, e.g., gas pipelines.~~

2. Land Division Notification and Notes. As referenced in EMC 14.10.150, ~~Appendix~~, there shall be notes included on the face of any final plat, final binding site plan, or short plat, ~~or boundary line adjustment~~ that contain any critical areas or buffers. The critical area boundaries and the boundary of any associated buffers shall be identified on the face of these documents prior to submission to the city for approval.

G. Tracts and Conservation Easements. Prior to final approval of any final plat, final binding site plan, or short plat, the part of the critical area and required buffer, which is located on the site, shall be placed in a separate tract(s) or conservation easement(s). The following requirements apply:

1. Critical area tracts must adhere to the provisions in EMC 16.01.100, and the face of the plat shall include the requirement that the owners of all lots shall be required to preserve, protect, and maintain the critical areas.

2. Critical area tracts shall not be dedicated to the city without explicit written approval from the director.

3. A permanent conservation easement shall indicate allowable and prohibited uses within the critical area and required buffer.

~~Conservation Easements.~~

~~1. Prior to any final critical area approval, the part of the critical area and required buffer which is located on the site shall be protected with a conservation easement or other similar permanent deed restriction.~~

~~2. The conservation easement shall indicate allowable and prohibited uses within the critical area and required buffer.~~

~~H. Tracts. Critical area tracts created as part of a subdivision action must adhere to the provisions in EMC 16.01.100, and the face of the plat shall include the requirement that the owners of all lots shall be required to preserve, protect, and maintain the critical areas.~~

H. Homeowner's Covenants.

~~1. A description of the critical area and required buffer shall be placed in any required homeowner's covenants to provide notice to the homeowners of their responsibility to preserve, protect, and maintain the critical areas in perpetuity.~~

~~2.~~ Such covenants shall contain a detailed description of the allowable uses within the critical area and, if applicable, associated buffer and long-term management and maintenance requirements of the critical area.

I. Markers, Fencing, and Signage.

1. Markers.

a. Prior to final approval of any critical areas application, the department may require the outer edge of the applicable onsite critical areas' boundaries, or ~~required~~ buffer boundaries ~~where required, on the site shall~~ be flagged by the qualified professional, as outlined in each chapter herein.

b. The boundaries of any required conservation easements and/or tracts shall then be identified with ~~rebar and cap~~ permanent markers made of rebar and cap ~~and flagged~~ located and placed by a licensed surveyor, unless otherwise stated in this title. The permanent markers shall be clearly visible, durable, and permanently affixed to the ground.

2. Fencing.

a. Temporary Construction Fencing.

i. Temporary fencing is required when ever land disturbing activity is proposed and vegetation is to be retained in an undisturbed condition within the critical area and required buffer.

ii. When temporary fencing is required, the applicant shall construct silt fencing, construction fencing, or other city-approved method of temporary fencing at the edge of the critical area or the edge of the required buffer prior to beginning construction on the site.

b. Permanent Fencing. Where deemed necessary by the department to provide permanent protection to the applicable critical area, the applicant will be required to construct permanent, wildlife-passable fencing (split rail or similar design) along the buffer boundary.

3. Signage.

a. The department shall require permanent signage to be installed at the edge of the critical area or the edge of the required buffer for the following critical areas: wetlands, fish and wildlife habitats, and landslide hazards.

~~b. The sign shall indicate the type of critical area and if the area is to remain in a natural condition as permanent open space.~~

be. Exact sign ~~locations~~, wording, size, and design specifications shall be established by the department.

~~c~~d. Signage shall be clearly visible, durable, and permanently affixed to the site, preferably on applicable permanent fencing ~~ground, at an interval of one every 50 feet, or one per lot if the lot is less than 50 feet wide, and must be maintained by the property owner in perpetuity.~~

de. Prior to final inspection approval of any critical area ~~permit~~ application or associated underlying construction permit, the applicant shall submit an affidavit of posting to the department as proof that the required signs were posted on the site.

14.10.080 Critical areas reports.

A. Unless otherwise excepted herein, the applicant shall submit a critical areas report for review and approval prior to activity as required per EMC 14.10.050 ~~this title~~.

B. The critical areas report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance to evaluate the proposed development and all probable impacts to critical areas in accordance with the provisions of this title. The report shall reference the source(s) of science used in accordance with WAC 365-195-900 through 365-195-925.

C. At a minimum the report shall contain the following ~~10~~ items:

1. The name and contact information of the applicant;

2. A description of the proposal;

3. The site plan for the proposed development, including a map drawn to scale depicting any critical areas, buffers, the proposed development, and any areas to be cleared or altered;

4. The date of the report and names and qualifications of the persons preparing the report;

5. Documentation of any fieldwork performed on the site;

6. Identification and characterization of all critical areas and buffers on and adjacent to the proposed development;

7. Assessment of the probable impact (direct, indirect, and cumulative) of the development proposal on the critical areas;

8. Detailed explanation of how the project is consistent with each of the mitigation sequencing standards identified in EMC 14.10.070(B);

9. If impacts to the buffer and/or critical area are proposed, a mitigation plan in accordance with EMC 14.10.090 is required. the report shall provide all.;

10. List of all applicable local, state, and federal permits that would be required.

1107. A statement specifying the accuracy of the report, and all assumptions made and relied upon;

1218. A discussion of the performance standards applicable to ~~the~~each critical area and the proposed development;

~~29. A mitigation plan in accordance with EMC 14.10.090, if mitigation is required; and~~

130. Any additional report information required for the critical areas as specified herein and subsequent chapters of this Title.

14.10.090 Mitigation plans.

A. When mitigation is required, the applicant shall submit a mitigation plan.

B. The mitigation plan shall include all of the following details ~~outlined in subsections (B)(1) through (6) of this section:~~

1. Mitigation Sequencing. A description of reasonable efforts made to apply mitigation sequencing pursuant to EMC 14.10.070(B) to avoid, minimize, and mitigate impacts to critical areas and buffers.

2. Mitigation Details.

a. A description of the anticipated impacts (direct, indirect, and cumulative) to the critical area and buffer, including impacts to critical area functions and values;

b. The type of mitigation proposed, e.g., on-site or off-site; site selection criteria; identification of compensation goals; and identification of critical area functions;

c. The environmental goals and objectives of the mitigation, together with specific measurable criteria and performance standards for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained;

d. A review of the best available science supporting the proposed mitigation; and

e. An analysis of the likelihood of success of the mitigation project.

f. An analysis and discussion regarding no net loss of critical area function or values

3.

3. Construction Details. The mitigation plan shall include written specifications, descriptions, and drawings of the mitigation proposed, including:

- a. Construction sequence, timing, and duration;
- b. Grading and excavation details;
- c. Erosion and sediment control features; and
- d. Planting plan specifying plant species, quantities, locations, size, spacing, density, and measures to protect and maintain plants until established. All plant species must be native to the region.

4. Monitoring Details.

- a. A program for monitoring construction and assessing the outcome of the mitigation project, including the schedule for site monitoring, e.g., monitoring shall occur in year one, three, and five after site construction, and how the monitoring data will be evaluated to determine if the performance standards are being met. Monitoring reports shall be submitted to document milestones, successes, problems, and contingency actions of the compensation project. The mitigation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period of less than five years. For example, 10 years or more of monitoring are needed for forested and scrub-shrub communities. Mitigation monitoring shall be the responsibility of the applicant.
- b. A contingency plan with courses of action and corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.

5. Mitigation Cost Estimate. A mitigation cost estimate for the entire compensatory mitigation project, per the requirements of EMC 14.10.070(E).

6. Other Requirements. The mitigation plan shall address any additional mitigation requirements relevant to the specific critical area as specified in the following chapters.

14.10.100 Variances to critical areas.

A. General. An applicant who seeks to reduce wetland buffers below the provisions of EMC 14.40, or fish and wildlife habitat conservation area buffers or riparian buffers below the provisions in EMC 14.50, landslide hazard buffer requirements of EMC 14.90, or the flood hazard area standards of EMC 14.80 may pursue a critical area variance.

B. Process: Deviations of less than or equal to 25 percent of the standard critical area buffer will be considered an administrative variance and may be processed under EMC 18.40.090. All other deviations will be considered a general variance that requires a Hearing Examiner approval and shall be processed under EMC 18.40.100. The criteria for approval for critical area variances are contained herein, and are not subject to the criteria for general variances contained in EMC 18.50.080(D)(2). ~~Variances are reviewed pursuant to the same permit process as a general variance, as outlined in Chapter 18.40 EMC and EMC 18.50.080. The criteria for approval for critical area variances are contained herein, and are not subject to the criteria for general variances contained in EMC 18.50.080(D)(2).~~ Conditions may be attached to any critical area variance which will serve to meet the goals, objectives, and policies of this title. Other state and federal permits and approvals may still apply.

B. Variance Criteria. A variance may be granted from the requirements of this chapter only if the decision maker makes written findings that the applicant has demonstrated that the requested action conforms to all of the criteria set forth as follows:

1. There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location, or surroundings that do not apply generally to surrounding properties or that make it impossible to redesign the project to preclude the need for a variance; and ~~Special conditions and circumstances exist that are peculiar to the land, the lot, or something inherent in the land, and that are not applicable to other lands in the same district; and~~

2. The special conditions described above is specifically related to the property and unique conditions and not from the applicant's own actions (including deed restrictions)~~and circumstances do not result from the actions of the applicant~~; and

3.~~The applicant has followed the steps of Mitigation Sequencing consistent with EMC 14.10.070(B) and provided mitigation to the maximum practical extent. A literal interpretation of the provisions of this title would deprive the applicant of all reasonable economic uses and privileges permitted to other properties in the vicinity and zone of the subject property under the terms of this title, and the variance requested is the minimum necessary to provide the applicant with such rights; and~~

4. That the variance authorized does not constitute a grant of special privilege not enjoyed by other properties in the area, and will be the minimum necessary to afford relief.~~Granting the variance requested will not confer on the applicant any special privilege that is denied by this title to other lands, structures, or buildings under similar circumstances; and~~

5. ~~The granting of the~~That the variance ~~is consistent with the general purpose and intent of this title, and~~ will not further degrade the functions or values of the associated critical areas or otherwise be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity of the subject property; and

6. The decision to grant the variance incorporates the best available science and gives special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish habitat; and

7. The granting of the variance is consistent with the general purpose and intent of the Edgewood comprehensive plan and adopted development regulations.

~~C. In lieu of criteria , provided above, an applicant may pursue a wetland buffer variance through demonstration of all of the following criteria:~~

~~1. The variance results in an overall increase in the function of the wetland. —~~

~~2. The variance will not jeopardize the continued existence of species listed by the Federal government or the State as endangered, threatened, sensitive, or documented priority species or priority habitats.~~

~~3. The applicant has avoided impacts and provided mitigation, pursuant to EMC 14.10.070(B), to the maximum practical extent.~~

~~D. In lieu of criteria , provided above, an applicant may pursue a fish and wildlife habitat buffer variance through demonstration of all of the following criteria:~~

~~1. The variance will not adversely impact receiving water quality or quantity. —~~

~~2. The variance will not adversely impact any functional attribute of the habitat area. —~~

~~3. The variance will not jeopardize the continued existence of species listed by the Federal government or the State as endangered, threatened, sensitive, or documented priority species or priority habitats. —~~

~~4. The applicant has avoided impacts and provided mitigation, pursuant to EMC 14.10.070(B) to the maximum practical extent.~~

C. Additional Criteria for Flood Hazard Area Variances. Refer to Chapter 14.80 EMC, Flood Hazard Areas, for specific criteria.

D. In lieu of the criteria stated in subsection B, provided above, an applicant may pursue a wetland buffer variance through demonstration of all of the following criteria:

1. The variance results in an overall increase in the function of the wetland. —

2. The variance will not jeopardize the continued existence of species listed by the Federal government or the State as endangered, threatened, sensitive, or documented priority species or priority habitats.

3. The applicant has avoided impacts and provided mitigation, pursuant to EMC 14.10.070(B), to the maximum practical extent.

E. In lieu of the criteria stated in subsection B, provided above, an applicant may pursue a fish and wildlife habitat buffer variance through demonstration of all of the following criteria:

1. The variance will not adversely impact receiving water quality or quantity.

2. The variance will not adversely impact any functional attribute of the habitat area.

3. The variance will not jeopardize the continued existence of species listed by the Federal government or the State as endangered, threatened, sensitive, or documented priority species or priority habitats.

4. The applicant has avoided impacts and provided mitigation, pursuant to EMC 14.10.070(B) to the maximum practical extent.

~~ED~~. Should a variance be denied, the applicant may submit a reasonable use exception application.

14.10.110 Reconsideration and appeal procedures.

Procedures for appeal of a final decision on a critical areas permit, a decision relating to critical areas in the underlying permit, a critical areas variance, or a critical areas flood hazard variance are set forth in Chapter 18.40 EMC.

14.10.120 Fees.

A. Fees for applications or reviews of reports, studies, or plans filed pursuant to this title are set forth in the adopted fee schedule pursuant to EMC 3.35 ~~and as identified herein.~~

~~B. Fee Establishment. The city, by resolution, shall establish fees for filing of critical area review processing and other services provided by the city as required by this title.~~

C. Applicant Responsibilities. Unless otherwise indicated in this title, the applicant shall be responsible for the initiation, preparation, submission, and expense of all required reports, assessment(s), studies, plans, reconnaissance(s), third-party peer review(s) by qualified consultants, and other work prepared in support of or necessary to review the application, pursuant to EMC 3.35.030. ~~For those items initiated by the city, e.g., peer-review(s), the applicant is responsible for the expense and both the preparation and submission of the application materials, and not initiation of the review or preparation of the package submitted to the respective peer reviewer.~~

D. Payment. Fees established in accordance with this title shall be paid upon submission of a signed application or petition for appeal, or as otherwise provided by any fee ordinance or resolution adopted by the city council.

E. Investigation Fee. To investigate violations of this title, all city fees associated with investigation of violations of this title ~~shall~~ may be assessed pursuant to EMC 3.35.090 ~~at the adopted billable staff hour rate in addition to any required consultant costs, legal costs, and other expenses necessary to complete the investigation of the violation. The payment of such investigation fees shall not exempt any person from compliance with all other provisions of this title, nor from penalties prescribed by law.~~

14.10.130 Compliance.

A. The regulations for compliance with the provisions of this title are set forth in EMC 18.30.040, Scope and compliance.

B. When a verified or potential critical area or its required buffer has been altered in violation of this title, the department shall require the property owner to bring the site into compliance. The property owner shall be required to submit the appropriate critical areas application(s), as applicable for each chapter of this title. In addition to any required site investigation, delineations, assessments, or reports, the property owner shall be required to submit a

restoration plan that identifies the proposed mitigation to bring the subject property into compliance with the requirements of this title.

14.10.140 Warning and disclaimer of liability.

A. The degree of protection required through application of this title is deemed to be reasonable for regulatory purposes and is based on best available science; however, natural events that may exceed the geographic boundaries regulated under this title can and will occur, e.g., flood heights that are higher than anticipated. This title does not imply that land outside designated hazard areas or uses permitted within such areas will be free from damages.

B. The express purpose of this title is to provide for the health, safety and welfare of the general public, and not to protect individuals or create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this title. The obligation of complying with the requirements of this title and the liability for failing to do so is hereby placed upon the property owner and/or persons responsible for the condition of the property, buildings or premises.

C. Nothing in this title is intended to be nor shall be construed to create or form the basis for any liability on the part of the city, its officers, officials, employees or agents for any injury or damage resulting from the failure of the owner of property or land to comply with the provisions of this title or by reason or in consequence of any inspection, notice, order, certificate, permission or approval, authorized or issued or done in connection with the implementation or enforcement of this title, or by reason of any action or inaction on the part of the city, related in any manner to the enforcement of the title by its officers, officials, employees or agents.

14.10.145 Enforcement.

Unless otherwise specified, violations of this title shall be deemed civil violations subject to enforcement pursuant to EMC Title 7, Code Enforcement.

14.10.150 Appendix.

A. Title and Plat Notification Forms.

APPENDIX A

TITLE AND PLAT NOTIFICATION FORMS

A. Notice for Title Notification.

~~1. Example:~~

Tax Parcel Number:

Address:

Legal Description:

Present Owner:

NOTICE: This property contains [identify Critical Area, e.g., Wetlands or Wetland Buffers] as defined by EMC Title 14. The site was the subject of a development proposal for application number [insert case file number] filed on [insert date]. Restrictions on use or alteration of the site may exist due to natural conditions of the property and resulting regulations. Review of such application has provided information on the location of the [identify Critical Area, e.g., Wetlands or Wetland Buffers] and any restriction on use.

Date _____

Signature of owner _____

Notary acknowledgment and notary seal

B. Additional Title Notification Statements.

1. Title notification for liquefaction and dynamic settlement hazard areas shall include a statement of the performance criteria, i.e., protection of life safety only, provision for minimal structural damage so that postearthquake functionality is substantially unchanged, no structural damage for the design earthquake.

~~2. Title notification for fault rupture hazard areas shall include a statement that a fault rupture hazard area or associated buffer exists on the site. The title notification shall include a site plan of the subject property with the fault rupture hazard area and associated buffer identified.~~

23. Properties that contain flood hazard areas pursuant to Chapter 14.80 EMC shall include the following statement:

Flood Elevation Certificates are kept on file by the Department.

C. Notice for Plat Notification/Plat Notes.

1. General. The following notice shall be placed on the face of the final plat, short plat, large lot, or binding site plan documents when said ~~subdivision~~application contains any critical area or buffer:

Notice: This site lies within a [insert type of Critical Area] as defined in EMC Title 14. Restrictions on use or alteration of the site may exist due to natural conditions of the site and resulting regulation.

2. Native Vegetation Preservation Areas. The following notice shall be placed on the face of the final plat, short plat, large lot, or binding site plan documents when said ~~subdivision~~application contains any critical area or buffer and when said critical area or buffers have been identified as native or natural vegetation preservation areas:

Notice: The Critical Areas appearing on this [final site plan/preliminary plat/final plat/short plat/large lot/engineering drawing] contain areas of Native Vegetation intended to Buffer the Critical Area from the adverse effects of development. These Critical Areas shall remain and be maintained in a natural, undeveloped, open space state. There shall be no Clearing and Grading or construction within the Critical Areas, except as shown on plans or documents approved by the City of Edgewood and contained in the official files for this development. Each Critical Area shall remain undisturbed except for periodic watering and hand weeding of plants designated as noxious by the State of Washington.

3. Plat Notes for Flood Hazard Areas. The following notes shall be placed on the face of any final plat, short plat, large lot, or binding site plan documents which lie within a flood hazard area:

a. Clearing and Grading within the limits of the 100-year Floodplain is prohibited, except for watercourse related construction, repair, or maintenance work that is done by the City for management operations.

b. If a higher frequency event occurs or if existing conditions upon which the Flood Hazard Area boundaries were based were to change or occur differently than depicted, then the level of protection afforded by the existing levee, if applicable, and Flood Hazard Area standards may not be adequate to prevent the subject site from flooding.

c. All purchasers, developers, and their agents of property within the subject development area or parcel shall take notice of the above conditions and hereby agree to defend, indemnify, and hold harmless the City from any and all claims, losses, costs, liabilities, or damages of any nature imposed upon or asserted against Edgewood arising out of or caused by the City's issuance of approval or by issuance of any other permits arising out of this approval.

- 1 d. All occupants or owners of property in the subject area assume the risk of flooding which
- 2 may occur and waive any claims against the City arising out of damage or injury to person or
- 3 property resulting therefrom.

~~Red Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

Chapter 14.20
DEFINITIONS
Draft Amendments

Sections:

~~14.20.010 — Definitions.~~

14.20.010 General Definitions.

A. This title relies on the definitions contained in Chapter 18.20 EMC, Definitions. Any word or phrase not contained in this chapter ~~herein~~ shall be first referenced to Chapter 18.20 EMC for meaning. ~~The city also adopts by reference the definitions stated in WAC 197-11-700 through 197-11-799, as now or hereafter amended.~~

B1. For any word or term not defined in this chapter ~~herein~~, the city hereby adopts by reference the definitions stated in WAC 197-11-700 through 197-11-799, as now codified or hereafter amended, and the latest edition of Webster's Dictionary ~~shall be used.~~

C2. The director, or their designee, has the final authority to determine the interpretation or usage of terms used in this chapter.

14.20.020 Additional terms defined.

~~B.~~ Additional terms ~~definitions not contained in Chapter 18.20 EMC~~ that apply to this title are:

~~1.~~ “Addition” means an alteration to an existing structure that increases the floor area, either affixed to the structure’s side or an upper story addition.

~~2.~~ “Agricultural activities” means the production of crops or raising or keeping livestock, including operation and maintenance of farm and stock ponds, drainage ditches, irrigation systems, and normal operation, maintenance, and repair of existing serviceable agricultural structures, facilities, or improved areas, and the practice of aquaculture. Activities which bring an area into agricultural use are not part of an ongoing activity. An operation ceases to be ongoing when the area in which it was conducted is proposed for conversion to a nonagricultural use or has lain idle for a period of longer than five years, unless the idle land is registered in a federal or state soils conservation program. Forest practices regulated under Chapter 76.09 RCW or WAC Title 222 are not included in this definition.

~~3.~~ “Agricultural land(s)” means land primarily devoted to the commercial production of horticultural, viticultural, floricultural, dairy, apiary, vegetable, or animal products or of berries, grain, hay, straw, turf, seed, Christmas trees not subject to the excise tax imposed by RCW 84.33.100 through 84.33.140, finfish in upland hatcheries, or livestock, and that has long-term commercial significance for agricultural production.

“Anadromous fish” means fish species that spend most of their lifecycle in salt water but return to freshwater to reproduce.

~~4.~~ “Animal containment area” means a site keeping at least 2,000 pounds of large animals per acre or 750 pounds of small animals per acre, or where a high volume of waste material is deposited in quantities capable of impacting groundwater resources. For the purposes of this definition, large animals are those weighing 100 pounds or more, and small animals are those weighing less than 100 pounds.

~~5. “Animal, large” means an animal weighing 100 pounds or more.~~

~~6. “Animal, small” means an animal with an average weight of less than 100 pounds.~~

~~XX.~~ “Aquifer” means a saturated geologic formation which will yield a sufficient quantity of water to serve as a private or public water supply pursuant to WAC 173-150-030.

~~XX.~~ “Aquifer recharge area” see “critical aquifer recharge area” definition

~~7.~~ “Application” means a request for a license.

~~8.~~ “Base flood” means the flood having a one percent chance of being equaled or exceeded in any given year, also referred to as the “100-year flood.”

~~9.~~ “Best available science” means information from research, inventory, monitoring, surveys, modeling and assessments that is used to designate, protect, or restore critical areas. As defined by described in chapter WAC 365-195-900 through 365-195-925WAC, best available science is derived from a process that includes peer-reviewed literature, standard methods, quantitative analysis and documented references to produce reliable information. ~~means scientific information applicable to the critical area prepared by local, state, or federal natural resource agencies, a qualified scientific professional, or team of qualified scientific professionals that is consistent with criteria established in WAC 365-195-900 through 365-195-925.~~

~~10.~~ “Best management practices (BMP)” means conservation practices or systems of practices and management measures that:

- a. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics and sediment;
- b. Minimize adverse impacts to surface water and groundwater flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
- c. Protect trees and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and
- d. Provide standards for proper use of chemical herbicides within critical areas.

~~11.~~ “Buffer” means areas contiguous with critical areas that are required for the integrity, maintenance, function, and structural stability of said critical areas.

~~12.~~ “Building footprint” means the horizontal area measured within the outside of the exterior walls of the ground floor of all principal and accessory buildings on a lot.

~~13.~~ “City” means the city of Edgewood municipal corporation.

~~14.~~ “City council” means the Edgewood city council.

~~15.~~ “Classification” means defining value and hazard categories to which critical areas and land resource lands will be assigned.

~~16.~~ “Compensatory mitigation” means replacing project-induced losses or impacts to a critical area.

~~17.~~ “Conservation easement” means a recorded deed restriction or covenant that runs in perpetuity on a parcel of land restricting the use of the property by preventing future real estate development such as residential, industrial, or commercial use that may allow for continued current uses, e.g., residential, recreational, agriculture, forestry, or ranching.

~~18.~~ “Contaminant” means any chemical, physical, biological, or radiological substance that does not occur naturally or occurs at concentrations and durations as to be injurious to human health or welfare or shown to be ecologically damaging.

~~19.~~ “Crawl space” means the shallow space beneath the bottom floor of a house with no basement; used for access and inspection of framing, electrical, plumbing, insulation, vapor barriers, or duct work. For purposes of the National Flood Insurance Program Elevation Certificate, this definition does not include spaces that have subgrade around all sides, which shall be considered a basement.

~~20.~~ “Critical aquifer recharge areas” means areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.

~~21.~~ “Critical area” means land that contains any of the following area, areas, or ecosystems: aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, or wetlands as defined in Chapter 36.70A RCW, ~~as it now exists or may be hereinafter amended, and this chapter.~~

~~22.~~ “Critical facilities” means those facilities occupied by populations or which handle dangerous substances including but not limited to hospitals, medical facilities, nursing homes; structures housing, supporting, or containing toxic or explosive substances; covered public assembly structures; school buildings through secondary, including daycare centers; buildings for colleges or adult education; police, fire, and emergency response installations; jails and detention facilities; and all structures with occupancy of greater than 5,000 people. These facilities are such that even a slight chance of flooding might be too great.

“Cumulative impacts” are the combined, incremental effects of human activity on critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with the effects of other actions in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.

~~23.~~ “Debris flow” means the rapid downslope movement of a viscous mass of water-saturated sediments.

~~24.~~ “Degraded” means to have suffered a decrease in naturally occurring function or value.

~~25.~~ “Delineation” means identification of wetlands and their boundaries ~~means a wetland study conducted~~ in accordance with the approved federal wetland delineation manual and applicable regional supplements.

~~26.~~ “Department” means the Community Development Department, unless otherwise stated in the applicable chapter herein.

“Depressional pothole” or “closed depression” means a relatively sunken or low-lying area of the earth’s surface, especially one having no natural outlet for surface drainage.

~~27. Development. See EMC 18.20.070.~~

~~28. Development Activity. See EMC 18.20.070.~~

~~(374)~~ “Ditch” means any graded (manmade) channel installed to collect and convey runoff from fields and roadways. Ditches include irrigation ditches, wasteways, drains, outfalls, operational spillways, channels, storm water runoff facilities or other wholly artificial watercourses, except those that directly result from the modification to a natural watercourse

~~29.~~ “Director” means the Community Development Director ~~head of the city’s community development department~~ or their designee, unless otherwise stated in the applicable chapter herein.

~~30.~~ “DRASTIC” is an acronym for a computer model developed by the National Water Well Association and Environmental Protection Agency used to measure aquifer susceptibility.

~~31.~~ “Earth material” means naturally occurring rock, soil, stone, sediment, or combination thereof.

~~32.~~ “Earthflow” means a slow downslope movement of viscous, saturated sediments.

~~33.~~ “Elevation certificate” means an administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate, and to support a request for a letter of map amendment (LOMA) or letter of map revision based on fill (LOMR-F).

~~34.~~ “Encroachment” means development or regulated activity conducted inside the boundaries of any critical areas or buffers.

~~35.~~ “Engineer” ~~is~~ as defined by Chapter 18.43 RCW.

~~36.~~ “Engineering geologist” means a geologist who has met the qualifications in engineering geology established under Chapter 18.220 RCW.

~~37.~~ “Enhancement” means actions performed within existing critical areas or buffers to intentionally increase or augment one or more ecological functions or values of the existing area. Enhancement actions include, but are not limited to, increasing plant diversity and cover; increasing wildlife habitat and structural complexity with snags or woody debris; installing environmentally compatible erosion controls; removing nonnative plant or animal species; or removing human-made structures or fill that are degrading ecological functions or values.

~~38.~~ “Erosion hazard areas” means those areas, pursuant to WAC 365-190, likely to become unstable such as steep slopes and areas with unconsolidated soils. These areas are slopes 20 percent or greater and classified as having severe or very severe erosion potential according to the United States Department of Agriculture, Natural Resource Conservation Soil Survey for Pierce County. Erosion hazard areas include riverine and channel migration zones. These areas are vulnerable to erosion due to the ~~that because of~~ natural characteristics, including vegetative cover, soil texture, slope, gradient, and rainfall patterns, or human-induced changes to such characteristics, ~~are vulnerable to erosion.~~

~~39.~~ “Facility” means all structures, contiguous land, appurtenances, and other improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, disposing, or otherwise handling a hazardous substance. This term includes underground and aboveground tanks and operations, which handle, use, dispose of, or store hazardous substances.

~~40.~~ “Filling” means the act of placing fill or fill material on any surface, including temporary stockpiling of fill material.

~~41.~~ “Finished floor” means the top of the next higher floor above the lowest floor. For purposes of the National Flood Insurance Program Elevation Certificate, the “finished floor” referenced in this regulation shall equal the top of the next higher floor.

~~XX.~~ “Fish and wildlife habitat conservation areas” consistent with WAC 365-190-030(6), are areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, those areas identified as being of critical importance to maintenance of fish, wildlife, and plant species, including: areas with which endangered, threatened, and sensitive species have a primary association; habitats and species of local importance; naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat; waters of the state; lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity, or private organization; state natural area preserves and natural resource conservation areas. These area does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

~~42.~~ “Fisheries biologist” means a professional with a degree in fisheries or certification by the American Fisheries Society, or with five years of professional experience as a fisheries biologist.

~~43.~~ “Flood hazard areas” means areas designated pursuant to the provisions contained in Chapter 14.80 EMC.

~~44.~~ “Flood Insurance Rate Map (FIRM)” means 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).

~~45-~~“Flood fringe” means the area subject to inundation by the base flood, but outside the limits of the floodway, and which may provide needed temporary storage capacity for floodwaters.

~~46-~~“Floodplain” or “flood-prone area” means any land area susceptible to being inundated by water from any source. See “flood” or “flooding.”

~~47-~~“Floodplain administrator” means the community official designated by title to administer and enforce the floodplain management regulations.

~~48-~~“Floodproofing” means 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. Floodproofed structures are those that have the structural integrity and design to be impervious to floodwater below the base flood elevation.

~~49-~~“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to convey and discharge the base flood without cumulatively increasing the water surface elevation by more than one foot, and those areas designated as deep and/or fast-flowing water. Also referred to as “regulatory floodway.”

~~50-~~“Fluvial processes” means the physical interaction of flowing water and the natural channels of rivers and streams.

~~51-~~“Frequently flooded area” consistent with WAC 365-190-030(3), means lands in the floodplain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to high groundwater. These areas include, but are not limited to, streams, rivers, lakes, wetlands, and areas where high groundwater forms ponds on the ground surface.

“Geological Assessment” means a site investigation process to evaluate the on-site geology affecting a subject property provided in a written report.

~~52-~~“Geologically hazardous areas” consistent with WAC 365-190-030(9), means areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.

~~53. “Geologist” means an engineering geologist or hydrogeologist that is registered in the state of Washington.~~

~~54-~~“Geotechnical professional” means a person with experience and training in analyzing, evaluating, and mitigating landslide, erosion, seismic hazards, or hydrogeology and fluvial geomorphology. ~~landslide, erosion, or seismic hazards.~~ A geotechnical professional shall meet the qualification established under RCW 18.220 and be licensed in the state of Washington as a geologist, hydrogeologist, or professional engineer. ~~, and must have five or more years’ experience specializing in landslide, erosion, or seismic hazards, as applicable.~~

~~55-~~“Geotechnical report” means a report prepared by a geologist or professional engineer, licensed by the state of Washington with expertise in geotechnical engineering, evaluating the site conditions and mitigating measures necessary to reduce the risks associated with development in landslide, erosion, or seismic hazards ~~geologically hazardous~~ areas.

“Geotechnical verification” means a geologic assessment prepared by a geologist or professional engineer, licensed by the State of Washington that verifies no landslide, erosion, or seismic hazard areas

~~56-~~“Grading” or “clearing and grading” means any excavating, filling, clearing, creating of impervious surfaces, or any combination of these items.

~~XX-~~“Ground water management area” means a specific geographic area or subarea designated pursuant to Chapter 173-100 WAC for which a ground water management program is required.

~~XX-~~“Ground water management program” means a comprehensive program designed to protect ground water quality, to assure ground water quantity, and to provide for efficient management of water resources while

recognizing existing ground water rights and meeting future needs consistent with local and state objectives, policies and authorities within a designated ground water management area or subarea and developed pursuant to Chapter 173-100 WAC.

~~XX~~ "Group A water system" means a water system: (1) With 15 or more service connections; or (2) Serving an average of 25 or more people per day for 60 or more days within a calendar year.

~~57~~ "Habitat management plan" means a report prepared by a professional wildlife biologist or fisheries biologist which discusses and evaluates the measures necessary to maintain fish and wildlife habitat conservation areas on a proposed development site.

~~58~~ "Habitat of local importance" means an area, range, or habitat within which a species has a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. Examples include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These areas may also include habitats that are of limited availability or high vulnerability to alteration. The Edgewood City Council may designate specific habitats of local importance by ordinance or resolution.

~~59~~ "Hard armoring" means the use of large rock or human-made materials to protect property from shoreline erosion. Such techniques include cement or concrete bulkheads, steel structures, rock wall revetments, and rock gabion structures. Hard armoring typically does not utilize or integrate any soft armoring or soil bioengineering methods.

~~60~~ "Historic structure" means any structure that is:

~~a. (1) Is listed on the National Register of Historic Places, the Washington Heritage Register, or the Washington Heritage Barn Register; or~~

~~b. (2) Has been certified to contribute to the historical significance of a registered historic district.~~

~~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;~~

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

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

~~d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:~~

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

~~ii. Directly by the Secretary of the Interior in states without approved programs.~~

~~61~~ "Holocene epoch" means that part of the geologic record that post-dates the youngest deposits associated with the late Pleistocene Age Fraser Glaciation and is typically considered to be the past 10,000 years.

~~62~~ "Hydrogeologic assessment" means a report detailing the subsurface conditions, the design of a proposed land use action, and the facilities operation which indicates the susceptibility and potential for contamination of groundwater supplies.

~~63-~~“Landslide hazard area” consistent with WAC 365-190-030(10), means any area subject to risk of mass movement due to a combination of geologic, topographic, and hydrologic factors.

“Lahars” means mudflows and debris flows originating from the slopes of a volcano.

“Lakes” means impoundments of open water 20 acres or larger in size.

~~64-~~“LiDAR” means an acronym that stands for light detection and ranging imaging.

“Liquefaction” means a process by which a water-saturated granular (sandy) soil layer loses strength because of ground shaking commonly caused by an earthquake.

~~65-~~“Long-term commercial significance” means the growing capacity, productivity, and soil composition of land, which makes it suitable for long-term commercial production, in consideration with the land’s proximity to population areas, and the possibility of more intense uses of land.

~~66-~~“Lowest floor” means the lowest floor of the lowest enclosed area (including basement and crawl space). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area, is not considered a building’s lowest floor; provided, that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this title (i.e., provided there are adequate flood ventilation openings).

~~67-~~“Mineral resource lands” means those lands primarily devoted to the extraction of minerals or which have known or potential long-term commercial significance for the extraction of minerals.

“Mitigation” means actions taken to avoid impacts altogether by not taking certain actions or parts of actions; minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying impacts by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating impacts over time through preservation and maintenance operations; and compensating for impacts by replacing or providing substitute resources or environments, consistent with 40 CFR § 1508.1(s).

“Mitigation Sequence” means a prescribed order of steps taken to reduced impacts of activities on critical areas. Mitigation sequencing order is provided in EMC 14.10.070(B).

“Monitoring” means evaluating the impacts of development proposals over time on the biological, hydrological, pedological, and geological elements of such systems and/or assessing the performance of required mitigation measures throughout the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features and includes gathering baseline data.

“Minerals” means gravel, sand, and valuable metallic substances.

~~68-~~“Mudflow” means a debris flow containing an abundance of fine particles.

~~69-~~“Native vegetation” or “native plants” means a mix of plant species comprising herbs, grasses, grass-like plants, shrubs and trees indigenous to the Puget Sound region that reasonably could be expected to naturally occur on the site.

~~70-~~“Natural resource lands” means agricultural and mineral resource lands, which have long-term commercial significance.

~~71-~~“New construction” means structures for which the start of construction commenced on or after the effective date of the ordinance codified in this title.

“No Net Loss” refers to the actions taken to achieve and ensure no overall reduction in existing ecosystem functions and values or the natural systems constituting the protected critical areas including the impacted or lost critical areas pursuant to the Growth Management Act, WAC 365-196-830.

1 “Ordinary high water mark (OHWM)” consistent with WAC 173-22-030(5) and RCW 90.58.030, means on all
2 lakes and streams that mark that will be found by examining the bed and banks and ascertaining where the
3 presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark
4 upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition
5 exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with
6 permits issued by a local government or the department: Provided, that in any area where the ordinary high
7 water mark cannot be found, the ordinary high water mark adjoining freshwater shall be the line of mean high
8 water.

9 “Ponds” means naturally occurring open water areas less than 20 acres in size and larger than 2,500 square feet
10 which maintain standing water throughout the year and lack rooted aquatic vegetation.

11 “Priority habitat” consistent with WAC 173-26-020(30), means a habitat type with unique or significant value
12 to one or more species. An area classified and mapped as priority habitat must have one or more of the
13 following attributes: comparatively high wildlife density; comparatively high fish or wildlife species diversity;
14 fish spawning habitat; important wildlife habitat; important fish or wildlife seasonal range and movement
15 corridor; rearing and foraging habitat; refugia habitat; limited availability; high vulnerability to habitat
16 alteration; or unique or dependent species. Current information on priority habitats and species is provided in
17 Washington State Department of Fish and Wildlife priority habitats and species list, including lists of habitats
18 (2023 or subsequently updated).

19 “Priority species” means species requiring protective measures and/or management guidelines to ensure their
20 persistence at genetically viable population levels. Priority species are those that meet any of the criteria listed
21 in WAC 173-26- 020. Current information on priority habitats and species is provided by the Washington
22 Department of Fish and Wildlife. priority habitats and species program, including lists of habitats (2023 or
23 subsequently updated).

24 ~~72.~~ “Professional engineer” means an engineer currently licensed and registered in the state of Washington.

25 ~~73.~~ “Regulated Activities” ~~-See~~ means as defined under EMC 14.30.020.

26 ~~74.~~ “Restoration” means an action which returns habitat to a state in which its stability and functions approach
27 its unaltered state as closely as possible. This may be accomplished through measures including, but not limited
28 to, revegetation, removal of intrusive stream bank structures, and removal or treatment of toxic materials.
29 Restoration does not imply a requirement for returning the critical area to aboriginal or pre-European settlement
30 conditions.

31 ~~75.~~ “RCW” is an acronym that stands for Revised Code of Washington.

32 ~~76.~~ “Riparian” means the area adjacent to aquatic systems with flowing water that contains elements of both
33 aquatic and terrestrial ecosystems which mutually influence each other. ~~Riparian habitat begins at the ordinary-~~
34 ~~high water mark and includes the entire extent of the floodplain and riparian areas of wetlands that are directly-~~
35 ~~connected to the stream course.~~

36 “Riparian buffer”: See “buffer” definition.

37 “Riparian management zone” means the area that has the potential to provide full riparian functions. In many
38 forested regions of the state, this area occurs within the 200-year site-potential tree height measured from the
39 edge of the stream channel. In non-forest areas, the riparian management zone is defined by the greater of the
40 outermost point of the riparian vegetative community or the pollution removal function, at 100 feet. It is often
41 synonymous with riparian buffer. (Riparian Ecosystems, Volume 2: Management Recommendations. WDFW
42 2020)-

43 ~~77.~~ “Seismic hazard areas” consistent with WAC 365-190-030(18), means areas subject to severe risk of
44 damage as a result of earthquake-induced ground shaking, slope failure, settlement, ~~or~~ soil liquefaction, debris
45 flows, lahars, or tsunamis.

~~78.~~ “Sensitive areas” means agricultural lands and mineral resource lands and all associated buffers.

~~79.~~ “Shoreline” means the line where a body of water and the shore meet or the strip of land along the shoreline. There are no waters within the city meeting the criteria of shorelines of statewide significance as defined by RCW 90.58.030. City of Edgewood has no designated shorelines.

~~80.~~ “Site” means a lot, parcel, tract, or combination of lots, parcels, or tracts on which a regulated activity is proposed.

“Slope” means an inclined earth surface, the inclination of which is expressed as the ratio of horizontal distance to vertical distance. In these regulations, slopes are generally expressed as a percentage.

~~81.~~ “Sludge” means a semi-solid substance consisting of settled solids combined with varying amounts of water and dissolved materials generated from a wastewater treatment plant or system or other sources, including septage sludge, sewage sludge, and industrial sludge.

~~82.~~ “Sludge land application site” means a site where stabilized sludge, septage, and other organic wastes are applied to the surface of the land in accordance with established agronomic rates for fertilization or soil conditioning.

~~83.~~ “Special occupancy structures” means those structures that have the potential to provide capacity for large numbers of people or special groups of people or assemblies such as but not limited to schools, jails and detention facilities, and resident incapacitated patients.

~~84.~~ “Species of local importance” means species that are of local concern due to their population status or their sensitivity to habitat manipulation.

~~85.~~ “Soft armoring techniques” or “soil bioengineering methods” means the use of woody plants and limited structural-mechanical systems that are integrated in a structurally and environmentally sound manner to repair and protect slopes and shorelines against shallow mass wasting and surface erosion. Examples include, but are not limited to, live stake, live fascine, brushlayer, live cribwall, vegetated geogrid, branchpacking, live slope grading, beach berms, or earthen berms.

“Stormwater conveyance facilities” means man-made drainage facilities which collect, contain, and provide for the flow of surface and stormwater from the highest points on the land down to a receiving water. Man-made elements of the conveyance system include ditches, pipes, channels, connecting structures and retention/detention facilities.

~~86.~~ “Stream” means a feature where surface waters produce a defined channel or bed. A defined channel or bed is an area that demonstrates clear evidence of the passage of water and includes, but is not limited to, bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. This definition is not intended to include artificially created irrigation ditches, canals, storm or surface water devices, or other entirely artificial watercourses, unless they are used by salmonids or created for the purposes of stream mitigation.

~~87.~~ “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.

~~88.~~ “Substantial improvement” means any repair, reconstruction, addition, rehabilitation, or other improvement of a structure, whereby the cost for the work exceeds 50 percent of the market value of the existing structure before the start of construction of the improvement. The cost and market value may be determined using the current permit valuation. The director shall determine the current permit valuation based on the cost per square foot values in effect at the time of permit application. Substantial improvement shall be accumulative from the effective date of the ordinance codified in this title. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include ~~either:~~

~~a.(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

~~b.(2)~~ Any alteration of a historic structure; provided, that the alteration will not preclude the structure's continued designation as a historic structure.

~~89.~~ "Toe of slope" means a distinct topographic break in slope at the lowermost limit of the landslide or erosion hazard area.

~~90.~~ "TPCHD" is an acronym that stands for the Tacoma-Pierce County health department.

~~91.~~ "Underground storage tank" or "UST" means one tank or a combination of multiple tanks, including the underground pipes connected thereto, which are used to contain or dispense an accumulation of hazardous substances or hazardous wastes, and the total volume of which is 10 percent or more beneath the surface of the ground.

~~92.~~ "Urban growth" means growth that makes intensive use of the land for the location of buildings, structures, and impermeable surfaces to such a degree as to be incompatible with the primary use of such land for the production of food, other agricultural products, or fiber, or the extraction of mineral resources. When allowed to spread over wide areas, urban growth typically requires urban governmental services.

~~93.~~ "View corridor" means an area which affords views of lakes, mountains, or other scenic amenities normally enjoyed by residential property owners.

~~94.~~ "Violation" means a condition that is not compliant with this title. See Chapter 1.10 EMC for penalties.

~~95.~~ "Volcanic hazard areas" consistent with WAC 365-190-030(21), means geologically hazardous areas that are subject to pyroclastic flows, lava flows, debris avalanche, or inundation by debris flows, mudflows, or related flooding resulting from volcanic activity. means those areas subject to pyroclastic flows, lava flows, and inundation by debris flows, mudflows, or related flooding resulting from geologic or volcanic events on Mount Rainier.

~~96.~~ "WAC" is an acronym that stands for the Washington Administrative Code.

~~"Water typing" or "water type" -means a system for classifying water bodies according to their size and fish habitat characteristics.-F, consistent with the Washington Department of Natural Resources Forest Practices Water Typing classification system (WAC 222-16-030)-defines four water types:~~

~~1. Type "S": Streams that are designated "shorelines of the state," including marine shorelines.~~

~~2. Type "F": Streams that are known to be used by fish or meet the physical criteria to be potentially used by fish.~~

~~3. Type "Np": Nonfish Perennial streams.~~

~~4. Type "Ns": Nonfish Seasonal streams.~~

~~"Waters of the State" consistent with RCW 90.48.020, include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters and all other surface waters and watercourses within the jurisdiction of the state of Washington.~~

~~97.~~ "Wellhead protection area (WHPA)" means protective areas associated with public drinking water sources established by water systems and approved or assigned by the stated department of health. A WHPA is the area within the 10-year time-of-travel zone boundary or zone of contribution area of a Group A public water system well, as delineated on the critical aquifer recharge areas critical area map by the water system purveyor or its designee, pursuant to WAC 246-290-135.

~~98-~~ “Wetland” consistent with WAC 365-190-030, means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands, if permitted by the city.~~s.~~

~~99-~~ “Wetland category” means the numeric designation (I through IV) assigned to a wetland to indicate the wetland’s overall function and value. Wetland categories rank the city’s wetlands from highest (Category I) to lowest (Category IV) using the current version of the Washington State Wetland Rating System for Western Washington (Hruby, 2014).

~~100-~~ “Wetland mosaic” means a patchwork of wetlands that is considered one unit where each patch of wetland is less than one acre and the areas delineated as vegetated wetland are more than 50 percent of the total area of the wetlands and uplands together.

~~101-~~ “Wetland specialist” means a person that obtained professional wetland scientist (PWS) or wetland professional in training (WPIT) certification from the Society of Wetland Scientists or a qualified wetland professional with experience and training in wetlands issues and with experience in performing a delineation, analyzing wetland functions and values, analyzing wetland impacts, and recommending wetland mitigation and restoration. A qualified wetland professional is a person with experience and training that includes, at a minimum:

- a. A B.S., B.A., or equivalent degree in biology, botany, environmental studies, ecology, fisheries, hydrology, soil science, wildlife, agriculture, or related field; and
- b. Two years of related work experience; and
- c. One year’s experience delineating wetlands using the Federal Delineation Manual and applicable regional supplements and preparing wetland reports and mitigation plans; or
- d. Four years of related work experience and training; and
- e. Two years of experience delineating wetlands using the ~~Unified~~-Federal Delineation Manual and preparing wetland reports and mitigation plans.

~~102-~~ “Wildlife biologist” means a professional with a degree in wildlife or related field, or certification by the Wildlife Society, or with five years of professional experience as a wildlife biologist.

~~Red-Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

Chapter 14.30
USE AND ACTIVITY REGULATIONS
Draft Amendments

Sections:

- 14.30.010 Permitted uses.
- 14.30.020 Regulated uses and activities.
- 14.30.030 Exemptions.
- 14.30.040 Nonconforming uses and structures.
- 14.30.050 Reasonable use exceptions.
- 14.30.060 Current use assessment program.

14.30.010 Permitted uses.

Uses permitted on properties designated as containing critical areas shall be the same as those permitted in the zone classification shown in the city's official zoning map unless specifically prohibited by this title.

14.30.020 Regulated uses and activities.

A. Unless the requirements of this title are met, the department shall not grant any approval or permission to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement regulated through the following: building permit, commercial or residential; binding site plan; franchise right-of-way construction permit; site development permit; right-of-way permit; short subdivision; large lots; use permits; subdivision; utility permits; or any subsequently adopted permit or required approval not expressly exempted by this chapter.

B. The following activities are regulated within any critical area and its buffer, unless exempted by EMC 14.30.030:

1. Removing, excavating, disturbing, or dredging soil, sand, gravel, minerals, organic matter, or materials of any kind;

2. Dumping, discharging, grading, or clearing and grading;

3. Draining, flooding, or disturbing the water level or water table. In addition, an activity which involves intentional draining, flooding, or disturbing the water level or water table in a wetland or stream in which the activity itself occurs outside the regulated area shall be considered a regulated activity;

4. Driving, piling, or placing obstructions, including placement of utilities;

5. Constructing, reconstructing, installing, demolishing, or altering the size of any structure or infrastructure, including manufactured and mobile homes;

6. Altering the character of a regulated area by destroying or altering vegetation through clearing, harvesting, cutting, intentional burning, shading, or planting;

7. Activities which result in adverse changes in water temperature or physical or chemical characteristics of wetland and stream water sources, including changes in quantity of water and pollutant level;

8. Application of pesticides, fertilizers, and/or other chemicals unless demonstrated not to be harmful to the regulated area and applied in compliance with labeled uses and restrictions;

97. The division or redivision of land pursuant to Title 16;

108. The creation of hard surfaces; and

119. Any additional activities regulated in Chapter 14.80 EMC, Flood Hazard Areas.

14.30.030 Exemptions.

A. This Section defines activities that are exempt from the provisions of all or part of this Title. Additional exceptions from the requirements of this Title may be contained in the subsequent chapters. Prior to project initiation, the project proponent shall obtain written confirmation from the director that the proposed activities meet the requirements for an exemption as defined by this section. The burden is on the project proponent to demonstrate to the City that the proposed project is fully exempt.

B. All exempted activities shall use reasonable methods to avoid potential impacts to critical areas to the greatest degree feasible. Any incidental damage to, or alteration of, a critical area that is not a necessary outcome of the exempted activity shall be restored, rehabilitated, or replaced at the responsible party's expense. Exemption from the critical areas code does not exempt an applicant from obtaining all other required permits from the City and/or state agencies.

~~C. Individuals, organizations, or associated parties shall avoid potential impacts to critical areas and their buffers to the greatest degree feasible. To be exempt from this title does not give permission to degrade a critical area or its buffer or ignore risk from natural hazards. Any incidental damage to, or alteration of, a critical area or its buffer that is not a necessary outcome of the exempted activity shall be restored, rehabilitated, or replaced at the responsible party's expense.~~

B. The following activities are exempt from the provisions of this title:

1. Operation, maintenance, or repair of existing structures, infrastructure improvements, utilities, public or private roads, dikes, levees, or drainage systems that do not require construction permits, if the activity does not further alter or increase the impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed operation, maintenance, or repair. "Operation and maintenance" includes vegetation management performed in accordance with BMPs that are a part of ongoing maintenance of structures, infrastructure, or utilities; provided, that such management actions are part of ongoing maintenance, do not expand further into the critical area or buffer, are not the result of an expansion of the structure or utility, and do not directly impact an endangered or threatened species.

2. Normal maintenance or repair of existing structures or developments, including damage by accident, fire, or elements within the past three years. "Normal maintenance" includes those usual acts to prevent a decline, lapse, or cessation from a lawfully established condition. "Normal repair" means to restore a development to a state comparable to its original condition including, but not limited to, its size, shape, configuration, location, and external appearance, within three years after decay or partial destruction, except where repair causes substantial adverse effects to critical areas or their buffers. Replacement of a structure or development may be authorized as repair where such replacement is the common method of repair for the type of structure or development and the replacement structure or development is comparable to the original structure or development including, but not limited to, its size, shape, configuration, location, and external appearance and the replacement does not expand further into the critical area or buffer. Refer to EMC 14.30.040(A)(4) for requirements associated with repair of substantial damage of nonconforming structures.

3. Reconstruction, remodeling, or maintenance of existing detached residential, middle housing, and associated accessory structures ~~single-family residential structures and accessory structures~~ that are located outside a flood hazard area and active landslide hazard area; provided, that a one-time-only expansion of the building footprint does not increase by more than 25 percent and that the new construction or related activity does not further intrude into the critical area or related buffer. The exemption shall not apply to reconstruction which is proposed as a result of structural damage associated with a critical area.

4. Reconstruction, remodeling, or maintenance of structures ~~other than single-family structures and accessory structures~~ not covered under item 3, above, that are located outside a flood hazard area or active landslide hazard area; provided, that such reconstruction, remodeling, or maintenance does not increase the floor area nor extend beyond the existing ground coverage. The exemption shall not apply to reconstruction which is proposed as a result of site or structural damage associated with a critical area, such as slope failure in a landslide hazard area or flooding in a flood hazard area.

5. Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests, and other related activities. Critical area impacts shall be minimized and disturbed areas shall be immediately restored.

6. Emergency actions necessary to prevent imminent threat or danger to public health or safety, or to public or private property, or serious environmental degradation shall be allowed as follows:-

a. For a threat to be considered “imminent” there must be reasonable expectation that the threat will occur prior to the time period necessary to obtain necessary permits.

b. The person or agency is required to contact the Department detailing the threat and proposed action. The Department shall review and determine the existence of the emergency and reasonableness of the proposed action. However, the person or agency is still required to complete all applicable reviews after the fact and may be required to modify or remove any emergency repair work and provide mitigation for any impacts to regulated areas. Any city required application shall be submitted within 90-days or as agreed upon.

c. This exemption does not apply to erosion protection measures unless the landowner can demonstrate that there is an imminent threat to an existing residential, commercial, industrial, agriculture structure, operation, equipment, product, or associated utilities.

d. Any required restoration shall be initiated within one year of the date of emergency and completed in a timely manner.

~~a. The department shall review all proposed emergency actions to determine the existence of the emergency and reasonableness of the proposed actions taken; however, post-emergency actions, such as submittal of permits, completion of city review, modification or removal of the emergency repair work, or mitigation shall be required by the department.~~

~~b. Erosion protection measures shall only be allowed as an emergency action when the owner can demonstrate that there is an imminent threat to an existing residential, commercial, industrial, or agricultural structure. The owner shall retain either city staff or an engineering geologist to conduct a site investigation and provide adequate documentation that the situation is actually an emergency. An emergency action is not warranted when the structure is located outside the active landslide area.~~

~~c. After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary restoration or mitigation for any impacts to the critical area and buffers resulting from the emergency action in accordance with an approved critical area report and mitigation plan. The person or agency undertaking the action shall apply for review, and the alteration, critical area report, and mitigation shall be reviewed by the department in accordance with the review procedures contained herein. Restoration or mitigation activities must be initiated within 90 days of the date of the emergency activity and both must be fully completed within one year.~~

7. Installation, construction, replacement, repair, operation or alteration of natural gas, cable and telecommunication facilities, electric facilities and lines, water, sewer or storm lines, pipes, mains, equipment, or appurtenances in publicly owned right-of-way, which may be within or adjacent to any critical areas or buffers, subject to full review and approval of the department, including any mitigation or restoration requirements established by the department.

8. Removal by hand of manmade litter and control of noxious weeds that are included on the state noxious weed list (Chapter 16-750 WAC) or invasive plant species as identified by the city. Control may be conducted by clipping, pulling, or digging, or by an alternative nonmechanical method upon approval of a plan by the department. Soil compaction shall be avoided. Alternative methods such as mechanical excavation may be allowed upon approval by the Department and acquisition of any necessary permits.

9. Activities undertaken to comply with a United States Environmental Protection Agency superfund order, or a ~~Washington Department of Ecology~~ DOE order, pursuant to the Model Toxics Control Act, including the following activities:

- a. Remediation or removal of hazardous or toxic substances;
- b. Source control; and
- c. Natural resource damage restoration.

10. Activities within a portion of a wetland buffer or fish and wildlife habitat conservation area buffer located landward of an existing, substantially developed area, such as a paved area, dike, levee, or permanent structure, which eliminates or greatly reduces the impact of the proposed activities on the wetland or fish and wildlife habitat conservation area. The department shall review the proposal to determine the likelihood of associated impacts.

11. Passive recreation activities such as hunting, hiking, fishing, wildlife viewing, education, and scientific research that does not involve the construction of trails and is located only in a critical area buffer. ~~and wildlife viewing that does not involve the construction of trails.~~

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~~12.2. Restoring and Enhancement~~ enhancement actions that do not ~~involve clearing, grading or construction activities, e.g., revegetation with native plants and installation of nest boxes~~ result in adverse impacts to any critical areas and are part of an approved restoration or enhancement plan. Enhancement activity proposals shall be reviewed by the department.

~~13.3.~~ Forest practices conducted in accordance with the requirements of the Forest Practices Act (Chapter 76.09 RCW) and its rules, with the exception of the conversion of forest land to a use other than commercial forestry (Class IV conversions).

~~14.4.~~ Existing and ongoing agricultural activities; provided, that they comply with the provisions of Chapter 14.80 EMC, Flood Hazard Areas, and implement the applicable BMP contained in the latest editions of the USDA Natural Resources Conservation Service Field Official Technical Guide; or develop a farm conservation plan in coordination with the local conservation district. The BMPs or farm plans should address potential impacts to critical areas from livestock, nutrient and farm chemicals, soil erosion and sediment control, and agricultural drainage infrastructure. The BMPs or farm plans should ensure that ongoing agricultural activities minimize their effects on water quality, riparian ecology, salmonid populations, and wildlife habitat.

14.30.040 Nonconforming uses and structures.

A. An established use or existing structure located in a wetland, fish and wildlife habitat conservation area, landslide or erosion hazard area, flood hazard area, and their associated buffers that was lawfully permitted prior to the effective date of this title, but which is not currently in compliance with this title, may continue subject to the following:

1. Nonconforming Use Expansion. Nonconforming uses shall not be expanded or changed in any way that increases the nonconformity without a permit issued pursuant to the provisions of this title.
2. Nonconforming Structure Expansion. Existing structures shall not be expanded or altered in any manner that will increase the nonconformity without a permit issued pursuant to the provisions of this title, except as provided in EMC 14.30.030(B).
3. Discontinued Uses. Activities or uses which are discontinued for 12 consecutive months shall be allowed to resume only if they are in compliance with this title.
4. Substantial Damage. Nonconforming structures, except for structures located in a flood hazard area or active landslide hazard area, which are damaged or destroyed by fire, explosion, flood, or other casualty may be

restored or replaced if reconstruction is commenced within one year of such damage and is substantially completed within 18 months of the date such damage occurred. The reconstruction or restoration shall not serve to expand, enlarge, or increase the nonconformity except as allowed through the provisions in EMC 14.30.030(B). Nonconforming structures in a floodway or active landslide hazard area may be allowed to be restored only up to the limits of substantial improvement, as set forth in each chapter. Nonconforming structures in other Flood Hazard Areas must comply with EMC 14.80.

B. The provisions of EMC 18.90.110 may also apply to nonconformities not expressly described in this chapter.

14.30.050 Reasonable use exceptions.

A. If the application of this chapter would deny all reasonable use of the property, the applicant may apply for a reasonable use exception pursuant to this section.

~~BE.~~ Application. An applicant for a development proposal may file a request for a reasonable use exception which shall be processed and reviewed as a Process III permit pursuant to EMC 18.40.100. The application shall include the following information:

1. Contain all the items required under EMC 18.40.140.
2. A description of the areas of the site that contain a critical area(s) or within buffer(s) required under this title;
3. A description of the amount of the site that is within setbacks required by other standards of the zoning code;
4. A description of the proposed development, including a site plan;
5. An analysis of the impact that the amount of development described would have on the critical area(s);
6. An analysis of whether any other reasonable use with less impact on the critical area(s) and associated buffer(s) is possible;
7. A design of the proposal so that the amount of development proposed as reasonable use will have the least impact practicable on the critical area;
8. An analysis of the modifications needed to the standards of this title to accommodate the proposed development;
9. Demonstration of legal lot status
10. A description of any modifications needed to the required front, side, and rear setbacks, building height, and buffer widths to provide for a reasonable use while providing greater protection to the critical area;
11. Such other information the department determines is reasonably necessary to evaluate the issue of reasonable use as it relates to the proposed development, such as but not limited to a wetland analysis report, mitigation plan, habitat evaluation study, or a buffer enhancement plan.

~~CD.~~ The hearing examiner may approve alterations to a critical area or its buffers to allow a reasonable use not otherwise allowed by this chapter when the following criteria are met the reasonable use exception, if the Examiner determines the following criteria are met:

- ~~1. The application of this chapter would deny all reasonable use of the property;~~
12. There is no other reasonable use with less impact on the critical area(s) and associated buffer(s); and
23. The proposed development does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site and is consistent with the general purposes of this title and the public interest; and

34. Any alterations permitted to the critical area or its buffer shall be the minimum necessary to allow for reasonable use of the property; and

45. The subject property is an existing legal lot as demonstrated in this section, and the inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant in subdividing the property or adjusting a boundary line thereby creating the undevelopable condition after October 8, 1991 (the effective date of City Edgewood Critical Areas Regulations); and

56. The proposal mitigates the impacts on the natural resource land(s) and/or critical area(s) to the maximum extent possible, while still allowing reasonable use of the site.

67. The proposed activities will not jeopardize the continued existence of species listed by the State and Federal government as endangered, threatened, sensitive, or documented priority species or priority habitats.

78. The proposed activities will not cause significant degradation of groundwater or surface water quality.

89. The mitigation sequencing per EMC 14.10.070(B) has been followed and documented.

~~any authorized alteration of a critical area under this subsection shall be subject to conditions established by the department including, but not limited to, mitigation under an approved mitigation plan.~~

~~B. Application Requirements. A complete application for a reasonable use exception shall include the following nine items:~~

~~1. A description of the areas of the site that contain a critical area, buffers, or are within setbacks required under this title;~~

~~2. A description of the amount of the site that is within setbacks required by other standards of the zoning code;~~

~~3. A description of the proposed development, including a site plan;~~

~~4. An analysis of the impact that the amount of development described in subsection (B)(3) of this section would have on the critical area;~~

~~5. An analysis of whether any other reasonable use with less impact on the critical area and associated buffer(s) is possible;~~

~~6. A design of the proposal so that the amount of development proposed as reasonable use will have the least impact practicable on the critical area;~~

~~7. An analysis of the modifications needed to the standards of this title to accommodate the proposed development;~~

~~8. A description of any modifications needed to the required front, side, and rear setbacks, building height, and buffer widths to provide for a reasonable use while providing greater protection to the critical area;~~

~~9. Such other information the department determines is reasonably necessary to evaluate the issue of reasonable use as it relates to the proposed development, such as but not limited to a wetland analysis report, mitigation plan, habitat evaluation study, or a buffer enhancement plan.~~

~~C. Review. A reasonable use exception shall be processed according to the procedures in EMC 18.40.080.~~

~~D. Findings and Determinations. A reasonable use exception may be approved if all of the findings are made in writing and are supported by the record.~~

14.30.060 Current use assessment program.

A. An owner of agricultural land, timberland, or open space desiring current use classification under Chapter 84.34 RCW may file for such current use classification with the Pierce County assessor-treasurer's office.

- 1 B. The department shall notify the assessor-treasurer's office when restrictions on development occur on a particular
2 site.
- 3 C. The assessor-treasurer's office shall consider the critical areas and buffering requirements of this title in
4 determining the fair market value of land. Any owner of an undeveloped buffer which has been placed in a separate
5 tract or tracts, protective easement, public or private land trust dedication, or other similarly preserved area shall
6 have that portion of land assessed consistent with those restrictions.

~~Red Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

**Chapter 14.40
WETLANDS
Draft Amendments**

Sections:

- 14.40.010 Purpose.
- 14.40.020 Identification, delineation, mapping, and rating.
- 14.40.030 Buffer standards – Wetlands.
- 14.40.040 Wetland review procedures.
- 14.40.050 Allowed activities.
- 14.40.060 Mitigation requirements.
- 14.40.070 Appendices.

14.40.010 Purpose.

A. The purpose of this chapter is to avoid or, in appropriate circumstances, to minimize, rectify, reduce, or compensate for impacts arising from land development and other activities affecting wetlands, and to maintain and enhance the biological and physical functions and values of wetlands with respect to water quality maintenance, stormwater and floodwater storage and conveyance, fish and wildlife habitat, primary productivity, recreation, education, and historic and cultural preservation. When wetland impacts occur, mitigation will be required to achieve no net loss of wetlands in terms of acreage, function, and value.

B. This chapter is intended to be consistent with the requirements of Chapter 36.70A RCW and to implement the goals and policies of the city's comprehensive plan for protecting wetlands.

14.40.020 Identification, delineation, mapping, and rating.

A. Designation. All areas within the city meeting the definition of "wetland" in Chapter 14.20 EMC are hereby designated as critical areas.

B. Identification and Delineation.

1. Wetlands shall be identified and delineated by a qualified wetland specialist in accordance with the approved federal wetland delineation manual and applicable regional supplements.

2. A wetland delineation is valid for five years, after which date the city shall require verification that the wetland boundaries and prior conditions have not changed to determine whether a revision or additional assessment is needed.

C. Mapping.

1. The approximate location and extent of **verified** and potential wetlands are ~~shown on maps maintained by the city~~ provided and maintained **within the city's Critical Area GIS Database. This database utilized the mapping resources provided in subsection 2 of this section to establish the potential wetland areas. The Critical Area GIS Database is periodically updated as new information become available.**

2. ~~These~~ **The Critical Area GIS Database** ~~maps are~~ **is** useful as a guide for project applicants and property owners, but ~~the maps do may~~ not provide a conclusive or definitive indication of a wetland presence or its extent. Additional resources include National Wetlands Inventory (NWI) from the United States Fish and Wildlife Inventory, the Priority Habitat and Species Map (Washington Department of Fish and Wildlife), FEMA Firm and Flood Insurance Maps, hydric soils identified in Soil Surveys, etc.

3. Wetlands may exist that do not appear on the maps and some wetlands that appear on the maps may not meet all of the wetland designation criteria. This chapter applies to all wetlands whether they are mapped or not.

D. Rating. Wetlands shall be rated according to the Washington Department of Ecology Wetland Rating System, as set forth in the Washington State Wetland Rating System for Western Washington: 2014 Update, [Version 2.0](#) (Ecology Publication No. ~~14-06-029~~[23-06-009](#), or as revised and approved by the Department of Ecology). [Please note that wetlands located in closed depression basins as mapped by the city in the adopted Comprehensive Surface Water Management Plan are considered important for improving water quality for the purposes of answering Question D3.3 on the Wetland Rating Form.](#)

E. Illegal Modifications. Wetland rating categories shall not change due to illegal modifications made by the applicant or with the applicant's knowledge.

14.40.030 Buffer standards – Wetlands.

A. Determining Buffer Widths. [The buffer widths in Table 14.40.030.1 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the wetland rating system identified in EMC 14.40.020\(D\). Unless otherwise noted, the level of impact from adjacent land use is assumed to be high.](#) ~~Buffer widths shall be measured horizontally from the perpendicular line established at the wetland edge as shown in Table 14.40.030.1. Note that Table 14.40.030.1 is reduced wetland buffers with minimization of impacts. See Table 14.40.030.3 for buffers that apply without minimization techniques.~~

B. [Conditions for Implementing Table 14.40.030.1.](#) ~~The following buffer widths have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication No. 14-06-029, or as revised and approved by Ecology). The adjacent land use intensity is assumed to be high.~~

1. For wetlands that score ~~five-six~~ points or more for habitat function, the buffers in Table 14.40.030.1 can be used if ~~both of the following criteria are met~~[all the following criteria are met](#):

[a. A relatively undisturbed, vegetated corridor at least 100 feet wide is protected between the wetland and:](#)

[i. A legally protected, relatively undisturbed and vegetated area \(e.g., Priority Habitats, compensatory mitigation sites, wildlife areas/refuges, parks where they have management plans with identified areas designated as Natural, Natural Forest, or Natural Area Preserve\), or](#)

[ii. An area that is the site of a Watershed Project identified within, and fully consistent with, a Watershed Plan as defined by RCW 89-08-460, or](#)

[iii. An area with equivalent habitat quality that has conservation status in perpetuity, in consultation with WDFW.](#)

[b. The corridor is permanently protected for the entire distance between the wetland and the legally protected area by a conservation easement, deed restriction, or other legal site protection mechanisms.](#)

[c. Presence or absence of the Priority Habitat must be confirmed by a qualified biologist.](#)

[d. The measures in Table 14.40.030.2 are implemented, where applicable, to minimize the impact of the adjacent land uses.](#)

~~A relatively undisturbed, vegetated corridor at least 100 feet wide is protected between the wetland and any other priority habitats as defined by the Washington Department of Fish and Wildlife.~~

~~i. The latest definitions of priority habitats and their locations are available on the WDFW website at: <http://wdfw.wa.gov/hab/phshabs.htm>.~~

~~ii. The corridor must be protected for the entire distance between the wetland and the priority habitat by some type of legal protection such as a conservation easement.~~

~~iii. Presence or absence of a nearby habitat must be confirmed by a qualified biologist. If no option for providing a corridor is available, Table 14.40.030.1 may be used with the required measures in Table 14.40.030.2 alone.~~

~~b. The measures in Table 14.40.030.2 are implemented, where applicable, to minimize the impacts of the adjacent land uses.~~

2. For wetlands that score ~~three to four~~ five or fewer habitat points, only the measures in Table 14.40.030.2 are required for the use of Table 14.40.030.1.

3. The buffer widths in Table 14.40.030.1 assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer must either be planted to create the appropriate native plant community or the buffer widened to ensure that the buffer provides adequate functions of the buffer are provided.

4. If an applicant does not apply the mitigation measures in Table 14.40.030.2 or is unable to provide a protected corridor, then a 33 percent increase in the width of all buffers is required. The buffer width shall be rounded to the highest whole number. For example, a 75-foot buffer with mitigation measures would become a 100-foot buffer without the wetland impact mitigation measures to ensure no net loss of wetland functions.

**Table 14.40.030.1
Buffer Standards – Wetlands**

Wetland Category	Buffer Width Buffer Width (Wetland scores 3-4 habitat points) Buffer Width (Wetland scores 5 habitat points) Buffer Width (Wetland scores 6-7 habitat points) Buffer Width (Wetland scores 8-9 habitat points)			
	<u>Habitat Score 3-5</u>	<u>Habitat Score 6-7</u>	<u>Habitat Score 8-9</u>	<u>Buffer width based on special characteristics</u>
Category I: Based on total score and Forested	75 ft.	105-110 ft.	165-225 ft.	N/A <u>225 ft.</u>
Category I: Bogs and wetlands of high conservation value	190 ft. <u>N/A</u>	190 ft. <u>N/A</u>	190-225 ft.	225 ft. <u>190 ft.</u>
Category I: Forested	75 ft.	105-110 ft.	165-225 ft.	N/A <u>225 ft.</u>
Category II- (all) <u>Based on score (all)</u>	75 ft.	105-110 ft.	165-225 ft.	225 ft. <u>N/A</u>
Category III (all)	60 ft.	105-110 ft.	165-225 ft.	N/A <u>225 ft.</u>
Category IV (all)	40 ft.	40 ft.	40 ft.	40 ft. <u>N/A</u>

~~C. Required Measures to Minimize Impacts to Wetlands. Measures to minimize the impacts of the land use adjacent to wetlands shall be applied as shown in Table 14.40.030.2.~~

**Table 14.40.030.2
Wetland Impact Minimization Measures**

Disturbance	<u>Activities and Uses That Cause Disturbances</u>	<u>Required Measures to Minimize Impacts</u>
Lights	• <u>Parking lots</u> • <u>Commercial/industrial uses</u> • <u>Residential uses</u>	• Direct lights away from any wetland • <u>Only use lighting when necessary for public safety, and keep lights off when not needed</u>

Disturbance	Activities and Uses That Cause Disturbances	Required Measures to Minimize Impacts
	• Recreation (e.g., athletic fields) • Agricultural buildings	• Use motion-activated lights where feasible • Use full cut-off filters to cover light bulbs and direct light only where needed • Limit use of blue-white colored lights in favor of red-amber hues • Use lower-intensity LED lighting • Dim light to the lowest acceptable intensity
Noise	• Commercial • Industrial • Recreation (e.g., athletic fields, bleachers, etc.) • Residential • Agriculture	• Locate activity that generates noise away from any wetland • For activities that generate relatively continuous, potentially disruptive noise, such as certain heavy industry or mining, establish an additional 10-foot heavily vegetated buffer strip immediately adjacent to the outer wetland buffer • If warranted, enhance existing buffer with native vegetation plantings adjacent to noise source
Toxic runoff	• Parking lots • Roads • Commercial/industrial • Residential areas • Application of pesticides • Landscaping • Agriculture	• Route all new, untreated runoff away from any wetland while ensuring the wetland is not dewatered • Establish covenants limiting use of pesticides within 150 feet of wetlands • Apply integrated pest management • <i>These examples are not necessarily adequate for minimizing toxic runoff if threatened or endangered species are present at the site.</i>
Stormwater runoff	• Parking lots • Roads • Residential areas • Commercial/industrial • Recreation • Landscaping/lawns • Other impermeable surfaces, compacted soil, etc. • Retrofit storm water detention and treatment for roads and existing adjacent development	• Retrofit stormwater detention and treatment for roads and existing adjacent development • Prevent channelized flow from lawns that directly enters the buffer • <u>Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and lawns</u> • Use low impact development (LID) techniques (for more information refer to the drainage ordinance and manual) • Use low impact development techniques
Change in water regime		• Infiltrate or treat, detain, and disperse new runoff from impervious surfaces and new lawns
Pets and human disturbance	• Residential areas • Recreation	• Use privacy fencing or plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the ecoregion • Place wetland and its buffer in a separate tract or protect with a conservation easement • Place signs around the wetland buffer every 50 feet and at the back of each residential lot in a subdivision
Dust	• Tilled fields • Roads	• Use BMPs to control dust

~~CD.~~ Modification of Buffer Widths. The ~~standard~~ buffer widths of subsection (A) ~~of this section may be modified by averaging or increasing, may be decreased through buffer averaging. The standard buffer may also be increased at the sole discretion of the Director.~~

1. Buffer Averaging. Buffer width averaging requests ~~Buffer width averaging~~ may be allowed only where the applicant demonstrates all of the following in the critical areas report required pursuant to EMC 14.10.080 and EMC 14.40.070 ~~through the submittal of a wetland report that is prepared by a qualified professional:~~

a. No feasible alternatives to the site design could be accomplished without buffer averaging. ~~Buffer encroachment is unavoidable;~~

b. A habitat assessment has been submitted which demonstrates that the site does not provide habitat for any endangered, threatened, or sensitive fish or animal species; or for wetlands and/or required buffers associated with documented habitat for endangered, threatened, or sensitive fish or wildlife species, a

habitat assessment has been submitted that demonstrates that the buffer modification will not result in an adverse impact to the species of study;

~~The wetland contains variations in sensitivity due to existing physical characteristics;~~

c. ~~Width-~~The averaged buffer ~~averaging will not result in the degradation of the~~ will provide equal or greater protection of current wetland functions and values (i.e. no net loss);

d. The wetland contains variations in sensitivity due to existing physical characteristics;

e. The total buffer area after averaging is no less than the buffer area prior to averaging;

f. The minimum buffer width ~~of the buffer at any given point after averaging shall~~will be no smaller than 75 percent of the ~~standard~~-buffer width established in subsection A of this section; and

g. ~~The averaging is accomplished within the project boundaries; and~~

~~g. Measures will be taken to ensure that there is no loss of wetland function due to the buffer averaging.~~

2. Buffer Increases.

a. The ~~department~~director may require increased buffer width(s) on a case-by-case basis when a wider buffer is necessary to protect wetland functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the wetland. The documentation shall include but not be limited to the following criteria:~~any of the following are identified:~~

i. A larger buffer is necessary to maintain viable populations of existing species;

ii. The wetland is used by, or associated with, species listed by the federal government or the state as endangered, threatened, sensitive, or as documented priority species or habitats, or essential or outstanding potential sites such as heron rookeries or raptor nesting areas;

iii. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts;

iv. The adjacent land has minimal vegetative cover, or slopes greater than 20 percent.

~~b. If an applicant chooses not to apply the wetland impact minimization measures identified in Table 14.40.030.2, then the wetland buffers applicable to the site shall be per Table 14.40.030.3.~~

Table 14.40.030.3
Wetland Buffers without Minimization of Impacts

Wetland Category	Buffer Width (Wetland scores 3-4 habitat points)			
	Buffer Width (Wetland scores 5 habitat points)			
	Buffer Width (Wetland scores 6-7 habitat points)			
	Buffer Width (Wetland scores 8-9 habitat points)			
Category I: Based on total score	100 ft.	140 ft.	220 ft.	300 ft.
Category I: Bogs and wetlands of high conservation value	250 ft.			300 ft.
Category I: Forested	100 ft.	140 ft.	220 ft.	300 ft.
Category II (all)	100 ft.	140 ft.	220 ft.	300 ft.

Wetland Category	Buffer Width (Wetland scores 3-4 habitat points)			
	Buffer Width (Wetland scores 5-habitat points)			
Category III (all)	Buffer Width (Wetland scores 6-7 habitat points)			
	Buffer Width (Wetland scores 8-9 habitat points)			
Category III (all)	80 ft.	140 ft.	220 ft.	300 ft.
Category IV (all)	50 ft.			

D. Functionally Disconnected Buffer Area. Areas that are functionally and effectively disconnected from the wetland, as described below, by an existing public or private road or legally established significant development may have the standard buffer width modified, as determined by the Department. Department staff shall evaluate whether the interruption will affect the entirety of the buffer. Individual structures may not fully interrupt buffer function. In such cases, the allowable buffer exclusion should be limited in scope to just the portion of the buffer that is affected. A critical areas report shall be submitted pursuant to EMC 14.10.080 that evaluates whether a development functionally disconnects the buffer, or the extent of that impact, and analyze and document the buffer functionality. For the purpose of this provision:

1. “functionally and effectively disconnected” means that the road or other significant development effectively prevents the protective measures and support functions provided by a buffer, and the isolated portion of the standard buffer would provide insignificant biological, geological, or hydrological functions for the wetland; and

2. “significant development” includes built public infrastructure, such as roads and railroads, and private developments such as homes or commercial structures.

14.40.040 Wetland review procedures.

A. ~~Wetland Report Requirements~~ Standard Wetland Review. If the department’s maps critical area database indicate indicates that a proposed project may be located within 300 feet of a potential or verified wetland, the applicant shall submit a wetland-critical areas report pursuant to EMC 14.10.080, prepared by a qualified wetland specialist and meeting the requirements of EMC 14.40.070. The report requirement may be waived if the department determines that there are no potential direct, ~~or indirect, or cumulative~~ impacts on the wetland or its buffers that would result from the proposed development. ~~Wetland critical areas reports shall comply with the requirements of this chapter.~~

B. One Principal-Family Dwelling Unit Wetland Review. ~~A~~in lieu of the standard wetland review and critical areas report required under EMC 14.10.080, an application for a one principal dwelling or those items listed in subsection 3 of this section in which no encroachment into a regulated wetland or wetland buffer is proposed may utilize the following wetland certification process:

1. Prior to issuance of a building permit or site development permit the applicant shall submit a one-family wetland certification form completed by a wetland specialist that certifies either:

a. No regulated wetlands are present within 300 feet of the project area; or

b. Wetlands are present within 300 feet of the project area, but all regulated activities associated with the dwelling (i.e., landscaped areas, septic facilities, outbuildings, etc.) will occur outside of the standard buffer of the identified wetland.

2. If regulated wetland buffers extend onto the site and are within 300 feet of the project area, the wetland specialist shall place permanent, clearly visible, wetland buffer signs at the edge of the buffer. A wetland buffer sign affidavit, signed by the wetland specialist, shall be submitted to the Department as verification that the wetland buffer signs have been placed on the site.

3. The one principal dwelling unit certification form may be used only to authorize one principal dwelling and associated homesite features such as one garage, driveways, gardens, fences, wells, lawns, and on-site septic systems. It may not be used for new agricultural activities, expansion of existing agricultural activities, forest

practice activities, commercial projects, land divisions, buffer width modifications, or violations. The one principal dwelling unit form may not be used to make a claim for exemption under EMC 14.30.030.

4. The one principal dwelling certification process will be monitored by the Department for accuracy, and enforcement actions will be initiated should encroachment into a regulated wetland or buffer occur.

5. The applicant/property owner assumes responsibility for any and all errors of the one principal dwelling certification form and all associated mitigation imposed by the Department.

6. If wetlands or their associated buffers are determined to be on-site or within 300 feet of the project area, the one principal dwelling family certification forms shall be filed with the Pierce County Auditor's Office.

~~Construction of a single family dwelling and regulated activities accessory to a single family dwelling, such as driveways, gardens, fences, walls, lawns, or on-site septic systems, may utilize an alternative wetland review procedure, subject to the following:~~

~~1. Prior to issuance of a building permit, site development permit, or on-site sewage system permit, the applicant shall submit a single family wetland certification form completed by a wetland specialist that certifies either:~~

~~a. No regulated wetlands are present within 300 feet of the project area; or~~

~~b. Wetlands are present within 300 feet of the project area, but the buffer does not extend onto the project site.~~

~~2. The single family certification form may be used only to authorize single family dwellings and accessory structures. It may not be used for new agricultural activities, expansion of existing agricultural activities, forest practices activities, commercial projects, land divisions, or buffer width modifications.~~

14.40.050 Allowed activities.

Upon submittal of a critical areas report pursuant to EMC 14.40.040(A), the following activities may be allowed:

A. The three types of wetlands identified in subsections (A)(1) through (3) of this section are exempt from the requirement to avoid impacts in EMC 14.10.070(B) and may be altered if the impacts are fully mitigated based on the remaining mitigation sequencing actions in EMC 14.10.070(B); ~~In order to verify the following conditions, a wetland critical areas report meeting the requirements of EMC 14.40.070, Appendices, must be submitted:~~

1. All ~~isolated~~ Category IV wetlands less than 4,000 square feet that:

a. Are not associated with riparian areas or their buffers;

b. Are not part of a wetland mosaic;

~~c. Are not associated with shorelines of the state or their associated buffers;~~

d. Do not score ~~five-six~~ or more points for habitat functions based on current version of the Washington State Wetland Rating System for Western Washington (Ecology, 2014), or as revised and approved by Ecology;

e. Do not contain a priority habitat or a priority area for a priority species identified by the Washington Department of Fish and Wildlife, federally listed species or their critical habitat, or habitats of and species of local importance as identified in Chapter 14.50 EMC.

2. Category IV Wetlands less than 1,000 square feet that meet the criteria specified in subsection (A)(1) of this section.

3. Utility projects within the outer 25 percent of any wetland buffers which have minor or short-duration impacts, as determined by the department in accordance with the criteria below, and which do not significantly

1 impact the function or values of wetlands; provided, that such projects are constructed with BMPs and
2 additional restoration measures are provided. Minor activities shall not result in the transport of sediment or
3 increased stormwater. Such allowed minor utility projects shall meet the following criteria:

- 4 a. There is no practical alternative to the proposed activity with less impact on wetlands;
- 5 b. The activity involves the placement of a utility pole, street signs, anchor, or vault or other small
6 component of a utility facility; and
- 7 c. The activity involves disturbance of an area less than 75 square feet.

8 B. The following activities ~~listed below~~ are allowed in wetlands and their buffers, except where such activities
9 would result in a loss of the functions and values of a wetland or wetland buffer. ~~A critical areas report must be~~
10 ~~submitted to the department to determine if function or value will be lost. These activities include:~~

- 11 1. Activities in wetlands in areas managed according to a special area management plan or other plan adopted
12 by the department and specifically designed to protect wetland resources.
- 13 2. Trimming of vegetation for purposes of providing a view corridor will be allowed. The trimming is limited
14 to a maximum 20-foot width and the benefit to fish and wildlife habitat may not be reduced. No more than 30
15 percent of the live crown of a tree may be removed. Trimming shall be limited to hand pruning of branches and
16 vegetation and does not include felling, topping, or the removal of trees.
 - 17 a. Trimming and limbing of vegetation for the creation and maintenance of view corridors shall occur in
18 accordance with the pruning standards of the International Society of Arboriculture. ~~(See articles-~~
19 ~~published by the International Society of Arboriculture, Consumer Information Program, updated July-~~
20 ~~2005.)~~
 - 21 b. The activity will not increase the risk of landslide or erosion.
- 22 3. Drilling for utilities or utility corridors under a wetland, with an entrance or exit portal located completely
23 outside of the wetland buffer; provided, that the drilling does not interrupt the groundwater connection to the
24 wetland or percolation of surface water down through the soil column. Specified studies by a hydrologist are
25 necessary to determine whether the groundwater connection to the wetland or percolation of surface water
26 down through the soil column will be disturbed.

27 4. Passive recreation facilities.

28 a. Walkways and trails, provided they are limited to minor crossings having no adverse impact on water
29 quality. They should be generally parallel to the perimeter of the wetland, located only in the outer 25
30 percent of the wetland buffer area, and located to avoid removal of significant trees. They should be limited
31 to pervious surfaces no more than 5 feet in width and designed for pedestrian use only. Raised boardwalks
32 utilizing nontreated pilings shall be acceptable.

33 b. Wildlife-viewing structures.

34 5. Wells and necessary appurtenances, including a pump and appropriately sized pump house, but not including
35 a storage tank, when all the following conditions are met:

- 36 a. There is no viable alternative to the well site outside of the buffer;
- 37 b. The well is either an individual well serving only one residence or a Class B well serving a maximum of
38 15 connections and no more than 25 people;
- 39 c. The pump house is a building with a ground area of less than 200 square feet; and
- 40 d. The new well complies with federal Safe Drinking Water Act and State Department of Health
41 requirements.

C. Subdivisions. The subdivision, short plat, or binding site plan applications where wetlands and/or associated buffers are present are subject to the following:

1. Land that is wholly within a wetland and/or wetland buffer may not be subdivided.

2. Land that is located partially within a wetland and/or wetland buffer may be subdivided provided that an accessible and contiguous portion of each new lot is:

a. Located outside of the wetland and wetland buffer; and

b. All proposed lots meet the minimum requirements provided in EMC 18.80 for zoning district the property is located within.

14.40.060 Mitigation requirements.

A. Mitigation. Compensatory mitigation is required for all unavoidable alterations to wetlands and/or their buffers, ~~except for buffer averaging when done in accordance with this chapter. Compensatory mitigation actions shall replace functions affected by the alteration and shall provide equal or greater functions compared to the impacted wetland. All projects must first demonstrate compliance with~~ and the mitigation sequencing in EMC 14.10.070. ~~(B) prior to development of compensatory mitigation plans.~~

B. Requirements for Compensatory Mitigation.

1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans – Version 1, (Ecology Publication No. 06-06-011b, Olympia, WA, March 2006, or as revised), and Selecting Wetland Mitigation Sites Using a Watershed Approach (Western Washington) (Publication No. 09-06-32, Olympia, WA, December 2009).

2. Mitigation ratios shall be consistent with subsection F of this section.

3. Mitigation requirements may also be determined using the credit/debit tool described in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report (Ecology Publication No. 10-06-011, Olympia, WA, March 2012, or as revised) consistent with subsection I of this section.

~~CB.~~ Preference of Compensatory Mitigation Actions. Mitigation for wetland and buffer impacts shall rely on a method listed below in order of preference. A lower-preference form of mitigation shall be used only if the applicant's qualified wetland professional demonstrates to the Director's satisfaction that all higher-ranked types of mitigation are not viable consistent with the criteria in this section. ~~Compensatory mitigation of wetland areas shall occur in the following order of preference:~~

1. Restoration. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural ~~or~~ historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into:

a. Reestablishment. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. The reestablishment must result in a gain in wetland acres and functions. Activities could include removing fill material, plugging ditches, or breaking drain tiles.

b. Rehabilitation. The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. The rehabilitation must result in a gain in wetland function but does not result in a gain in wetland acres. ~~Activities~~ Examples activities could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland

2. Establishment (Creation). The manipulation of the physical, chemical, or biological characteristics of a site to develop a wetland on an upland or deep water site where a wetland did not previously exist. Creation results

in a gain in wetland ~~area and functions~~^{acres}. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydroperiod, create hydric soils, and support the growth of hydrophytic plant species.

a. If a site is not available for wetland restoration to compensate for expected wetland and/or buffer impacts, the Director may authorize establishment of a wetland and buffer upon demonstration by the applicant's qualified wetland professional that:

i. The hydrology and soil conditions at the proposed mitigation site are conducive for sustaining the proposed wetland and that establishment of a wetland at the site will not likely cause hydrologic problems elsewhere;

ii. Adjacent land uses and site conditions do not jeopardize the viability of the proposed wetland and buffer (e.g., due to the presence of invasive plants or noxious weeds, storm water runoff, noise, light, or other impacts); and

iii. The proposed wetland and buffer will eventually be self-sustaining with little or no long-term maintenance.

iv. The proposed wetland would not be established at the cost of another high-functioning habitat (i.e., ecologically important uplands).

~~3. Enhancement. The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, floodwater retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these activities~~^{3.} Preservation (Protection/Maintenance). The removal of a threat to, or preventing the decline of, wetlands by an action in or near those wetlands. This term includes activities commonly associated with the protection and maintenance of wetlands through the implementation of appropriate legal and physical mechanisms such as recording conservation easements and providing structural protection like fences and signs. Preservation does not result in a gain of aquatic resource area or functions but may result in a gain in functions over the long term. Preservation of a wetland and associated buffer can be used only if:

a. The Director determines that the proposed preservation is the best mitigation option;

b. The proposed preservation site is under threat of undesirable ecological change due to permitted, planned, or likely actions that will not be adequately mitigated under existing regulations;

c. The area proposed for preservation is of high quality or critical for the health and ecological sustainability of the watershed or sub-basin. Some of the following features may be indicative of high-quality sites:

i. Category I or II wetland rating.

ii. Rare or irreplaceable wetland type (e.g., peatlands, mature forested wetland, estuaries, vernal pools, alkali wetlands) or aquatic habitat that is rare or a limited resource in the area.

iii. The presence of habitat for threatened or endangered species (state, federal, or both).

iv. Provides biological and/or hydrological connectivity to other habitats.

v. Priority sites identified in an adopted watershed plan.

d. Permanent preservation of the wetland and buffer shall be provided through a legal mechanism such as a conservation easement or tract held by an appropriate natural land resource manager/land trust.

e. The Director may approve another legal and administrative mechanism in lieu of a conservation easement if it is determined to be adequate to protect the site.

4. Enhancement. The manipulation of the physical, chemical, or biological characteristics of a wetland site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, floodwater retention, or wildlife habitat. Enhancement results in a change in some wetland functions and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. Activities typically consist of planting vegetation, controlling nonnative or invasive species, modifying site elevations or the proportion of open water to influence hydroperiods, or some combination of these activities.

Applicants proposing to enhance wetlands and/or associated buffers shall demonstrate how the proposed enhancement will increase the wetland and/or buffer functions, how this increase in function will adequately compensate for the impacts, and how existing wetland functions at the mitigation site will be protected.

D. Location of Compensatory Mitigation. Compensatory mitigation actions shall generally be conducted within the same sub-drainage basin and on the site of the alteration except when the applicant can demonstrate that off-site mitigation is ecologically preferable. When considering off-site mitigation, preference should be given to using alternative mitigation, such as a mitigation bank, an in-lieu fee program, or advance mitigation. The following criteria will be evaluated when determining whether the proposal is ecologically preferable.

1. There are no reasonable opportunities on site or within the sub-drainage basin, or opportunities on site or within the sub-drainage basin do not have a high likelihood of success based on a determination of the capacity of the site to compensate for the impacts. Considerations should include: anticipated replacement ratios for wetland mitigation, buffer conditions and required widths, available water to maintain anticipated hydrogeomorphic class(es) of wetlands when restored, proposed flood storage capacity, and potential to mitigate riparian fish and wildlife impacts (such as connectivity);

2. On-site mitigation would require elimination of high-quality upland habitat;

3. Off-site mitigation has a greater likelihood of providing equal or improved wetland functions than the altered wetland;

4. Off-site locations shall be in the same sub-drainage basin unless:

a. Established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the city and strongly justify location of mitigation at another site; or

b. Fees are paid to an approved in-lieu fee program to compensate for the impacts;

5. The design for the compensatory mitigation project needs to be appropriate for its location (i.e., position in the landscape). Therefore, compensatory mitigation should not result in the creation, restoration, or enhancement of an atypical wetland.

~~C. Approaches to Compensatory Mitigation. Mitigation for alterations to wetland and their buffers shall rely on the approaches listed below:~~

~~1. Wetland Mitigation Banks. Credits from a certified wetland mitigation bank may be used to compensate for impacts within the service area specified in the mitigation bank instrument. Use of credits from a wetland mitigation bank certified under Chapter 173-700 WAC is allowed if:~~

~~a. The department determines that it would provide appropriate compensation for the proposed impacts;~~

~~b. The impact site is located in the service area of the bank;~~

~~e. The proposed use of credits is consistent with the terms and conditions of the certified bank instrument; and~~

~~d. Replacement ratios for projects using bank credits is consistent with replacement ratios specified in the certified mitigation bank instrument.~~

~~2. In Lieu Fee Mitigation. Credits from an approved in lieu fee program may be used when all the following apply:~~

~~a. The approval authority determines that it would provide environmentally appropriate compensation for the proposed impacts.~~

~~b. The proposed use of credits is consistent with the terms and conditions of the approved in lieu fee program instrument.~~

~~c. Projects using in lieu fee credits shall have debits associated with the proposed impacts calculated by the applicant's qualified wetland specialist using the credit assessment method specified in the approved instrument for the in lieu fee program.~~

~~d. The impacts are located within the service area specified in the approved in lieu fee instrument.~~

~~3. Permittee Responsible Mitigation. In this situation, the permittee performs the mitigation after the permit is issued and is ultimately responsible for implementation and success of the mitigation. Permittee responsible mitigation may occur at the site of the permitted impacts or at an off site location within the same watershed. If available, the use of wetland mitigation banks and in lieu fee programs are preferable to permittee responsible mitigation.~~

E. Timing of Compensatory Mitigation. It is preferred that compensatory mitigation projects be completed prior to activities that will impact wetlands. At the least, compensatory mitigation shall be completed immediately following disturbance and prior to use or occupancy of the action or development. Construction of mitigation projects shall be timed to reduce impacts to existing fisheries, wildlife, and flora.

1. The director may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window, or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, or general welfare of the public. The request for the temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification must be verified and approved by the city.

~~F~~D. Wetland Mitigation Ratios. When regulated activities occur in wetlands, the applicant shall compensate for any loss of acreage or function. Equivalent areas shall be determined according to acreage, functional value, type, location, time factors, and projected success. No overall net losses shall occur in wetland acreage, functions and/or values, and any restored, created, or enhanced wetland shall be as persistent as the wetland it replaces.

1. When an applicant proposes to alter or eliminate wetland(s), compensation shall be provided based on the ~~The mitigation~~ ratios listed in Table 14.40.060 ~~apply to permittee responsible mitigation~~. The first number specifies the acreage of replacement wetlands required, and the second number specifies the acreage of wetlands altered or relocated.

Table 14.40.060
Wetland Mitigation Ratios

Category and Type of Wetland	Creation or Reestablishment	Rehabilitation	Enhancement / <u>Preservation</u>
Category I: High-conservation value/bog	Not considered possible	Not considered possible	Not considered possible
Category I: Mature and old growth forest	6:1	12:1	24:1
Category I: Based on functions	4:1	8:1	16:1
Category II	3:1	6:1	12:1
Category III	2:1	4:1	8:1
Category IV	1.5:1	3:1	6:1

G. Impacts to buffers shall be mitigated at a minimum 1:1 ratio.

H. Credit/Debit Method. To more fully protect functions and values, and as an alternative to the mitigation ratios found in the joint guidance Wetland Mitigation in Washington State Part I (version 2) and II (Ecology Publication No. 21-06-003 and 06-06-011b, or as revised), the administrator may allow mitigation based on the “credit/debit” method developed by the Department of Ecology in Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Final Report (Ecology Publication No. 10-06-011, Olympia, WA, March 2012, or as revised).

I. In-lieu fee (ILF) mitigation. Credits from an approved in-lieu fee program may be approved for use as compensation for unavoidable impacts to wetlands when:

1. The Director determines that it would provide appropriate compensation for the proposed impacts and the ILF program bank has been locally approved for use/certified by the city.

2. The proposed use of credits is consistent with the terms and conditions of an ILF program approved by the Interagency Review Team.

3. Projects using ILF credits shall have debits associated with the proposed impacts calculated by the applicant’s qualified professional or using the credit assessment method specified in the approved ILF program

J. Protection of the Mitigation Site. The mitigation areas and associated buffer shall comply with EMC 14.70.010. This includes placing the these areas into a separate tract or conservation easement.

K. Mitigation Monitoring. Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for a period less than five years. If a scrub-shrub or forested vegetation community is proposed, monitoring may be required for 10 years or more. The mitigation plan shall include monitoring elements that ensure success for the wetland and buffer functions. If the mitigation goals are not attained within the initially established monitoring period, the applicant remains responsible for managing the mitigation project until the goals of the mitigation plan are achieved.

~~The director may increase the ratios under the following circumstances:~~

~~1. Uncertainty as to the probable success of the proposed restoration or creation;~~

~~2. Significant period of time between destruction and replication of wetland values;~~

~~3. Projected losses in functional value; or~~

~~4. The compensatory mitigation is off site.~~

~~E. Wetland Buffer Mitigation. To mitigate unavoidable impacts to functions and values of wetland buffers, a minimum buffer ratio of 1:1 (alteration area: mitigation area) is required. This ratio assumes that creation or restoration of a wetland buffer with appropriate native vegetation is sufficient to compensate for the wetland buffer functions and values affected by alteration of an existing wetland buffer. If enhancement of an existing buffer is proposed as mitigation, a higher mitigation ratio may be required. For any proposed buffer activities, the applicant must demonstrate that the functions and values of the altered buffer will be fully replaced by the proposed mitigation. The department may increase the buffer mitigation ratios under the following circumstances:~~

~~1. The replacement ratio needed to recover the lost functions and values of buffer area is greater than 1:1 based upon the existing type of vegetative cover of either the impact site or the proposed mitigation site;~~

~~2. Uncertainty exists as to the probable success of the proposed restoration or creation;~~

~~3. A significant period of time will elapse between impact and replication of wetland functions; or~~

~~4. The impact was an unauthorized impact.~~

~~F. Wetland and Buffer Mitigation Plans. Compensatory wetland mitigation plans shall be consistent with Wetland Mitigation in Washington State—Part 2: Developing Mitigation Plans (Ecology, 2006); and Selecting Wetland Mitigation Sites Using a Watershed Approach (Ecology, 2009), or as revised. Mitigation plans shall comply with the requirements established in EMC 14.40.070(B).~~

14.40.070 ~~Appendices~~ Additional critical area report requirements.

~~A. Wetland Report.~~

~~B. Wetland Mitigation Plan.~~

~~APPENDIX A~~

~~WETLAND REPORT~~

~~A. A Wetland Report. In addition to the general critical areas report requirements contained in EMC 14.10.080, wetland critical areas report shall, at a minimum, include the following shall be included:~~

~~1. The general critical areas report requirements in EMC 14.10.080;~~

~~2. A site map setting forth all of the following:~~

~~a. Surveyed wetland boundaries based upon a delineation by a wetland specialist;~~

~~b. Wetlands and buffers offsite, within 300 feet of the site boundaries, are also to be discussed and shown in as much detail as possible;~~

~~c. Site boundary property lines and roads;~~

~~d. A north arrow and scale;~~

~~e. Internal property lines, rights-of-way, easements, etc.;~~

~~f. Existing physical features of the site including buildings, fences, and other structures, roads, parking lots, utilities, water bodies, etc.;~~

~~g. Contours at the smallest readily available intervals, preferably at 2-foot intervals;~~

~~h. Hydrologic mapping showing patterns of surface water movement and known subsurface water movement into, through, and out of the site area; and~~

i. Location of all test holes and vegetation sample sites, and wetland boundary flags numbered to correspond with flagging in the field and field data sheets.

~~2. Map showing the location of all wetlands and required buffers within 300 feet of the proposed development;~~

~~23.~~ An analysis of the on-site wetland(s) include the following site- and proposal-related information:

a. Documentation of any fieldwork performed on the site, including, but not limited to, field delineation data sheets for delineations and wetland rating forms;

b. Wetland acreage;

c. Wetland category;

d. A discussion of the water sources supplying the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge);

e. A discussion of the functions of existing wetlands, including vegetative, faunal, and hydrologic conditions, and the presence of threatened, endangered, candidate, or priority habitat and species; and

f. A description of the methodologies used to conduct the wetland delineations;

~~4. A discussion of measures, including avoidance, minimization, and mitigation, proposed to preserve existing wetlands;~~

~~345.~~ A detailed discussion of the direct, and/or indirect, and cumulative potential impacts on the wetland by the project; and

~~476.~~ The wetland mitigation plan requirements of subsection Appendix B of this section, if the activity will result in unavoidable impacts to wetlands or their buffers.

~~APPENDIX B~~

~~WETLAND MITIGATION PLAN~~

BA. Wetland Mitigation Plan. A wetland mitigation plan shall, at a minimum, include the general mitigation plan requirements in EMC 14.10.090 and the following information:

1. Existing and proposed wetland acreage;

2. Vegetative and faunal conditions;

3. Surface and subsurface hydrologic conditions including an analysis of existing and future hydrologic regime and proposed hydrologic regime for enhanced, created, or restored mitigation areas;

4. Relationship within watershed and to existing water bodies;

5. Soils and substrate conditions, topographic elevations;

6. Existing and proposed adjacent site conditions;

7. Required wetland buffers (including any buffer reduction or averaging and mitigation proposed to enhance buffers);

8. Property ownership;

9. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs;

- 1 10. A bond estimate for the installation, site preparation, plant materials and installation, fertilizers, mulch, and
- 2 the proposed monitoring and maintenance work for the required number of years, pursuant to EMC
- 3 14.10.070(E).

~~Red-Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

Chapter 14.50

~~CRITICAL~~FISH AND WILDLIFE HABITAT CONSERVATION AREAS

Sections:

14.50.010 Purpose.

14.50.020 ~~Fish and wildlife habitat conservation area identification and classification.~~ Designation of fish and wildlife habitat areas.

14.50.030 Buffer standards – Fish and wildlife habitat conservation areas.

14.50.040 Fish and wildlife habitat conservation area review procedures.

14.50.050 Allowed activities.

14.50.060 Alteration of watercourses.

14.50.070 Mitigation requirements.

14.50.080 Appendix.

14.50.010 Purpose.

Many land use activities can impact the habitats of fish and wildlife. Special care must be taken in the management of lands that support fish and wildlife species to ensure that development occurs in a manner that is sensitive to their habitat needs. The purpose of this chapter is to identify fish and wildlife habitat conservation areas and establish habitat protection procedures and mitigation measures that are designed to result in no net loss of habitat functions and values. These areas are necessary for maintaining species in suitable habitats and habitat connectivity using conservation area designations, buffers, and open space corridors within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5).

14.50.020 Designation of fish and wildlife habitat conservation areas~~Fish and wildlife habitat conservation area identification and classification.~~

A. General. Fish and wildlife habitat conservation areas are defined in EMC 14.20.020.

B.A. Designation. Fish and wildlife habitat conservation areas include:

1. Designated critical habitat for federally or state-listed endangered, threatened, or sensitive species of fish, wildlife, or plants (specified in 50 CFR 17.11 and 17.12, WAC 220-610-010 and 220-610-110);

2. Areas containing priority habitat and species as identified by the Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) and Department of Natural Resources (DNR) Species Lists under the Natural Heritage program. These are also considered habitat and species of local importance.

3. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and wildlife habitat;

4. The portion of the special flood hazard area within 200 feet of the OHWM of any lake, river or stream;

5. Waters of the state, including all water bodies classified by the Washington State Department of Natural Resources water typing classification system as detailed in WAC 222-16-030, WDFW PHS Program, WDFW Site Potential Tree Height mapping tool, and Ecology's Washington State Hydrography Program together with associated riparian areas;

6. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;

7. State natural area preserves and natural resource conservation areas and state wildlife areas as designated by either DNR or WDFW;

~~Waters of the State. Waters of the state include lakes, rivers, ponds, streams, and all other surface waters and watercourses within jurisdiction of the state of Washington, as classified in WAC 222-16-030.~~

~~2. Areas with which federally designated endangered, threatened, and sensitive species have a primary association. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service should be consulted for current federal listing status.~~

~~3. Areas with which state designated endangered, threatened, and sensitive species have a primary association. The Washington Department of Fish and Wildlife should be consulted for current state listing status.~~

~~4. State priority habitats and areas associated with state priority species. The Washington Department of Fish and Wildlife should be consulted for current listing of priority habitats and species.~~

~~5. Habitats of and Species of Local Importance. The following fish and wildlife species and their associated habitat areas shall be regulated under this chapter:~~

~~a. Fish. Coho salmon (*Oncorhynchus kisutch*), pink salmon (*Oncorhynchus gorbusha*), chum salmon (*Oncorhynchus keta*), cutthroat trout (*Oncorhynchus clarkia*), and steelhead (*Oncorhynchus mykiss*).~~

~~b. Birds. Great blue heron (*Ardea herodias*) and green heron (*Butorides virescens*).~~

~~c. Areas with which state listed monitor or candidate fish or wildlife species or federally listed candidate fish or wildlife species have a primary association, and which if altered may reduce the likelihood that the species will survive and reproduce over the long term.~~

~~d. Heron rookeries.~~

86. Areas Not Included. Fish and wildlife habitat conservation areas do not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company.

~~B. Habitat Boundary Survey. If the department determines that a regulated habitat conservation area may be present within the project vicinity, the department may require the habitat area to be delineated and/or mapped by a qualified fisheries biologist or wildlife biologist who is knowledgeable of fish and wildlife habitat within western Washington, or by the Washington Department of Fish and Wildlife. The boundary of aquatic habitats shall be the ordinary high water mark of the water body. The management recommendations for Washington's priority habitats and species or federal equivalent should be used as a tool for identifying and delineating wildlife habitat boundaries. The city may waive this requirement if there is adequate information available on the area proposed for development to determine the impacts of the proposed development and appropriate mitigating measures.~~

C. Mapping. The approximate location and extent of waters of the state and fish presence within the city are ~~shown~~ provided and maintained within the city's Critical Area GIS database ~~on maps maintained by the city~~. The city shall update the ~~maps database~~ periodically as new information becomes available. The approximate location and extent of other fish and wildlife habitat conservation areas are shown on maps maintained by ~~the Washington Department of Fish and Wildlife~~ WDFW PHS Program, WDFW Site Potential Tree Height mapping tool, WDFW Nongame Database, WDFW SalmonScape, WDFW Water Resource Index Areas, Ecology's Washington State Hydrography Program, WDNR Water Type Reference Maps, WDNR Natural Heritage Database, and other state and federal agencies mapping that becomes available. These maps are to be used as a guide and do not provide definitive information about fish and wildlife habitat conservation area size or presence. Fish and wildlife habitat conservation areas may exist that do not appear on the maps.

~~D. Waters of the State Classification. The city hereby adopts the water typing system specified in WAC 222-16-030, as described below:~~

1. Type S. All waters, within their ordinary high water mark, meeting the criteria as “shorelines of the state” and “shorelines of statewide significance” under Chapter 90.58 RCW. As of the effective date of this title, there are no Type S streams within the city’s jurisdiction.

2. Type F. Segments of natural waters other than Type S waters, which are within the bankfull widths of defined channels and periodically inundated area of their associated wetlands, or within lakes, ponds, or impoundments having a surface area of 0.5 acre or greater at seasonal low water and which in any case contain fish habitat.

3. Type Np. All segments of natural waters within the bankfull width of defined channels that are perennial non-fish-habitat stream. Perennial stream waters do not go dry any time of a year of normal rainfall. However, for the purpose of water typing, Type Np waters include the intermittent dry portions of the perennial channel below the uppermost point of perennial flow.

4. Type Ns. All segments of natural waters within the bankfull width of the defined channels that are not Type S, F, or Np waters. These are seasonal, non-fish-habitat streams in which surface flow is not present for at least some portion of a year of normal rainfall and are not located downstream from any stream reach that is a Type Np water. Ns waters must be physically connected by an aboveground channel system to Type S, F, or Np waters.

14.50.030 Buffer standards – Fish and wildlife habitat conservation areas.

A. Determining Buffer Widths. Buffers shall be required as set forth and provided in the critical areas report pursuant to EMC 14.10.080 and EMC 14.50.080; ~~for each habitat type. The required buffers shall be delineated, both on a site plan or plat, and on the property prior to approval of any regulated activity.~~

1. Aquatic-Riparian Habitat Conservation Areas ~~Buffers.~~

a. Riparian Buffers, consisting of undisturbed native vegetation, shall be required along all waterbodies that are classified based on the DNR water typing classification system (WAC 222-16-030).

b. The standard riparian buffer based on water typing classification is provided in Table 14.40.030.

Table 14.50.030
Buffer Standards

<u>Water Type</u>	<u>Buffer Width</u>
<u>Type F</u>	<u>100 ft.</u>
<u>Type Np</u>	<u>100 ft</u>
<u>Type Ns</u>	<u>100 ft</u>

b. The riparian buffer shall extend landward from the ordinary high-water mark (OHWM) of the regulated water body.

~~Buffers for aquatic habitat conservation areas shall be based upon the water type classification of the water body as specified in WAC 22-16-030. Refer to Table 14.50.030 for the water types and the associated buffer requirements.~~

~~b. The required buffer width shall be measured in all directions from the ordinary high-water mark.~~

c. The required riparian buffer shall be extended to include any adjacent or overlapping regulated wetland(s), landslide hazard areas, and their required buffers. Where this occurs along a Type F water, the minimum buffer width shall be 150 ft unless otherwise modified pursuant to this chapter.

~~The required buffer shall be extended to include any adjacent regulated wetland, landslide hazard area, or erosion hazard area and their respective buffers.~~

2. ~~Nonaquatic~~ Nonriparian Buffers ~~Habitat Conservation Areas.~~

a. Appropriate buffers for critical habitat areas and species not listed in Table 14.50.030 shall be determined on a case-by-case basis, based upon the needs of specific species or habitat area of study. The applicant shall identify these habitats and species in the critical area report pursuant to EMC 14.10.080. The Department will coordinate with WDFW in these instances to determine an appropriate buffer width and, when available, shall rely upon buffer widths specified in WDFW Priority Habitats and Species management recommendations. ~~shall be determined by the Washington Department of Fish and Wildlife or by a qualified wildlife biologist and documented in an approved habitat management plan.~~

Table 14.50.030

Buffer Standards

Water Type	Buffer Width ¹
Type S	150 ft. ²
Type F	100 ft.
Type Np	60 ft.
Type Ns	35 ft.

¹ ~~In the event that buffers for any habitat conservation area or other critical area are contiguous or overlapping, the landward-most edge of all such buffers shall apply.~~

² ~~As of the effective date of this title, there are no Type S streams within the city's jurisdiction.~~

B. Modification to Riparian or Nonriparian Buffers ~~Width Requirements~~. The standard buffer widths of subsection (A) of this section may be modified as follows:

1. Riparian and Nonriparian Buffer Averaging: Buffer width averaging allows certain portions of the buffer to be decreased if other portions of the buffer are increased. Buffer averaging may be approved by the Director, on a base-by-case basis, when the applicant demonstrates all of the following in the critical area report required pursuant to EMC 14.10.080:

a. No feasible alternatives to the site design or magnitude of the regulated activity could be accomplished without buffer averaging, this shall include demonstrating efforts to limit the degree or magnitude of the regulated activity.

b. The total area contained in the buffer area after averaging is no less than that which would be contained within the standard buffer;

c. The buffer averaging does not adversely reduce the riparian or nonriparian habitat functions or values. Special attention shall be given to anadromous fish and may require habitat protections measures for stream flows, water quality, temperature, substrates, and others based on the best available science;

d. The portion of the buffer subject to buffer averaging is less than 20 percent of the total buffer length on an individual project site.

e. The site contains variations in sensitivity due to existing physical characteristics or the character of the buffer varies in slope, soils, or vegetation; and

f. The buffer width is not reduced to less than 75 feet of the standard width.

~~Buffer Width Reductions. A buffer width reduction may be proposed through submittal of a habitat management plan. Buffer reductions of up to a maximum of 25 percent may be allowed when the applicant demonstrates the following circumstances:~~

~~a. Buffer encroachment is unavoidable.~~

~~b. The existing buffer is predominately unvegetated, composed of nuisance species, or is in an otherwise highly disturbed condition.~~

~~c. Buffer reduction with enhancement will provide equal or greater protection of current habitat functions and values and will not adversely affect salmon habitat.~~

~~d. The buffer reduction will not increase the risk of slope failure or downslope stormwater drainage impacts.~~

~~e. The minimum width of the buffer at any given point shall be at least 75 percent of the standard width, or 25 feet, whichever is greater.~~

~~f. The project includes a buffer enhancement plan as part of the mitigation required by EMC 14.50.070. The buffer enhancement plan shall use native plant species.~~

23. Buffer Width Increases. The department director may require increased buffer width(s) on a base-by-base basis when a wider buffer is necessary to protect habitat functions and values. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the habitat. The documentation shall include but not be limited to the following criteria: any of the following are identified:

a. A larger buffer is necessary to maintain viable populations of existing species or protect the existing functions of the habitat area;

b. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse habitat impacts;

c. The adjacent land has minimal vegetative cover or slopes greater than 20 percent; or

d. The habitat area is in an area of high tree blow-down potential. In these cases the habitat area may be expanded an additional 50 feet on the windward side.

4. Functionally Disconnected Buffer Area. Areas that are functionally and effectively disconnected from the habitat area, as described below, by an existing public or private road or legally established significant development may have the standard buffer width modified, as determined by the Director. Individual structures may not fully interrupt buffer function. In such cases, the allowable buffer exclusion should be limited in scope to just the portion of the buffer that is affected. A critical areas report shall be submitted pursuant to EMC 14.10.080 that evaluates whether a development functionally disconnects the buffer, or the extent of that impact, and analyze and document the buffer functionality. For the purposes of this provision:

a. “functionally and effectively disconnected” means that the road or other significant development effectively prevents the protective measures and support functions provided by a buffer, and the isolated portion of the standard buffer would provide insignificant biological, geological, or hydrological functions for the habitat area and/or stream; and

b. “significant development” includes built public infrastructure such as roads and railroads, and private developments such as homes or commercial structures.

14.50.040 Fish and wildlife habitat conservation area review procedures.

A.A. Habitat Management Plan. If the department’s maps, sources, or field investigations indicate that the proposed project area is located within 300-150 feet of a known or suspected fish or wildlife habitat conservation area, then the applicant shall submit a ~~habitat management plan~~ critical area report pursuant to EMC 14.10.080 prepared by a

qualified fisheries biologist or wildlife biologist and meeting the requirements of EMC 14.50.080. The report requirement ~~to provide a habitat conservation plan for habitat conservation areas~~ may be waived if the department determines that there are no potential adverse direct or indirect, direct, indirect, or cumulative impacts on designated species or habitats that would result from the proposed development activity. ~~Habitat management plans shall comply with the requirements established in EMC 14.50.080, Appendix.~~

14.50.050 Allowed activities.

A. The following activities may be permitted in fish and wildlife habitat conservation areas and/or their buffers upon submittal of a critical areas report pursuant to EMC 14.50.040 demonstrating all ~~when all~~ reasonable measures have been taken to avoid and mitigate adverse effects on species and habitats and a net loss of habitat functions will not occur. ~~In order to verify the following conditions, a habitat management plan meeting the requirements of EMC 14.50.080, Appendix, must be submitted.~~

1. Clearing and Grading. Clearing and grading activities shall be prohibited within a riparian or nonriparian buffer unless it is part of an authorized regulated activity or as otherwise allowed in these standards, the following shall apply:

a. Grading is allowed only during the designated dry season, which is typically regarded as beginning on May 1st and ending on October 1st of each year; provided, that the city may extend or shorten the designated dry season on a case-by-case basis, determined on actual weather and/or site conditions;

b. The soil duff layer shall remain undisturbed to the maximum extent possible. Where feasible, any soil disturbed shall be redistributed to other areas of the site;

c. The moisture-holding capacity of the topsoil layer shall be maintained by minimizing soil compaction or reestablishing natural soil structure and infiltrative capacity on all areas of the project area not covered by impervious surfaces.; and

d. Erosion and sediment control that meet or exceeds the standards set forth in the adopted stormwater management standards shall be provided.

2. Stream Erosion Control Measures. New or replacement stream erosion control measures shall be subject to the following standards:

a. The proposal complies with the provisions set forth in Chapter 14.110 EMC.

b. The required habitat management plan demonstrates the following:

i. Natural stream processes will be maintained. The project will not result in ~~increased beach erosion or~~ alterations to, or loss of, stream substrate within one-quarter mile of the site.

ii. The stream erosion control measure will not adversely impact fish and shall consider bioengineered methods consistent with Integrated Streambank Protection Guidelines (SPG) or wildlife habitat conservation areas or associated wetlands.

iii. Adequate mitigation measures, as set forth in EMC 14.50.070, are provided that ensure no net loss of riparian habitat or function occurs due to the proposed erosion control measure.

3. ~~Docks and Launching Ramps. Construction, reconstruction, repair, and maintenance of docks and public or private launching ramps are subject to all of the following:~~

a. The dock ~~or ramp~~ is located and oriented and constructed in a manner that minimizes adverse effects on water quality, movement of aquatic and terrestrial life, ecological processes, spawning habitat, and wetlands.

b. Docks and ramps shall meet or exceed all relevant state and federal permit requirements.

34. Roads, Trails, Bridges, and Rights-of-Way. Construction of trails, roadways, ~~bridges, and culverts~~ and minor road bridging may be allowed subject to the following standards:

a. There is no other feasible alternative route with less impact on the environment or has been approved by the City Council as part of a nonmotorized public trail system.

b. The crossing minimizes interruption of downstream movement of wood, ~~ice~~ and gravel, ~~and the movement of all fish and wildlife.~~

c. Stream crossings, where necessary, shall only occur as near to the perpendicular with the stream as possible and be limited to the minimum width necessary.

d. Road bridges and culverts are designed according to the latest versions of the ~~Washington Department of Fish and Wildlife~~ WDFW Water Crossing Design Guidelines (~~Washington Department of Fish and Wildlife~~) and the National Oceanic and Atmospheric Administration (NOAA) Guidelines for Salmonid Passage at Stream Crossings in Oregon, Washington, and Idaho, 2022, or as amended and approved by NOAA and incorporate WDFW climate-change resilient culvert design as appropriate. ~~Anadromous Salmonid Passage Facility Design guidelines (National Marine Fisheries Service).~~

e. Trails and associated viewing platforms shall be made of pervious materials.

f. mitigation, pursuant to EMC 14.50.070, for impacts is provided.

54. Utility Facilities. New utility lines and facilities are permitted to cross habitat conservation areas if they comply with the following standards:

a. Avoid fish and wildlife habitat conservation areas to the maximum extent possible.

b. Cross at an angle greater than 60 degrees to the centerline of the channel in streams or perpendicular to the channel centerline whenever boring under the channel is not feasible.

c. Crossings are contained within the footprint of an existing road or utility crossing where possible.

d. Avoid paralleling the stream or following a down-valley course near the channel.

~~e. Do not increase or decrease the natural rate of shore migration or channel migration.~~

~~f. Bore beneath the scour depth and hyperheic zone of the water body and channel migration zone (CMZ) where feasible.~~

65. Public Flood Protection Measures. New public flood protection measures and expansion of existing facilities may be approved, subject to the department's review and approval of a habitat management plan.

76. Instream Structures. New instream structures (such as, but not limited to, high flow bypass, sediment ponds, instream ponds, retention and detention facilities, dams, weirs, etc.) shall be allowed only as part of an approved mitigation or restoration project or watershed basin plan approved by the department and upon acquisition of any required state or federal permits. The structure shall be designed to avoid modifying flows and water quality in ways that may adversely affect ~~critical~~ all fish species at all life stages. Proposals for placement of water quality, water quantity, or other instruments or structures within a stream to gather data, or as a mitigation measure, shall be exempt from the provisions of this title upon review and approval by the department.

87. Stormwater ~~Conveyance~~ Facilities. Stormwater facilities, limited to open detention/retention and/or treatment ponds or vaults, bioretention and/or media filtration treatment facilities, Conveyance structures or open-channels whose sole purpose is to convey stormwater either already treated for quality, ~~or water~~ bypassed around ~~water quality~~ treatment facilities pursuant to an approved stormwater plan, may be constructed if subject to the following standards:

a. No other feasible alternatives with less impact on the critical area or buffer exist;

b. Mitigation for impacts is provided;

c. ~~Stormwater~~ Conveyance facilities ~~shall~~ incorporate fish habitat features;

d. Vegetation ~~shall be~~ is maintained and, if necessary, added adjacent to all open channels and ponds in order to retard erosion, filter out sediments, and shade the water; and;

e. The stormwater facility is designed according to city standards.

9. Wells and necessary appurtenances, including a pump and appropriately sized pump house, but not including a storage tank, when all the following conditions are met:

a. There is no viable alternative to the well site outside of the buffer;

b. The well is either an individual well serving only one residence or a Class B well serving a maximum of 15 connections and no more than 25 people;

c. The pump house is a building with a ground area of less than 200 square feet; and

d. The new well complies with federal Safe Drinking Water Act and State Department of Health requirements.

8. On-Site Sewage Systems ~~and Wells~~.

a. ~~New on-site sewage systems and individual wells are permitted if accessory to an approved structure.~~ New on-site sewage systems may be permitted in a riparian buffer only if it is accessory to a single principal dwelling unit structure on the subject property and it is not required by code to connect to a public sanitary sewer system. Such systems shall be located outside of the stream buffers to the maximum extent possible. All on-site sewage systems must comply with the Washington State Department of Health and WAC 246-272A.

b. Repairs to failing on-site sewage systems ~~associated with an existing structure~~ shall be accomplished by utilizing one of the following methods that result in the least impact:

i. Connection to an available public sewer system;

ii. Replacement with a new on-site sewage system located in a portion of the site that has already been disturbed by development and is located landward as far as possible, provided the proposed sewage system is in compliance with the provisions in Chapter 14.80 EMC; or

iii. Repair to the existing on-site septic system.

B. The activities listed below are allowed in fish and wildlife habitat conservation areas and their buffers and ~~do not~~ would not require submission of a ~~habitat management plan~~ critical areas report, except where such activities would result in a loss of the functions and values of habitat conservation areas or buffers. The proponent shall notify the department of the activity and obtain any other required permits.

1. Vegetation Removal, Disturbance, and Introduction. Limited vegetation removal shall be allowed subject to EMC 18.90.180, Tree preservation, and the following standards:

a. Hazard trees may be cut; provided, that:

- ~~i. The applicant submits a report from a certified arborist, licensed architect, or professional forester that documents the hazard and provides a replanting schedule for the replacement trees and receives written approval from the city authorizing the tree removal;~~
 - ii. Tree cutting shall be limited to limbing and crown thinning, unless otherwise justified by the landowner's expert. Where limbing or crown thinning is not sufficient to address the hazard, trees should be topped to remove the hazard rather than cut at or near the base of the tree. All vegetation cuttings (tree stems, branches, tops, etc.) shall be left within the habitat area or buffer unless removal is warranted due to the potential for disease transmittal to other healthy vegetation;
 - iii. The landowner shall replace any trees that are felled or topped with new trees at a ratio of two replacement trees for each tree felled or topped. Tree species that are native and indigenous to the site shall be used;
 - ~~iv. Hazard trees determined to pose an imminent threat or danger to public health or safety, or to public or private property, or serious environmental degradation may be removed or topped by the landowner prior to receiving written approval from the department; provided, that within 14 days following such action, the landowner shall submit the necessary report and replanting schedule demonstrating compliance with subsections (B)(1)(a)(i) through (iii) of this section.~~
 - b. Trimming of vegetation for purposes of providing a view corridor will be allowed. The trimming is limited to a maximum 20-foot width and the benefit to fish and wildlife habitat may not be reduced. No more than 30 percent of the live crown may be removed. Trimming shall be limited to hand pruning of branches and vegetation and does not include felling, topping, or the removal of trees.
2. Fencing. Fencing shall be placed in such a manner as to maintain wildlife movement corridors and not create any fish passage blockages. The department shall approve the location, type, and height of any proposed fencing.

14.50.060 Alteration of watercourses.

Any alteration of a watercourse shall comply with the following standards:

- A. The city will notify adjacent communities, Washington State Department of Ecology, Washington State Department of Fish and Wildlife, Washington State Department of Natural Resources, and the Puyallup Tribe of Indians. ~~The city will notify adjacent communities and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse proposed by the applicant and submit evidence of such notification to the Federal Insurance Administration.~~
- B. The city shall require that long-term maintenance be provided within the altered or relocated portion of said watercourse, so that the flood-carrying capacity is not diminished. Therefore, if the maintenance program calls for future cutting of planted native vegetation used in performing the alteration, the system shall be oversized at the time of construction to compensate for said vegetation growth or any other natural factor that may need future maintenance.
- C. Alterations and relocations, including stabilization projects, shall not degrade fish habitat and shall be subject to the following provisions:
 1. Structures that cross all watercourses and water bodies shall meet fish habitat requirements of the ~~Washington Department of Fish and Wildlife~~ WDFW.
 2. Any culverts that are used on fish-bearing watercourses shall be arch/bottomless culverts or equivalent that provide comparable fish protection, and must meet fish habitat requirements of the latest edition of WDFW ~~Washington Department of Fish and Wildlife~~'s Design Manual for Culverts and incorporate WDFW climate-change resilient culvert design as appropriate.

3. Bridges or other crossings shall allow for uninterrupted downstream movement of wood and gravel, be as close to perpendicular to the watercourse as possible, and be designed to minimize fill and to pass the base flood flows.

4. Watercourse alterations shall maintain natural meander patterns, channel complexity, and floodplain connectivity. Where feasible, such characteristics shall be restored as part of the watercourse alteration.

5. The applicant shall identify the channel migration zone for the watercourse at the project site and for a reasonable reach upstream and downstream of the site, and shall not undertake actions as part of the alteration that would in any way inhibit movement of the channel.

6. Existing culverts that do not meet fish habitat requirements shall be removed or replaced as part of the approved watercourse alteration project.

7. Watercourse alteration projects shall not result in a fish blockage of side channels. Known fish barriers into side channels shall be removed as part of the approved watercourse alteration project.

8. Watercourse alterations should provide a riparian buffer width in accordance with Table 14.50.030, where feasible. The riparian buffer shall be replanted with native vegetation that replicates the natural, undisturbed riparian condition in species, size, and densities.

98. For any watercourse alteration of a Type ~~S or F~~ water_ ~~pursuant to EMC 14.50.020(D)~~ whose channel is subject to migration, bioengineered (soft) armoring of stream banks is required to allow for woody debris recruitment, gravels for spawning, and creation of side channels. The bioengineering technique used must be designed in accordance with the latest edition of Washington Department of Fish and Wildlife's Integrated Streambank Protection Guidelines.

D. The project engineer shall design the watercourse alteration so the activity does not increase the water surface elevation (zero-rise); decrease the capacity, storage, and conveyance of the watercourse; or cause an adverse impact to adjacent, cross-channel, or upstream or downstream properties.

14.50.070 Mitigation requirements.

A. Mitigation. Compensatory mitigation is required for all unavoidable alterations to fish and wildlife habitat conservation areas or their buffers. Mitigation of alteration to habitat areas shall achieve equivalent or greater biological functions. Mitigation shall address each functional attribute affected by the alteration to achieve functional equivalency or improvement on a per function basis. Mitigation elements to be addressed may include, but are not limited to: restoration of previously degraded areas and key habitat features, restoration of riparian vegetation communities to provide shade and large woody debris, addition of large woody debris, and installation of upland habitat features. All projects must first demonstrate compliance with EMC 14.10.070(B) prior to development of compensatory mitigation plans.

B. Type of Mitigation Required. In determining the extent and type of mitigation required, the department may consider all of the following:

1. The ecological processes that affect and influence habitat structure and function within the watershed or sub-basin;

2. The individual and cumulative effects of the action upon the functions of the critical area and associated watershed;

3. Observed or predicted trends regarding the gains or losses of specific habitats or species in the watershed, in light of natural and human processes;

4. The likely success of the proposed mitigation measures;

5. Effects of the mitigation actions on neighboring properties; and

6. Opportunities to implement restoration actions formally identified by an adopted ~~shoreline restoration plan,~~ watershed planning document prepared and adopted pursuant to Chapter 90.82 RCW, a salmonid recovery plan or project that has been identified on the Salmon Recovery Board habitat project list or by the Washington Department of Fish and Wildlife as essential for fish and wildlife habitat enhancement.

C. Location. Compensatory mitigation shall be provided on site or off site in the location that will provide the greatest ecological benefit to the species or habitats affected and have the greatest likelihood of success. Mitigation shall occur as close to the impact site as possible, within the same sub-basin, and in a similar habitat type as the permitted alteration. If the applicant submits a watershed- or landscape-based analysis that demonstrates mitigation within an alternative sub-basin of the same watershed would have greater ecological benefit, then the director may approve the demonstrated alternate mitigation.

D. Mitigation Plans. When required by this chapter, the applicant shall submit a fish and wildlife habitat conservation area mitigation plan meeting the requirements of this chapter.

14.50.080 ~~Appendix~~ Additional critical area report requirements.
~~APPENDIX A~~

~~HABITAT MANAGEMENT PLAN~~

A. Habitat Management Plan. In addition to the general critical areas report requirements contained in EMC 14.10.080, ~~A habitat management plan shall, at a minimum, include~~ the following shall be included:

~~1. The general critical areas report requirements;~~

~~12. Identification~~ Identify and describe any habitats and species regulated as a fish and wildlife habitat conservation areas as designated in EMC 14.50.020(B) within 300 feet of the project area;

~~of any endangered, threatened, sensitive, or candidate species that have a primary association with habitat on the project area;~~

~~23.~~ Map showing the location of the ordinary high water mark and locations of wildlife habitat conservation area(s) and their buffers;

~~4. The vegetative, faunal, topographic, and hydrologic characteristics of the habitat conservation area;~~

~~45.~~ A discussion of any federal, state, or local special management recommendations, including Washington Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitat located on or adjacent to the project area;

~~56.~~ A detailed discussion of the direct (~~remove or destroy habitat, displacement, etc.~~) and/or indirect (impacts that occur later in time) ~~potential~~ impacts on the fish and wildlife habitat conservation area by the project. Such discussion shall include a discussion of the ongoing management practices that will protect habitat after the project site has been developed;

~~B. 7-Habitat Management Mitigation plan. A habitat management mitigation plan shall, at a minimum include the general mitigation plan requirements in EMC.14.10.090 and the following information:~~

1. Adverse impacts to riparian and nonriparian habitats, as determined by the director, shall be fully mitigated in accordance with the standards set forth in EMC 14.10.070(B).

2. Mitigation for alterations to habitat areas shall achieve equivalent or greater biologic functions, and shall provide similar functions as those lost

3. An assessment of the habitat and species recommendations proposed by federal and state agencies and their applicability to the proposal

1 3. A discussion of any ongoing management practices that will protect the fish and wildlife conservation area after
2 the site has been developed, including proposed monitoring and maintenance programs.

3 4. A bond estimate for the proposed mitigation installation, monitoring, and maintenance pursuant to EMC
4 14.50.070.

5 ~~-if the activity will result in unavoidable impacts to habitat conservation areas. Mitigation measures may include:~~

6 ~~a. Prohibition or limitation of use and development activities within the habitat conservation area;~~

7 ~~b. Retention of vegetation and/or revegetation of areas/habitats critically important to species;~~

8 ~~c. Special construction techniques;~~

9 ~~d. Implementation of erosion and sediment control measures;~~

10 ~~e. Habitat restoration or enhancement, i.e., fish passage barrier removal;~~

11 ~~f. Seasonal restrictions on construction activities on the subject property;~~

12 ~~g. Clustering of development activities on the subject property; and/or~~

13 ~~h. Any other requirements and/or recommendations from federal, state, or local special management-~~
14 ~~recommendations, including the Washington Department of Fish and Wildlife's habitat management guidelines.~~

~~Red-Strikeout~~ = Text Removed

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Chapter 14.60

CRITICAL AQUIFER RECHARGE ~~AND WELLHEAD PROTECTION AREAS~~ Draft Amendments

Sections:

- 14.60.010 Purpose.
- 14.60.020 Critical aquifer recharge areas identification.
- 14.60.030 Critical aquifer recharge areas review procedures.
- 14.60.040 Critical aquifer recharge areas standards.
- 14.60.050 Appendices.

14.60.010 Purpose.

The purpose of this chapter is to protect critical aquifer recharge areas from degradation or depletion resulting from new or changed land use activities. Due to the exceptional susceptibility and vulnerability of groundwater underlying aquifer recharge areas to contamination and the importance of such groundwater as sources of public water supply, it is the intent of this chapter to safeguard groundwater resources and wellhead protection areas by mitigating or precluding future discharges of any contaminant from new land use activities.

14.60.020 Critical aquifer recharge areas identification.

A. General. Critical aquifer recharge areas are areas that have a critical recharging effect on groundwater used for potable water supplies and/or that demonstrate a high level of susceptibility or vulnerability to groundwater contamination from land use activities. These areas include the following:

1. Aquifer recharge areas, which are the boundaries of the two highest DRASTIC zones that are rated 180 and above on the DRASTIC index range, as identified in Map of Groundwater Pollution Potential, Edgewood, Washington, National Water Well Association, U.S. Environmental Protection Agency (EPA); and

2. Wellhead protection areas, as defined in Chapter 14.20 EMC ~~;~~ ~~and~~

~~3. Sole source aquifers, which are areas that have been designated by the EPA pursuant to the Federal Safe-Drinking Water Act. As of the effective date of this title, there are no designated sole source aquifers within city limits.~~

14.60.030 Critical aquifer recharge areas review procedures.

A. General Requirements.

1. The city's ~~critical aquifer recharge areas map~~ Critical Area GIS database provides an indication of where critical aquifer recharge areas are located within the city ~~and the map is updated as necessary~~. This database utilizes the resources identified in EMC 14.60.020 and is periodically updated as new information become available.

2. The department will complete a review of the city's Critical Area GIS database ~~d~~ for any development proposal to determine whether the proposed project area for a regulated activity falls within a critical aquifer recharge area.

2. Any ~~proposed development~~ regulated activity located within critical aquifer recharge areas shall comply with the standards set forth in this chapter.

3. Any hazardous uses, as detailed in section 14.60.040(D), shall require the submittal of a hydrogeologic assessment, as set forth in EMC 14.60.050, Appendix A ~~subsection (B) of this section~~. Other uses do not require the submittal of a hydrogeologic assessment.

4. For the purposes of regulating this chapter, “director” means the Public Works Director or their designee.

~~5. The department may waive critical area protective measure provisions contained in Chapter EMC 14.10.070-EMC, as deemed appropriate by the director and can be shown to meet the requirements associated with best-available science, if required.~~

~~B. Hydrogeologic Assessment. When required per subsection (A), above, the hydrogeologic assessment shall:~~

~~1. The hydrogeologic assessment shall be prepared, signed, and dated by a state licensed geologist or hydrogeologist.~~

~~2. The hydrogeologic assessment shall be submitted in the form of a report detailing the subsurface conditions, the design of a proposed land use action, and the facilities operation which indicates the susceptibility and potential for contamination of groundwater supplies. The hydrogeologic assessment shall, at a minimum, include the general critical area report requirements of Chapter 14.10 EMC in addition to the following 15 items:~~

~~a. Information sources;~~

~~b. Geologic setting includes well logs or borings used to identify information;~~

~~c. Background water quality;~~

~~d. Groundwater elevations;~~

~~e. Location and depth to perched water tables;~~

~~f. Recharge potential of a facility site, i.e., the permeability and transmissivity;~~

~~g. Groundwater flow direction and gradient;~~

~~h. Current available data on wells located within one quarter mile of the site;~~

~~i. Current available data on any spring within one quarter mile of the site;~~

~~j. Surface water location and recharge potential;~~

~~k. Water source supply to a facility, e.g., a high capacity well;~~

~~l. Any sampling schedules necessary;~~

~~m. Discussion of the effects of the proposed project on the groundwater resource;~~

~~n. Discussion of potential mitigation measures, should it be determined that the proposed project will have an adverse impact on groundwater resources; and~~

~~o. Any other information as required by the TPCHD, including information required under Washington Department of Ecology Publication No. 97-30.~~

BC. Underground Storage Tank (UST) Permits. In addition to the requirements set forth in this title, the following ~~agencies also have the authority to~~ regulate the installation, repair, replacement, or removal of any UST:

1. The city’s Building and Fire Official ~~The Pierce County fire prevention bureau~~ regulates and authorizes permits for all UST’s, and all hazardous above-ground storage tanks, pursuant to the International Fire Code (Article 79) and this chapter.

2. The Washington State Department of Ecology regulates and authorizes permits for all USTs (Chapter 173-360 WAC).

3. The TPCHD regulates and authorizes permits for the removal of any UST (Pierce County Code, Chapter 8.34, as adopted by reference under EMC 8.05).

14.60.040 Critical aquifer recharge areas standards.

A. Exemptions. In addition to the general exemptions listed in EMC 14.30.030, the following uses or activities are exempt from the requirements of this chapter:

1. Sanitary sewer lines and their appurtenances; and

2. Individual on-site domestic ~~sewage~~ septic systems or ~~unit lot short plat subdivision off site~~ community septic systems releasing less than 14,500 gallons of effluent per day, subject to TPCHD permit requirements.

~~A. General. All regulated activities that are not exempt or prohibited under the provisions of this chapter shall ensure sufficient groundwater recharge. In order to achieve sufficient groundwater recharge, the applicant shall comply with the city's adopted stormwater manual, Chapter 13.05 EMC, and demonstrate to the director that the total post-development infiltration rate for the project area will be equal to or better than the predevelopment rate.~~

B. Prohibited Uses. Because of high potential for contamination, and low potential for remediation of ground waters used as potable water sources, the following uses of land shall be prohibited within critical aquifer recharge areas~~the city:~~

1. Landfills (other than inert and demolition landfills), including hazardous and dangerous waste.

2. Underground injections wells, except as proposed by public agency for remediation of groundwater contamination or aquifer enhancement.

3. Metals mining.

4. Wood treatment facilities.

5. Storage, transfer, processing, or disposal of radioactive substances.

6. Pesticide/fertilizer manufacturing facilities.

6. Storage of more than 70,000 gallons of liquid petroleum or other hazardous substances.

7. Other uses or activities determined by the department have a significant impact on groundwater.

~~Landfills (other than inert and demolition landfills), Class I, III, and IV underground injection wells, metals mining, wood treatment facilities, pesticide manufacturing, petroleum refining facilities (including distilled petroleum facilities), the storage of large volumes of petroleum products, and other uses or activities determined by the department to have a significant adverse impact on groundwater are prohibited within critical aquifer recharge areas.~~

~~C. Exemptions. In addition to the general exemptions listed in EMC 14.30.030, the following uses or activities are exempt from the requirements of this chapter:~~

~~1. Sanitary sewer lines and appurtenances;~~

~~2. Biosolids and sludge land application sites; provided, that these activities comply with the requirements established in Chapters 173-200, 173-216, and 173-304 WAC; and~~

~~3. Single family and two family dwellings and associated accessory structures, including any non hazardous uses appurtenant thereto, on existing lots of record. However, appurtenant storage tanks are not exempt and are subject to the standards under subsection (G), below.; and~~

~~4. Non-hazardous uses with an associated and approved Industrial Stormwater General Permit issued by the Washington State Department of Ecology.~~

C.D. Agricultural Activities. New agricultural activities that do not involve hazardous substance handling or application are allowed within an aquifer recharge or wellhead protection area provided that the criteria in EMC 14.60.040-(G) are met. ~~subject to the following:~~

~~1. The applicant is required to submit a farm management plan prepared by the USDA, NRCS, Pierce County Conservation District, or Washington State University Cooperative Extension Office, that certifies that water quality and quantity within the aquifer recharge area is maintained. The farm management plan shall at a minimum address the following:~~

~~a. The limits of the proposed agricultural activities.~~

~~b. The proposed scope of agricultural activities, including the use of any pesticides, fertilizers, or other chemicals.~~

~~c. The existing nitrate levels on the site and any proposed increases in nitrate levels.~~

~~2. Integrated pest management (IPM) practices for pest control and BMPs for the use of fertilizers, as described by the Washington State University Pierce County Cooperative Extension Office, shall be utilized.~~

~~3. Nitrate levels at down gradient property line shall not exceed 2.5 mg/L or, if the background nitrate concentration exceeds 2.5 mg/L, the concentration will not be increased more than 0.1 mg/L.~~

~~4. Additional protective measures may be required if deemed necessary by the department or TPCHD to protect public health or safety.~~

D. The following hazardous land uses may only be permitted after review and approval of a hydrogeological assessment demonstrating compliance with EMC 14.60.040. The hydrogeologic assessment shall comply with EMC 14.60.050 and will be reviewed by the department and sent to TPCHD for concurrence. ~~review.~~

a. Animal containment areas;

b. Automobile washing facilities;

c. Below-ground storage tanks (UST's);

c. Hazardous substance processing or handling facilities;

d. Hazardous waste treatment, storage, or disposal facilities;

e. Inert and demolition waste landfills;

g. Significant diversion, alteration or reduction to the flow of ground water, or the impact on a regulated stream base flows or ability in sustaining regulated wetlands; and

h. Facilities with the potential to generate hazardous waste, including, but not limited to, boat repair facilities, biological research facilities, dry cleaners, furniture stripping, motor vehicle service garages, photographic processing, and printing shops.

E. General. All regulated activities that are not exempt or prohibited under the provisions of this chapter shall ensure sufficient groundwater recharge. In order to achieve sufficient groundwater recharge, the applicant shall comply with the city's adopted stormwater manual, Chapter 13.05 EMC, and demonstrate to the director that the total post-development infiltration rate for the project area will be equal to or better than the predevelopment rate.

F. The proposed land use and development shall comply with the critical area protective measure provisions contained in EMC 14.10.070 unless the department waives these measures as deemed appropriate by the director and can be shown to meet the requirements associated with BAS.

GE. Protection Standards - Nonhazardous Uses. Subdivision of land as defined in EMC Title 16, ~~residential structures housing three or more units multi-family, and all commercial, -and industrial sites or activities~~ uses or development that do not include or involve hazardous substance processing or handling in critical aquifer recharge areas are allowed subject to the following standards:

~~1. Stormwater quality treatment and flow control shall be provided in conformance with the city's adopted stormwater management manual.~~ The land use and development complies with EMC 14.60.040(D), above.

2. Floor drains shall not be allowed to drain to the stormwater system and must be designed and installed to meet the Uniform Plumbing Code (UPC), as adopted in Title 15 EMC.

3. If any roof venting carries a contaminant, then the portion of the roof draining from this area must go through pretreatment pursuant to the UPC, as adopted in Title 15.

4. All nonresidential vehicle washing must be self-contained or be discharged to a sanitary sewer system, if approved by the sewer utility, and is subject to the UPC, as adopted in Title 15 EMC.

5. Application of household pesticides, herbicides, and fertilizers shall not exceed times and rates specified on the packaging. Integrated pest management (IPM) practices for pest control and BMPs for the use of fertilizers, as described by the Washington State University Pierce County Cooperative Extension Office, shall be utilized.

6. On-site and off-site septic systems shall demonstrate compliance with health district TPCHD requirements. For new or changes in regulated activities served by on-site sewage systems, the applicant must demonstrate to the TPCHD that nitrate levels at the down gradient property line will not exceed 2.5 mg/L or that if the background nitrate concentration exceeds 2.5 mg/L the concentration will not be increased more than 0.1 mg/L.

7. Additional protective measures may be required if deemed necessary by the department ~~or TPCHD~~ to protect public health or safety.

HF. Protection Standards – General Hazardous Uses ~~General. Hazardous substance processing or handling, hazardous waste treatment and storage facilities, animal containment areas, and solid waste facilities that require a solid waste handling permit from the TPCHD, requiring approval from the city, shall be allowed only in critical aquifer recharge areas.~~ The land use and development shall demonstrate that the proposed activity will not cause contaminants to enter the aquifer and that the proposed activity will not adversely affect the recharging of the aquifer and complies with all federal and state laws. Based on the available information, the director shall have discretion to impose conditions designed to prevent degradation of ground water quality or quantity. Such conditions may include a hydrologic site evaluation, determination of background water quality, quantity, and ground water levels prior to approval and development of ground water quality and/or quantity management plans. All conditions shall be based on all known, available, and reasonable methods of prevention, control, and treatment. subject to review and approval of a hydrogeologic assessment by the department and review by the TPCHD. The department has the authority to apply whatever standards deemed necessary to mitigate any negative impacts that may be associated with the proposed development and will consider comments by TPCHD.

IG. Protection Standards – Hazardous Uses – Storage Tanks. In addition to the requirement to submit a hydrogeologic assessment, the following standards apply to storage tanks in critical aquifer recharge areas:

1. Underground ~~Tanks~~. All new UST's ~~underground storage facilities~~ used or to be used for the underground storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:

a. Prevent releases due to corrosion or structural failure for the operational life of the tank;

b. Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance;

c. Use material in the construction or lining of the tank which is compatible with the substance to be stored; and

d. The installation of any UST shall also be subject to other state and local permit requirements, pursuant to EMC 14.60.030(B).

2. Aboveground ~~Tanks~~.

a. No new above-ground storage facility or part thereof shall be fabricated, constructed, installed, used, or maintained in any manner which may allow the release of a hazardous substance to the ground, groundwater, or surface water within any critical aquifer recharge areas.

~~b. No new aboveground tank or part thereof, with the exception of tanks for potable water, shall be fabricated, constructed, installed, used, or maintained without having constructed around and under it an impervious containment area enclosing or underlying the tank or part thereof.~~

eb. A new above-ground tank that will contain a hazardous substance will require both a double-walled tank and a secondary containment system separate from the tank that will hold 110 percent of the tank's capacity. The secondary containment system or dike system must be designed and installed / constructed with impervious materials to contain all of the material stored in the tank(s).

J. Protection Standards – Hazardous Uses – Vehicle Repair and Servicing.

1. Vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should any leaks occur.

2. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity.

14.60.050 Additional critical area report requirements.

A. Hydrogeologic Assessment shall, at a minimum, include the following:

1. Hydrological assessment shall include the general critical report requirements pursuant to EMC 14.10.080

2. Prepared, signed, and dated by a geotechnical professional.

3. Include, but no limited to:

a. Information sources;

b. Geologic setting – includes well logs or borings used to identify information;

c. Background water quality;

d. Groundwater elevations;

e. Location and depth to perched water tables;

f. Recharge potential of a facility site, i.e., the permeability and transmissivity;

- 1 g. Groundwater flow direction and gradient;
- 2 h. Currently available data on wells located within one-quarter mile of the site;
- 3 i. Currently available data on any spring within one-quarter mile of the site;
- 4 j. Surface water location and recharge potential;
- 5 k. Water source supply to a facility, e.g., a high capacity well;
- 6 l. Any sampling schedules necessary;
- 7 m. Discussion of the effects of the proposed project on the groundwater resource;
- 8 n. Discussion of potential mitigation measures, should it be determined that the proposed project will have
- 9 an adverse impact on groundwater resources; and
- 10 o. Any other information as required by the Director.

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Chapter 14.70
VOLCANIC HAZARD AREAS
Draft Amendments

Sections:

- 14.70.010 Purpose.
14.70.020 Volcanic hazard areas.
14.70.030 Volcanic hazard area review procedures.
14.70.040 Volcanic hazard area standards.

14.70.010 Purpose.

At over 14,411 feet high, Mount Rainier dominates the skyline of the southern Puget Sound region. This glacier-clad mountain is a dormant volcano capable of generating large floods and lahars which have historically reached the floors of the lowlands south of the city of Seattle and out to Commencement Bay in the Port of Tacoma, spewing ash from pyroclastic eruptions. The purpose of this chapter is to promote the public health, safety, and general welfare of the ~~citizens~~ residents of Edgewood by providing standards that minimize the loss of life that may occur as a result of volcanic events emanating from Mount Rainier and the Cascade Mountain Range.

14.70.020 Volcanic hazard areas.

A. General. Volcanic hazard areas are areas subject to pyroclastic flows, lava flows, and inundation by debris flows, mudflows, or related flooding resulting from geologic and volcanic events ~~on Mount Rainier~~.

B. Volcanic Hazard Area Categories. Volcanic hazard areas are areas that have been historically inundated by ~~Case I, Case II, or Case III~~ lahars or other types of debris flow; affected by pyroclastic flows, pyroclastic surges, lava flows, or ballistic projectiles in future eruptions; or are located in other drainages expected to be inundated by a future ~~Case I, Case II, or Case III~~ debris flow. Volcanic hazard areas within the city are classified into the following categories:

1. Inundation Zone for Case I Lahars. Areas that could be affected by cohesive lahars that originate as enormous avalanches of weak chemically altered rock from the volcano. Case I lahars can occur with or without eruptive activity. The average reoccurrence rate for Case I lahars on Mount Rainier is about 500 to 1,000 years.

2. Inundation Zone for Case II Lahars. Areas that could be affected by relatively large noncohesive lahars, which most commonly are caused by the melting of snow and glacier ice by hot rock fragments during an eruption, but which can also have a noneruptive origin. The average time interval between Case II lahars from Mount Rainier is near the lower end of the 100- to 500-year range, making these flows analogous to the so-called "100-year flood" commonly considered in engineering practice.

~~3. Inundation Zone for Case III Lahars. Areas that could be affected by moderately large debris avalanches or small noncohesive lahars, glacial outburst floods, or other types of debris flow, all of noneruptive origin. The average time interval between Case III lahars at Mount Rainier is about one to 100 years.~~

~~4. Pyroclastic Flow Hazard Zone. Areas that could be affected by pyroclastic flows, pyroclastic surges, lava flows, and ballistic projectiles in future eruptions. During any single eruption, some drainages may be unaffected by any of these phenomena, while other drainages are affected by some or all phenomena. The average time interval between eruptions of Mount Rainier is about 100 to 1,000 years.~~

C. Travel Time Zones. The ability to evacuate people from within a volcanic hazard area correlates to the distance from the source of an event, i.e., those areas closest to the event will have less time to evacuate than those areas

farther away from the source of an event. The amount of time that is anticipated for a debris flow, lahar, flood, or avalanche to travel geographically has been classified into ~~the following~~ travel time zones. The city is within Time Travel Zone C and D identified on the Pierce County Critical Area GIS database, which is based on the Bulletin of Volcanology, Vol. 60, pp. 98-109, titled: An Empirical Method for Estimating Travel Times for Wet Volcanic Mass Flows by T.C. Pierson, 1998. Time Travel Zone C and D are described as follows:

~~1. Time Zone A. Time Zone A is an estimated one-hour travel distance from the source of the event.~~

~~2. Time Zone B. Time Zone B is an estimated one-and-one-half-hour travel distance from the source of the event.~~

~~3. Time Zone C. Time Zone C is an estimated two-hour travel distance from the source of the event.~~

~~4. Time Zone D. Time Zone D is an estimated two-hour or greater travel distance from the source of the event.~~

14.70.030 Volcanic hazard area review procedures.

A. The ~~city's Critical Areas Atlas—Volcanic Hazard Area~~ city's Critical Areas GIS database provides an indication of where volcanic hazard areas are located within the city. This database utilizes the volcanic hazard areas indicated in the Washington Geological Information Portal as prepared and maintained by the Washington Department of Natural Resources (WDNR), U.S. Department of Interior Geological Survey documents, and the Pierce County Critical Area GIS database.

B. The department will complete a review of the volcanic hazard area maps for any development proposal to determine whether the proposed project area for a regulated activity falls within a volcanic hazard area.

C. When the department's maps or sources indicate that the proposed project area for a regulated activity is located within a volcanic hazard area, the department shall apply the standards for regulated activities in volcanic hazard areas, as set forth in EMC 14.70.040.

14.70.040 Volcanic hazard area standards.

The following standards apply within the inundation zones for Case I, and ~~II, and III~~ lahars ~~and~~ within the ~~city pyroclastic flow hazard zone~~ (refer to Table 14.70.040):

~~A. Bonus densities, as set forth in EMC 18.90.080, Housing incentives program, shall be prohibited.~~

~~B. All critical facilities shall be prohibited, except sewer collection facilities and any other utilities that are located underground or not likely to cause harm to people or the environment if inundated by a lahar.~~

~~C. Special occupancy structures, as defined in Chapter 14.20 EMC, are subject to the following:~~

~~1. Travel Time Zone A. Special occupancy structures located within the Travel Time Zone A area shall be limited to a maximum 100-person occupancy.~~

~~2. Travel Time Zone B. Special occupancy structures located within the Travel Time Zone B area shall be limited to a maximum 500-person occupancy.~~

~~3. Travel Time Zone C. Special occupancy structures located within the Travel Time Zone C area shall be limited to a maximum 1,000-person occupancy.~~

~~4. Travel Time Zone D. Special occupancy structures located within the Travel Time Zone D area shall be limited to a maximum 5,000-person occupancy.~~

**Table 14.70.040
Volcanic Hazard Area Standards**

Facility/Occupancy List	Case I Lahar Inundation Zone	Case II Lahar Inundation Zone
Bonus Densities ⁽¹⁾	Not Allowed	Not Allowed

Facility/Occupancy List	Case I Lahar Inundation Zone	Case II Lahar Inundation Zone
Critical Facilities ⁽²⁾	Not Allowed Requires Reasonable Use Permit	Requires Reasonable Use Permit Not Allowed
Special Occupancies ⁽³⁾	In Time Travel Zone A - Limited to 100-person occupant load. In Time Travel Zone B - Limited to 500-person occupant load. In Time Travel Zone C - Limited to 1,000-person occupant load. In Time Travel Zone D - Limited to 5,000-person occupant load.	
Other Occupancies	No Limitation	No Limitation

1

2 (1) Bonus density as set forth in EMC 18.90.080, Housing incentives program.

3 (2) Critical facility as defined in Chapter 14.20 EMC, ~~except sewer collection facilities and any other utilities that are located underground or not~~
4 ~~likely to cause harm to people or the environment if inundated by a lahar.~~

5 (3) Special occupancy structures as defined in Chapter 14.20 EMC.

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**Chapter 14.80
FLOOD HAZARD AREAS
Draft Amendments**

Sections:

- 14.80.010 Purpose and applicability.
- 14.80.011 Abrogation and greater restrictions.
- 14.80.012 Interpretation.
- 14.80.013 Methods of reducing flood losses.
- 14.80.014 Designation of the floodplain administrator.
- 14.80.015 Duties and responsibilities of the floodplain administrator.
- 14.80.020 Basis for establishing the areas of special flood hazard.
- 14.80.030 Definitions.
- 14.80.040 Additional special flood hazard areas.
- 14.80.045 Establishment of development permit.
- 14.80.050 Flood hazard area review procedures.
- 14.80.060 Provisions for flood hazard reduction.
- 14.80.070 Variances to flood hazard areas.
- 14.80.075 Penalties for noncompliance.
- 14.80.080 Appendices.

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14.80.012 Interpretation.

For the purposes of regulating this chapter, “director” means the Public Works Director or their designee, and “department” means the Public Works Department. In the interpretation and application of this chapter, all provisions shall be:

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

14.80.013 Methods of reducing flood losses.

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

- A. Restricting or prohibiting development that 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 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, or other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers that unnaturally divert floodwaters or may increase flood hazards in other areas.

14.80.014 Designation of the floodplain administrator.

The ~~public works~~ director is hereby appointed as the Edgewood floodplain administrator to administer, implement, and enforce this chapter by granting or denying development permits in accordance with its provisions. The floodplain administrator may delegate authority to implement these provisions.

14.80.015 Duties and responsibilities of the floodplain administrator.

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

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

1. The permit requirements of this chapter have been satisfied;
2. All other required state and federal permits have been obtained;
3. The site is reasonably safe from flooding;
4. The proposed development is not located in the floodway. If located in the floodway, assure that the encroachment provisions of EMC 14.80.060(C) are met; and
5. Notify FEMA when annexations occur in the special flood hazard area.

B. Use of Other Base Flood Data (in A Zones). When base flood elevation data has not been provided (in A zones), the floodplain administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source, in order to administer EMC 14.80.060(B), Specific Standards, and 14.80.060(C), Floodways.

C. Information to Be Obtained and Maintained.

1. Where base flood elevation data is provided through the FIS, FIRM, or as required in subsection (B) of this section, obtain and maintain a record of the actual (as-built) 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 nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in subsection (B) of this section:
 - a. Obtain and maintain a record of the elevation (in relation to mean sea level) to which the structure was floodproofed.
 - b. Maintain the floodproofing certifications required in EMC 14.80.045(B)(3).
3. Certification required by EMC 14.80.050(E) or 14.80.060(C)(1).
4. Records of all variance actions, including justification for their issuance.
5. Improvement and damage calculations.
6. Maintain for public inspection all records pertaining to the provisions of this chapter.

D. Alteration of Watercourse. Whenever a watercourse regulated under this chapter is to be altered or relocated:

1. Notify adjacent communities and the Department of Ecology prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administrator through appropriate notification means.
2. Assure that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.

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Chapter 14.90
LANDSLIDE HAZARD AREAS
Draft Amendments

Sections:

- 14.90.010 Purpose.
- 14.90.020 Landslide hazard areas.
- 14.90.030 Landslide hazard area review procedures.
- 14.90.040 Landslide and erosion hazard area standards.
- 14.90.050 Buffer requirements.
- 14.90.060 Additional critical area report requirements. ~~Appendices~~

14.90.010 Purpose.

The purpose of this chapter is to:

- A. Protect human life and health.
- B. Regulate uses of land in order to avoid damage to structures and property being developed and damage to neighboring land and structures.
- C. Identify and map active landslide hazard areas.
- D. Minimize the ill effects on wetlands and critical fish and wildlife habitat that can result from landslides.
- E. Establish permit requirement and review procedures for development proposals in areas with potential landslides.

14.90.020 Landslide hazard areas.

A. Landslide Hazard Areas. Landslide hazard areas are areas potentially subject to mass movement due to a combination of geologic, seismic, topographic, hydrologic, or manmade factors. Landslide hazard areas are identified by the presence of any of the following five indicators.

- 1. Areas of historic failures, including areas of unstable, old and recent landslides or landslide debris within a head scarp.
- 2. Areas with all three of the following characteristics:
 - a. Slopes steeper than 15 percent with a vertical relief of 20 feet or more; and
 - b. Hillsides that intersect geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - c. Springs or groundwater seepage.
- 3. Areas exhibiting geomorphological features indicative of past slope failure within the last 10,000 years, such as hummocky ground, back-rotated benches on slopes, tension cracks, etc.
- 4. Any area with a slope of 40 percent or steeper and with a vertical relief of 15 or more feet.
 - a. Slopes may be exempted from the requirements of this section; provided, that it can be demonstrated by a qualified geotechnical professional that such an exemption does not result in an increased risk of landsliding or damage to the subject site, nearby properties, and existing structures. Any associated hazards to proposed structures must be suitably mitigated.

b. For the purposes of determining whether a slope is considered to be a landslide hazard area, the horizontal and vertical distance between the top of slope and toe of slope are utilized.

5. Areas that are at risk of mass movement due to seismic events.

6. Areas potentially unstable as a result of rapid stream incision, streambank erosion, including stream channel migration zones;

B. Potential Landslide Hazard Areas. Potential landslide hazard areas, as depicted on ~~the geologically hazardous areas map~~ city Critical Area GIS database, are those areas where the suspected risk of slope instability and landslide is sufficient to require a geological assessment to ~~assess-determine~~ the potential for active landslide activity. Potential landslide hazard areas are determined by using the following criteria:

1. Areas that possess one or more of the landslide hazard area indicators (stratigraphy, topography, emergent groundwater seepage, etc.) as set forth in subsection (A) of this section and any adjacent area within a distance of 65 feet. These areas include, but are not necessarily limited to, those areas designated on the city's ~~geologically hazardous areas~~ Critical Area GIS database map as moderate or steep slope areas.

2. Areas shown on the Washington Geological Information Portal as prepared and maintained by the Washington Department of Natural Resources (WDNR) that are shown under "WGS-Protocol Landslide Mapping".

C. Landslide Hazard Area Categories: Landslide hazard areas shall be classified into categories which reflect each landslide hazard areas past landslide activity and the potential for future landslide activity based on an analysis of slope instability. Landslide hazard areas shall be designated as follows:

1. Landslide Hazard Area. A composite of the active landslides and/or unstable areas, including that portion of the top of slope and slope face subject to failure and sliding as well as toe of slope areas subject to impact from down slope run-out, identified and mapped during a geological assessment of a site. An active landslide hazard area exhibits one or more of the following:

a. Areas of historical landslide movement on a site which have occurred in the past century including areas identified in EMC 14.90.020(B)(2) or other mapping sources.

b. Unstable areas that exhibit geological and geomorphologic evidence of past slope instability or landsliding or possess geological indicators (stratigraphy, ground water conditions, etc.), as set forth in EMC 14.90.02(A), that have been determined through a geological assessment process to be presently failing or may be subject to future landslide activity. The impact of the proposed development activities must be considered in defining the extent of the active areas.

c. Interim areas are located between areas identified through the geological assessment process as an active landslide hazard area. Interim areas will be considered part of the active landslide hazard area if the required top of slope or toe of slope landslide hazard area buffer encompasses the area.

2. Stable Areas. Areas that have been identified as potential landslide hazard areas, but, through the geological assessment process, meet one of the following conditions:

a. A geological assessment has been performed and the results of that assessment indicate that an area is not a landslide hazard area set forth in EMC 14.90.020(C)(1), above.

b. Areas that have been determined to be stable or are converted into a stable area by the implementation of engineering or structural measures are not considered a landslide hazard critical area.

c. Adequate engineering or structural measures have been provided in a geotechnical report that mitigates the potential for a future landslide to occur as a result of proposed, current, or past development activity that also complies with the following criteria:

i. The engineering or structural measures must provide a minimum factor of safety of 1.5 static conditions and 1.1 for dynamic conditions. Analysis of dynamic (seismic) conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code.

ii. Construction sequencing recommendations must be provided by the geotechnical professional when a proposed development will be constructed concurrently with the engineering or structural measures.

iii. Demonstrate how modification of the Landslide Hazard Area will not result in any adverse impacts on adjacent properties (within 100 feet).

iv. The proposed development and stabilization measures comply with EMC 14.90.040(A) and 14.90.040(B)(1)

v. The engineering or structural measures must be completed, inspected and accepted by the city for the area to be deemed stable.

14.90.030 Landslide hazard area review procedures.

A. General Requirements.

1. For the purposes of regulating this chapter, “director” means the Public Works Director or their designee, and “department” means the Public Works Department.

2. The city’s ~~geologically hazardous areas map~~Critical Area GIS Database provides an indication of where potential landslide hazard areas are located within the city. The actual presence or location of landslide hazard areas that have not been mapped, but may be present on or adjacent to a site, shall be determined using the geological assessment procedures established in this chapter.

3. The department will complete a review of the ~~geologically hazardous areas map~~available GIS data and other source documents for any proposed regulated activity to determine whether the site is, or may be, located within a landslide hazard area or potential landslide hazard area. Identification of a landslide hazard area or potential landslide hazard area may also occur as a result of field investigations conducted by department staff.

4. When the department’s maps or sources indicate that the site for a proposed regulated activity is or may be located within a landslide hazard area or potential landslide hazard area, the department shall require the submittal of a geological assessment as outlined in subsection (B) of this section.

5. Unless otherwise stated in this chapter, the critical area protective measure provisions contained in ~~Chapter-EMC 14.10.070-EMC~~ shall apply.

B. Geological Assessment. A geological assessment is a site investigation process to evaluate the on-site geology affecting a subject property. ~~The findings of the geological assessment shall be presented in a landslide hazard-geotechnical verification or geotechnical report.~~

1. A geotechnical professional shall complete a geological assessment to determine whether a landslide hazard area or potential landslide area exists on or within 65 feet of the site. The following are acceptable geological assessments:

a. Geotechnical Verification (EMC 14.90.060(A)): When a geotechnical professional finds that there is no landslide hazard area within or within 65 feet of the site.

b. Geotechnical Report (EMC 14.90.060(B)): When a geotechnical professional finds that a landslide hazard area exists on or within 65 feet of the proposed project area or when a geotechnical professional determines that mitigation measures are necessary to construct or develop within a potential landslide hazard area.

2. All geotechnical assessments shall include the following information:

b. All the required Critical Area Report requirements per EMC 14.10.080(C)

b. Shall be prepared, signed, and dated by a geotechnical professional.

c. Shall include a field investigation and may also include review of public records and documentation, analysis of historical air photos, LiDAR mapping, published data and references, etc.

d. A determination of which areas on the site meet the criteria for an riverine erosion hazard area and soil erosion hazard area.

e. Provide all the required information pursuant to EMC 14.90.060.

f. The director may require that the geotechnical assessment include analysis of abutting properties to ensure no adverse impacts will occur as a result of the requested development.

g. The director may require a hydrogeologic assessment (EMC 14.60.040) to accompany the geotechnical assessment if adverse impacts are anticipated.

~~1. Geological assessments shall be submitted to the department for review and approval together with a landslide hazard area application and associated fee.~~

~~2. A geological assessment shall include a field investigation and may include the use of historical air photo-analysis, LiDAR mapping, review of regional geologic mapping, review of public records and documentation, and interviews with adjacent property owners, etc.~~

~~3. The geological assessment shall include the following information and analysis:~~

~~a. A determination of which areas on the site or within the vicinity of the site meet the criteria for a landslide hazard area as set forth herein.~~

~~b. Consider the run-out hazard of landslide debris to the proposed development that starts upslope (whether part of the subject property or on a neighboring property) and/or the impacts of landslide run-out on downslope properties.~~

~~c. The geological assessment shall include a detailed review of the field investigations, published data and references, data and conclusions from past geological assessments, or geotechnical investigations of the site, site-specific measurements, tests, investigations, or studies, as well as the methods of data analysis and calculations that support the results, conclusions, and recommendations.~~

~~d. All of the information required per EMC 14.10.080(C).~~

~~4. Geological assessments shall be prepared, signed, and dated by a geotechnical professional. The format shall be pre-approved by the department.~~

~~5. A geotechnical professional shall complete a field investigation and geological assessment to determine whether or not a landslide hazard area is likely to exist within 300 feet of the site. Where access to off-site properties is not available to the geotechnical professional, evaluation of off-site landslide hazards must include review of regional geologic mapping and LiDAR-based topographic mapping.~~

~~a. The geological assessment shall be submitted in the form of geotechnical verification when the geotechnical professional finds that no landslide hazard area exists within 300 feet of the project area.~~

~~b. The geological assessment shall be submitted in the form of a geotechnical report when the geotechnical professional finds that a landslide hazard area exists within 300 feet of the proposed project area or when a geotechnical professional determines that mitigation measures are necessary in order to construct or develop within a potential landslide hazard area.~~
~~6. Geological assessments that do not contain the required information will be returned to the geotechnical professional for revision.~~

3. A geological assessment of a specific site may be valid for a period of up to five years when the proposed land use activity and surrounding site conditions are unchanged. However, if any environmental conditions associated with the site change during that five-year period, the director may require the applicant to submit an amendment to the geological assessment.

47. The department shall review the geological assessment and either:

a. Accept the geological assessment; or

b. Reject the geological assessment and require revisions or additional information. ~~8. A geological assessment for a specific site may be valid for a period of up to five years when the proposed land use activity and surrounding site conditions are unchanged. However, if any environmental conditions associated with the site change during that five-year period, the applicant director may be required the applicant to submit an amendment to the geological assessment.~~

14.90.040 Landslide ~~and erosion~~ hazard area performance standards.

A. General: The following performance standards apply to all landslide hazard area(s) or associated buffer(s):

1. The removal and disturbance of vegetation and grading activities shall be limited to the area of the approved development and shall not be allowed during the wet season from November 1st until May 1st unless adequate provisions for wet season erosion have been addressed in the geotechnical report and approved by the department.

2. Surface drainage from developed areas, including downspouts and runoff from paved or unpaved surfaces upslope, shall not be directed through a landslide hazard area or its associated buffer unless it is conveyed in conformance with the provisions in EMC 14.90.030 and EMC 14.90.020(C)(2)(c).

3. Stormwater retention facilities, including infiltration systems utilizing perforated pipe, are prohibited unless the development complies with EMC 14.90.020(C)(2)(c).

4. Subdivision, Short Plat, Binding Site Plans (Title 16):

a. Land that is located wholly within a landslide hazard area or its buffer may not be subdivided.

b. Land that is located partially within a landslide hazard area or its buffer may be divided; provided, that each resulting lot has sufficient buildable area outside of, and will not affect, the landslide hazard or its buffer.

c. Subdivision access roads and utilities may be permitted within the landslide hazard area and associated buffers if the city determines that no other feasible alternative exists.

d. The subdivision shall comply with EMC 14.10.070.

5. Landslide hazard areas that are directly adjacent to any riparian areas, or wetlands, may be subject to additional buffer requirements and standards. See Chapter 14.50 EMC, Critical Fish and Wildlife Habitat Areas, and Chapter 14.40 EMC, Wetlands, for additional details.

6. Prohibited Development. On-site sewage disposal systems, including drain fields, shall be prohibited within landslide hazard areas and related buffers unless compliant with EMC 14.90.040(B).

~~B.A.~~ Landslide Hazard Areas Alterations. Alterations of a landslide hazard area and/or buffer may only occur for the following activities and criteria:

~~Any development, encroachment, clearing and grading, building structures, impervious surfaces, or vegetation removal shall be prohibited within landslide hazard areas and associated buffers except as specified in the following standards:~~

1. The activities listed in EMC 14.90.040(B)(2) – (4) shall provide a geotechnical report that make the following findings:

a. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;

b. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;

c. Will not adversely impact other critical areas;

d. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and

e. Are certified as safe as designed and under anticipated conditions by a geotechnical professional, licensed in the state of Washington.

f. Critical facilities shall not be sited within geologically hazardous areas unless there is no other practical alternative.

42. Stormwater Conveyance. Stormwater conveyance shall be allowed when it is conveyed through a high-density polyethylene stormwater pipe with fuse-welded joints and when no other stormwater conveyance alternative is available. The pipe shall be located on the surface of the ground and be properly anchored so that it will continue to function in the event of an underlying slide.

32. Utility Lines. Utility lines will be permitted when no other conveyance alternative is available. The line shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide.

43. Roads, Bridges, and Trails. Roads, bridges, and trails shall be allowed when all of the following conditions have been met:

a. Mitigation measures are provided that ensure the roadway prism and/or bridge structure will not be susceptible to damage from landslide-induced ground deformation or impact/coverage by landslide debris. Mitigation measures shall be designed for static and seismic loading conditions in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual.

b. The road is not a sole access for a development.

~~e. The removal or disturbance of vegetation and grading activities shall be prohibited during the wet season from November 1st until May 1st.~~
c. Trails shall be designed and constructed using an engineered drainage system or other methods to prevent the trail surface from becoming a drainage course.

~~4. Other Site Development. If a project site contains an existing Landslide Hazard Area and said area can be mitigated using engineered site grading or stabilization methods, the Landslide Hazard Area can be modified as follows:~~

~~a. If the Landslide Hazard Area and associated buffers are entirely contained within the project site, then development of the Landslide Hazard Area may be allowed following the recommendations of the geotechnical professional contained in the required geotechnical report.~~

~~b. If the Landslide Hazard Area and/or associated buffers area only partially contained within the project site, then the geotechnical professional must demonstrate how modification of the Landslide Hazard Area will not result in any adverse impacts on adjacent property, meeting the factor of safety for landslide occurrence of 1.5 for static conditions and 1.1 for dynamic conditions. Analysis of dynamic (seismic) conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code.~~

~~B. Landslide Hazard Management Areas. All regulated activities may be allowed in areas located within 300 feet of a landslide hazard area subject to the following standards:~~

~~1. The department reviews and approves a geological assessment—geotechnical report and determines that the potential landslide hazard area is stable.~~

~~2. The proposed development is located outside of a landslide hazard area and any required buffer.~~

~~3. The proposed recommendations and mitigation measures contained within the geotechnical report are adequate to reduce or mitigate risks to health and safety.~~

~~4. The proposed development shall not decrease the factor of safety for landslide occurrence below the limits of 1.5 for static conditions and 1.1 for dynamic conditions. Analysis of dynamic (seismic) conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code.~~

~~5. The removal and disturbance of vegetation and grading activities shall be limited to the area of the approved development and shall not be allowed during the wet season from November 1st until May 1st unless adequate provisions for wet season erosion have been addressed in the geotechnical report and approved by the department.~~

~~6. Surface drainage from developed areas, including downspouts and runoff from paved or unpaved surfaces upslope, shall not be directed through a landslide hazard area or its associated buffer unless it is conveyed in conformance with the provisions in EMC 14.90.030.~~

~~7. Stormwater retention facilities, including infiltration systems utilizing perforated pipe, are prohibited unless the slope stability impacts of such systems have been analyzed and mitigated by a geotechnical professional and the impacts have been determined to be negligible.~~

~~8. The proposed development shall not create a need for larger landslide hazard area buffers and setbacks on neighboring properties unless approved through a notarized written agreement with the affected property owner(s).~~

~~9. The proposed development shall be sited far enough from regressing slope faces to project 120 years of useful life for the proposed structure(s) or infrastructure.~~

~~10. Any proposed lots must be completely located outside any identified landslide hazard areas or their associated buffers.~~

~~11. Landslide hazard areas that are directly adjacent to any riparian areas, or wetlands, may be subject to additional buffer requirements and standards. See Chapter 14.50 EMC, Critical Fish and Wildlife Habitat Areas, and Chapter 14.40 EMC, Wetlands, for additional details.~~

14.90.050 Buffer requirements.

A. Determining Buffer Widths.

1. The buffer width shall be measured on a horizontal plane from a perpendicular line established at the edge of the landslide hazard area limits, both from the top and toe of the slope.

2. A buffer of undisturbed vegetation shall be required for a landslide hazard area. The required buffer width is the greater amount of the distances described in this chapter:

a. Fifty feet from all edges of the active landslide hazard area limits; or

b. The distance from edge of the landslide hazard area as recommended by the geotechnical professional in a geotechnical assessment based on the site-specific conditions.

~~A distance of one third the height of the slope at the top of the active landslide hazard area and a distance of one half the height of the slope at the bottom of an active landslide hazard area.~~

B. Modification of Buffer Widths. The department may require a larger buffer width than the buffer distance, as determined in subsection (A) of this section, if any of the following are identified:

1. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse impacts.

2. The area has a severe risk of slope failure or downslope stormwater drainage impacts.

3. Downslope stormwater drainage impacts.

14.90.060 Additional critical area report requirements.

~~A. Geological Assessment—Landslide Hazard Geotechnical Verification.~~

~~B. Geological Assessment—Landslide Hazard Geotechnical Report.~~

APPENDIX A

~~GEOLOGICAL ASSESSMENT—LANDSLIDE HAZARD GEOTECHNICAL VERIFICATION~~

A. Geotechnical verification. A geotechnical verification shall include the following:

1. The general critical areas report requirements pursuant to EMC 14.10.080.

2. A description of the surface and subsurface geology, hydrology, soils, and vegetation at the site and a list of the landslide hazard area indicators that were found on or in the vicinity of the site.

3. A summary of the results, conclusions, and recommendations resulting from the geological assessment of the landslide hazards on or in the vicinity of the site.

4. An accurate site plan drawn at a scale of one inch equals 20 feet, one inch equals 30 feet, one inch equals 50 feet (or other scale deemed appropriate by the department) is required. The department may require that the site plan information listed below be based on a field survey by a licensed surveyor. The site plan shall include:

a. The limits and location of any active landslide hazard area.

b. The limits and location of the required landslide hazard buffer.

c. The location of any existing and proposed structures, utilities, on-site septic systems, wells, and stormwater management facilities.

d. The full geographical limits of the proposed project area or area to be developed.

e. A dimension of the closest distance between the identified active landslide hazard area boundary and the project area.

f. Existing topography on the site presented in two-foot contours.

g. Property lines for the site.

h. North arrow and plan scale.

~~B5.~~ The geotechnical verification shall be prepared under the responsible charge of an appropriately licensed geotechnical professional(s) and signed, sealed and dated by the geotechnical professional who prepared the geotechnical verification.

~~The geotechnical professional who prepared the verification document shall stamp the verification with their license stamp or seal.~~

~~6C.~~ Geotechnical verifications shall be in conformance with a format that is pre-approved by the department.

~~APPENDIX B~~

~~GEOLOGICAL ASSESSMENT—LANDSLIDE HAZARD GEOTECHNICAL REPORT~~

~~BA.~~ Geotechnical Report. At a minimum, a geotechnical report shall include the following:

1. The general critical areas report requirements pursuant to EMC 14.10.080...
2. A description of the surface and subsurface geology, hydrology, soils, and vegetation of the site and a list of the landslide hazard area indicators that were found on or in the vicinity of the site.
3. A summary of the results, conclusions, and recommendations resulting from the geological assessment of the landslide hazards on or in the vicinity of the site.
4. An accurate site plan drawn at a scale of one inch equals 20 feet, one inch equals 30 feet, one inch equals 50 feet (or other scale deemed appropriate by the department) is required. The department may require that the site plan information listed below be based on a field survey by a licensed surveyor. The site plan shall include:
 - a. The limits and location of any landslide hazard area within the site. Delineation of the landslide hazard area limits shall identify any areas of historic landslide activity.
 - b. The limits and location of the required landslide hazard buffer.
 - c. The location of any existing and proposed structures, utilities, on-site septic systems, wells, and stormwater management facilities.
 - d. The full geographical limits of the proposed project area or area to be developed.
 - e. Location and unique identifier of geotechnical borings, CPT soundings, or other surveys or explorations used to characterize subsurface conditions.
 - f. Extent of cross-section(s) used to evaluate the three-dimensional subsurface geologic and groundwater conditions at the site.
 - g. Extent of cross-section(s) used in the evaluation of slope instability.
 - h. Existing topography on the site presented in two-foot contours.
 - i. Property lines for the site.
 - j. North arrow and plan scale.
5. Subsurface characterization data must be provided. The data shall be based on both existing and new information that may include soil borings, test pits, geophysical surveys, or other appropriate subsurface exploration methods, development of site-specific soil and/or rock stratigraphy, and measurement of groundwater levels including variability resulting from seasonal changes, alterations to the site, etc.
 - a. Geotechnical borings or CPT soundings will be advanced to a depth sufficient to characterize geologic conditions within and below the existing or potential landslide mass.
 - b. Other methods used for subsurface characterization shall be assigned a unique identifier, and the basic data presented in appropriate graphical and/or tabular format.

c. The three-dimensional subsurface conditions at the site shall be presented using one or more cross-sections showing location and depth penetration of geotechnical borings, CPT soundings, or other subsurface characterization methods, interpretation of the geometry of major soil units, and projected location of the static groundwater surface determined from the subsurface exploration. The cross-sections shall be presented at a scale of one inch equals 20 feet, one inch equals 30 feet, one inch equals 50 feet (or other scale deemed appropriate by the department). Each cross-section shall have a legend with a description of the various major soil units.

6. A detailed description of any prior grading activity, soil instability, or slope failure.

7. Where deemed appropriate by the geotechnical professional, assessments and conclusions regarding slope stability for both the existing and developed conditions shall be presented and documented. These assessments and conclusions shall include the information provided below in this appendix. The project geotechnical professional must provide justification for not including a slope stability analysis if one is excluded. The city's geotechnical professional reserves the right to request a slope stability analysis based on site conditions. If a dispute arises between the project geotechnical professional and the city's geotechnical professional regarding the need for a slope stability analysis, then the city reserves the right to require an independent, third party review to be paid for by the applicant to resolve the dispute.

a. Determination of the potential type(s) of landslide failure mechanisms, debris flow, rotational slump, or translational slip that may affect the site.

b. Quantitative stability evaluation of slope conditions of the various failure mechanisms using state-of-the-practice modeling techniques. Limiting equilibrium methods of analysis shall state the stability conditions as a factor of safety. The most unstable failure geometry(ies) shall be presented in the form of a cross-section(s), with the least stable failure geometry for each failure mechanism clearly indicated. The stability evaluation shall also consider dynamic (earthquake) loading, and shall use a minimum horizontal acceleration as established by the current version of the International Building Code.

c. An analysis of slope regression rate shall be presented in those cases where stability is impacted or influenced by erosional processes (e.g., wave cutting, stream meandering, etc.) acting on the toe of the slope.

8. Mitigation recommendations using engineered measures to protect the proposed structure(s) and any adjacent structures, infrastructure, adjacent wetlands, or ~~critical~~ fish and wildlife habitat conservation area from damage or destruction as a result of proposed construction activities shall be designed by a professional engineer. Design plans and detailed geotechnical recommendations may be provided in a document separate from the geotechnical report. When appropriate, such recommendations/plans may include, but are not necessarily limited to:

a. Design plans and associated design calculations for engineered structures or drainage systems (e.g., structural foundation requirements, retaining wall design, etc.).

b. Recommendations and requirements pertaining to the handling of surface and subsurface runoff in the developed condition.

c. Identification of necessary geotechnical inspections to assure conformance with the report mitigation and recommendations.

d. Proposed angles of cut and fill slopes, site grading requirements, final site topography shown as two-foot contours, and the location of any proposed structures, on-site septic systems, wells, stormwater management features, or facilities associated with the development detailed within the body of the report and shown on a site map at the same scale as that required in subsection (A)(4) of this appendix.

e. Soil compaction criteria and compaction inspection requirements.

f. An analysis that indicates how the proposal meets the standards outlined in this chapter.

g. Structural foundation requirements and estimated foundation settlement shall be provided if structures are proposed.

h. Lateral earth pressures.

i. Suitability of on-site soil for use as fill.

j. Mitigation measures for building construction on each lot for short plats, large lots, or formal plats such that additional geotechnical professional involvement is minimized during building construction.

~~9B.~~ The geotechnical report shall be prepared under the responsible charge of an appropriately licensed geotechnical professional(s) and be signed, sealed and dated by the geotechnical professional who prepared the geotechnical report.

~~by an engineering geologist and shall be co-written by both an engineering geologist and professional engineer where both geological interpretations and engineering analyses and designs are necessary or prudent in the mitigation of the landslide hazard.~~

~~C. The geotechnical professional(s) who prepared the geotechnical report shall stamp the report with their license stamp or seal.~~

~~11D.~~ The department may request a geotechnical professional to provide additional information in the geotechnical report based upon existing conditions, changed conditions, or unique circumstances occurring on a case-by-case basis.

~~12E.~~ Geotechnical reports shall be in conformance with a format that is pre-approved by the department.

~~Red Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

Chapter 14.100
SEISMIC (EARTHQUAKE) HAZARD AREAS
Draft Amendments

Sections:

- 14.100.010 Purpose.
14.100.020 Seismic hazard areas.
14.100.030 Seismic hazard area review procedures.
14.100.040 Seismic hazard area standards.
14.100.050 Buffer requirements.
14.100.060 Additional critical area report requirements. ~~Appendices.~~

14.100.010 Purpose.

~~Earthquakes have historically occurred throughout the Puget Sound region. Large earthquakes have caused loss of life and over a billion dollars in property damage.~~ The purpose of this chapter is to protect the public health, safety, and general welfare of the citizens of Edgewood from the damaging effects of earthquakes. ~~This chapter provides standards to ensure life safety and minimize public and private losses that may occur within a seismic hazard area.~~

14.100.020 Seismic hazard areas.

A. General. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced landsliding, seismic ground shaking, dynamic settlement, fault rupture, or soil liquefaction.

B. Potential Seismic Hazard Areas. Potential seismic hazard areas, as depicted on the city's Critical Area GIS database, are those areas where the suspected risk of earthquake induced landsliding, dynamic settlement, fault rupture, ground deformation caused by soil liquefaction, or flooding is sufficient to require a further seismic hazard area review indicated in the Washington Geological Information Portal as prepared and maintained by the Washington Department of Natural Resources (WDNR). These potential seismic hazard areas are determined using the following criteria:

1. Earthquake Induced Landslide Hazard Areas. Areas identified as potential landslide hazard areas in EMC 14.90.020.
2. Liquefaction or Dynamic Settlement Hazard Areas. Areas identified as high and moderate liquefaction and dynamic settlement hazard areas on the Washington Department of Natural Resources, Division of Geology and Earth Resources liquefaction and dynamic settlement hazard area Geographic Map. ~~geologically hazardous areas map.~~
3. Fault rupture hazard areas.

C. Seismic Hazard Area Categories.

1. Earthquake Induced Landslide Hazard Areas. Earthquake induced landslide hazard areas include slopes that can become unstable as a result of strong ground shaking, even though these areas may be stable under nonseismic conditions.

2. Liquefaction and/or Dynamic Settlement Hazard Areas.

- a. Liquefaction hazard areas are areas underlain by unconsolidated (corrected Standard Penetration Test blow counts, $[(N_1)_{60}]$ less than 30) sandy or silt soils (Unified Soil Classification System S or M soil types) and a shallow groundwater table (static groundwater depth less than 30 feet) capable of liquefying in response to earthquake shaking.

b. Dynamic settlement hazard areas are areas underlain by a significant thickness (more than 10 feet) of loose or soft soil not susceptible to liquefaction (e.g., peats or organic silts and clays, unsaturated loose sands or silts), but that could result in vertical settlement of the ground surface in response to earthquake shaking.

~~3. Fault Rupture Hazard Areas. Fault rupture hazard areas include:~~

~~a. Active fault rupture hazard areas are areas where displacement (movement up, down, or laterally) of the ground surface has occurred during past earthquake(s) in the Holocene epoch; and~~

~~b. Areas adjacent to the active fault rupture hazard area that may be potentially subject to ground surface displacement in a future earthquake.~~

14.100.030 Seismic hazard area review procedures.

A. General Requirements.

1. The city's ~~geologically hazardous areas map~~ Critical Area GIS database provides an indication of where potential seismic hazard areas are located within the city.

2. The department will complete a review of the ~~Critical Areas Atlas—Seismic Hazard Area Map~~ Critical Area GIS database for any regulated activity to determine whether the site for a proposed regulated activity is located within a seismic hazard area.

3. When the department's maps indicate that the site for a proposed regulated activity is located within a potential liquefaction or dynamic settlement hazard area, ~~the department~~ the project proponent shall submit ~~shall require the submittal of~~ a geological assessment as outlined in subsection (B) of this section.

~~4. When the department's maps indicate that the site for a proposed regulated activity is located within a potential fault rupture hazard area, the department shall require the submittal of a geological assessment as outlined in subsection (B) of this section. The requirement to submit a geological assessment may be waived at the department's discretion when it is determined that the proposed project area for the regulated activity is located outside the potential fault rupture hazard area.~~

5. When the department's maps indicate that the site for a proposed regulated activity is or may be located within a potential earthquake induced landslide hazard area, the department shall conduct a review pursuant to the requirements set forth in Chapter 14.90 EMC.

6. Unless otherwise stated in this chapter, the critical area protective measure provisions contained in Chapter 14.10 EMC shall apply.

B. Geological Assessments. ~~A geological assessment is a site investigation process to evaluate the on-site geology affecting a subject property and define the extent and severity of potential seismic hazards.~~

1. A geological assessment shall be required when the department's maps, sources, or field investigation indicate a site contains a potential ~~liquefaction, dynamic settlement, or fault rupture hazard area~~ seismic hazard. ~~Geological assessments shall be submitted to the department for review and approval together with a seismic hazard area application.~~ The following are acceptable geological assessments:

a. Geotechnical Verification: When a geotechnical professional finds that no seismic hazard area exists within the proposed project area.

c. Geotechnical Report: When a geotechnical professional finds that there is a seismic hazard area within the proposed project area.

2. All geotechnical assessments shall include the following information:

a. All the required Critical Area Report requirements per EMC 14.10.080(C)

b. Shall be prepared, signed, and dated by a geotechnical professional.

c. Shall include a field investigation and may also include review of public records and documentation, analysis of historical air photos, LiDAR mapping, published data and references, etc.

d. A determination of which areas on the site meet the criteria for a earthquake induced landslide hazard area and liquefaction and/or dynamic settlement hazard areas.

e. Provide all the required information pursuant to EMC 14.100.060.

~~2. A geotechnical professional(s) shall complete a field investigation and geological assessment to determine whether or not the site for a proposed regulated activity is located within a liquefaction or dynamic settlement hazard area.~~

~~a. The geological assessment shall be submitted in the form of a geotechnical verification when the geotechnical professional(s) finds that no liquefaction or dynamic settlement hazard area exists within the proposed project area.~~

~~b. The geological assessment shall be submitted in the form of a geotechnical report when the geotechnical professional(s) finds that a liquefaction or dynamic settlement hazard area exists within the proposed project area.~~

~~3. A geotechnical professional shall complete a field investigation and geological assessment presented in the form of a geotechnical report to determine whether or not the site for a proposed regulated activity is located within a fault rupture hazard area. Any structural recommendations proposed to mitigate the fault rupture hazard that are included in the geotechnical report shall be prepared by an engineer.~~

~~4. All geological assessments for seismic hazards submitted under this chapter shall include, at a minimum, the following items identified in subsections (B)(4)(a) through (i):~~

~~a. All of the items required per EMC 14.10.080(C).~~

~~b. The parcel number(s) of the subject property.~~

~~c. Site address, if the city has assigned one.~~

~~d. A brief description of the project (including the proposed land use) and the area to be developed.~~

~~e. A map showing the property lines for the site, existing two-foot contours of the existing site topography, and the location of any existing structures, utilities, wells, stormwater or septic systems, or other developments.~~

~~f. A site plan delineating the limits of the proposed development and the location of all areas of the site subject to potential seismic hazards based on the geologically hazardous areas map and, if applicable, limits of associated buffers.~~

~~g. A description of the surface and subsurface geology, hydrology, soils, and vegetation of the site.~~

~~h. A detailed overview of the field investigations, published data and references, data and conclusions from past geological assessments or geotechnical investigations of the site, site specific measurements, tests, investigations, or studies, as well as the methods of data analysis and calculations that support the determination regarding whether liquefaction and/or dynamic settlement hazards are present on the site.~~

~~i. The results, conclusions, and recommendations resulting from the geological assessment of the liquefaction and/or dynamic settlement hazards on the subject property as prepared by a geotechnical professional(s).~~

~~5. Geological assessments shall be prepared, signed, stamped, and dated by the appropriate geotechnical professional(s) and the format shall be pre-approved by the department.~~

8. A geological assessment for a specific site may be valid for a period of up to five years when the proposed land use activity and surrounding site conditions are unchanged. However, if any environmental conditions associated with the site change during that five-year period, the applicant may be required to submit an amendment to the geological assessment.

~~6. Geological assessments that do not contain the minimum required information will be returned to the geotechnical professional(s) for revision.~~

7. The department shall review the geological assessment and either:

a. Accept the geological assessment and approve the application; or

b. Reject the geological assessment and require revisions or additional information.

~~8. A geological assessment for a specific site may be valid for a period of up to five years when the proposed land use activity and surrounding site conditions are unchanged. However, if any environmental conditions associated with the site change during that five-year period, the applicant may be required to submit an amendment to the geological assessment.~~

14.100.040 Seismic hazard area standards.

A. Earthquake Induced Landslide Hazard Areas. All standards set forth in Chapter 14.90 EMC shall apply to earthquake induced landslide hazard areas.

B. Liquefaction or Dynamic Settlement Hazard Areas.

1. All building structures shall conform to the standards set forth in EMC Title 15, Buildings and Construction.

2. Utility Lines. Utility lines, except for gas pipelines, which are prohibited, will be permitted when no other conveyance alternative is available. The line shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of seismically induced ground deformation. Provision for automatic shutoff of utilities in a ground-rupturing event will be required.

3. Roads, Bridges, and Trails. Roads, bridges, and trails shall be allowed when mitigation measures are provided that ensure the roadway prism or bridge structure will not be susceptible to damage from seismic induced ground deformation. Mitigation measures shall be designed for static and seismic loading conditions in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual and also for an estimated range of ground surface offset presented in the geotechnical report.

~~C. Fault Rupture Hazard Areas. Any development, encroachment, clearing and grading, or building structures shall be prohibited within fault rupture hazard areas and associated buffers except as specified in the following standards:~~

~~1. Utility Lines. Utility lines, except for gas pipelines, which are prohibited, will be permitted when no other conveyance alternative is available. The line shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of seismically induced ground deformation. Provision for automatic shutoff of utilities in a ground-rupturing event will be required.~~

~~2. Roads, Bridges, and Trails. Roads, bridges, and trails shall be allowed when all of the following conditions have been met:~~

~~a. Mitigation measures are provided that ensure the roadway prism and/or bridge structure will not be susceptible to damage from seismically induced ground deformation. Mitigation measures shall be designed for static and seismic loading conditions in accordance with the most recent version of the American Association of State Highway and Transportation Officials (AASHTO) Manual and also for an estimated range of ground surface offset presented in the geotechnical report.~~

~~b. The road is not a sole access for a development.~~

14.100.050 Buffer requirements.

A. Determining Buffer Widths.

1. The buffer width shall be measured on a horizontal plane from a perpendicular line established at the edge of the fault rupture hazard area limits.

2. A buffer is an area that is adjacent to a fault rupture hazard area that may be potentially subject to ground surface displacement in a future earthquake. No development shall be permitted within a fault rupture hazard area and its associated buffer. The required buffer width is the greater amount of the following distances:

a. Fifty feet from all edges of a fault rupture hazard area, except for high occupancy or essential facilities, where the minimum buffer distance shall be 100 feet; or

b. The required buffer width is the minimum distance recommended by the geotechnical professional(s).

B. Modification of Buffer Widths. The department may require a larger buffer width than the buffer distance, as determined in subsection (A) of this section, if the department determines the standard or proposed buffer is not adequate to protect the health, safety, or welfare of any proposed development.

14.100.060 Additional critical area report requirements. Appendices.

~~A. Geological Assessments—Liquefaction or Dynamic Settlement Hazard Areas.~~

~~B. Geological Assessments—Fault Rupture Hazard Area Geotechnical Report.~~

~~APPENDIX A~~

~~GEOLOGICAL ASSESSMENTS—LIQUEFACTION OR DYNAMIC SETTLEMENT HAZARD AREAS~~

~~Article I. Geotechnical Verification~~

A. Verification letter. A geotechnical verification shall, at a minimum, include the following:

1. The general critical areas report requirements.

2. The geotechnical verification shall include all mandatory items listed in this chapter.

3. The geological assessment must include a determination that no liquefaction or dynamic settlement hazard exists within the proposed project area.

4. The verification shall include an accurate site plan drawn at a scale of either one inch equals 20 feet, 30 feet, or 50 feet, unless otherwise approved by the department. The department may require that the site plan information be based on a field survey by a licensed surveyor. The site plan shall include:

a. Property lines for the site, and the location of any existing structures.

b. The full geographical limits of the proposed project area or conceptual project area (i.e., area to be developed) and the location of any proposed structures, on-site septic systems, wells, and stormwater management features or facilities associated with the development, if known.

~~5B.~~ The geotechnical professional(s) who prepared the geotechnical verification shall stamp the verification with their license stamp or seal.

~~6C.~~ Hold harmless clauses, disclaimers, and limitations are not allowed within a geotechnical verification.

~~Article II. Geotechnical Report~~

A. Geotechnical report. A geotechnical report shall, at a minimum, include the following:

1. The general critical areas report requirements.
2. The document shall include all mandatory items listed in this chapter. The report shall be prepared by an engineer and shall be co-written by an engineering geologist where geological interpretations and conclusions critical to the assessment of liquefaction and/or dynamic settlement hazard and potential effects are necessary or prudent. The report shall specify the desired performance level of the structures and other development facilities, e.g., safety to building occupants, minimal damage to structure, post-earthquake serviceability for pre-earthquake operations, or no damage.
3. The results, conclusions, and recommendations resulting from the geological assessment of the liquefaction or dynamic settlement hazards on the subject property as prepared by the geotechnical professional(s).
4. The geological assessment geotechnical report shall include:
 - a. A statement that the proposed project area falls within a liquefaction and/or dynamic settlement hazard area.
 - b. A detailed engineering evaluation of expected ground displacements or other liquefaction or dynamic settlement effects, e.g., bearing failures, flotation of buried tanks, or similar, and proposed mitigation measures to ensure an acceptable level of risk for the proposed structure type or other development facilities, as well as the proposed land use type or occupancy category. The minimum level of acceptable risk for any proposed structure or development facility shall ensure the life safety of any occupant. Where appropriate, a range of mitigation options should be considered depending on site conditions, the intended use of the structures, and acceptable levels of settlement.
5. The report shall include a site plan drawn to scale. The department may require that the site plan information be based on a field survey by a licensed surveyor. The site plan shall include:
 - a. Property lines for the site and the location of any existing structures.
 - b. The limits or location of any liquefaction or dynamic settlement hazard area(s).
 - c. The full geographical limits of the proposed project area or conceptual project area (i.e., area to be developed) and the location of any proposed structures, on-site septic systems, wells, and stormwater management features or facilities associated with the development, if known.
 - d. Location and unique identifier of geotechnical explorations used to characterize subsurface conditions.
6. The geotechnical study shall include field exploration sufficient to assess the potential for liquefaction or dynamic settlement hazards and options for mitigation of those hazards. Copies of the exploration logs shall be provided in the report. The geotechnical study shall include field exploration sufficient to assess the potential for liquefaction or dynamic settlement hazards and options for mitigation of those hazards. Copies of the exploration logs shall be included in the report. The project geotechnical professional must provide justification for the scope of the field exploration program. The city's geotechnical professional reserves the right to request additional exploration if deemed appropriate. If a dispute arises between the city's geotechnical professional and the project geotechnical professional regarding the scope of the field exploration, the city reserves the right to require an independent, third party review to be paid for by the applicant to resolve the dispute.
7. If beneficial to the assessment of seismic hazards for the project, the three-dimensional subsurface conditions at the site shall be presented using one or more cross-sections showing location and depth penetration of borings or CPT soundings, interpretation of the geometry of major soil units, and projected location of the static groundwater surface determined from the subsurface exploration. The cross-sections shall be presented at a scale of one inch equals 20 feet, one inch equals 30 feet, one inch equals 50 feet (or other scale deemed appropriate by the department). Each cross-section shall have a legend with a description of the various major soil units. The city's geotechnical professional reserves the right to request inclusion of one or more cross-sections in the geotechnical report. If a dispute arises between the project geotechnical professional and the

city's geotechnical professional regarding this issue, then the city reserves the right to require an independent, third party review to be paid for by the applicant to resolve the dispute.

8. All assessments of liquefaction or dynamic settlement hazards and effects will be based on a design earthquake using ground motion parameters consistent and equivalent to those specified in the most current version of the International Building Code. These assessments shall use the shallowest groundwater table observed during or inferred from subsurface exploration and characterization, e.g., the measured depth of static groundwater immediately prior to abandonment of borings, or observation of iron oxide mottling of soils samples.

9. Results of laboratory testing of samples retrieved during drilling and sampling shall be presented in order to support the values of fines contents used in subsequent analysis of liquefaction and/or dynamic settlement hazard. Where only CPT methods are used in site assessment, the correlation between fines content and CPT measurements will be discussed and documented. This documentation will require rigorous correlation of CPT and fines content measurements from similar geological deposits within the Puget Sound region.

10. The geotechnical report shall include a detailed assessment of the liquefaction and/or dynamic settlement hazard based on analysis of available subsurface data using state-of-the-practice methodologies. The results of the analysis shall be documented, and all results of intermediate and final calculations and results, including factors of safety, shall be included.

11. When appropriate, the geotechnical report shall include an assessment of the potential for large lateral spreads or flow failures, bearing failures, settlement, limited lateral displacement, and flotation of buried facilities. The methodologies used must be, at a minimum, state-of-the-practice, and the conclusions regarding the potential and severity of the possible liquefaction and/or dynamic settlement induced failure modes shall be presented.

12. Alternative mitigative measures including structural and foundation design options and/or soil improvement techniques shall be evaluated and compared for their effectiveness in reaching the level of performance specified in the report introduction. Effectiveness of soil improvement techniques shall be specified in terms of post-treatment densification or strength improvement as measured by appropriate subsurface investigation and testing. The extent of the post-treatment verification testing shall be provided on a site map at the same scale as the map presented in Article I. Geotechnical review of all final plans is required and the findings of the review shall be documented in writing.

13B. The geotechnical professional(s) who prepared the geotechnical report shall stamp the report with their license stamp or seal.

14C. Hold harmless clauses, disclaimers, and limitations are not allowed within a geotechnical report.

APPENDIX B

GEOLOGICAL ASSESSMENTS — FAULT RUPTURE HAZARD AREA GEOTECHNICAL REPORT

A. A geotechnical report shall, at a minimum, include the following:

~~1. The general critical areas report requirements contained herein.~~

~~2. The report shall be prepared by an engineer and shall be co-written by an engineering geologist where geological interpretations and conclusions critical to the assessment of liquefaction and/or dynamic settlement hazard and potential effects are necessary or prudent.~~

~~3. The following topics should be considered and addressed in detail where essential to support opinions, conclusions, and recommendations in any geologic report on faults. It is not expected that all the topics or investigative methods would be necessary in a single investigation. In specific cases, it may be necessary to extend some of the investigative methods well beyond the site or property being investigated.~~

~~a. Purpose and scope of investigation; description of proposed development.~~

~~b. Geologic and tectonic setting. Include seismicity and earthquake history.~~

~~c. Site description and conditions, including dates of site visits and observations. Include information on geologic units, graded and filled areas, vegetation, existing structures, and other factors that may affect the choice of investigative methods and interpretation of data.~~

~~d. Methods of Investigation.~~

~~i. Review of published and unpublished literature, maps, and records concerning geologic units, faults, groundwater barriers, and other factors.~~

~~ii. Stereoscopic interpretation of aerial photographs, review of LiDAR based topography, and other remotely sensed images to detect fault related topography (geomorphic features), vegetation and soil contrasts, and other lineaments of possible fault origin. The area interpreted usually should extend beyond the site boundaries.~~

~~iii. Surface observations, including mapping of geologic and soil units, geologic structures, geomorphic features and surfaces, springs, deformation of engineered structures due to fault creep, both on and beyond the site.~~

~~iv. Subsurface Investigations.~~

~~(A) Trenching and other excavations to permit detailed and direct observation of continuously exposed geologic units, soils, and structures; must be of adequate depth and be carefully logged (Taylor & Cluff 1973, Hatheway & Leighton 1979, McCalpin 1996b).~~

~~(B) Borings and test pits to permit collection of data on geologic units and groundwater at specific locations. Data points must be sufficient in number and spaced adequately to permit valid correlations and interpretations.~~

~~(C) Cone penetrometer testing (CPT) (Grant et al., 1997, Edelman et al., 1996). CPT must be done in conjunction with continuously logged borings to correlate CPT results with on-site materials. The number of borings and spacing of CPT soundings should be sufficient to adequately image site stratigraphy. The existence and location of a fault based on CPT data are interpretative.~~

~~v. Geophysical Investigations. These are indirect methods that require a knowledge of specific geologic conditions for reliable interpretations. They should seldom, if ever, be employed alone without knowledge of the geology (Chase & Chapman 1976). Geophysical methods alone never prove the absence of a fault nor do they identify the recency of activity. The types of equipment and techniques used should be described and supporting data presented (California Board of Registration for Geologists and Geophysicists, 1993).~~

~~(A) High resolution seismic reflection (Stephenson et al., 1995, McCalpin, 1996b).~~

~~(B) Ground penetrating radar (Cai et al., 1996).~~

~~(C) Other methods include: seismic refraction, magnetic profiling, electrical resistivity, and gravity (McCalpin, 1996b).~~

~~vi. Age dating techniques are essential for determining the ages of geologic units, soils, and surfaces that bracket the time(s) of faulting (Pierce, 1986, Birkeland et al., 1991, Rutter & Catto, 1995, McCalpin, 1996a).~~

~~(A) Radiometric dating (especially 14C).~~

~~(B) Soil profile development.~~

~~(C) Rock and mineral weathering.~~

~~(D) Landform development.~~

~~(E) Stratigraphic correlation of rocks, minerals, and fossils.~~

~~(F) Other methods: artifacts, historical records, tephrochronology, fault scarp modeling, thermoluminescence, lichenometry, paleomagnetism, dendrochronology, etc.~~

~~vii. Other methods should be included when special conditions permit or requirements for critical structures demand a more intensive investigation.~~

~~(A) Aerial reconnaissance overflights.~~

~~(B) Geodetic and strain measurements.~~

~~(C) Microseismicity monitoring.~~

~~e. Conclusions.~~

~~i. Location and existence (or absence) of hazardous faults on or adjacent to the site; ages of past rupture events.~~

~~ii. Type of faults and nature of anticipated offset, including sense and magnitude of displacement, if possible.~~

~~iii. Distribution of primary and secondary faulting (fault zone width) and fault-related deformation.~~

~~iv. Probability of, or relative potential for, future surface displacement. The likelihood of future ground rupture seldom can be stated mathematically, but may be stated in semiquantitative terms such as low, moderate, or high, or in terms of slip rates determined for specific fault segments.~~

~~v. Degree of confidence in, and limitations of data and conclusions.~~

~~f. Recommendations.~~

~~i. The recommended increase from the standard buffer distance (50 feet) of proposed structures from fault rupture hazard areas. The recommended buffer distance generally will depend on the quality of data and type and complexity of fault(s) encountered at the site and the proposed land use type (i.e., occupancy). In order to establish an appropriate buffer distance from a fault located by indirect or interpretative methods (e.g., borings or cone penetrometer testing), the area between data points also should be considered underlain by a fault unless additional data are used to more precisely locate the fault. Additional measures (e.g., strengthened foundations, engineering design, and flexible utility connections) to accommodate warping and distributive deformation associated with faulting (Lazarte and others, 1994).~~

~~ii. Risk evaluation relative to the proposed development.~~

~~iii. Limitations of the investigation; need for additional studies.~~

~~g. References.~~

~~i. Literature and records cited or reviewed; citations should be complete.~~

~~ii. Aerial photographs or images interpreted: list type, data, scale, source, and index numbers.~~

~~iii. Other sources of information, including well records, personal communications, and other data sources.~~

~~h. Illustrations. The following illustrations should be provided:~~

~~i. A location map that identifies site locality, significant faults, geographic features, regional geology, seismic epicenters, and other pertinent data; 1:24,000 scale is recommended.~~

~~ii. A site development map that shows site boundaries, existing and proposed structures and limits of the proposed project area, graded areas, streets, exploratory trenches, borings geophysical traverses, locations of faults, and other data; recommended scale is 1:2,400 (one inch equals 200 feet), or larger.~~

~~iii. A geologic map that shows the distribution of geologic units (if more than one), faults and other structures, geomorphic features, aerial photographic lineaments, and springs; on topographic map 1:24,000 scale or larger; can be combined with subsection (A)(3)(h)(i) or (ii) of this appendix.~~

~~iv. Geologic cross sections, if needed, to provide three dimensional picture.~~

~~v. Logs of exploratory trenches and borings that show details of observed features and conditions (note: these should not be generalized or diagrammatic). Trench logs should show topographic profile and geologic structure at a 1:1 horizontal to vertical scale; scale should be 1:60 (one inch equals five feet) or larger.~~

~~vi. Geophysical data and geologic interpretations.~~

~~i. Appendix. Attach any supporting data not included above, e.g., water well data, photographs, and aerial photographs.~~

~~4. The geotechnical professional who prepared the geotechnical report shall stamp the report with their license stamp or seal.~~

~~5. The department may request a geotechnical professional to provide additional information in the geotechnical report based upon existing conditions, changed conditions, or unique circumstances occurring on a case by case basis.~~

~~6. Hold harmless clauses, disclaimers, and limitations are not allowed to be included, neither expressly nor implied, within a geological assessment.~~

~~Red Strikeout~~ = Text Removed

Blue Text = Text Added

Highlighted = Revised After Public Hearing

**Chapter 14.110
EROSION HAZARD AREAS
Draft Amendments**

Sections:

- 14.110.010 Purpose.
- 14.110.020 Erosion hazard area.
- 14.110.030 Erosion hazard area review procedures.
- 14.110.040 Erosion hazard area standards.
- 14.110.050 Buffer requirements.
- 14.110.060 ~~Appendices.~~ Additional critical area report requirements

14.110.010 Purpose.

The following statements describe the purpose of this chapter:

- A. Protect human life and health;
- B. Regulate uses of land in order to avoid damage to structures and property being developed and damage to neighboring land and structures;
- C. Identify and map any erosion hazard area;
- D. Minimize impacts on wetlands and critical fish and wildlife species and their associated habitat that can result from erosion;
- E. Establish a permit requirement and review procedures for development proposals in areas with potential erosion hazards;
- F. Strike a balance between the need to maintain natural ~~shoreline~~ erosion/regression processes and the need to protect existing and proposed development.

14.110.020 Erosion hazard area.

A. Erosion Hazard Area ~~Indicators~~. Erosion hazard areas are areas potentially subject to land regression or retreat due to a combination of geologic, seismic, hydrologic, or manmade factors. ~~Erosion hazard areas can be identified by indicators of active land retreat as a result of fluvial processes.~~ Erosion hazard areas within the city can be further defined in the following two categories:

1. Soil Erosion Hazard Areas. Soil erosion hazard areas are identified by the presence or absence of natural vegetative cover, soil texture condition, slope, and rainfall patterns, or man-induced changes to such characteristics that create site conditions which are vulnerable to erosion of the upper soil horizon. Soil erosion hazard areas include those areas with slopes of 20 percent or greater and that are classified as having severe or very severe erosion potential by the USDA Natural Resources Conservation Service

B. ~~Erosion Hazard Area Categories.~~

~~1. Potential Erosion Hazard Areas. Potential erosion hazard areas, as depicted on the geologically hazardous areas map~~ Critical Areas County GIS database, are those areas where the suspected risk of erosion through either loss of soil, slope instability, or land regression is sufficient to require additional review to assess the potential for active erosion activity or apply additional standards based topography and USDA soil mapping. ~~These potential erosion hazard areas are determined using the following criteria:~~
~~a. Shoreline Erosion Hazard Areas. Areas within 200 feet of a freshwater lake, pond, or shoreline. The distance shall be measured landward perpendicularly from the edge of the ordinary high water mark.~~

~~b. Riverine Erosion Hazard Areas. The rivers subject to regulation as a CMZ listed in EMC 14.80.040(B)(4).~~

~~c. Soil Erosion Hazard Areas. Areas identified as having slopes of 20 percent or greater and that are classified as having severe or very severe erosion potential by the Soil Conservation Service, United States Department of Agriculture (USDA).~~

~~2. Active Shoreline Erosion Hazard Areas. Land areas located directly adjacent to surface water bodies that, through the geological assessment process, are identified as regressing, retreating, or potentially unstable as a result of undercutting by wave action or bluff erosion. The limits of the active shoreline erosion hazard area shall extend landward to include that land area that is calculated, based on the rate of regression, to be subject to erosion processes within the next 10-year time period.~~

~~3. Riverine Erosion Hazard Areas or CMZs. Riverine erosion hazard areas are located within the lateral extent of likely watercourse channel movement due to bank destabilization and erosion, rapid incision, and shifts in location of watercourse channels. Rivers and streams subject to erosion are regulated as a CMZ.~~

~~4. Soil Erosion Hazard Areas. Soil erosion hazard areas are identified by the presence or absence of natural vegetative cover, soil texture condition, slope, and rainfall patterns, or man-induced changes to such characteristics that create site conditions which are vulnerable to erosion of the upper soil horizon. Soil erosion hazard areas include those areas with slopes of 20 percent or greater and that are classified as having severe or very severe erosion potential by the USDA Natural Resources Conservation Service.~~

14.110.030 Erosion hazard area review procedures.

A. General Requirements. No person may commence any development or regulated activity in the potential or verified critical area without first obtaining the applicable permits and approvals from the city. All project proponents shall perform critical area research due diligence prior to commencing any development or regulated activity at the site.

1. The city's ~~geologically hazardous areas map~~ Critical Areas GIS database provides an indication of where potential erosion hazard areas are located based on EMC 14.110.020. The actual presence or location of an erosion hazard area or additional potential erosion hazard area that has not been mapped, but may be present on or adjacent to a site, shall be determined using the procedures and criteria established in this chapter.

2. The department will complete a review of the ~~geologically hazardous areas map~~ Critical Areas GIS database, and any other source documents for any proposed regulated activity, to determine whether the site for the regulated activity is located within a potential erosion hazard area.

~~3. When the department's maps, sources, or field investigations indicate that the site for a proposed regulated activity is located within a potential shoreline erosion hazard area, the department shall require a geological assessment as outlined in subsection (B) of this section.~~

~~34. When the department's maps, sources, or field investigations indicate that the~~ If the proposed project area for a regulated activity is located within a potential erosion hazard area ~~or CMZ~~, the department shall conduct a review pursuant to Chapter 14.80 EMC.

~~45. When the department's maps, sources, or field investigations indicate that~~ If the proposed project area for a regulated activity is located within a potential ~~soil~~ erosion hazard area, the project proponent shall submit an ~~department shall require submittal of an~~ erosion control plan pursuant to the requirements set forth in Chapter 13.05 EMC, Stormwater Manual – Site Development Regulations.

~~6. Applicants requesting to develop a bulkhead along a shoreline shall be required to submit a geotechnical report.~~ 5. Unless otherwise stated in this Chapter the critical area protective measure provisions contained in EMC 14.10.070(B) shall apply.

B. Geological Assessment. ~~A geological assessment is a site investigation process to evaluate the on-site geology affecting a subject property and proposed development.~~

1. A geotechnical professional shall complete a geological assessment to determine whether an erosion hazard area exists within 65 feet of the site. The following are acceptable geological assessments:

b. Geotechnical Verification: When a geotechnical professional finds that there are no erosion hazard areas on or within 65 feet of the proposed project area.

c. Geotechnical Report: When a geotechnical professional finds that an erosion hazard area exists on or within 65 feet of the proposed project area or when a geotechnical professional determines that mitigation measures are necessary to construct or develop within a potential erosion hazard area.

2. All geotechnical assessments shall include the following information:

a. All the required Critical Area Report requirements per EMC 14.10.080(C)

b. Shall be prepared, signed, and dated by a geotechnical professional.

c. Shall include a field investigation and may also include review of public records and documentation, analysis of historical air photos, LiDAR mapping, published data and references, etc.

d. A determination of which areas on the site meet the criteria for soil erosion hazard area.

e. Provide all the required information pursuant to EMC 14.110.060. Geological assessments shall be submitted to the department for review and approval together with a shoreline erosion hazard area application.

~~2. The geological assessment shall include a field investigation and may also include review of public records and documentation, analysis of historical air photos, LiDAR mapping, published data and references, etc.~~

~~3. The geological assessment shall include the following information and analysis:~~

~~a. An analysis of the shoreline erosion processes on and in the vicinity of the site including an evaluation of erosion and shoreline retreat that has occurred over the past decade and an estimated probable rate of erosion based upon the historic rate of erosion that has occurred on the site.~~

~~b. A determination of which areas on the site meet the criteria for an active shoreline erosion hazard area.~~

~~c. A determination of the area on the site or in the vicinity of the site that will experience regression in the next 120 years given natural processes.~~

~~d. All of the information required per EMC 14.10.080(C).~~

~~4. Geological assessments shall be prepared, signed, and dated by a geotechnical professional and the format shall be pre-approved by the department.~~

~~5. A geotechnical professional shall complete a field investigation and geological assessment to determine whether or not an active shoreline erosion hazard area exists within 200 feet of the site.~~

~~a. The geological assessment shall be submitted in the form of a geotechnical letter when the geotechnical professional finds that no active shoreline erosion hazard area exists within 200 feet of the site.~~

~~b. The geological assessment shall be submitted in the form of geotechnical verification when the geotechnical professional finds that an active shoreline erosion hazard area exists but is located more than 200 feet away from the proposed project area.~~

~~c. The geological assessment shall be submitted in the form of a geotechnical report when the geotechnical professional finds that an active shoreline erosion hazard area exists within 200 feet of the proposed project area or when a geotechnical professional determines that mitigation measures, such as a bulkhead, are necessary in order to construct or develop within a potential shoreline erosion hazard area.~~

3. A geological assessment of a specific site may be valid for a period of up to five years when the proposed land use activity and surrounding site conditions are unchanged. However, if any environmental conditions associated with the site change during that five-year period, the applicant may be required to submit an amendment to the geological assessment.

46. The department shall review the geological assessment and either:

a. Accept the geological assessment and approve the application; or

b. Reject the geological assessment and require revisions or additional information.

~~7. A geological assessment for a specific site may be valid for a period of up to five years when the proposed land use activity and surrounding site conditions are unchanged. However, if any environmental conditions associated with the site change during that five-year period, the applicant may be required to submit an amendment to the geological assessment.~~

C. Riverine Erosion Hazard Area (Channel Migration Zones) Review. Riverine erosion hazard areas shall be reviewed pursuant to the requirements set forth in Chapter 14.80 EMC.

D. Soil Erosion Hazard Area Review. Soil erosion hazard areas shall be reviewed pursuant to the requirements set forth in Chapter 13.05 EMC, Stormwater Manual – Site Development Regulations.

14.110.040 Erosion hazard area standards.

~~A. Active Shoreline Erosion Hazard Areas. Any development, encroachment, clearing and grading, timber harvest, building structures, impervious surfaces, and vegetation removal shall be prohibited-regulated within active shoreline erosion hazard areas and associated buffers except as specified in EMC 14.90.040. For the purposes of this chapter, the term “landslide” shall be replaced with “erosion” the following standards:~~

~~1. Shoreline Erosion Protection Measures. Shoreline erosion protection measures located within or adjacent to freshwater or marine shorelines shall be allowed subject to the following:~~

~~a. The proposed shoreline protection measure shall comply with the standards set forth in Chapter 14.50-EMC, Critical Fish and Wildlife Habitat Areas.~~

~~b. A geological assessment geotechnical report that indicates that the shoreline is currently experiencing active erosion, i.e., land retreat or regression.~~

~~c. The use of the shoreline erosion protection measure will not cause a significant adverse impact on adjacent properties or critical fish and wildlife species and their associated habitat (i.e., increase erosion on adjacent properties).~~

~~d. The use of soft armoring techniques is the preferred method for shoreline protection.~~

~~e. Hard armoring shoreline erosion control measures shall be approved only when a geological assessment—shoreline erosion geotechnical report has been completed and indicates the following:~~

~~i. The regression has been monitored on a yearly interval for a period of at least five consecutive years prior to allowing a bulkhead to be constructed. This monitoring shall be conducted by field-survey measurements of a licensed surveyor. The department may shorten or eliminate the monitoring period if there are indicators that the regression rate is rapid and an existing structure may be threatened prior to completion of the monitoring period;~~

~~ii. The use of beach nourishment alone or in combination with soft armoring techniques is not adequate to protect the property from shoreline erosion processes; and~~

~~iii. The property contains an existing structure(s) that will be threatened within the next 10 years or the buildability of an undeveloped site will be threatened within the next 10 years if a hard armoring method of shoreline erosion protection is not provided.~~

~~f. Hard armoring shoreline protection measures shall not be allowed when structures can be located landward of the 120-year rate of regression area.~~

~~2. Stormwater Conveyance. Surface drainage into an active shoreline erosion hazard area should be avoided. If there are no other alternatives for discharge, then drainage must be collected upland of the top of the active shoreline erosion hazard area and directed downhill in a high-density polyethylene stormwater pipe with fuse-welded joints that includes an energy dissipating device at the base of the active landslide hazard area. The pipe shall be located on the surface of the ground and be properly anchored so that it will continue to function in the event of an underlying slide. The number of these pipes should be minimized along the slope frontage.~~

~~3. Utility Lines. Utility lines will be permitted when no other conveyance alternative is available. The line shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide.~~

~~4. Roads, Bridges, and Trails. Roads, bridges, and trails shall be allowed when all of the following conditions have been met:~~

~~a. Mitigation measures are provided that ensure the roadway prism and/or bridge structure will not be susceptible to damage from active erosion.~~

~~b. The road is not a sole access for a development.~~

~~5. Proposed developments, with the exception of shoreline erosion protection measures, shall be sited far enough from regressing shorelines to ensure 120 years of useful life for any proposed structures or infrastructure.~~

~~B. Shoreline Erosion Hazard Management Area. All regulated activities such as but not limited to building structures, impervious surfaces, vegetation removal, timber harvest, or grading activities may be allowed in areas located within 200 feet of an active shoreline erosion hazard area subject to the following standards:~~

~~1. The department reviews and approves a geological assessment—shoreline erosion hazard geotechnical report and determines that the proposed project area is located outside an active shoreline hazard area and the required buffer.~~

~~2. The proposed recommendations and mitigation measures contained within the geotechnical report are adequate to reduce or mitigate risks to the natural environment, health, and safety.~~

~~3. Surface drainage from the proposed project area, including downspouts, landscape irrigation systems, and runoff from paved or unpaved surfaces upland of the shoreline, shall not be directed through an active shoreline erosion hazard area or its associated buffer unless it is conveyed in conformance with the provisions in subsection (A)(2) of this section.~~

~~4. Stormwater retention and detention systems, such as dry wells and infiltration systems utilizing buried pipe or French drains, shall not be permitted unless such systems are designed by a professional engineer and the geotechnical report indicates that such a system will not affect the stability of the shoreline.~~

~~5. Proposed developments, with the exception of shoreline erosion protection measures, shall be sited far enough from regressing shorelines to ensure 120 years of useful life for any proposed structures or infrastructure.~~

~~C. Riverine Erosion Hazard Area or CMZ Review. Riverine erosion hazard areas shall be reviewed pursuant to the requirements set forth in Chapter 14.80 EMC.~~

~~B.D.~~ **Soil Erosion Hazard Area Review.** Additionally, ~~s~~Soil erosion hazard areas shall be ~~reviewed pursuant~~ subject to the requirements set forth in Chapter 13.05 EMC, Stormwater Manual – Site Development Regulations.

14.110.050 Buffer requirements.

A. Determining Erosion Buffer Widths.

1. The buffer width shall be measured on a horizontal plane from a perpendicular line established at the edge of the ~~active shoreline~~ erosion hazard area limits.

2. An undisturbed buffer of existing vegetation shall be required for an ~~active shoreline~~ erosion hazard area. The required standard buffer width is either subsection (A)(2)(a) or (b) of this section, whichever is greater:

a. Fifty feet from all edges of the ~~active shoreline~~ erosion hazard area limits; or

b. A distance of one-third the height of the slope at the top of the slope and a distance of one-half the height at the bottom of the slope.

3. The buffer width may be reduced or eliminated upon the director's approval of a geotechnical ~~report~~ assessment that demonstrates that such a reduction would not result in an increased risk of erosion either on or off of the subject property.

B. Modification of Buffer Widths. The department may require a larger buffer width than the standard buffer distance, as determined in subsection (A) of this section, if any of the following are identified through the geological assessment process:

1. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse impacts.

2. The area has a severe risk of slope failure or downslope stormwater drainage impacts.

14.110.060 Additional critical area report requirements ~~Appendices.~~

~~A. Geological Assessment—Shoreline Erosion Hazard Geotechnical Letter.~~

~~B. Geological Assessment—Shoreline Erosion Hazard Geotechnical Verification.~~

~~C. Geological Assessment—Shoreline Erosion Hazard Geotechnical Report.~~

~~APPENDIX A~~

~~GEOLOGICAL ASSESSMENT—SHORELINE EROSION HAZARD GEOTECHNICAL LETTER~~

A. Geotechnical verification. A geotechnical letter shall, at a minimum, include the following:

1. The general critical areas report requirements.

2. A summary of the findings of the site visit, a site plan, and a summary of the findings from the review of documents listed in EMC 14.110.030(B)(2). The appropriate professional preparing the geotechnical letter shall provide conclusions and recommendations as to shoreline stability for the proposed development.

~~3B.~~ The geotechnical professional who prepared the geotechnical letter shall stamp the letter with his or her seal.

~~4C.~~ Hold harmless clauses, disclaimers, and limitations are not allowed within a geotechnical letter.

~~APPENDIX B~~

~~GEOLOGICAL ASSESSMENT—SHORELINE EROSION HAZARD GEOTECHNICAL VERIFICATION~~

~~A. A geotechnical verification shall, at a minimum, include the following:~~

~~1. The general critical areas report requirements.~~

~~2. A summary of the results, conclusions, and recommendations resulting from the geological assessment, as set forth in EMC 14.110.030(B). The verification will also include a summary of the findings of the site visit, a site plan, and a summary of the findings from the review of the documents listed in EMC 14.110.030(B)(2).~~

~~3. An accurate site plan drawn at a scale of one inch equals 20 feet, one inch equals 30 feet, one inch equals 50 feet (or other scale deemed appropriate by the department) is required. The department may require that the site plan information listed below be based on a field survey by a licensed surveyor. The site plan shall include:~~

~~a. The limits and location of the active shoreline erosion hazard area(s).~~

~~b. The limits of the required shoreline erosion hazard buffer.~~

~~c. The limits and location of the shoreline erosion hazard management area.~~

~~d. The limits and location of the 120-year regression area.~~

~~e. The location of any existing structures, utilities, on-site septic systems, wells, and stormwater management facilities.~~

~~f. The location of any proposed structures, utilities, on-site septic systems, wells, and stormwater management facilities.~~

~~g. The full geographical limits of the proposed project area to be developed.~~

~~h. Dimension of the closest distance between the identified active shoreline hazard area boundary and the proposed project area.~~

~~i. Dimension of the closest distance between the 120-year regression line and the proposed project area.~~

~~j. Existing contours on the site at two-foot intervals.~~

~~k. Property lines for the site.~~

~~l. North arrow and scale.~~

~~B. The geotechnical professional who prepared the geotechnical verification shall stamp the verification with their seal.~~

~~C. Hold harmless clauses, disclaimers, and limitations are not allowed within a geotechnical verification.~~

~~APPENDIX C~~

~~GEOLOGICAL ASSESSMENT—SHORELINE EROSION HAZARD GEOTECHNICAL REPORT~~

~~BA. Geotechnical report. A geotechnical report shall, at a minimum, include the following:~~

~~1. The general critical areas report requirements.~~

~~2. A summary of the results, conclusions, and recommendations resulting from the geological assessment. The report will also include a summary of the findings of the site visit, a site plan, and a summary of the findings from the review of documents listed in EMC 14.110.030(B)(2). The summary shall specifically address:~~

~~a. Whether it is possible given the physical constraints of the property (size, shape, building setbacks, utility requirements, etc.) to locate the proposed development outside of the 120-year area of regression based on natural shoreline processes.~~

~~b. If it is not possible to locate the development outside of the 120-year area of regression (based on natural processes), determine whether beach nourishment, soft armoring techniques, or both can be used to slow the rate of regression such that the proposed development is no longer within the 120-year regression area.~~

c. If it is not possible to locate the development outside of the 120-year area of regression, based on the use of beach nourishment or soft armoring techniques, outline the strategy to monitor the rate of regression on the site.

d. Determine whether any proposed shoreline erosion protection measures will cause an increase in the rate of regression on neighboring properties.

3. An accurate and scaled site plan ~~drawn at a scale of one inch equals 20 feet, one inch equals 30 feet, one inch equals 50 feet (or other scale deemed appropriate by the department)~~ is required. ~~The department may require that the site plan information listed below be based on a field survey by a licensed surveyor.~~ The site plan shall include:

a. The limits and location of the active ~~shoreline~~ erosion hazard area(s).

b. The limits of the required ~~shoreline~~ erosion hazard buffer based upon the requirements.

~~c. The limits and location of the shoreline erosion hazard management area.~~

~~d. The limits and location of the 120-year regression area based on natural shoreline processes and, if applicable, based upon proposed shoreline protection measures.~~

e. The location of any existing structures, utilities, on-site septic systems, wells, and stormwater management facilities.

f. The location of any proposed structures, utilities, on-site septic systems, wells, and stormwater management facilities.

g. The full geographical limits of the proposed project area or conceptual project area to be developed.

h. Dimension of the closest distance between the identified ~~active shoreline~~ erosion hazard area boundary and the proposed project area.

~~i. Dimension of the closest distance between the 120-year regression line and the proposed project area.~~

j. Existing contours on the site at two-foot intervals.

k. Property lines for the site.

l. North arrow and scale.

4. A discussion of any proposed erosion hazard area ~~shoreline~~ protection measures including design and construction drawings is required.

5. A list of references utilized in preparation of the report.

~~6B.~~ The geotechnical professional(s) who performed the geological assessment shall stamp the report with their license stamp or seal. The report must be co-authored by a licensed professional engineer when engineering designs or interpretations are necessary to address the report requirements. The engineer must also stamp the report with their license stamp or seal.

~~7C.~~ The department may request a geotechnical professional to provide additional information in the geotechnical report based upon existing conditions, changed conditions, or unique circumstances occurring on a case-by-case basis.

~~8D.~~ Hold harmless clauses, disclaimers, and limitations are not allowed within a geotechnical report.

~~9E.~~ Geotechnical reports shall be in conformance with a format that is pre-approved by the department.



EDGEWOOD

Washington

Critical Areas

Fish Bearing Stream Analysis



Legend

WDFW Water Type

- F
- Type F 100ft Buffer

SPTH Soil Class (ft)

- 94 - 111
- 112 - 204
- 205 - 231

Slopes

- 20% - 40%
- 40% +
- Landslide Hazard



0 0.5 1 2 Miles

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1	WDFW	14.50.010	Many land use activities can impact the habitats of fish and wildlife. Special care must be taken in the management of lands that support fish and wildlife species to ensure that development occurs in a manner that is sensitive to their habitat needs. The purpose of this chapter is to identify fish and wildlife habitat conservation areas and establish habitat protection procedures and mitigation measures that are designed to result in no net loss of habitat functions and values. These areas are necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5).	To support this work, WDFW suggests including a statement about local and regional habitat connectivity policy. Identifying opportunities to expand habitat protection and improve habitat connectivity using conservation area designations, buffers, and open space corridors is a key WDFW land use priority.	The proposed language was revised to include "and habitat connectivity using conservation area designations, buffers, and open space corridors." This update was incorporated before the public noticing documents were issued.
2	WDFW	14.50.020(B)(2)	Areas containing priority habitat and species as identified by the Washington State Department of Fish and Wildlife (WDFW) Priority Habitat and Species (PHS) and Department of Natural Resources (DNR) Species Lists under the Natural Heritage program. These are also considered habitat and species of local importance.	WDFW appreciates the clear callout of WDFW’s Priority Habitats and Species program as part of the designation and protection aspect for Fish and Wildlife Habitat Conservation Areas.	Comment noted.
3	WDFW	14.50.020(B)(5)	Waters of the state, including all water bodies classified by the Washington State Department of Natural Resources water typing classification system as detailed in WAC 222-16-030, together with associated riparian areas;	The City’s CAO utilizes the State Interim Forest Practice Water Typing in WAC 222-16-030 to define stream types. WAC 222 is for forest practices intended to be used for water typing in forested areas of the state. The maps developed for these water types may be unreliable within urban areas due to different land uses and how other applicable local or state code requirements are defined or applied. WAC 365-190-130 (4)(f)(i) states that jurisdictions should not rely solely on WAC 222-16-030 or -031 for the mapping of stream types for the purpose of regulating land uses. Although there is currently not a single best statewide hydrography data set that WDFW can recommend at this time, we do highly encourage local jurisdictions to begin discussing a more reliable alternative. WDFW encourages the City to follow the updates from Ecology’s Washington State Hydrography Dataset Program (WASHD). More information about this effort to create and sustain a consistent and complete statewide hydrography data set can be found here. This WASHD effort aims to update the National Hydrography Dataset (NHD) for watercourse mapping to help ensure all state streams and associated riparian management zone (RMZ) natural resources are accurately identified. One effective approach is to use WDFW’s Site Potential Tree Height (SPTH200) GIS mapping tool, which is based on NHD data. The SPTH200 tool reflects the best available science and aligns with WDFW’s Volume 2: Management Recommendations, supporting the protection of the full range of functions and values for all streams provided by RMZs. Additional SPTH200 resources can be found on WDFW’s PHS publications page. To get a sense of what these RMZs might look like on the landscape, check out	The city uses multiple mapping sources to update streams layers on its critical area maps, which include federal, state and Pierce County resources. The city’s reference to any specific database is to gain general information and a starting point because we are aware that they are often not reliable at the local level. That is why the city will also use City of Edgewood resources and critical area reports provided by private parties to regularly update its mapping. The proposed language was revised to include direct reference to the WDFW PHS Program, WDFW Site Potential Tree Height tool, the Ecology State Hydrography Program, and other resources. This update was incorporated before the public noticing documents were issued. The city proposes to continue utilizing the water typing standards of WAC 222-16-030 to generally categorize streams since it clearly defines the basis for identifying fish bearing and non-fish bearing streams, and the city has a desire to ensure anadromous fish receive special consideration. However, the identification of fish bearing or non-fish bearing streams will always require verification through submission of the required Critical Areas Report and third-party review by the city’s consultant(s). The City will update its stream mapping as Critical Areaa Reports are provided and verified. Regarding WAC 222-30-031, thank you for this information and staff will discuss the upcoming changes with the Planning Commission. Staff did review the proposed water typing definitions in WAC 222-16-030 and believe that these proposed changes would be consistent with the proposed CAO language as the changes are focused on better identification of fish bearing streams.

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				our online mapping tool. Jurisdiction-specific GIS data can be provided for download upon request. To include SPTH200 into this code, a suggested text revision may be, “detailed in WAC 222-16-030, and WDFW’s Site Potential Tree Height (SPTH200) mapping, together...” The WDFW BAS finds that all streams are important for ecosystem services and salmon recovery. regardless of whether or not they are fish bearing. WDFW’s preferred riparian management zone of SPTH200 for each stream. Where SPTH200 cannot be achieved, an RMZ width of 100 feet is needed to achieve the 95% pollution removal function, though other riparian functions may be compromised at this minimum width, depending on the SPTH200 value at a given site. If the City plans to continue using DNR’s forest practice water typing system, WDFW recommends updating the local code language to reflect the forthcoming changes, effective January 1, 2026, to WAC 222-46-020 and WAC 222-30-021. These updates redefine Type S and Type F waters and their associated RMZs, providing clearer, more precise classifications and stronger ecological protections within the scope of forest practice work. Additional resources for review: • Riparian Standards and Mapping - WDFW Best Available Science introduced in 2020 • WDFW’s Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications • WDFW’s Riparian Ecosystems, Volume 2: Management Recommendations • Site Potential Tree Height Mapping tool • Site Potential Tree Height GIS polygon downloads	
4	WDFW	14.50.020(C)	C. Mapping. The approximate location and extent of waters of the state and fish presence within the city are shown on maps maintained by the city. The city shall update the maps periodically as new information becomes available. The approximate location and extent of other fish and wildlife habitat conservation areas are shown on maps maintained by the WDFW and other state and federal agencies. These maps are to be used as a guide and do not provide definitive information about fish and wildlife habitat conservation area size or presence. Fish and wildlife habitat conservation areas may exist that do not appear on the maps.	WDFW recommends adding a direct reference to WDFW’s PHS program here since this is where the agency hosts our maps. A suggested revision may be...”on maps maintained by WDFW PHS program...”	The proposed language was revised to include direct reference to the WDFW PHS Program, WDFW Site Potential Tre Height tool and the Ecology State Hydrography Program. This update was incorporated before the public noticing documents were issued.

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5	WDFW	14.50.030(A)(1)(a)	Riparian Buffers, consisting of undisturbed native vegetation, shall be required along all waterbodies, as classified by the DNR water typing classification system (WAC 222-16-030).	This comment is to reiterate the comments made on 14.50.020(B)(5) above to highlight the importance of these comments. The City’s CAO utilizes the State Interim Forest Practice Water Typing in WAC 222-16-030 to define stream types. WAC 222 is for forest practices intended to be used for water typing in forested areas of the state. The maps developed for these water types may be unreliable within urban areas due to different land uses and how other applicable local or state code requirements are defined or applied. WAC 365-190-130 (4)(f)(i) states that jurisdictions should not rely solely on WAC 222-16-030 or -031 for the mapping of stream types for the purpose of regulating land uses. Although there is currently not a single best statewide hydrography data set that WDFW can recommend at this time, we do highly encourage local jurisdictions to begin discussing a more reliable alternative. WDFW encourages the City to follow the updates from Ecology’s Washington State Hydrography Dataset Program (WASHD). More information about this effort to create and sustain a consistent and complete statewide hydrography data set can be found here. This WASHD effort aims to update the National Hydrography Dataset (NHD) for watercourse mapping to help ensure all state streams and associated riparian management zone (RMZ) natural resources are accurately identified. One effective approach is to use WDFW’s Site Potential Tree Height (SPTH200) GIS mapping tool, which is based on NHD data. The SPTH200 tool reflects the best available science and aligns with WDFW’s Volume 2: Management Recommendations, supporting the protection of the full range of functions and values for all streams provided by RMZs. Additional SPTH200 resources can be found on WDFW’s PHS publications page. To get a sense of what these RMZs might look like on the landscape, check out our online mapping tool. Jurisdiction-specific GIS data can be provided for download upon request. The WDFW BAS finds that all streams are important for ecosystem services and salmon recovery. regardless of whether or not they are fish bearing. WDFW’s preferred riparian management zone of SPTH200 for each stream. Where SPTH200 cannot be achieved, an RMZ width of 100 feet is needed to achieve the 95% pollution removal function, though other riparian functions may be compromised at this minimum width, depending on the SPTH200 value at a given site. If the City plans to continue using DNR’s forest practice water typing system, WDFW recommends updating the local code language to reflect the forthcoming changes, effective January 1, 2026, to WAC 222-46-020 and WAC 222-30-021. These updates redefine Type S and Type F waters and their associated RMZs, providing clearer, more precise classifications and stronger ecological protections within the scope of forest practice work. Additional resources for review: • Riparian Standards and Mapping - WDFW Best Available Science introduced in 2020 • WDFW’s Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications • WDFW’s Riparian Ecosystems, Volume 2: Management Recommendations • Site Potential Tree Height Mapping tool • Site Potential Tree Height GIS polygon downloads	See city response to comment #3, above.

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6	WDFW	14.50.030(A)(1)(b)	The standard riparian buffer based on water typing classification is provided in Table 14.50.030.	WDFW’s preferred riparian management zone (RMZ) standard is SPTH200 for all streams. Where this level of protection cannot be achieved, WDFW strongly encourages local jurisdictions to preserve RMZs to the greatest extent possible, particularly in urbanized areas where natural corridors are already limited. Larger buffers provide essential ecological benefits, including protecting habitat corridors for terrestrial and aquatic species, filtering pollutants, stabilizing streambanks, regulating water temperature, and supporting flood mitigation and climate resiliency. While we recognize that not all neighboring jurisdictions have adopted wider buffers, WDFW commends municipalities that choose to lead with science-based protections. Exceeding minimum buffer widths demonstrates a proactive commitment to sustainable growth, biodiversity, and long-term watershed health. We are encouraged by the City’s proposal to increase buffer widths for Np and Ns streams, which would provide greater riparian function than is currently offered under the City’s CAO. To align more closely with nearby jurisdictions to the South and West, WDFW further recommends setting Type F stream RMZs at 150 feet where SPTH200 cannot be achieved. While this width remains below WDFW’s primary preference, it would still represent a meaningful increase in protections for these important waterbodies and showcase how the City is ensuring the ecological benefits listed above. If the buffer remains at a 100 feet, the riparian functions and ecosystem benefits that the RMZ for these streams provide will likely continue to be compromised. We are always available to provide technical support or guidance as you evaluate riparian protection measures. Thank you for your leadership and consideration in fostering healthy, connected ecosystems in your city.	Comment noted. As described in our response to #3, above, the city uses a number of datasets with updating its stream mapping layer. Regarding the Type F riparian buffer width, staff will review the WDFW comments with the Planning Commission for their consideration and discussion. In response to these comments, staff has also completed a detailed analysis of mapped fish-bearing water bodies for the Planning Commission’s consideration and discussion on riparian buffers. This analysis focused on their proximity to steep slopes, other critical areas, and their alignment with the WDFW-recommended SPTH200 mapping. Wapato creek and Simons creek, located in the southwest portion of the city within the valley floor, are located within SPTHs than range from 97 to 111 feet. In this stretch, no stream enters a 112-foot or more SPTH except for minor crosses. Portions of Simons creek, Jovita Creek, and several unverified Type F streams along the southern and eastern boundaries of the city are located adjacent to steep slopes or other critical areas. Per the proposed code, the riparian buffer that overlaps these critical areas would be 150-feet or extend to the edge of the other critical area buffer, whichever is larger. Based on analyzing the topographic data and critical area mapping, it is anticipated that the riparian buffers for these segments would extend beyond the SPTH 200 site class minimums.
7	WDFW	14.50.030(B)(1)	Riparian and Nonriparian Buffer Averaging : Buffer width averaging allows certain portions of the buffer to be decreased if other portions of the buffer are increased. Buffer averaging may be approved by the Director when the applicant demonstrates all of the following in the critical area report required pursuant to EMC 14.10.080:	WDFW does not recommend buffer width averaging for RMZs. Buffer averaging does not align with WDFW’s scientific recommendations (Vol. 2) because the RMZ represents the minimum width required to ensure no net loss of all ecological values and functions, including water quality, wildlife habitat, and flood mitigation. Reducing the buffer in any area below the RMZ will result in a net loss of these critical functions, as the RMZ is based on the best available science to fully protect all riparian ecosystem values and functions. See RMZ widths via WDFW’s mapping resource.	Comment noted. Following review of our neighboring jurisdictions’ CAO update processes, it appears that riparian buffer averaging and reduction is still allowed in Sumner, Puyallup, and unincorporated Pierce County. Each jurisdiction that has allowed for buffer averaging has maintained a buffer of no less than 75-feet and requires riparian analysis and enhancement. Staff’s updated recommendation to the Planning Commission is to remove the administrative buffer reduction and revise buffer averaging to ensure applicants demonstrate efforts to limit the degree of activity, ensure no net adverse impacts to critical area function and values, and limiting any averaging to less than 20% of the riparian feature’s total length on a project site. Staff believes this meets or exceeds the requirements proposed by Pierce County and the cities of Puyallup, Fife, and Sumner.
8	WDFW	14.50.030(B)(4)	Functionally Disconnected Buffer Area. Areas that are functionally and effectively disconnected from the habitat area by an existing public or private road or legally established development may be exempt from these	WDFW highly recommends that a critical areas report be created to evaluate the proposed functionally disconnected buffer areas. When determining whether a buffer is functionally disconnected, the decision should be based on a comprehensive assessment of all ecological functions and values that the buffer	The proposed language was revised to replace “may” require a critical area report to “shall”, replace “exemption” to “standard buffer width modified”, and defines functionally and effectively disconnected to include insignificant ecological functions for the stream. The previous

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			regulations, as determined by the Department. Functionally and effectively disconnected means that the road or other significant development blocks the protective measures and support functions provided by a buffer. Significant developments shall include built public infrastructure such as roads and railroads, and private developments such as homes or commercial structures. Department staff shall evaluate whether the interruption will affect the entirety of the buffer. Individual structures may not fully interrupt buffer function. In such cases, the allowable buffer exclusion should be limited in scope to just the portion of the buffer that is affected. Where questions exist regarding whether a development functionally disconnects the buffer, or the extent of that impact, Department staff may require a critical areas report pursuant to EMC 14.10.080 to analyze and document the buffer functionality.	still provides, rather than specific development types. Ecological function is not bound by parcel lines or roadways, and effective buffer protection should reflect watershed-scale hydrology and habitat connectivity.	code language was derived from the recently adopted Pierce County Code and this revised language will make it more stringent and clear.
9	WDFW	14.50.050(A)(2)(b)(ii)	The stream erosion control measure will not adversely impact fish or wildlife habitat conservation areas or associated wetlands.	Suggested text revision “...adversely impact fish and shall consider bioengineered methods consistent with the Integrated Streambank Protection Guidelines (ISPG) or wildlife habitat...”	The city has revised text as noted. This update was incorporated before the public noticing documents were issued.
10	WDFW	14.50.050(A)(3)(d)	Road bridges and culverts are designed according to the latest versions of the WDFW Water Crossing Design Guidelines and the National Oceanic and Atmospheric Administration (NOAA) Guidelines for Salmonid Passage at Stream Crossings in Oregon, Washington, and Idaho, 2022, or as amended and approved by NOAA.	For situational awareness, an updated Water Crossing Design Manual is expected in the near future. And in addition to our Water Crossing Design Guidelines, WDFW recommends planning for climate resilience in bridge and culvert designs. See WDFW’s climate-change-resilient culvert webpage and Incorporating Climate Change into the Design of Water Crossing Structures: Final Project Report (2017) for resources on how to incorporate climate-resiliency into culvert design and avoid future flooding.	Noted. It is our understanding that this information will be incorporated into the water crossing guidelines update. As such, it is the city's preference is to include only the water crossing design guidelines reference in order to reduce the need for subsequent code amendments
11	WDFW	14.50.050(A)(6)	Instream Structures. New instream structures (such as, but not limited to, high flow bypass, sediment ponds, instream ponds, retention and detention facilities, dams, weirs, etc.) shall be allowed only as part of an approved mitigation or restoration project or watershed basin plan approved by the department and upon acquisition of any required state or federal permits. The structure shall be designed to avoid modifying flows and water quality in ways that may adversely affect critical fish species . Proposals for placement of water quality, water quantity, or other instruments or structures within a stream to gather data, or as a mitigation measure, shall be exempt from the provisions of this title upon review and approval by the department.	Suggested text revision “...may adversely affect all fish at all life stages.” This revised text would support the protection of fish life and align with WAC 220-660 instead of limiting the code to specific critical fish species.	The city has revised its language from "affect critical fish species" to "may adversely affect fish at all life stages." This update was incorporated before the public noticing documents were issued.
12	WDFW	14.50.050(A)(8)	New on-site sewage systems may be permitted in a riparian buffer only if it is accessory to an approved residential structure and it is not required by code to connect to a public sanitary sewer system. Such systems shall be located outside of the stream buffers to	WDFW recommends against placing new on-site sewage systems within RMZs where possible. However, when this must occur, we support the City including the text that the system “...shall be located outside the stream buffer to the maximum extent possible.” We recommend placing these systems at least 100	Noted. Currently on-site sewage systems are allowed within the riparian buffer. Under the proposed language, the owner will only be allowed to place on-site sewage systems inside the riparian buffer if it is demonstrated that it’s not possible to place it outside the riparian buffer.

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			the maximum extent possible. All on-site sewage systems must comply with the Washington State Department of Health and WAC 246-272A.	feet away from a stream system to allow for some pollution control and align with WDFW’s Volume 2: Management Recommendations.	The project would also have to demonstrate this through mitigation sequencing.
13	WDFW	14.50.050(B)(1)(a)	Hazard trees may be cut; provided, that: i. Tree cutting shall be limited to limbing and crown thinning, unless otherwise justified by the landowner’s expert. Where limbing or crown thinning is not sufficient to address the hazard, trees should be topped to remove the hazard rather than cut at or near the base of the tree. All vegetation cuttings (tree stems, branches, tops, etc.) shall be left within the habitat area or buffer unless removal is warranted due to the potential for disease transmittal to other healthy vegetation; ii. The landowner shall replace any trees that are felled or topped with new trees at a ratio of two replacement trees for each tree felled or topped. Tree species that are native and indigenous to the site shall be used;	WDFW supports this proposed text revision since it allows for more habitat protection and prevents misinterpretation of this section.	Comment noted.
14	WDFW	14.50.060(C)(2)	Any culverts that are used on fish-bearing watercourses shall be arch/bottomless culverts or equivalent that provide comparable fish protection, and must meet fish habitat requirements of the latest edition of WDFW Design Manual for Culverts.	For situational awareness, an updated Water Crossing Design Manual is expected in the near future. In addition to our Water Crossing Design Guidelines, WDFW recommends planning for climate resilience in bridge and culvert designs. See WDFW’s climate-change-resilient culvert webpage and Incorporating Climate Change into the Design of Water Crossing Structures: Final Project Report (2017) for resources on how to incorporate climate-resiliency into culvert design and avoid future flooding.	Noted. It is our understanding that this information will be incorporated into the water crossing guidelines update. As such, it is the city's preference is to include only the water crossing design guidelines reference in order to reduce the need for subsequent code amendments
15	WDFW	14.50.060(C)(8)	Watercourse alterations should provide a riparian buffer width in accordance with Table 14.50.030, where feasible, The riparian buffer shall be replanted with native vegetation that replicates the natural, undisturbed riparian condition in species, size, and densities.	WDFW strongly supports these code.	Comment noted.
16	WDFW	14.50.060(C)(9)	For any watercourse alteration of a Type S or F water pursuant to EMC 14.50.020(D) whose channel is subject to migration, bioengineered (soft) armoring of stream banks is required to allow for woody debris recruitment, gravels for spawning, and creation of side channels. The bioengineering technique used must be designed in accordance with the latest edition of Washington Department of Fish and Wildlife’s Integrated Streambank Protection Guidelines.	WDFW supports this code by the City, as restoring a disturbed riparian buffer width supports a healthy riparian buffer and provides a multitude of ecosystem benefits. Kudos for soft armoring for streams. During WDFW Hydraulic Project Approvals (HPAs) reviews, we follow the shoreline stabilization alternative outlined in WAC 220-660-370(3), which states, ”To ensure the protection of fish life, a person must use the least impacting, technically feasible shoreline stabilization alternative...”	Comment noted.
17	WDFW	14.50.080(B)(2)	Mitigation for alterations to habitat areas shall achieve equivalent or greater biologic functions, and shall provide similar functions as those lost	WDFW strongly supports this code because it aligns with our agency’s land use priorities.	Comment noted.
19	WDFW	14.10.070(B)	B. Mitigation Sequence. Adverse impacts caused by new activities and developments shall be mitigated using the following action(s) in order of priority:	Edgewood’s mitigation sequence is in-line with WAC 197-11-768 which we support.	Comment noted.

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20	WDFW	14.10.100(E)	In lieu of the criteria stated in subsection B, provided above, an applicant may pursue a fish and wildlife habitat buffer variance through demonstration of all of the following criteria: 1. The variance will not adversely impact receiving water quality or quantity. 2. The variance will not adversely impact any functional attribute of the habitat area. 3. The variance will not jeopardize the continued existence of species listed by the Federal government or the State as endangered, threatened, sensitive, or documented priority species or priority habitats. 4. The applicant has avoided impacts and provided mitigation, pursuant to EMC 14.10.070(B) to the maximum practical extent.	WDFW supports this new proposed text.	Comment noted.
21	Ecology	14.10.070(F)	N/A	Possible inclusion of this but might be better included in the wetland section: "030.C. Subdivisions. The subdivision and/or short subdivision of land where wetlands and/or associated buffers are present are subject to the following: 1. Land that is located wholly within a wetland and/or wetland buffer may not be subdivided 2. Land that is located partially within a wetland and/or wetland buffer may be subdivided provided that an accessible and contiguous portion of each new lot is: a. Located outside of the wetland and buffer; and b. Meets the minimum lot size requirements of [the zoning code]"	The city has included the proposed language in EMC 14.40.050(C). This update was incorporated before the public noticing documents were issued.
22	Ecology	14.20	“Wetland” consistent with WAC 365-190-030(24), means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands, if permitted by the city.	It is possible that the specific WAC reference in 365-190-030 could change in the future if other definitions are ever removed or added. You might consider removing this part just in case (24) may refer to another definition someday.	The city has revised language to remove “(24)” as recommended. This update was incorporated before the public noticing documents were issued.
23	Ecology	14.30.030(B)(6)	N/A	You might consider keeping some requirement of that mitigation activities beginning within a set timeline to help prevent temporal loss of wetland functions and values. For example, "the restoration must be initiated within one year of the date of the emergency and completed in a timely manner."	The city has revised language to add the following: “d. Any required restoration shall be initiated within one year of the date of emergency and completed in a timely manner.” This update was incorporated before the public noticing documents were issued.

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24	Ecology	14.30.030(B)(12)	12. Unpaved access path from a non-multifamily residential dwelling to a wetland or fish and wildlife habitat conservation area is allowed if the path is limited to 5 feet in width, no fill is placed within a flood hazard area, and the length is minimized to the greatest degree feasible.	This appears to be based on some of our trail recommended language however we do recommend that trails are to be limited to the buffer and kept within the outer 25% of the buffer area. Is there a particular reason to include language allowing for trails leading directly to a critical area?	Staff clarified this standard with Ecology staff. Staff have revised the language to remove this allowance as a full exemption from the critical areas ordinance requirements.
25	Ecology	14.40.020(C)(3)	Wetlands may exist that do not appear on the maps and some wetlands that appear on the maps may not meet all of the wetland designation criteria.	Because some maps may be out of date or inaccurate you might consider including language making it clear that the presence of critical areas on a parcel triggers the requirements of this chapter, regardless of whether or not a critical area or buffer is depicted on an official map.	The city has revised language to include ”This chapter applies to all wetlands whether they are mapped or not.” This update was incorporated before the public noticing documents were issued.
26	Ecology	14.40.020(D)	Rating. Wetlands shall be rated according to the Washington Department of Ecology Wetland Rating System, as set forth in the Washington State Wetland Rating System for Western Washington: 2014 Update (Ecology Publication No. 14-06-029, or as revised and approved by the Department of Ecology). Please note that wetlands located in closed depression basins as mapped by the city in the adopted Comprehensive Surface Water Management Plan are considered important for improving water quality for the purposes of Question D3.3.	The Western Washington Rating System has been given a V2 with a new publication number. Please update to the current publication number: #23-06-009	The city has revised the publication number. This update was incorporated before the public noticing documents were issued.
27	Ecology	14.40.050(A)	The three types of wetlands identified in subsections (A)(1) through (3) of this section are exempt from the requirement to avoid impacts in EMC 14.10.070(B) and may be altered if the impacts are fully mitigated based on the remaining mitigation sequencing actions in EMC 14.10.070(B):	While we recognize an administrative desire to place size thresholds on wetlands that are to be regulated, be aware that it is not possible to conclude from size alone what functions a particular wetland may be providing and size thresholds are not supported by BAS. However, it is reasonable to create some flexibility in some cases by including some allowances in the context of mitigation. Your language here appears to be based on our guidance which represents a policy decision for that flexibility. We see that you are proposing to increase the threshold from our recommendations. We would strongly suggest not increasing this threshold and keeping the 4,000 square foot threshold for CAT IV wetlands in 1. and removing the inclusion of CAT III wetlands less than 2,000 square feet. This may be a higher risk of loss of wetland functions and values compared to our guidance.	The city has removed the increased threshold exemptions for Category IV and Category III wetlands as recommended. This update was incorporated before the public noticing documents were issued.
28	Ecology	14.40.050(A)(3)	Wetlands less than 1,000 square feet that meet the criteria specified in subsection (A)(I) of this section.	Should make it clear that our intent behind this is that the wetlands must also be CAT IV in this case. Does not apply to CAT I or II (which are unlikely to be so small but still applies).	The city has revised the language to include “Category IV” as recommended. This update was incorporated before the public noticing documents were issued.
29	Ecology	14.40.060(3)	N/A	Per the most recent guidance for mitigation the order of preference now places preservation before enhancement. To align with our guidance we would recommend following the order of preference with 3. Preservation 4. Enhancement	The city has revised the language to place preservation before enhancement as recommended. This update was incorporated before the public noticing documents were issued.
30	WDNR			On page 4, the new language “iv. Following mitigation sequency pursuant to EMC 14.10.070(B),” includes the word sequency. In review of the definition and use of that word, it appears the appropriate word is sequence rather than sequency.	Typo corrected.

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31	WDNR			On page 6 it is great to see the requirement to record to title. On pages 9-10 it is good to see the physically marking and signage provisions.	Comment noted.
32	WDNR			On page 7, the proposed addition of “during the lift of the action” is a bit awkward and unclear. What is the intent of adding this to the existing language?	Typo corrected.
33	WDNR			On page 12, the provisions in 14.10.100, Variances to critical areas. “A. General. An applicant who seeks to reduce wetland buffer, fish and wildlife habitat conservation area standards or buffer, landslide buffer requirements, or the flood hazard area standards may pursue a critical area variance.” This statement does not cover all the geologically hazardous areas hazards. So if there is a volcanic, seismic, or erosion hazard, the applicant cannot request a critical areas variance?	This is correct. There are no volcanic, seismic, or erosion hazard standards that can be deviated from through the variance process. Any deviation from these standards would require a reasonable use permit application. This is to ensure community health and safety.
34	WDNR			In the definitions provisions it is great to see the terms engineer, professional engineer, geotechnical professional, geotechnical report, and geotechnical verification.	Comment noted.
35	WDNR			Ch 14.70 Volcanic Hazard Areas, good to see detailed provisions here. In 14.70.030 it refers to the Critical Areas GIS database. Great! There is not a description of the database contents in the critical areas provisions (unless I missed it).	Comment noted. Added clarification of what is included in the critical area GIS database regarding volcanic area hazards.
36	WDNR			Ch 14.90 Landslide Hazard Areas, good to see these provisions. In 14.90.020 it refers to the Critical Areas GIS database. It has a reference to the Washington Geologic Information Portal, excellent.	Comment noted.
37	WDNR			On page 79, one of the requirements is “e. Are certified as safe as designed and under anticipated conditions by a qualified professional, licensed in the state of Washington.” Will a geotechnical professional really state that in a geotechnical report? If so, keep that language. Here the term qualified professional is used, but it’s not in the definitions section. The definition in the code is geotechnical professional. Both terms are fine, just noting that.	The city has revised the language to remove the statement identified and replaced “qualified professional” with “geotechnical professional”.
38	WDNR			The code refers to geological assessment, geotechnical verification, and geotechnical report; they are defined in the code provisions. Good.	Comment noted.
39	WDNR			Ch 14.100 Seismic (Earthquake) Hazard Areas, good to see the provisions. In 14.100.030 it refers to the Critical Areas GIS database.	Comment noted. Added clarification of what is included in the critical area GIS database regarding seismic area hazards.
40	WDNR			Ch 14.110 Erosion Hazard Areas, good to see. In 14.110.030 it refers to the Critical Areas GIS database.	Comment noted. Added clarification of what is included in the critical area GIS database regarding erosion area hazards.
41	Puyallup Tribe	14.20.020		14.20.020 Additional terms defined: - King County’s Best Available Science Review and Updates to Critical Areas and Protections (October 2024) should be used to inform the CAO’s guidance for attaining and implementing best available science. - The definition for “water typing” or “water type” should include a description of Type “O” streams, see Pierce County Code 18E.40.060, subsection B, table 18E.40.060-1. - No Net Loss – The definition of no net loss should include language such that any unavoidable impacts must be fully mitigated so that ecological functions are maintained. No net loss is function-based, not area based. Ecological functions should be maintained, including, but are not limited to, hydrology, sediment and nutrient retention, habitat complexity and	- The City reviewed and incorporated Pierce County’s Best Available Science Review and Updates where appropriate because the city is located within Pierce County, not King County. Based on the remainder of your comments, we believe you intended to cite Pierce County’s BAS Review, not King County’s. - Water Type “O” is not provided within WAC 222-16-030. Additionally, staff believes that providing this option may lead to stream mischaracterizations and smaller buffers than the minimum 100-feet for 99% pollution removal. Staff does not recommend adding smaller buffers at this time. - The “No Net Loss” definition is the same definition from the Pierce County Code. The proposed definition ensures all ecological functions and values are not reduced (i.e. maintained).

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				connectivity, pollutant filtration and removal, and native vegetation structure. Riparian Management Zone (RMZ) is the protected area of vegetation adjacent to a waterbody, such as a stream, lake or wetland – managed to protect and maintain the ecological functions of the riparian system, including shade, water quality, bank stability, large woody debris recruitment, and habitat for fish and wildlife. The RMZ should be managed to protect or restore key riparian functions including: stream shading, large woody debris input and recruitment, bank stability and erosion control, nutrient and organic matter input (leaf litter, detritus, insects), pollutant/sediment filtration and retention, and habitat connectivity, wildlife corridors, and ecological linkages. The 200-year site potential tree height should be the primary basis for delineating the RMZ. The 200-year tree site potential tree height is the height trees would reach in 200 years under optimal conditions to protect full riparian functions (shade, wood inputs, nutrient input, pollutant removal, habitat connectivity, etc.)	4. Proposed language was revised to include state definition. However, regarding application please see responses to WDFW and ecology comments above.
42	Puyallup Tribe	14.10.070		14.10.070 Critical area protective measures: - Subsection D. Building Setbacks, part 1: critical areas should include wetlands, areas with a critical recharging effect on aquifers used for potable water, frequently flooded areas, geologically hazardous areas, & fish and wildlife habitat conservation areas (per RCW 36.70A.030(11)). - Subsection I. Markers, Fencing, and Signage, part 3a. Signage: Signage should be required at both the edge of the critical area and the edge of the critical area buffer. The signage requirement should pertain to all critical areas identified in subsection D, part 1.	1. The proposed changes to subsection D are meant to clearly identify which critical areas have surface features which warrant additional separation between a proposed building and the critical area and its buffer. For this, we have included wetlands, geologically hazardous areas, and fish and wildlife habitat conservation areas, as you’ve also listed. This is in no way meant to imply the features not listed in this specific location are not considered to be critical areas more broadly – rather, their specific standards (contained in subsequent chapters) address this issue in different ways, and this revision is meant to resolve confusion that currently exists by more broadly applying this setback standard to critical aquifer recharge and frequently flooded areas. 2. The purpose of the signage is to ensure protection of the critical area. Critical areas include the boundaries of the critical area and its buffer. Providing a sign at the buffer edge ensures protection of the entire critical area. Staff believe that adding additional signage at the critical area edge, in addition to those at the buffer edge, would be excessive and would likely cause confusion regarding which areas are protected and may lead to greater disturbances
43	Puyallup Tribe	14.10.080		14.10.080 Critical areas reports: - Subsection C should mandate that all applicable local, state, and federal permits be identified. - Subsection C should mandate the consideration of impacts to tribal treaty natural and cultural resources. - Subsection C, part 6 should mandate the inclusion of a hydrologic/hydraulic analysis, if applicable, to ensure consistency with city, county, and state stormwater and water quality standards. - Subsection C, part 6 should mandate the identification of any species of significance (i.e. priority species, species of greatest conservation need,	Note: EMC 14.10.080(C) lists the basic requirements that need to be in a critical area report. Each individual critical area has additional requirements that are applicable to that specific critical area, and part 13 herein requires the report to include that information as specified by the subsequent chapters of Title 14. - The language has been revised to require this information. - Comment noted. City staff and 3rd party biologists are not equipped to make determinations on potential impacts to tribal treaty natural and cultural resources. As such, staff believes that a larger, ongoing coordination effort between city staff and the

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				species of local importance, state/federally listed species, candidate species, etc.) and/or significant habitats (i.e. biodiversity areas, priority habitats, wildlife corridors, etc.) known to occur within or adjacent to the project area, if any, that have the potential to be adversely impacted by the project proposal. • Subsection C, part 6 should mandate the inclusion of a wetland delineation and classification assessment, if applicable, that has been conducted by a qualified professional. • Subsection C, part 6 should mandate the inclusion of an ordinary high water mark determination, if applicable, using the WA Department of Ecology methodology. • Subsection C, part 6 should mandate the inclusion of a base flood elevation determination, identification of floodplain type, and channel migration zone delineation, if applicable. • Subsection C, part 6 should mandate the identification of known or suspected landslide, tsunami, and volcanic hazards, liquefaction susceptibility, erosion hazard areas, seismic classification, active and historic faults, earthquake damage potential, and radon potential. • Subsection C, part 7: Impact assessment should include, direct, indirect, and cumulative impacts. Anticipated future impacts due to climate change should also be considered.	Puyallup Tribe of Indians Planning Department is needed to determine how to best address the Tribes comments and establish standard operating procedures going forward. 3. A hydrologic/hydraulic analysis is required if it impacts the appropriate critical area, pursuant to part 13 herein. Furthermore, compliance with stormwater requirements is reviewed by engineering staff through the development permit review process. 4. Species of significance are covered under subsequent chapters, pursuant to part 13 herein. 5. Wetland delineation and classification are covered under a subsequent chapter, pursuant to part 13 herein. 6. OHWM determination is covered under a subsequent chapter, pursuant to part 13 herein. 7. BFE determination is covered under a subsequent chapter, pursuant to part 13 herein. 8. Geologic hazard identification is covered under a subsequent chapter, pursuant to part 13 herein. 9. The language has been revised to include direct, indirect, and cumulative.
44	Puyallup Tribe	14.10.090		14.10.090 Mitigation plans: • Subsection 2. Mitigation Details should also mandate an analysis and discussion regarding zero rise base flood elevation compliance. • Subsection 2.a: Impact assessment should include direct, indirect, and cumulative impacts. • Subsection B, part 3. Construction Details, d: In addition to requiring the use of native plants, it should also be specified that plants should be representative of the appropriate ecoregion. • Subsection B, part 3. Construction Details should include a section on hydrology and stormwater management details (i.e. strategies for maintaining hydroperiod, proposed LID practices, soil amendments, etc.) as well as a water quality treatment and monitoring plan, if applicable.	Note: EMC 14.10.090(B) lists the basic requirements that need to be in a mitigation plan. Each individual critical area has additional requirements that are applicable to that specific critical area, and part 6 herein requires the report to include that information as specified by the subsequent chapters of Title 14. 1. This item is required under the frequently flooded area requirements, pursuant to part 6 herein. 2. Added clarification. 3. Comment noted. Since the standard states “native to the region,” staff believes this comment is adequately addressed. Additionally, a qualified professional will review the construction details to ensure the statement is followed. 4. Hydrology is required to be addressed if that resource is impacted, pursuant to part 6 herein. Engineering staff is responsible for reviewing the projects stormwater management compliance through the development permit review process.
45	Puyallup Tribe	14.10.100		14.10.100 Variances to Critical Areas:	Comment noted. WDFW and Ecology has reviewed the proposed variance language and provided no proposed revisions. Additionally, WDFW stated they support the language that was added for fish and wildlife habitat areas. Overall, Variance are extremely rare, require qualified professional review of the documents, and have to meet specific criteria. This is the same language and processes provided in the Pierce County Code. However, we understand the need to clarify “no net loss” and have revised language to clarify that. It is anticipated that if a project results in a net loss of function and value, a reasonable use permit would be required.

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				Subsection B, Variance Criteria. Variances should only be allowed in rare, exceptional circumstances, when reasonable use of a property is precluded or when strict application of a buffer or setback standards would otherwise deny all viable use. Variances should require review by a qualified biologist or wetland ecologist, and approval by a Hearings Examiner. The circumstances when a variance can be allowed should be specifically articulated in this section. Specific criteria when a variance may be used should include circumstances such as the minimum necessary deviation allowed to the extent needed to allow reasonable use, no reasonable alternative exists regarding reduced footprint or relocation of activity, no net loss of function is ensured (i.e. compensatory mitigation provides equal or greater ecological function), no threat to public health or safety results from the variance, and public benefits are ensured. The mitigation requirement is not to the maximum practical extent”, but rather “no net loss of wetland or habitat function, value and area”, per WAC 173-26-201(2)l.	
46	Puyallup Tribe	14.30.020		14.30.020 Regulated uses and activities: Subsection B should include the altering or inhibition of floodplain connectivity and stream channel migration.	Alteration of the floodplain is already regulated under EMC 14.30.020. Stream channel migration zone is primarily controlled through the channel migration zone process. The city has no identified channel migration zones within city limits. Please note that any development activity near a stream or within a floodplain would result in complying with the CAO ordinance as identified in EMC 14.30.020 unless specified in other sections.
47	Puyallup Tribe	14.40.030		14.40.030 Buffer standards – Wetlands: - Subsection C. Modification of Buffer Widths, part 1. Buffer Averaging: A request for buffer averaging should require a wetland report prepared by a qualified professional, as per the WADOE 2022 Wetland Guidance for Critical Areas Ordinance (CAO) Updates manual. - Subsection C. Buffer averaging should result in equal or greater protections of wetland functions and values.	- As noted in EMC 14.40.030(C), buffer averaging requires a critical area report pursuant to EMC 14.10.080. However, staff added clarification that the criteria provided in EMC 14.40.070 shall be included. - Staff assumes that if a buffer averaging does not result in the degradation of the wetland function and values, that it results in equal or greater functions and values. Ecology did not request clarification language.
48	Puyallup Tribe	14.40.070		14.40.070 Additional critical area report requirements: - Subsection A. Wetland Report, part 2: Any available information on current and/or historic groundwater conditions, such as that available on the WA Department of Ecology’s EIM Groundwater Map, should be required in the wetland report. - Subsection A. Wetland Report, part 2: In addition to identifying the category of the wetlands, the report should also require the identification of the wetland type (i.e. Cowardin Classification and Hydrogeomorphic Classification). - Subsection A. Wetland Report, part 3: Potential cumulative impacts should also be considered.	- EMC 14.40.070(A)(1)(h) requires subsurface water movement mapping of the existing site as required by Best Available Science. - Comment noted. Classifications are identified in the required wetland delineation and rating forms. Since this information does not result in changes to wetland categories and buffers, staff does not recommend adding information that may confuse the public. - Staff added requested language.

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#	Agency	Policy #	Policy Language	Comment	City Response
49	Puyallup Tribe	14.50.020		14.50.020 Designation of fish and wildlife habitat areas: - Subsection B. Designation: Habitat and species of local importance should be expanded upon in greater detail, in a manner similar to the description provided in Pierce County code 18E.40.020, subsection B, part 4. - Subsection B. Designation: Potential Fish and Wildlife Habitat Conservation Areas, as described in Pierce County code 18E.40.020, subsection C, 18E.10.140 – Appendix A, subsection F, and 18E.40.020.A through C, should be included as areas that receive the Fish and Wildlife Habitat Conservation Area designation. - Subsection B. Designation: Riparian Management Zones should be included in the areas that receive the Fish and Wildlife Habitat Conservation Area designation, along with a reference to WDFW’s Guidelines for Determining Site Potential Tree Height from Field Measurements methodology. Additionally, guidelines for regulating and conserving Riparian Management Zones should be detailed somewhere in chapter 14.50 in a manner similar to those described in the city of Anacortes municipal code 19.70.330. - Subsection C. Mapping: Resources listed in Pierce County Code 18E.10.140 – Appendix A, subsection F should be included as recommended references.	- All the species listed under Pierce County code 18E.40.020 are state or federally listed species or DNR Priority Habitat or Species and already designated as fish and wildlife habitat areas under EMC 14.50.020(B). The species of local importance is meant to identify those species or habitats that the City Council has identified in addition to those already identified by the state or federal agencies. Adding all these species directly to city code will require repeated revisions and cause confusion. - The language has been revised to specify additional mapping resources - See above responses to WDFW comments. As detailed in the Best Available Science Annotated Review and Analysis, it was recommended that riparian buffer terminology be used instead of RMZ to be consistent with neighboring jurisdictions and is already common vernacular. - The language has been revised to specify additional mapping resources.
50	Puyallup Tribe	14.50.030		14.50.030 Buffer standards – Fish and wildlife habitat conservation areas: Subsection A. Determining Buffer Widths, part 1: Buffer width standards should mirror those put forth in Pierce County Code 18E.40.060, subsection B. Additionally, table 14.50.030 should be updated to correspond with table 18E.40.060-1, with Type S buffers corresponding to those presented in table 18S.30.030-2.	The city language mirrors the Pierce County language except for Type S streams and channel migration zones (CMZ). Staff recommend leaving Type S streams and regulated CMZ’s off the city’s buffer standards as there are no Type S waters or regulated CMZ’s within city limits, as noted in the Best Available Science Annotated Review. Regarding buffer widths, please see comment response for comment #6 above.
51	Puyallup Tribe	14.50.040		14.50.040 Fish and wildlife habitat conservation area review procedures: Subsection A: Cumulative impacts should also be considered before a decision is made to waive the report requirement.	Staff has revised this section to state that the “report requirement may be waived if the department determines that there are no potential adverse direct, indirect, or cumulative impacts on designated species or habitat that would result from the proposed development activity.
52	Puyallup Tribe	14.50.050		14.50.050 Allowed activities: Subsection A, part 8. Stormwater Facilities: It should be mandated that regenerative stormwater conveyance and bioretention systems be considered as the preferred option before resorting to more conventional stormwater facilities.	Comment noted. Staff has revised this section to clarify what facilities would be permissible, focusing on open facilities, and clarifying language as suggested.

2025 Critical Areas Update Best Available Science (BAS) Annotated Review

Introduction

This memo summarizes the review of the best available science (BAS) to support the pending City of Edgewood (City) Critical Area Ordinance (CAO) update. The Growth Management Act (GMA) requires that cities include and consider BAS when developing policies and associated development regulations to protect the functions and values of critical areas and for demonstrating special considerations to preserve or enhance anadromous fisheries (WAC 365-195-900).

BAS includes reports and documentation prepared by qualified scientific experts following the scientific process outlined under WAC 365-195-905(5). This process includes reliable information and is generally characterized by peer review, standardized methods, logical conclusions and reasonable inferences, quantitative analysis, proper context, and references. Common sources of scientific information include research; monitoring, inventory, surveying, and modeling data; assessment, synthesis, and expert opinion (WAC 365-195-905).

The responsibility rests with the legislative authority to ensure BAS is included with the development of the policies and regulations. In compliance with WAC 365-195-905, city staff has compiled the BAS previously developed for the city (ESA 2017), current state and federal agency identified BAS, and the latest BAS identified by Pierce County. Staff have coordinated with all associated agencies to ensure the latest BAS and will continue to coordinate during the CAO update.

The next step in the CAO update will be a gap analysis, which will identify where the most current BAS can and should be incorporated into the City's critical area regulations.

Regulatory Framework

Per RCW 36.70A.030(11) and WAC 365-190-030(4), critical areas include the following areas and ecosystems:

- Wetlands;
- Critical aquifer recharge areas;
- Fish and wildlife habitat conservation areas;

- Frequently flooded areas; and
- Geologically hazardous areas.

The existing Edgewood Municipal Code (EMC) includes Title 14, Critical Areas, which is divided into separate chapters for the various critical areas identified above. EMC Title 14 defines, protects, and provides performance standards specific to the BAS associated with each critical area. This title is collectively referred to as the “critical area code” or CAO.

Pierce County Best Available Science

Pierce County completed their specific best available science review for the critical areas in December 2022 (The Watershed Company, 2022). This document includes an analysis of the critical area functions, values, and key protection strategies for wetlands, fish and wildlife habitat conservation areas, critical aquifer recharge areas, frequently flooded areas, geological hazard areas. Additionally, this document was compiled by qualified experts and adopted through Pierce County Council Ordinance 2024-553s2. The City has included sections 2.2, 2.3, 3.2, 3.3, 4.2, 4.3, 5.2, and 5.3 of these documents by reference into the best available science review after staff have determined that the information provided being considered generic and not specific to Pierce County.

Wetlands

1. Definition:

The City has adopted the following definition under EMC 14.20.010(B)(98):

“Wetland” means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands.

This definition aligns with RCW 36.70A.030(48), WAC 365-190-030(24), and the guidance provided by the Washington State Department of Ecology.

2. Best Available Science

The primary resource for developing the CAO relative to wetlands will be the Department of Ecology's Wetland Guidance for Critical Areas Ordinance (CAO) Updates, Publication 22-06-01, along with the associated Errata. This document includes the BAS on wetland functions, management, and protection. It covers topics such as wetland buffer science, characterization, and mitigation strategies. The guidance also offers directions on wetland identification and provides sample regulations. The BAS resources developed by Ecology are all compliant with WAC 365-195-905(5).

Per EMC 14.10.040(G), wetlands and potential wetlands are provided on the city's geographic information system (GIS) which constitutes the city official critical areas map. This data regularly gets updated by City Staff once qualified professionals have verified the presence of wetlands. The GIS data includes links to the approved wetland delineation reports which comply with the BAS.

Closed Depression Water Quality Analysis:

The City of Edgewood City Council adopted the city Comprehensive Surface Water Management Plan on December 11, 2018. This plan identifies that the potholes wetlands are important to protect water in the pothole basins as the water flows from the smaller wetlands to the larger pothole wetlands. Question D3.3 in the 2014 Wetland Rating Form asks if the site has been identified in a watershed or local plan as important for maintaining water quality. City staff have noticed that Questions D3.3 is regularly interpreted wrong, which impacts the habitat rating for the wetland and the associated buffer width. To ensure better wetland rating and wetland protection, it is recommended that the city code is revised to clarify that if the subject wetland is in a closed depressions basin as shown in the Comprehensive Surface Water Management Plan (as updated) is considered important for improving water quality.

3. Required and Recommended Changes

- Update code to clarify that wetlands in closed depression basis are considered important for improving water quality for purposes of question D3.3 on the 2014 Wetland Rating form.
- Update wetland buffers to better align with Ecology's recommendations.

- Update wetland impact minimization measures to better align with Ecology's recommendations.
- Require that any buffer modification request include a report that demonstrates the proposal will not result in an adverse impact on priority species. This will additionally provide special consideration to anadromous fish.
- Clarify the one-family wetland review process and requirements to ensure appropriate wetland and associated buffer protection.
- Require mitigation sequencing with clear code references.
- Update mitigation ratios and requirements under EMC 14.40.060 to better align with Ecology's recommend mitigation requirements.

Fish and Wildlife Habitat Conservation Area (FWHCAs)

1. Definition:

The city does not currently define FWCHAs. However, the regulating chapter (EMC 14.50) provides a list of applicable areas that would be considered a FWCHAs that is generally consistent with WAC 3655-190-130. Fish and Wildlife Habitat Conservation Areas are defined in WAC 365-190-030(6) as follows:

(6)(a) "Fish and wildlife habitat conservation areas" are areas that serve a critical role in sustaining needed habitats and species for the functional integrity of the ecosystem, and which, if altered, may reduce the likelihood that the species will persist over the long term. These areas may include, but are not limited to, rare or vulnerable ecological systems, communities, and habitat or habitat elements including seasonal ranges, breeding habitat, winter range, and movement corridors; and areas with high relative population density or species richness. Counties and cities may also designate locally important habitats and species.

(b) "Habitats of local importance" designated as fish and wildlife habitat conservation areas include those areas found to be locally important by counties and cities.

(c) "Fish and wildlife habitat conservation areas" does not include such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of, and are maintained by, a port district or an irrigation district or company.

FHWCA are further defined in WAC 365-190-130 where it details what shall be considered for classification and designation and the “sources and methods” used for identifying these habitats.

2. Best Available Science

The primary resource for developing the CAO relative to stream and river FHWCA is the Washington Department of Fish and Wildlife Riparian Ecosystems, Vol. 1: Science Synthesis and Management Implications (Retzn et. Al. 2020), and Vol. 2: Management Recommendations (Quinn et al. 2020). These documents include the BAS on riparian ecosystem functions, management, and protection. It covers topics such as riparian buffer science, site potential tree height framework, and recommendations for common activities. Additional BAS resources for identifying FHWCA include Washington Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) lists for Pierce County, The U.S. Fish and Wildlife Service and National Marine Fisheries Service lists of federally designated endangered, threaten, and sensitive species, and the City of Edgewood environmental data from previous CAO updates (2018 CAO update).

Stream and Riparian Buffer Analysis:

The Department of Natural Resources and Forest Practices Board developed a water of the state typing system in 2006. Per WAC 365-190-130(4)(f), cities may use the stream classification established in WAC 222-16-030 to identify waters of the state. Since the waters of the state include riparian habitat and other waterbodies, it has been the best available science to utilize stream typing to assist in establishing aquatic habitat protection. WAC 222-16-030 provides four stream classes, Type S (water of the State), Type F (fish habitat present), Type Np (non-fish habitat stream with perennial flow), and Ns (non-fish habitat stream with seasonal flow). EMC 13.40.030 utilizes these water types to establish the aquatic habitat conservation (stream) buffers based on the water type classification which are provided below:

- Type S: 150-foot buffer
- Type F: 100-foot buffer
- Type Np: 60-foot buffer
- Type Ns: 35-foot buffer

The Washington Department of Fish and Wildlife (WDFW) published Vol. 1: Science Synthesis and Management Implications, (Retzn et. Al. 2020) and Vol. 2: Management

Recommendations (Quinn et al. 2020) that establishes riparian ecosystems as a priority habitat for fish and wildlife and recommend that they are protected as a FWCHA. The riparian ecosystem boundaries are defined as the riparian management zone (RMZ), which is further defined as the riparian zone and the zone of influence. An example of the RMZ is shown in figure 1 below.

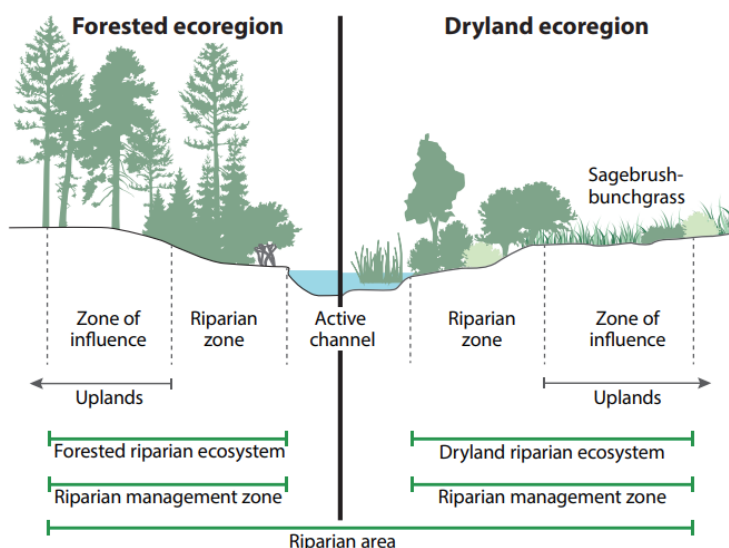


Figure 1. Riparian Management Zone (Quinn et al. 2020)

The WDFW guidance recommends that the RMZ be delineated on a site-specific basis and measured from the ordinary high-water mark or channel migration zone to a width established by site potential tree height (SPTH). The SPTH is defined as the average maximum height of the tallest dominant trees (200 years or older) for a given soil site class (Quinn et al. 2020). The guidance states the origin of SPTH comes from a model developed by the Ecosystem Management Assessment Team (FEMAT) under the “...assumption that old-growth forest conditions are needed for full riparian ecosystem functions” (Quinn et al. 2020). However, an SPTH measurement may result in an RMZ width that is less than 100 feet. In this case, WDFW recommends a minimum RMZ width of 100 feet to achieve 95% pollution removal for most pollutants (Quinn et al. 2020). Since the relationship between RMZ width and pollution removal is not linear, a smaller RMZ would result in far less pollution removal. Based on WDFW recommendations and utilizing the SPTH mapping tool, the City of Edgewood RMZ width ranges from 100 to 231 feet.

The WDFW guidance states that the RMZ is not necessarily the same as a stream buffer. The primary purpose of the RMZ is to provide an area capable of providing full riparian function (Quinn et al. 2020). The stream buffers established by stream typing are uniform

recommendations based on the presence of fish but doesn't necessarily provide "full" riparian function (Retnz et. Al. 2020). However, the RMZ and stream buffer have similar functions of providing for bank stability, pollution removal, shade, woody debris and habitat, etc. While the WDFW guidance provides specific definitions for RMZ and stream buffers, the distinction is less clear to the public. This is also reflected by the neighboring jurisdictions that have completed their BAS review but continue to utilize "buffer" as the preferred terminology over "Riparian Management Zone". As such, it is recommended that the city continues to be consistent with neighboring jurisdiction and continue to use "buffer" terminology.

WDFW also recommends that site-scale regulations must be coordinated at a watershed-scale (Quinn et al. 2020). As indicated by WDFW BAS, stream headwaters shall have the same protection as fish-bearing streams. Edgewood streams are primarily tributaries/headwaters, often starting in ravines, that flow into larger streams located in neighboring jurisdictions. The streams flowing down the eastern city slopes enter the cities of Pacific and Sumner. The streams flowing down the city south and western slopes enter the cities of Fife and Puyallup. As these headwaters and early fish bearing streams enter the neighboring cities they are joined by other streams. If Edgewood considered a watershed approach, it would need to consider neighboring jurisdiction stream buffer approaches. City of Sumner has adopted a 100-foot buffer for all streams other than Type S streams. City of Fife requires applicants to demonstrate buffers based on the best available science, or in other words no specific buffer width. Cities of Puyallup and Pacific are in the process of considering or adopting 100-foot buffers for all the streams (fish bearing or non-fish bearing) that receive flows from the Edgewood headwater streams.

As stated above, EMC 13.40.030 requires 100-foot buffer, 60-foot buffer, and 25-foot buffer for Type F, Type Np, and Type Ns streams, respectively. The majority of the stream segments (13 of 19 identified) are located within ravines with steep slopes. EMC 14.50.030 requires that stream buffers are extended to the landward-most edge, which effectively increases the stream buffer greater than 100-feet. All these segments are also surrounded by residential developments that provide significant buffer disruption and limited potential stream buffer grown. As a result, any expansion of the buffer would have limited conservation benefits. However, a minimum stream buffer width of 100-feet is needed to achieve 95% pollution removal and 100-feet is the minimum stream buffer width being established by neighboring jurisdictions receiving water from. If Edgewood retained the 100-foot Type F stream buffer but increased all non-fish bearing stream

buffers to 100-feet, it would result in approximately 308,630 square feet of additional functioning riparian habitat while also meeting GMA housing target requirements.

WDFW PHS and Habitat of Local Importance Analysis:

Fish and wildlife habitat conservation areas include Waters of the State, areas where state- or federally- designated endangered, threatened, and sensitive species have a primary association, WDFW state priority habitat and species; and habitats and/or local species of importance. Per, EMC 14.50.020(A)(5), the current species and habitats of local importance include the following species:

- Coho salmon (*Oncorhynchus kisutch*),
- pink salmon (*Oncorhynchus gorbuscha*),
- chum salmon (*Oncorhynchus keta*),
- cutthroat trout (*Oncorhynchus clarkia*),
- steelhead (*Oncorhynchus mykiss*),
- Great blue heron (*Ardea herodias*),
- Green heron (*Butorides virescens*).
- Heron rookeries, and
- Areas with which state-listed monitor or candidate fish or wildlife species or federally listed candidate fish or wildlife species have a primary association, and which if altered may reduce the likelihood that the species will survive and reproduce over the long term.

All the habitats and species listed in EMC 14.50.020(A)(5) are already covered under state or federally designated endangered, threatened, and sensitive species or WDFW Priority Habitat Species (PHS) lists, except for the green heron. Only state and federally listed and PHS listed species and habitat have management recommendations. While the green heron is listed as a species of local importance, there is no guidance for staff to ensure that protection of the species. Additionally, the city was unable to determine why green herons were previously listed as species of local importance and there is no mention of the species in the 2024 Comprehensive Plan. As such, it is recommended that EMC 14.50.020(A)(5) is replaced with a reference that PHS listed species are species of local importance.

3. Required and Recommended Changes

- Provide FWHCAs definition in EMC 14.20 that complies with WAC 365-190-030(6).

- Retain the “buffer” terminology instead of integrating RMZ terminology to match neighboring jurisdictions and to ensure ease of community understanding and implementation.
- Update EMC 14.50.020(A)(5) to specify that habitat and species of local importance are only those identified on the WDFW Priority and or Species List within the city limits.
- Remove references to Type S waterbodies since there are no Type S waterbodies within Edgewood that meet the state’s criteria for shorelines of statewide significance as defined in RCW 90.58.030.
- Fish-bearing (Type F) stream buffers should remain 100-feet to be consistent with neighboring jurisdictions.
- Update Non-fish bearing (Type Np and Ns) stream buffers from 35-feet and 60-feet to a standard 100-feet.
- Provide a variance process to allow for buffer reductions of more than 25% of the standard buffer width when it is demonstrated by a qualified professional that there is a clear “no net loss” of ecological function because the buffer does not provide direct functional value.
- Replace EMC 14.50.020(A)(5) with a reference that PHS listed species are species of local importance.

Critical Aquifer Recharge Areas

1. Definition:

The City has adopted the following definition under EMC 14.20.010(B)(20):

“Critical aquifer recharge areas” means areas with a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water, or is susceptible to reduced recharge.

This definition aligns with RCW 36.70A.030(48), WAC 365-190-030(24), and the guidance provided by the Washington State Department of Ecology. This document includes the BAS.

2. Best Available Science

The primary resource for developing the CAO relative to critical aquifer recharge areas will be the Department of Ecology's Critical Aquifer Recharge Areas Guidance, Revised March 2021, Publication 05-10-028 (CARA Guidance). The key to protecting CARAs is identification and protection. The CARA Guidance recommends eight steps to characterize and protect CARAs in a local community.

The City currently identifies three types of CARAs: 1) aquifer recharge areas based on the boundaries of the two highest DRASTIC zones that are related 180 or above the Drastic index range, 2) wellhead protection areas, and 3) sole source aquifer as designated by the U.S. EPA. The city also reviewed Washington State Department of Health Source Water Assessment Program (SWAP) Mapping and Division of Environmental Health Office of Drinking Water Sentry database, the United States Geological Survey's National Water Dashboard, Department of Ecology Well Construction and Licensing maps, Department of Natural Resources water well maps, and additional information produced by Pierce County. Per EMC 14.10.040(G), CARAs are provided on the city's GIS which constitutes the city official critical areas map.

3. Required and Recommended Changes

- Update definition of CARAs to exactly match WAC 365-190-030(3)
- Update responsible parties for underground storage tank permits.
- Expand uses prohibited in CARA to better protect groundwater quality
- Clearly require protective measures and mitigation sequencing.
- Add specific protection standards for vehicle repair and service uses to protect groundwater quality.

Frequently Flooded Areas

1. Definition:

The City has adopted the following definition under EMC 14.20.010(B)(51):

"Frequently flooded area" means lands in the floodplain subject to at least a one percent or greater chance of flooding in any given year, or within areas subject to flooding due to

high groundwater. These areas include, but are not limited to, streams, rivers, lakes, wetlands, and areas where high groundwater forms ponds on the ground surface.

This definition aligns with RCW 36.70A.030(11), WAC 365-190-030(8), and the guidance provided by the Washington State Department of Ecology.

2. Best Available Science

The primary resource for developing the CAO relative to frequently flood areas are the latest Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) and Flood Insurance Rate Maps (FIRMs) for Pierce County published in 2017, the FEMA and Ecology 2019 revised model flood damage prevention ordinance for Washington cities, and the 2008 National Marine Fisheries Service (NMFS) Biological Opinion (BiOp) on the implementation of the National Flood Insurance Program in the Puget Sound.

The City adopted the latest FEMA FIS and FIRMs for Pierce County in 2017. The City last substantially updated the flood hazard area codes in 2020 in response to a new model flood damage prevention ordinance released by FEMA and the Washington State Department of Ecology on December 9, 2019. This mandatory update was required to continue participation in the National Flood Insurance Program (NFIP), which allows property owners within the city to obtain flood insurance and certain types of federal disaster aid.

In addition to the model code updates, the ordinance included updates to further incorporate the Comprehensive Surface Water Management Plan (CSWMP) which was adopted by the City Council under Ordinance 18-0527. The CSWMP identified potential flood hazard areas primarily located within closed-depression basins, also referred to as pothole basins. Due to these potholes primarily receiving shallow groundwater and stormwater runoff from their surrounding neighborhoods and having no outlet, properties nearest the lowest elevation in each pothole are more susceptible to heavy rain flooding than other parts of the City. This document established a conservative base flood elevation for each pothole basin based on previous studies, historical observations, and known issues identified by current and previous city floodplain administrators.

The revised code was adopted by the City Council under Ordinance 20-0589 and approved by both FEMA and Ecology. Per EMC 14.10.040(G), frequently flood areas are provided on the City's GIS which constitutes the city official critical areas map.

In general, the city reduces hazards associated with frequently flood areas by regulating development in mapped floodplains and has adopted requirements for zero-rise analysis, flood studies and hydraulic modeling, placing floodplains in protected tracts where appropriate, and requiring compensatory storage for any proposed grading activity. Additionally, the City requires habitat assessments for development within FEMA-established floodplains in order to comply with the 2008 NMFS BiOp on the implementation of the NFIP in the Puget Sound.

While a full gap analysis will be completed in a separate document, it is anticipated that only minor updates are required for the CAO. However, the city may decide to complete a reorganization of the chapter to improve readability.

3. Required and Recommended Changes

- Clarify that the Public Works Director is the reviewing authority for Flood Hazard Areas.

Geologically Hazardous Areas

1. Definition:

The City has adopted the following definitions under EMC 14.20.010(B):

“Geologically hazardous areas” means areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.

“Erosion hazard areas” means those areas that because of natural characteristics, including vegetative cover, soil texture, slope, gradient, and rainfall patterns, or human-induced changes to such characteristics, are vulnerable to erosion.

“Landslide hazard area” means any area subject to risk of mass movement due to a combination of geologic, topographic, and hydrologic factors.

“Seismic hazard areas” means areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction.

“Volcanic hazard areas” means those areas subject to pyroclastic flows, lava flows, and inundation by debris flows, mudflows, or related flooding resulting from geologic or volcanic events on Mount Rainier.

These definitions align with RCW 36.70A.030(11) and WAC 365-190-030(8).

2. Best Available Science

The city regulates geological hazards areas within the following Edgewood Municipal Code chapters:

- EMC Chapter 14.70 Volcanic Hazard Areas
- EMC Chapter 14.90 Landslide Hazard Areas
- EMC Chapter 14.100 Seismic (Earthquake) Hazard Areas
- EMC Chapter 14.110 Erosion Hazard Areas

The primary guidance documents on earthquake and seismic risk, volcanic, landslide, tsunami, and other geologic hazards include the Commerce 2023 Critical Area Handbook, the 2014 SR 530 Landslide Commission Report, and information provided by United States Geological Survey (USGS), the Washington Department of Natural Resources (DNR), and the Natural Resources Conservation Service (NRCS). Additionally, the City consulted the 2017 Geological Hazard Code Update – Gap Analysis and Best Available Science Consistency Review which was prepared for the 2018 CAO update by a professional licensed geotechnical engineer at Environmental Science Associates (ESA).

The following provides specific identification, designation, and specific BAS for each of the individual geological hazard areas:

Volcanic Hazard Areas

The [U.S. Geological Survey \(USGS\) Volcanic Hazards at Mount Rainier](#) (2023) identifies the valley portions of the city (along the south and east edges) as within the Mount Rainier Lahar Zone. The greatest risk to Edgewood is the potential for Mount Rainier generating lahars that could be triggered by magma movement and/or landslides, causing water and/or ice to interact with unstable soils and rush towards the Puget Sound.

Landslide Hazard Areas

The 2017 Geological Hazard Code Update – Gap Analysis and Best Available Science Consistency Review incorporates the identification of historic and existing landslides using Puget Sound Light Detection and Ranging (LiDAR), identifying potential landslide areas along the flanks of the City's plateau with moderate (20% to 40%) to steep

(40.1%+) slopes. The development in these potentially hazardous areas requires a geotechnical report by qualified professionals to review for landslide hazard areas.

Seismic (Earthquake) Hazard Areas

The 2017 Geological Hazard Code Update – Gap Analysis and Best Available Science Consistency Review incorporates regional seismic issues (primary hazard) and area-specific conditions (secondary hazard). The primary hazard is an earthquake caused by the Cascadia Subduction Zone and/or Seattle Fault, either of which are not specifically located within the city. The secondary hazard is liquefaction of susceptible soils as mapped by the Washington Department of Natural Resources (WDNR). The valleys along the southern and eastern edges of the city are identified as having moderate to high susceptibility to liquefaction (WDNR GeologyPortal).

Erosion Hazard Areas

The U.S Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) provides soil survey data that includes erosion hazard ratings for each mapped soil. This mapping is provided in <https://websoilsurvey.nrcs.usda.gov/app/>.

Tsunami Hazard Area

WDNR provides mapping for Tsunami hazard areas. There are no mapped Tsunami hazard areas within city limits (WDNR GeologyPortal).

Mine Hazard Area

WDNR provides various mapping that identify potential mineral resource lands and potential mine hazard areas that include historical mining districts, coal mines, inactive and abandoned mines, and active mines. WDNR identifies one active mine but no inactive or historical mines (WDNR GeologyPortal). There is one active sand and gravel mine and no other historical mining information which is regulated under the mineral resource land regulations (EMC 14.120.030(B), 14.120.040). Additionally, the 2017 Geological Hazard Code Update – Gap Analysis and Best Available Science Consistency Review didn't identify any historic mine hazard areas.

3. Required and Recommended Changes

- Remove Class III Lahars and Pycroclastic Zone references because they are not located within city limits.
- Remove Time Zone A and B references because they are not located within city limits.

- Update landslide hazard areas, seismic hazard, and erosion hazard areas to include areas identified in WDNR geological information portal mapping.
- Add landslide hazard categories separating landslide hazard areas from stable areas to outline clear requirements to ensure protection to property and health while also clarifying ability to develop stable areas.
- Clarify when a geotechnical verification and a geotechnical report are required.
- Limit the subdivision of land located wholly within a landslide hazard area.
- Remove fault rupture hazard area regulations as there are none located in the city limits as verified through WDNR geological information portal mapping.
- Remove active shoreline erosion hazard areas and riverine erosion hazard areas as these are carryover from Pierce County code and there are no shoreline or riverine with regulated channel migration zones within city limits.

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CITY OF EDGEWOOD
STAFF REPORT
PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: Interim Zoning Ordinance 25-0676

Attachments: See Agenda Item 4.a

Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

Please see Agenda Item 4.a.

Current Discussion:

The Planning Commission held a public hearing earlier this evening on the proposed draft amendments to EMC Title 18 related to development standards for the TC, C, MUR and BP zoning districts, as directed by the City Council under Interim Zoning Ordinance 25-0676. The Planning Commission is invited to review and discuss the materials provided under Agenda Item 4.a and any public comments received this evening.

Staff Recommendation:

The Planning Commission is invited to review and discuss the materials provided under Agenda Item 4.a and request staff to prepare final edits for formal recommendation to City Council at the next meeting.



CITY OF EDGEWOOD
STAFF REPORT
PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2025

Title: Public Works Standards and Code Updates

Attachments: See Agenda Item 4.b

Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

Please see Agenda Item 4.b.

Current Discussion:

The Planning Commission held a public hearing earlier this evening on the proposed draft Public Works Standards and associated amendments to EMC Titles 12 and 13. The Planning Commission is invited to review and discuss the materials provided under Agenda Item 4.b and any public comments received this evening.

Staff Recommendation:

The Planning Commission is invited to review and discuss the materials provided under Agenda Item 4.b and request staff to prepare final edits for formal recommendation to City Council at the next meeting.



CITY OF EDGEWOOD STAFF REPORT PLANNING COMMISSION AGENDA ITEM

Date: November 10, 2024
Title: 2026 Annual Comprehensive Plan Amendment Requests, etc.
Attachments: N/A
Submitted By: Jeremy Metzler, PE – Community Development Director

Background Information:

Annual Comprehensive Plan Amendments are regulated under Edgewood Municipal Code (EMC) Chapter 18.60. The planning commission has the authority to hold the public hearing on any proposed comprehensive plan amendment(s) (preliminary docket), and to provide a recommendation to the city council for the final annual docket (EMC 18.60.120(A)). Any interested person, including citizens, hearing examiners, staff of other agencies, planning commission and city council members, may suggest an amendment to the comprehensive plan (EMC 18.60.130(B)). Applications for amendments to the city's comprehensive plan may not be considered more frequently than once every year (EMC 18.60.130(C)), and all applications for comprehensive plan amendments shall be submitted to the planning director by December 31st (EMC 18.60.130(D)).

The planning director is responsible for maintaining a preliminary docket, reviewing the suggested amendments, and preparing a staff report pursuant to EMC 18.60.140. Following a public hearing with the Planning Commission, they shall prepare a report and recommendation to the City Council for consideration (EMC 18.60.160).

Development Regulations Amendments:

Any interested person, including planning commissioners, may request amendments to the development regulations (EMC 18.60.040). This may be requested at any time if the request wouldn't require a comprehensive plan amendment. However, staff requested that any planning commission development regulations requested be voted at the same time as the annual comprehensive plan regulations request to ensure staff can adequately schedule the following year's planning commission meetings.

The 2024 Comprehensive Plan can be viewed [here](#).

Current Discussion:

Staff is aware of a couple potential Comprehensive Plan amendments at this time:

1. Consider revision and/or removal of the Business Park zoning designation, considering rezoning of the existing Business Park properties into another existing zoning designation, and
2. Review of the Town Center element in preparation for updating the Pierce County Center of Local Importance designation to include all the recently rezoned Town Center parcels, inclusive of the parcels zoned Public within the Town Center area.

Also, while not tied to the same annual review cycle, staff is preparing for the Planning Commission's 2026 work plan and anticipates review of the following regulations with the Planning Commission:

1. Special Events Code
2. Complete Streets Ordinance
3. Landscaping Standards
4. Fencing
5. Home Business and Licensing Code Amendments
6. Zoning and Design Standards

Next Steps:

Staff requests that the Planning Commission review the 2024 Comprehensive Plan and discuss potential city-initiated amendments for the 2026 annual amendment cycle. Staff also requests that the Planning Commission discuss and consider any development regulation updates that should be considered in the next calendar year.